

**AN EVALUATION OF HOUSING STRATEGY IN
SOUTH AFRICA FOR THE CREATION OF
SUSTAINABLE HUMAN SETTLEMENTS: A CASE
STUDY OF THE ETHEKWINI REGION**

by:

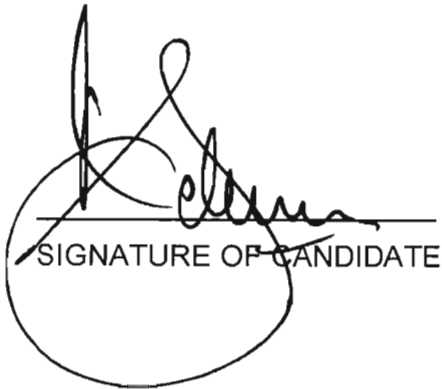
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DURBAN**

CERTIFICATION OF THESIS

I certify that the ideas, experimental work, results, analysis, software and conclusions reported in this thesis are entirely my own effort, except where otherwise acknowledged. I also certify that the work is original and has not been previously submitted for any other award, except where otherwise acknowledged.



SIGNATURE OF CANDIDATE

15 March 2011

DATE

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ABSTRACT

Given that access to adequate housing is defined under South Africa's constitution as a fundamental human right, it is understandable that the post Apartheid government focuses significant time and expense on establishing human settlements intended to redress the historically unequal distribution of wealth and resources. This thesis is concerned with looking at why, in spite of this attention, the government has underperformed in delivering low income housing projects that evolve into socially sustainable and integrated communities. Since there is no substantial evidence that a comprehensive study of the consolidation of human settlements has been done in South Africa, this research and the recommendations it engenders will be an important resource for planning truly sustainable and integrated human settlements in the future.

Both theoretical and applied research methodologies were utilised in this thesis to examine specifically six human settlements in the KwaZulu-Natal Ethekwini region, selected for their diversity in terms of social, economic and location characteristics, as well as the differing historical circumstances surrounding their establishments. That the analysis included three settlements with Greenfield and social housing projects developed during the Apartheid regime and three settlements established after the 1994 democratic elections, permits comparisons to be drawn and so facilitates a deeper understanding of the successes and failures of the creation of sustainable housing settlements. A thorough review of the limited literature in South Africa in this field and an assessment of strategies contained in the National Housing Policy, was complimented by a more practical approach, including the use of a Delphi survey method, which was conducted with experts in the housing field, policy makers and settlement inhabitants, and extensive on site data collection.

This investigation shows that, paradoxically, the Apartheid housing settlements, designed to entrench racial segregation and inequality, have in fact flourished as consolidated communities, in comparison with post Apartheid housing projects. The thesis draws the conclusion that in the Apartheid settlements inhabitants are using their housing units as an invaluable asset to improve their living conditions and to create a sustainable environment. However, in the settlements developed by the post Apartheid regime, inhabitants are struggling to use their home as an asset to improve their living conditions and to create a convenient and sustainable environment. Consequently, poverty, social exclusion and vulnerability of the beneficiaries of low-cost housing are deepening. While this does not justify the Apartheid policy of enforced removals or the

subsequent social evils, the sense of ownership that ensued from forcing inhabitants to thereafter pay for their dwelling based on a calculated proportion of household income, is key to understanding this disparity. In comparison, post Apartheid housing policy, framed within a socialist agenda, does not allow for equitable distribution based on income levels and so for the mainly poor and economically inactive inhabitants, there is an absence of this same ownership incentive to either care for or improve the dwellings that they are given.

Furthermore, the current National Housing Policy fails to take a holistic approach to the issue since its priority is simply meeting short-term high demand to eradicate the most visible effects of Apartheid. Subsequently, the National Housing Policy has failed to consider how access to education facilities for children, availability of consumer goods and the proximity to commercial activity, jostle with the need for shelter as high priorities for low income households, which fundamentally affects the success of any housing policy. For this reason, several beneficiaries of post Apartheid housing units have sold their homes to raise income to meet more pressing needs.

All social housing settlements that formed the sample of this research study have long term viability issues and so replicating any model is problematic. The thesis suggests therefore, that in the future, legislators and policy makers look towards cultivating mixed use housing settlements centred around vibrant commercial, business and retail sites with connecting public transit and pedestrian networks, and various tenure options, including rentals, rent-to-buy and outright purchase. Development initiatives taking into considerations the reforms and recommendations outlined in this thesis could be implemented on housing projects that use developed buffer zones of land that were left over from the Apartheid era housing policy or on "lost spaces" within existing human settlements. The advantages of such a new approach for creating sustainable housing settlements provides an opportunity to link spatially and economically dislocated communities while ensuring beneficiaries and stakeholders in housing settlements meet a wider variety of needs.

The conclusion that this thesis draws is that South Africa needs a post Apartheid approach to create sustainable human settlements. The Delphi Study reveals that the strategy to be adopted should represent the expectations of both policy-makers and beneficiaries. Consequently, this thesis proposes a sustainable housing development model and has developed guidelines and processes that take into consideration the many issues affecting housing policies and so becomes a workable tool for future

housing professionals. Consolidated and integrated settlements that evolve into socially sustainable communities then becomes a real possibility.

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LIST OF ABBREVIATIONS

ANC	African National Congress
BASA	Banking Association of South Africa
BNG	Breaking New Ground
CSIR	Council for Scientific and Industrial Research
DFA	Development Facilitation Act
DOH	Department of Housing
DUF	Development Urban Framework
EU	European Union
FSC	Financial Sector Charter
GEAR	Growth, Employment and Redistribution
GROHS	Global Report on Human Settlements
GSS	Global Strategy for Shelter
IDP	Integrated Development Plan
IDT	Independent Development Trust
ILO	International Labour Office
NDH	National Department of Housing
NGO	Non-Government Organisation
NHP	National Housing Policy
NHSS	National Housing Subsidy Scheme
PDH	Provincial Department of Housing
PHDB	Provincial Housing Development Board
PHP	People's Housing Process
RDP	Reconstruction & Development Programme
UNCED	United Nations Conference on Environment and Development
UNCHS	United Nations Conference on Human Settlements
UNDP	United Nations Development Programme
URDF	Urban & Rural Development Framework
URP	Urban Renewal Programme
WCED	World Commission on Environment and Development
WSSD	World Summit on Sustainable Development

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CHAPTER 1: INTRODUCTION

South Africa has a history that has been dominated by colonialism, racism, Apartheid and repressive labour practices. Moreover, the 1952 *Native Laws Amendment Act* divided the African population into racially allocated reserves and furthermore controlled the size of permanent populations (Hindson, 1987(a) & 1987 (b)). The racially repressive results of laws such as this paved the way for problems such as poverty and degradation for the groups that were deemed as second class. These 'inferior' groups were left to exist side by side with the established middle class suburbs, which were 'better' classed and therefore were provided with well developed infrastructure. This unequal distribution of wealth and resources needs further examination in an attempt to address the unequal allocation of housing provisions within South Africa.

The economy of South Africa during the Apartheid era functioned on systematically enforced racial divisions that included social and political disparity. Furthermore, rural areas were divided into underdeveloped Bantustans, while urban residential areas with well developed infrastructures and amenities were generally reserved for whites. One of the most visible impacts of the history of Apartheid today is the presence of millions of homeless people as well as people living in harmful or ill-equipped informal settlements. As recorded by Olufemi (2000), there are about three million people in South Africa that are homeless and about eight million people whom are shack dwellers in informal settlements. Under the Apartheid regime there was a conscious policy not to build low-income houses in order to both discourage urbanisation of races that were not white and to prevent any form of inter-racial mixing. Since the repeal of restrictive laws, with South Africa's 1994 democratic elections, there has been a large influx of people from the rural areas, including the former homelands into the cities and urban nodes in search of shelter and employment. In the absence of proper housing policies to accommodate these people, informal settlements have developed in previously empty urban spaces, including areas that were set-aside as 'buffer strips' between previously black and white residential suburbs. The purpose of these 'buffer' strips was to create a barrier between the races, to ensure that segregation on all levels was enforced.

For all intents and purposes by 1990 most of the population was already urbanised, albeit spatially displaced, and the battle to prevent urbanisation had been lost. Most

attempts to control urbanisation had broken down by the mid 1980's, however the State came under increasing pressure for reform (Sutcliffe et al, 1990).

Moreover, a range of measures was kept in place to enforce the concept of orderly urbanisation in the form of slum, squatter, vagrancy and trespass legislation. The *Prevention of Illegal Squatting Act*, as amended in 1989, was aimed at the establishment of designated site and service schemes on the periphery of metropolitan areas to prevent squatting in unsuitable locations. However, the Government's attempted strategy to manage urban space was overwhelmed by the realities. With the removal of the pass laws, many people living in the periphery of urban areas began to move closer towards the centre, to be near work and other economic opportunities and also to gain improved access to amenities and services. While the vast majority of the black urban population remained in overcrowded conditions in the townships, many began to squat on vacant land within the former 'white' urban areas (Haarhoff, 1984).

By 1980, informal settlements were growing rapidly around urban centres, with statistics revealing that almost 5.2 million South Africans were living in informal settlements with a population growth rate of 2.5% annually. Globally, informal settlements were set to double within the next recorded 25 years (Sutcliffe et al, 1990). In addition, a report released by the *South African Cities Network* revealed that as much as a quarter of South Africa's households could be classified as informal in nature, which presented the problem of rethinking housing provisions for people post Apartheid (Boraine et al, 2006).

Furthermore, South Africa has a massive 'floating' population, whereby there is a constant movement of people in terms of where they live from day to day. Rural areas act as a place of retirement in the context of a high urban cost of living, thus necessitating continued links through a lifetime (Potts & Mutambirwa, 1990). Homes in urban areas are, therefore, often regarded as transitory, and as a temporary means of shelter before moving onwards (Cox et al, 2004). Studies of these rural-urban linkages stress the role that life in the 'dual system' plays in relation to survival strategies of people in low-income earning households (Roysten, 1991). In addition, South African cities have been unable to keep up with the rate of urbanisation, resulting in growing informal settlements and a thriving backyard rental market, which remains beyond the purview of official policy-making to this day. Hence, the Government has shifted its policy on informal settlements away from relocating residents towards upgrading and development programmes that would make 'shack -dweller' communities a permanent

feature of the South African landscape. These policies were justified on the grounds that urbanisation processes should be "guided rather than left to market forces" (Richardson, 1984, 124). The former Minister of Housing, Lindiwe Sisulu, describes the role of the South African government in the process of urbanisation and has pointed out that: "historically, the dominant official response to people living in informal settlements has been hostile, leading to evictions and removals under the banner of urban renewal. Government is now focused on in-situ development, instead of relocating people to RDP homes" (Mail & Guardian, 2004, 35). This historical legacy of an inequitable environment with severe abnormalities and weaknesses was representative of some of the problems that the newly elected democratic government inherited in 1994.

The solutions to the housing anomaly are directed by various pieces of legislation and government policies that have suggested ways to correct the problem. The newly formed and progressive Constitution of South Africa (1996) laid a post Apartheid foundation for housing with the prospect of unbiased reform. As is stated in Chapter II, Section 26 of the Constitution, housing is a fundamental human right for all citizens in South Africa. Moreover, the document states that every citizen of the country has a right to have access to adequate housing. In response to the above mentioned provision of the constitution, the Government is therefore under an obligation to apply measures of an administrative, financial, technical, educational and social nature to fulfil its housing obligations, within its available economic resources. However, it is understandable that the right to adequate housing cannot be achieved overnight and therefore the Government needs to make public acknowledgement of this right and display concrete acts towards providing essential necessities to the people that reside in its country.

The provision of housing and the creation of healthy and sustainable communities is one of the foremost challenges facing the South African government today. In attempting to address this challenge the Government must acknowledge the high level of unemployment, abject poverty, financial constraints by potential beneficiaries, inadequate capacity and limited access to suitable land, to name a few, which would influence this daunting task.

In light of the obvious problems facing the newly elected government, the South African housing policy did not produce the results that were hoped for. It is the aim of this thesis to find out the reasons as to why this was the case. Was it a matter of

inadequate execution by the ministers in government and the formulated documents and policies, or was the housing backlog and historical legacy of discriminatory based provisions too complicated to alleviate in ten years? As a result of this, the Government adopted several official policy papers, a comprehensive set of acts and laws as well as a *National Housing Subsidy Scheme* in order to deal with the housing issues as thoroughly as possible.

The White Paper on Housing (1994) states that the Government strives to establish viable, socially and economically integrated communities that are situated in well-located areas, thus allowing convenient access to economic opportunities as well as health, educational and social amenities, to all South Africans. Furthermore, access to a permanent residential structure with secure tenure, thus ensuring privacy and providing adequate protection against the elements, with potable water, adequate sanitary facilities including waste disposal, and domestic electricity supply are also to be included. The policy and programme commit government to mass delivery (the delivery of one million homes in five years), people centred housing processes prioritising the needs of poor and vulnerable groups such as women, youth and the disabled, and the delivery of a decent standard product with access to public services and amenities (Beall et al, 2000). These provisions will form the basis of investigation within this study.

The State has facilitated this process by introducing a National Housing Policy (NHP), which makes provision for the allocation of a capital subsidy grant to low-income households. The value of the abovementioned grant varies and is dependent on the gross household income of the beneficiary. In terms of the policy framework, the quality and affordability of the housing delivered is of central importance. This too will be examined in this thesis.

The promulgation of the Housing Act, 1997 (Act no. 107 of 1997) forms the legislative framework for the NHP and seeks to ensure the provision of houses on a sustainable basis and at a price that is affordable. In addition, what is important in this regard for the development of housing is to address the inherited patterns of racial and spatial inequalities and to promote and educate the integration at socio-economic, physical and institutional level.

In light of this, the challenge for the Government is subject to fiscal affordability, to increase housing delivery on a sustainable basis to achieve at least 350, 000 housing

units per annum. The realisation of this goal depends on the Government's housing implementation system. This should include a greater emphasis on progressive construction methodologies, specification and implementation that can accommodate the budget allocation and delivery programme. Precisely, the Government of South Africa has defined housing as "an adequate shelter which fulfils a basic human need; both a product and a process; a product of human endeavour and enterprise; a vital part of integrated development planning; a key sector of the national economy; and vital to the socio-economic well-being of the nation" (Preamble to the Housing Bill, Minister of Housing, 1997).

The provision of housing has always been considered an efficient instrument to gain popular support by governments throughout the world, South Africa being no exception. If one examines the built-environment of South Africa, even after democracy, or the progress made in relation to housing after democracy, it is easy to spot the difference between a 'socialist house' and a 'capitalist house'. However, the best way of responding to and satisfying the housing need can be viewed as a politically loaded question. Since the access and distribution of such scarce resources such as land and infrastructure are matters which concern the entire country, a co-ordinated effort is required. It is therefore essential to identify those parts of the current housing policy, which serve the specific needs of the country, recognise those parts which have been too readily acquired and transplanted out of a different context from the previous nationalist government, and to look for aspects which could be recommended elsewhere under similar conditions. It remains a continuing debate in South Africa today as to whether housing can be considered part of the productive sector, or whether it is a purely consumptive item. The inclination to rely on a healthy labour force would strengthen the first argument. Furthermore, in capitalist states, housing remains and is seen as a commodity which should be provided by the privately run market. Socialist countries, on the other hand, view housing as a social service, which must compete with other social services that are provided by the Government.

Presently, the access to housing finance by the low-income groups is one of the biggest challenges facing South Africa (Rust, 2002). Historically, the low-income housing sector has been characterised as high-risk, uncertain and unprofitable due to land invasions, payment boycotts, high level of building material losses, time delays in implementation and policy uncertainty to name a few. (Banking Association of South Africa (BASA), 2005a, 2005b; Collins, 2006; FinMark, 2006 & Tomlinson, 2007). As a result, there is a difficulty in attracting private sector participation, since it is reluctant to

invest in such an environment. The response to this problem is not straightforward and risks are not a homogenous feature in the low-income housing environment.

Dewar and Utyenboggart (1991) believed that the establishment of integrated and sustainable built environments is one of the most important factors, which will contribute to harnessing the full developmental potential of South Africa and assist in addressing the imbalances and distortions of the past. The cornerstone to achieving this goal is to re-orientate the current planning of housing projects to ensure that any future project aligns with the integrated development plan of the area in which the project is to be undertaken. Moreover, in attempting to improve the sprawling and fragmented structure of the Apartheid city, there is a need for spatial intervention in order to promote social and economic change and a healthy integration of people and communities. In South Africa informal settlements generally take the form of unstructured communities without legal recognition, sprawling at the edge of cities. Residents live in a permanent state of legal and social insecurity, because they generally invade the land they inhabit and are under constant threat of eviction. This insecurity reduces the incentive for residents to invest in the area, and exacerbates social stress and exclusion.

The Director General of Housing, Mpumi Nxumalo, in her 2000/2001 Annual Report, states that the Government's vision for establishing sustainable and habitable residential environments through integrated housing development has largely been achieved, with 1,129 million houses built or under construction by the end of the year 2000. Thus, the Housing Department's only means of determining whether habitable residential environments have indeed been created is through the number of housing subsidies that have in effect been delivered. As a result, any achievement resulting from the other expected outcomes are merely assumed by the Housing Department but cannot be measured or proven. All that this suggests is that rather than seeing the housing subsidy as a catalyst for housing development, the Housing Department has conflated the subsidy with development itself. Consequently, subsidised houses are of poor quality and are in badly located areas. Furthermore, the provision of subsidised houses deepens the segregation created by the Apartheid regime and therefore is contrary to the original intention as contained in the 1994 Housing White Paper. Similarly, this too was later expressed in the 1997 Housing Act and the 1997 Development Urban Framework (DUF), which aims at creating sustainable human settlements (Huchzermeyer, 2003 & 2005; Napier, 2005).

At a global level, a comparative study was undertaken with three countries, namely; Chile, Columbia and South Africa, in which Gilbert (2004) illustrates that none of these countries has succeeded through housing subsidy methods to provide good quality housing for the poor. With the case of South Africa, the immediate housing demand was too large to accommodate and complete to provide housing units to every beneficiary. The State's investment was only meant to be part of the solution through the development of an 'incremental housing' policy, which needed to be supplemented by private sector resources as well as the recipient's resources in the form of labour, materials and available finances. The term 'incremental housing' refers to a core structure to which rooms and fixtures could be added through the inhabitants own participation, and the support of an established delivery system. However, in 1995 the incremental housing approach was referred to by the South African Ministry of Housing as an inadequate approach for African families, which would add to the proliferation of informal settlements (McKay, 1999). Consequently, the Housing Department concentrated primarily on delivering subsidised houses, and took full responsibility for the delivery of the whole unit.

Initially, the housing programme was dominated by the undertaking, as noted earlier, to build one million houses within the period of five years. As delivery progressed, however, certain problems began to emerge that gradually challenged the original goal. A major complaint was directed at the quality of the houses being built, in that the houses constructed were too far a distance from necessary centres of economic and social activity, as they were located on the urban periphery. In its Annual Report of 1996, the National Department of Housing (NDH) acknowledged a link between a pursuit of numbers and declining quality. Slovo (1996) has commented that mass delivery has been viewed as a very real threat as the quality of the houses has fallen short.

Despite considerable progress that has been achieved in South Africa in the past ten years in the formulation of policies, it is evident that there is a widening gap between policy formulation and the implementation process. The status of low-income housing delivery is far from being satisfactory and there are too many constraints obstructing the provision of adequate and affordable housing for low-income households. Ten major constraints outlined by Erguden (2001) in developing countries, including South Africa, are: a lack of effective implementation strategies, the poor promotion of security of tenure, an inadequate supply of affordable land and infrastructure, the inadequacy of housing finance systems, poor utilisation of local building materials and technologies, a

lack of support to small-scale construction activities, inappropriate standards and legislation, inadequate participation of communities in the housing development process and support to self-help, lack of focused research and experimental projects, and a poor utilisation of research findings.

Furthermore, concerns relating to quality, efficiency, effectiveness and sustainability of the housing programmes still define the current housing problems. However, having recognised the propensity of housing programmes to go wrong, coupled with the numerous criticisms of the majority of existing and ongoing programmes over the years, dwellings tend to be generally of poor design; environmentally unsound; unsuited to the local climate; relatively expensive to maintain; locationally peripheralised and spatially marginalised; not conducive to social, economic, aesthetic or environmental sustainability; grossly deficient in essential community facilities and services and furthermore, place, a great burden on the resources of the country and the poor inhabitants of the houses. Disappointingly, the Draft Housing Strategy for the Post Apartheid Millennium (March 2000) notes that information is not available for a comprehensive analysis of qualitative measures (Department of Housing, 2003a).

Much of the 1990's debate on South Africa's NHP tends to focus on the issues of quantitative delivery and the Government's failure to meet its self-set targets in this regard. At the end of the decade, however, questions emerged about the policy's qualitative impact in that such reservations went beyond service standards, housing size and the construction quality, these all being problems that the Department of Housing have acknowledged (Tomlinson, 1996; CSIR, 1999; Thurman, 1999; Built Environment Support Group, 1999). Instead, the policy's impact on the spatial, economic and social integration of South Africa's human settlements has emerged as a major concern. South Africa's housing policy is very ambitious and far-reaching. In implementing it, the government has sought various interventions and shortcuts, claiming victory in numbers without considering the wider housing environment on which it is having an impact.

The Urban Renewal Programme (URP) which is one of the objectives of Social Housing and which received focal attention in Breaking New Ground (BNG) in 2004 (Department of Housing, 2004). The In-Situ Upgrading Programme and The Slums Clearance Programme similarly responded to the challenges of developing and transforming informal settlements into habitable and sustainable neighbourhoods and thereby legalising the land that inhabitants occupy. This means that with regard to

informal settlements, the government changed its previous position from one of conflict and neglect to one of active integration and co-operation.

In this thesis, a sample of at least six settlements located within the Ethekewini Municipal District of the Province of KwaZulu-Natal has been chosen to study the effect of economic, social and locational variables in their physical and social developments and in doing so, an attempt will be made to offer an explanation of the apparent differences in consolidation. Similarly, effort will be made to design appropriate tools to measure the level of physical and social consolidation and to build configurational models to measure the locational variables and the effect that 'location' has on the progress of a settlement. Alongside the enquiry into the approaches used to deliver houses, the question as to why some settlements are successful in comparison to others, will be investigated in this thesis.

In addition, the research will focus on settlements that were developed through government intervention, where the State provided the basic amenities of a site with a top structure that included a wet core, such as sanitary facilities as well as settlements developed through the Governments Social Housing Programme. As part of the investigation and to provide valid data, the Greenfield Housing Projects (GHP), the Slums Relocation Projects (SRP) as well as Social Housing Projects (SHP) have been investigated. This research also compares the Greenfield and Social Housing Projects that were developed prior to the 1994 democratic elections as well as those developed after the 1994 democratic elections. Moreover, the fact that the process of consolidation is not only left to the built environment professionals, but also to interested stakeholders and the beneficiary communities makes it an ideal case study to identify the constraints that hinder their efforts.

Furthermore, research in post Apartheid South Africa provides an excellent opportunity to attempt to investigate societies that are in a state of transformation (Visser, 2003). The importance and necessity of this study in providing valuable solutions to the further development of South Africa and other countries with similar inherited socio-economic problems is therefore evident. To operationalise sustainable neighbourhoods, it must be consciously planned and thought out and those involved in the planning have a key role to play in shifting the balance of policy and practice towards sustainability objectives (Lock, 1992; Rakodi, 1992).

1.1 Summary

The scale of informal settlements and the rate at which they are increasing is indeed a visible sign of the levels of inequality amongst varying socio-economic groups (Huchzermeyer, 2002). The upgrading or relocation of informal settlements is not merely a technical exercise, but a highly politicised and public intervention. South Africa's transformative policies are supposed to work towards providing access to adequate living conditions to the general population, however this cannot be achieved overnight. Some countries, such as Chile and Mexico, have already progressed towards such policy initiatives, South Africa appears to have embarked on this route, while others have reverted back to neglect or even repression. In South Africa, the post Apartheid Housing Plan referred to as BNG invites organised communities to partner with the Government in the implementation of its phased upgrading of informal settlements. It is these informal settlements that are re-emerging on the civil society agenda, although the space for an effective voice in policy making has yet to be won.

While poverty eradication is clearly related to measures taken to improve the well-being of the poor, the eradication of informal settlements is sometimes misunderstood as a blanket mandate to simply remove existing shacks, in the absence of solutions that eradicate poverty, remove vulnerability and promote inclusion (Huchzermeyer & Karam, 2002).

The Post Apartheid Comprehensive Plan for the Sustainable Development of Human Settlements is based on the challenges of a changing and growing urban housing demand in the context of slow employment creation and the experience of housing delivery over the past ten years. Furthermore, the plan seeks to address the challenges by emphasizing the role of housing delivery in poverty alleviation, by linking this to employment creation and to the accessibility of subsidised property as a form of wealth creation and empowerment. Housing delivery is seen as a means to leverage economic growth, combat crime, and improve social cohesion and quality of life (Department of Housing, 2004).

One of the programmes that is linked to the post Apartheid plan is the Informal Settlement Upgrading Programme (2004b), which is framed as a "progressive informal settlement eradication" programme (2004b, 12). With the intention to integrate informal settlements urgently into the broader urban fabric, the document introduces "a post Apartheid informal settlement upgrading instrument to support the focused eradication

of informal settlements" (2004b, 12). This document explains that a phased in-situ upgrading approach to informal settlements, in line with international best practices, can be adopted. However, the affordability of an in-situ upgrading project through social/rental housing has not been adequately resolved. By June 2005, the provincial pilot projects, which had been identified by the provincial governments were as follows:

- Gauteng: Winnie Mandela Park in Ekurhuleni Metro, with partial relocation to Apartheid Mutual Park and Esselen Park;
- Eastern Cape: Duncan Village in Buffalo City Municipality (East London); Soweto on Sea in Nelson Mandela Metropolitan Municipality (Port Elizabeth);
- Mpumalanga: Emsangweni/Enkanini in Emalahleni Municipality; Ngodwana and Phumulani in Mbombela Municipality (Nelspruit); Thakukhanya Extension four and five in Mkhondo Municipality (Department of Housing, 2005a).

The choice of these pilot projects appeared primarily to be politically motivated by the provincial governments, rather than identified by municipalities. The Comprehensive Plan for the Sustainable Development of Human Settlements commits the Department of Housing to develop a "comprehensive housing sector monitoring, information and reporting system based on key performance indicators", both qualitative and quantitative" (Department of Housing, 2004, 27).

The recently approved Chapter 13 of the National Housing Code, titled 'National Housing Programme: Upgrading of Informal Settlements' (Department of Housing, 2005c) introduces the objectives of the Programme with the following statement:

"The challenge of informal settlements upgrading must be approached from a pragmatic perspective in the face of changing realities and many uncertainties. Informal settlements should also not be viewed as merely a 'housing problem', requiring 'housing solution' but rather a manifestation of structural social change, the resolution of which requires a multi-sectoral partnership, long-term commitment and political endurance. At the outset therefore, a paradigm shift is necessary to refocus existing policy responses towards informal settlements from one of conflict or neglect, to one of integration and co-operation. (Department of Housing, 2005c, 4-5)".

The formation and continuous existence of informal settlements needs to be understood, as being part of the poor household's livelihood strategies aimed at accessing income, increasing well-being, reducing vulnerability and improving food security. Essential elements within a poor household's livelihood strategy can include

access to land for shelter, access to income-generating opportunities and access to social networks and informal settlements. These components in relation to their importance within communities will be examined in the chapters to come.

CHAPTER 2: DEFINING THE PROBLEM

This chapter will present and define the problem under investigation. Firstly, this will address an understanding of human settlements in general and particularly within the Ethekewini Region. Secondly, the chapter briefly reviews the housing delivery approaches that have been adopted in South Africa. An integrated approach to housing delivery is recommended, which does not only prioritise the housing aspect but other relevant issues such as social, economic and cultural aspects necessary for the creation of sustainable human settlements. Thirdly, the chapter highlights the subjective aspects for the creation of sustainable human settlements in stressing the fact that the comprehension of human settlements differs from one household to another. This means that not all low-income households express the same priorities. Finally, the aims, objectives and questions that this study seeks to answer are addressed.

2.1 The problem outlined

The planning, construction and establishment of human settlements is one of the most significant, expensive and time-consuming activities in which societies engage. If mistakes or wrong decisions are made on a significant scale, it is particularly expensive and difficult to correct. Yet, surprisingly, little is known about the relationship between architectural, social, economic and locational variables and the evolution of neighbourhoods into socially sustainable communities, or their downward spiral into social malaise (Turner 1976b; Gilbert, 1986). The human settlements within the Ethekewini region offer an especially interesting and rich case in which to study the effect of these variables and their role in the physical and social development of residential areas.

The rapid urbanisation process experienced by the region during the past two and a half decades has produced vast residential areas, where very different degrees of physical and social consolidation can be observed. Although most of these residential settlements started from a common origin and similar scarce resources, some of them have developed into areas with rich social communities, while others remain in slum like conditions with evident signs of decay.

All of these residential settlements within South Africa were built through the Government's Housing Subsidy Programme, either prior to the 1994 democratic elections or after the 1994 democratic elections. The Apartheid Government Housing

Programme comprised of two delivery models. The low-density development programme comprised of a plot of approximately 350m² and a house measuring not more than 40m². The unit comprised of two bedrooms, a living room, kitchen, bathroom and a toilet. The medium density developments were a maximum of three-storey apartment blocks with the individual units comprising of two bedrooms, a living room, kitchen, bathroom and a toilet. The units in the low-density settlements were allocated to beneficiaries, who had to repay the capital costs of the units back to the state in monthly instalments, which amounted to approximately 10% of their monthly income. The medium density units were allocated to beneficiaries on a 'rent to buy' basis. There again, the capital costs were paid back to the state in the same manner as in the low-density units. The post Apartheid government programme provided each beneficiary with a plot comprising a top structure which was facilitated through a 'once off' subsidy grant.

The top structure comprised of a 30m² cement block unit with a wet core being the toilet facility and a sink in the kitchen. The top structure also provided a connection to gain access to drinking water, waterborne sewage and electricity. However, this programme left further consolidation in the hands of the inhabitants themselves with no further governmental support or advice. These projects include the GHP as well as the SRP. Other project types, which also fall under the Housing Subsidy Programme, include the previously mentioned SHP wherein a basic unit is developed for the beneficiary on a "rent" to "buy" scheme. All of these project types are part of South Africa's Government Programme to deal with the housing crisis at hand.

There exists a dearth of studies on the differential consolidation of these settlements. The available South African literature on housing programmes primarily concentrates on urbanisation and the way unequal and conflicting class and other interests have shaped urbanisation patterns (Bundy 1972; Dewar & Retal, 1982 (a) & (b); Hindson, 1987 (a) & (b)).

Moreover, there is an abundance of studies that have been undertaken on the consolidation of informal settlements in similar Third World countries such as in Latin America (Turner, 1976 & Gilbert, 1986). Evaluative studies on these settlements have identified several significant variables in stimulating the housing process and neighborhood consolidation process, such as income, length of time inhabitants spent in the neighbourhood and commercial activities in the settlements. However, it has emerged that social variables alone do not provide an adequate explanation for the

enormous differences found on the site, especially in accounting for differences in the degree of consolidation or degeneration of the respective settlements (Hillier; Greene & Douglas; 2000). This allowed for the possibility that locational differentiation may be a key factor in influencing the social sustainability of these environments. In effect, physical and spatial designs should be implicated, and the extent of their influence needs to be tested. One of the key difficulties in testing the role of locational variables has been the lack of objective locational descriptors to test against observed social and physical variables (Hillier & Penn, 1991). This has adversely impacted the field, especially at the application level which is not able to offer clear proposals for intervention or provide further solutions.

Several authors have contributed observations and clear insight to the understanding of this socio-spatial relation. Nevertheless, their recommendations for interventions have been much weaker. Authors such as Alexander (1966) have realised the importance and complexity of the urban grid, but have offered rigid and somewhat weak proposals. Moreover, although the importance of leaving multiple choices at the level of the urban grid as a means to generate rich urban life have been postulated, no realistic intervention has been proposed or offered to date.

The 'space syntax' configurational analysis pioneered over the past two decades at the Bartlett School of the University of Central London provides scientific solutions to test spatial and locational variables. The 'space syntax' allows for the resolution of spatial and physical data at the micro dwelling or settlement) level as well as the macro city-wide urban scale (Hillier & Hanson, 1984; Hillier, 1996 (b)). Studies using this particular technique have already demonstrated strong relations between locational variables and a wide variety of social phenomena, from the production of post Apartheid knowledge (Hillier & Penn; 1991), to the generation of creative work environments, as well as to the location of vandalism and crime (Hillier, 1988; Hillier et al, 1986 (b); 1989 (a); 1989 (c); 1993).

The research work presented here draws together experience in the social study of settlements that has been undertaken at the Bartlett School of Technology with the English theoretical and methodological approach to the locational aspect. The goal is to improve the understanding of the consolidation process undergone by the low-income residential settlements within the Ethekwini Region by incorporating locational variables into the analysis. The research commenced with the idea that the consolidation

differences could also be related to the locational configuration of the urban grid, especially to the settlement's embedment in the global grid of the city.

2.2 The approaches to housing delivery

In line with the constitution of South Africa, housing is a fundamental human right and furthermore every citizen of the country should have access to adequate housing. The government, in its Reconstruction and Development Programme (RDP), described a minimum housing standard, not simply a serviced site but proposed that the cost of the delivery of housing would be borne through a government housing subsidy scheme. To meet the housing needs of poor people, the post Apartheid government assigned the objective, as mentioned in chapter one, to build one million houses over five years (ANC, 1994).

From a conventional and rather optimistic view, which sought to deliver complete dwellings on a wider scale, there was a move to a progressive and more participative 'incremental approach'. This approach is based on accepting a once-off housing subsidy as a shelter strategy that can be traced back to Turner's predicament in the late 1960s (Turner, 1968; 1976; 1988 & 2001). Although, the use of self-help in government social housing programmes has been the subject of a long controversy among academics (Abrams, 1966; Burgess, 1977), generally speaking, it has become an accepted strategy as one among several elements, to solve the housing problem of the poor (Mathey, 1992; Pugh, 1997).

The 'incremental approach' is rooted on a post Apartheid understanding of the nature of a dwelling. The house is no longer considered as merely a sealed unit, but it is understood as a 'package of attributes' where each attribute responds to different requirements or basic needs of a person, group or community. However, there are many implications with this approach that can be approached through a varied range of correction strategies (Turner, 2001).

In general, a defining characteristic of policies formed in terms of the incremental approach is their acceptance that public intervention in the housing process should be limited to the provision of a housing subsidy to cover the costs of a serviced site with a top structure. Nevertheless, in some cases it has become clear that this programme has triggered a constructive result in that the beneficiaries have managed to consolidate their dwellings with no further governmental assistance. There are

continuing debates in respect to the amount of capital subsidy that should be provided by the State related to the National Economic Policy (NEP). Essentially, these debates were among economists that have favoured 'supply-side' measures to stimulate economic growth. This is known as the 'redistribution through growth' model and those that favoured the 'demand-side' measures are known as the 'growth through redistribution model'. The amount of investment required for housing from the national fiscus were seen as being of lesser importance in the former and of greater importance in the latter model (Rust & Rubenstein, 1996). The anticipated annual expenditure amounted to between R1.6 billion to R10 billion, the latter based on both the public and private provision of housing with considerable emphasis placed on rental housing.

The approach taken with the delivery of houses was just as important as the standard of housing that was to be delivered. The private construction sector had manifested their interest for mass rental housing, in which they would act as contractors. Alongside this, the communist movement continued to argue for government-provided mass rental housing, better known as Social Housing, as a preferred option to that of ownership, as they believed it would deliver a higher standard of housing (Tomlinson, 1998). Furthermore, lessons drawn from rental housing provisions around the world were used in these debates to demonstrate the financial and administrative limitations at hand.

Social housing, which aims to deliver affordable and adequate housing on a rental basis to poor and low-income people, did not receive much attention from the policy in South Africa. Only with the adoption of the BNG in 2004, did social housing become a possibility as an effective tool for urban renewal.

In terms of the incremental approach and within the post Apartheid policy framework, private sector developers would carry out the task of applying for subsidies on behalf of beneficiary communities, and in doing so would identify suitable land packages for housing projects. In addition, they would be responsible for the implementation and construction of the projects, leading to the eventual transfer of the sites to potential and qualifying beneficiaries. The role played by the private sector developers in the first years of housing delivery which followed the 1994 democratic election shows that negotiations were succumbing to the 'market-orientated' housing delivery system rather than focusing on the flaws that they felt were manifested in South Africa's 'racial capitalist housing market'. Under Apartheid this delivery system had ignored the needs

of the poor and provided no scope for the development of community organisations (Bond et al, 1996).

In 2004, the newly elected democratic government designed the BNG policy, as a comprehensive plan to be implemented for the development of sustainable human settlements. Apart from continuing with the incremental housing approach, the revised policy directives introduced interventions that would promote higher densification of human settlements as well as the provision of medium density housing. An innovative and valuable aspect of the NHP was not only to make use of the beneficiaries building capacity for consolidating minimum standard solutions into adequate dwellings, but the recognition of the value of what had already been built, both physically and socially. Some of the housing projects that were developed during the Apartheid regime, prior to South Africa's first democratic elections, have developed into residential areas with rich social communities. The Housing Subsidy Programme, which addressed the issue of the homeless, who were never given this initial benefit, faced difficulties in producing a significant housing consolidation process. The incremental approach was considered to be an efficient way of attaining housing for these poor communities because of the low cost involved, thus allowing for a wider coverage of houses to these people. Another benefit inherent to this approach was the fact that it encouraged greater participation and commitment by the dwellers themselves. This has been shown to result in housing initiatives that are better adjusted to the real needs of the beneficiaries and are inclusive of a greater satisfaction level among the population.

The incremental approach can thus be characterised by three main considerations. The first is to understand the dwelling, as a set of attributes that answers different needs as required by the communities. The second is the recognition of the importance of the beneficiaries' informal resources in the consolidation of their houses. The third is the participative role of the beneficiaries in defining a solution to their own dwelling needs (Burgess, 1977). Therefore, the importance of identifying the housing attributes, understanding the nature of informal resources and building processes and eliciting the preferences of the beneficiaries, follow on naturally from this approach. As for the objectives set out in this research and because it is necessary to measure the different degrees of consolidation reached by the beneficiaries in an objective and comparable way, it is important to review the literature regarding the identification and weighting of relevant housing attributes.

2.2.1 An integrated approach to housing

It can be reasonably argued that the numerical allocation of housing subsidies cannot continue to be the main objective of the housing policies, as it does not include other important implications involved in the process. The argument follows that the poor results or inefficiency of housing policies were greatly due to a lack of understanding of the actual housing process, in particular the fact that it involves other aspects such as social and economic factors.

The importance of including social aspects in housing has been identified by many international authors and they have been widely discussed in the field. Harms (1992), for example, criticised the instruments used in the formulation of habitation diagnosis and the propositions that developed from the diagnosis, because he did not consider important qualitative aspects such as psychological, social, cultural and ethical dimensions. With the same perspective, Gilbert (1986) refers to the Chilean government's reaction of the 90s, as an inappropriate solution that encouraged individualism, thus breaking family bonds that often resulted in young people joining street gangs. Galster (2002), in a detailed analysis of housing reinvestment in two cities in America, showed that the quality of neighbourhood ties is critical. A homeowners' sense of solidarity with his/her neighbourhood is as important as the energy spent at maintaining their homes. Furthermore, the environmental and geographical variables of where the houses are located should be considered. When such patterns are not considered, the degree of dissatisfaction felt by the inhabitants may end in the abandonment of the dwellings and a slum process may unfold with rapid deterioration of the physical and social spaces. In fact, the critique of this research is based to a large degree on these observations.

At the Habitat conference of 1976 (United Nations, 1979), the three basic components that were defined for human settlements were; shelter, infrastructure and the provision of services. In addition, the physical, economic, environmental, social and cultural relations were also emphasised. Housing actions were recommended to consider the multiple relations in an integrated way and to search for an appropriate sequence according to the circumstances. Housing is not only complex because of the various external factors that interact in it, but also because of the internal complexity of the process itself, which includes the public sector, the private sector and other users that participate in it. As a way of summarising this proposition a classification scheme with

six sub-processes, each involving a set of topics considered relevant to the residential process, are as follows:

- Housing need: user, habitat
- Housing Planning: situation, policies, plans and programmes
- Housing Design: typology, norms and standards
- Housing Production: technology, productivity, production agent
- Housing Provision: financial system, allocation system
- Housing Use and Administration: maintenance, modification and deterioration

(United Nations, 1979)

As mentioned earlier, Rojas (2001) following a similar proposition studied the residential quality of the immediate surrounding in eight social housing settlements in Chile. The author argued that the quality of the space is the result of the interaction between characteristics of the physical environment and the satisfaction of basic human needs. Three main variables identified as affecting the inhabitant's intervention were property status, morphological characteristics and social organisation and participation.

The combination of understanding housing that serves the purpose of providing residential services as well as an ongoing process that improves social, economic and cultural attributes, offers a dynamic way to understanding and searching for solutions that are both proactive and progressive. Fiori, et al (2001) have developed a pioneering study that explores the basic units for social housing, as identified by a set of five basic residential requirements, this being; environmental protection, sanitation and comfort, housing independence, residential stability and social and physical surroundings.

The understanding of housing as a process that involves social, economic and cultural variables will provide the basis for the construction of the consolidation indices for this research, while the decomposition of housing attributes into operative variables and categories describing their level of satisfaction as offered by Fiori, et al (2000), will be used to test the various attributes.

2.2.2 Understanding the subjectivity aspect in the consolidation process of human settlements

Although the South African governments' approach to housing provision allows for the decomposition of the housing problem into a set of requirements or basic needs that can be understood and measured separately, it also introduces some important difficulties with regard to their measurement. On one hand, the relation of the beneficiary and his/her house can be seen as a social and dynamic relation where the family and dwelling undergo a continuous adaptation process in a family-residence cycle. The basic needs or requirements that the house should provide are not the same for all families, nor do they remain stable through different stages of the family cycle. For example, an urgent need for one household can be of secondary importance to another, and what is of first priority to a family at a certain stage of its cycle, may not be so at a later stage. An analysis of a study undertaken by Desyllas and Hillier (1998) on the preferences of inhabitants of different types of housing programmes showed that the evaluation of the components varied according to the residential situation of the inhabitants.

The incremental building process reflects these changing priorities as well as the scarcity of resources. Both Desyllas and Hillier (1998) described the process as being non-linear, with a slow and irregular rhythm, thereafter, progressing to an equal level of consolidation that considers all components of the housing quality in successive building phases. This can also be understood as a strategy for answering the most urgent needs through successive minimum construction stages; when one urgent need is partially satisfied, the efforts are transferred to answering another need, which has now become most urgent. This explains the permanent 'unfinished' state of many of these dwellings.

The housing delivery process as developed in terms of the incremental approach cannot always be considered as an expression of the beneficiaries' preferences. It has to be understood that the product is strongly determined by varying fiscal resources. In fact, some important demands of the beneficiaries seldom materialise in construction activity, due to technical difficulty or high costs. A typical example of this is the location of the toilet/bathroom next to the living room, which is one of the most common complaints of the housing beneficiaries, and is rarely solved.

2.3 Aim and objective of study

The research study focuses on housing in South Africa, and the policy framework and the interventions for the creation of sustainable human settlements or neighbourhoods. The aim of the study is to provide a critical analysis of the housing delivery strategies and examine whether the current strategies as opposed to the Apartheid era strategies contribute to the creation of sustainable neighbourhoods. The issue as to why some settlements are successful in comparison to others that continue to remain in the form of a slum is the subject of this thesis. Moreover, this thesis aims to improve the understanding of consolidation processes undergone by the settlements within the Ethekewini Region by incorporating the social, economical and locational variables into the analysis for the purpose of establishing a quality built environment.

2.4 Research questions

The objective of the study is essentially to make a contribution and produce scientific data that will assist policy makers in having a broader understanding, in addressing some of the complex issues, surrounding the neighbourhood development of human settlements that are sustainable. Furthermore, that the approach taken with the delivery strategies of housing is done so in a holistic manner.

2.4.1 Main research question

If the Apartheid policies and the past housing programmes have sought to create segregation and inequality between races, why then are the strategies that have been put in place by the post Apartheid government not conducive to the creation of sustainable human settlements today? Instead, it can be argued that in many cases they deepen the segregation created by the Apartheid regime.

2.4.2 Sub research questions

- What are the strategies that have been put in place by the post Apartheid government to create and consolidate sustainable human settlements in South Africa in general, particularly in the Ethekewini region?
- What are the main differences between settlements established prior to 1994 and those developed by the post Apartheid government in terms of the consolidation process of human settlements?

- Why are the indices or variables of the consolidation processes of human settlements visible in the settlements established by the Apartheid government and not in those developed by the post Apartheid regime?
- Are the strategies that have been put in place by the post Apartheid government in terms of the creation and the consolidation of human settlements anti poor than those of the Apartheid regime?

2.5 The hypothesis

The hypothesis has two central arguments that manifest a relationship that emanates out of the combination of two elements. The first argument relates to the assumption that a responsive environment can be created by adopting a holistic approach to policies and practices. The second assumption, which is fundamental to this research study, is that the housing delivery strategies and delivery models as well as the location of settlements particularly, is an important variable in consolidation. The theoretical background to the first hypothesis is to operationalise sustainable neighbourhoods, it must be consciously and deliberately planned and those involved in the planning have a key role to play in shifting the balance of policy and practice towards sustainable objectives (Lock, 1992; Rokidi 1992). The theoretical background to the second hypothesis is that delivery models and location can ultimately affect complex social processes through the influence that it has on the ultimate growth of a settlement. These have the potential for affecting the social community generated as well as generating economic activity.

2.6 Summary

The aim of this chapter was essentially to define the framework of this study and the importance of the creation and the consolidation of sustainable human settlements. As the South African housing policy failed to achieve its stated goals of offering adequate housing to all South Africans and therefore the creation of sustainable human settlements, this chapter has also sought to determine guidelines necessary for the future planning of viable and convenient neighbourhoods.

An integrated approach for housing delivery is presented in this study as an essential approach that planners need for the creation of sustainable human settlements. Previous studies that have been done so far in South Africa in relation to housing

policies outline the lack of an integrated approach in the housing delivery process (Huchzermeyer, 2001; Baumann, 2003; Khan, 2003; Charlton & Kihato, 2006). In practice only 'RDP houses', which include the Greenfield projects, are aimed at relocating the previous inhabitants of informal settlements and slums.

In outlining the main criticisms formulated against the South African Housing Policy, principally the poor quality and poor location of settlements, this thesis intends to analyse South Africa's Housing Policy from the perspective of planning. The thesis argues that the lack of focus on locational planning as observed in the poor location of low-cost housing known as 'RDP houses' makes it almost impossible for the consolidation process to occur. There is a strong connection between the location of a housing community and people's satisfaction. This research states that neighbourhoods should be designed to allow people, especially poor households to enhance their livelihood strategies.

The following chapter analyses the main theories that influenced the South African housing policy. The shaping of housing policies according to the model of modernisation and dependency theories does not meet the need of poor households. While modernisation theory can be seen as designing neighbourhoods according to a western model, without worrying about affordability, the dependency theory would seek to determine the causes of poor housing conditions in relation to the developing and developed countries instead of focusing on the internal issues such as corruption, debt, mismanagement, lack of capacity, which characterise developing countries.

CHAPTER 3: RESEARCH METHODOLOGY AND DELPHI STUDY

3.1 Introduction

Having defined the research problem and examined the different consolidation levels of settlements that are located within the Ethekeini Region, it was necessary to design an appropriate research methodology. This methodology would include cognisance of 'state subsidised' housing as being understood as a 'progressive process' that involves both social and physical aspects. A qualitative methodology drawing on a variety of data techniques was used in this research study (Robinson, 2000; Crang, 2002). Furthermore, the research study was conducted using a number of primary and secondary sources.

One of the difficulties in testing socio-spatial relations like the one intended in this study is the lack of objective tools to measure both locational factors as well as social phenomena. The research attempted to overcome this obstacle by building a set of reliable instruments that would measure physical and social consolidations on site and by applying a technique of spatial configurational analysis that had been previously developed.

The methodology for approaching the research conducted involved a process that can be described in three basic steps. The first was to build objective consolidation indices that would allow for the measuring of the consolidation process on site. The second was the building of a 'space syntax' axial map of the relevant settlements, which included their nearest commercial and industrial nodes. This provided a means of assessing the levels of urban connectivity of the settlements into the surrounding network of streets. The third was the gathering and analysis of the data. This involved the selection of a sample of settlements as well as the collection of social and economic data of its inhabitants together with the space and land use patterns. The numerical data provided in the previous chapter was represented both in maps and graphs and thereafter it was statistically interrogated and analysed.

As the basic problem was to relate the physical, social and economic variables to the configuration of the settlements and their embedment in the more global system of their region, prior to the statistical analysis, the data collected was represented in a Georeferenced Information System (GIS). Moreover, this shed light on the problem and helped in answering some of the research questions.

3.2 Design of the consolidation indices

The construction of objective consolidation tools was based on the theoretical framework offered by the incremental approach to housing delivery. In this framework, housing has not been considered as a sealed monolithic concept but rather one that involves a set of attributes that answer specific needs or requirements in a socio-spatial dynamic relation. This means on the one hand housing attributes can include physical requirements for environmental protection as well as a set of social, psychological and cultural variables; and on the other hand, their prioritisation should be understood as dynamic, varying from one individual or group of individuals to another.

The design of the consolidation process indices was done in five phases. The first two involved identifying, making operative and defining the 'levels of want' of the attributes that composed the 'housing package', a questionnaire of the 'levels of want attributes' is appended hereto and marked Appendix 1. This was done through the application of a Delphi type survey to experts in the field and by a set of semi-structured interviews applied to people in different housing situations. In the third and fourth phases, the evaluation and prioritisation that the inhabitants make of the housing components or attributes was estimated. This was undertaken through interviews with focus groups on site. The final phase included a construction of a set of indices customised for inhabitants that allowed for the relevant consolidation aspects to be recorded as continuous numerical variables.

3.3 Primary sources

3.3.1 Delphi study

The Delphi study involved the selection and contacting of a sample of experts, designing and delivering a questionnaire (see Appendix 1), to respondents. Furthermore, this included preliminary analysis of the data, any rectification, if necessary, and an analysis of the final data collected. The main purpose of a Delphi type survey was to analyse whether professionals and practitioners have an adequate understanding of what communities at the ground level really need and to determine whether they could relate to the needs of potential beneficiaries for whom they are planning. The Delphi study wanted to determine if those involved in the planning and design of neighbourhoods understand beneficiaries' needs and expectations.

In view of the objectives mentioned above, a questionnaire was sent to professionals and experts linked to the Incremental and Social Housing field: government officials at central, regional and local authority level, NGO's, professionals, academics and consultants. There are approximately fifteen registered firms within the province of KwaZulu-Natal that are involved in housing and infrastructure projects and a further four municipalities and three institutions of higher learning as well as a Provincial Government Department that oversees and facilitates housing delivery within the Province of KwaZulu-Natal. A total of 49 questionnaires were sent out to various individuals as it was assumed that not all the questionnaires would be returned. A response from 20 of the respondents was received which represented 40% of the sample providing fair and reasonable data for assessment and evaluation.

Housing attributes were identified and grouped into 13 components, which had been identified through further research. The selected experts were asked to rank the order of the components according to their experience and knowledge. For this they were asked to distribute 13 points among the different components and rank them in priority with 1 being the highest priority and 13 being the lowest priority. The next step was for them to rank the attributes between a set of subcomponents. The questionnaire allowed for a two step distribution of the points. The questionnaire had a set of empty boxes on the left hand side of the component, where the corresponding points would first be assigned and another set on the right hand side of the sub-component, where a value within a scale of one (1) to five (5) would be allocated to each corresponding attribute reflecting the importance. This being one (1) representative of not important, two (2) being fairly important, three (3) being important, four (4) being fairly essential and five (5) being essential.

The results allowed for the construction of the prioritised opinion of the attributes defining an urban housing unit, and what is considered a minimum acceptable level for each, as defined by the experts in the field and the inhabitants (See Figure 9.1).

3.3.2 Focus groups

The focus groups involved the preparation of the interviews, selection and contacting of the sample population, as well as carrying out in-depth group interviews for the completion of the research questionnaire (See Appendix 1) and finally the analysis of the data.

The sample was selected from the following settlements viz.

- Inhabitants of settlements from the Savannah Park, Greenfield Housing Project that was developed prior to South Africa's democratic elections.
- Inhabitants of Waterloo Greenfield Housing Projects that were developed after South Africa's democratic elections.
- Inhabitants of the KwaMashu Unit C Housing Project developed in terms of the Government Slums Relocation Programme after the 1994 democratic elections.
- Inhabitants of the Shallcross and Lotus Park Social Housing Projects that were developed by government prior to the 1994 democratic elections.
- Inhabitants of the Shayamoya Social Housing Project that was developed after the 1994 democratic elections.

Housing attributes were identified and grouped into 13 components to represent the main deciding attributes for the development of human settlements. The focus groups were conducted with the appropriate technical support of a researcher, and the individuals were asked to rank the order of the components. For this they had to distribute 13 points among the different components and rank them according to priority with one being the highest priority and 13 being the lowest priority. The next step was to rank the attributes between a set of subcomponents, where a value within a scale of one to five would be allocated to each corresponding attribute reflecting the importance thereof.

The analysis was carried out by grouping themes and counting the number of times each attribute was mentioned. Thereafter, with the results of these interviews, a ranked list of housing attributes per housing situation was formulated.

3.3.3 Analysis of the Delphi study

Due to the type of data obtained for this study it was necessary to use a statistical methodology that allowed for the comparison of medians, as the results obtained from the Delphi study presented three different categories of data. Therefore, the analysis of the data obtained needed the use of appropriate methods that would allow for the comparison of scores, at their appropriate levels.

The following three categories of data were produced:

- the comparison of scores involving three, four or five attributes;

- the comparison of scores involving two attributes;
- and the comparison of scores involving one attribute.

On examining the data, it was decided that the following three tests would have to be applied in analysing the raw data. The *Friedman's test* was used in comparing the scores that involved three or more attributes, the *Mann-Whitney test* was used for the scores that involved two attributes and similarly, the *Kruskal-Wallis test* was used to analyse the score involving one attribute. These non-parametric tests will be further explained in the following paragraphs.

The *Friedman's test* is a non-parametric test (distribution-free) used in studies to analyse data, so as to compare observations or scores that are repeated or have scores that involve three, four or five attributes. Like many non-parametric tests, the *Friedman's test* uses the ranks of the data rather than their raw values to calculate the statistic or end result. As the test is used to determine the null hypothesis, the assumption is made that the test calculates the probability of observing a result at the least extreme as the one that occurs in the data at hand.

As mentioned above, the *Mann-Whitney test* is used for assessing whether two independent scores of observations come from the same distribution. Furthermore, this test allows for the possibility of obtaining greater observations in one population versus the other that is being tested or measured. In terms of the Delphi study that was conducted and the various population groups and areas from which data was collected, this test was a suitable choice in obtaining rich and specific data for analysis that would concentrate on one selected population group. The null hypothesis in the *Mann-Whitney test* is that the two scores are drawn from a single population, and therefore their probability distributions will be equal. The *Mann-Whitney test* is one of the most popular non-parametric significance tests.

Lastly, the *Kruskal-Wallis test* is used for data that produces a score of one attribute. The test is used to examine the equality of population medians among the groups used in the study. It is identical to what is known as a *one-way analysis of variance*, as the data is replaced by specified ranks. However, as it is a non-parametric method, the *Kruskal-Wallis test* does not assume a normal population, like the one-way analysis of variance does. The null hypothesis in the *Kruskal-Wallis test* assumes that the samples are from identical populations, and therefore was fitting in terms of the data collected from the Delphi study.

3.3.3.1 Kendall's coefficient of concordance

Kendall's coefficient of concordance is a non-parametric statistic that is used for measuring the agreement (concordance) among several raters who are assessing a given set of attributes. As the Delphi study conducted resulted in answers, whereby some of the interviewee's expressed agreement in their rating of the most important to the least important factors in terms of housing attributes, this test was necessary.

This method, used to assess the degree to which the interviewees agreed with the overall ranking, helped to strengthen the study and allowed for clear and useful results in determining what factors the various populations feel are most important, in terms of being provided with a good standard of housing. *Kendall's test's* main focus on the raters themselves, as the null hypothesis of *Kendall's coefficient of concordance* is that the raters will produce rankings that are independent of one another. Even though, the responses from the raters may be in concordance, the responses are ultimately independently chosen.

3.4 Qualitative research and data gathering

The collection of qualitative data involved various steps, which included the preparation of a structured questionnaire (see Appendix 2), focusing on different aspects of housing, such as basic information about the selected settlements, housing schemes and residents information. An open space survey and interviews was also included in the data collection.

The basic information about the settlements such as the total area of the settlement, housing schemes and types; and the resident's information were obtained from the Government and municipal offices and through the study of maps of the area. To collect the information a settlement report card was designed to interpret the data and to transfer analogous data from the plans to digitalised data, which later formed part of a database system.

The open space survey was primarily designed to measure neighbourhood variables, which was conducted through observation and the recording of the characteristics of open spaces in the selected settlement such as paved roads, commercial activity areas and the availability of facilities. The structured questionnaire principally aimed at measuring housing consolidation as well as to examine the impact of existing housing

policies. Also included in this was questions relating to the size of the family, the income earned and the year of migration.

After considering several alternatives for the selection of plots to be surveyed, a system of selecting every third plot or unit in the settlement was chosen. The advantage of this system basically had to do with four aspects, firstly, it ensured a representative sample; secondly, it meant that replacements were simple to do, by simply choosing the neighbouring second or fourth house; thirdly that it covered the entire settlement and lastly, it resulted in a representative sample of 20% of the settlement.

With the help of ten surveyors (two for each settlement) the necessary data was collected from each settlement. An effort was made to proportion the male and female sex ratio and to obtain a proportionate sample from the selected areas. The data gathered on site as well as the computer models were brought together and used to compile a comprehensive database of the entire settlement. Finally, the survey data was analysed through a SPSS statistical package to check for consistency, preliminary frequency analysis and construction of the consolidation variables.

3.5 Settlement models within the Ethekekwini region

In order to quantify the locational factors, especially the layout of the settlements, a 'space syntax' axial modelling was used to determine the relationship of its urban context and how this affected the development of the settlements. Axial Modelling was also used to assess the levels of the accessibility of the settlements at a local and global level in order to determine how well it is embedded in the surrounding network of streets. This entailed an analysis of the urban connectivity of the settlements and the surrounding urban context, in particular, their relationship to commercial, industrial and employment nodes.

'Space syntax' allows for the resolution of spatial and physical data at the micro-settlement level as well as the macro (city-wide) urban scale (Hillier & Hanson, 1984; Hillier, 1996b). Studies using this technique have already demonstrated the strong relations between locational variables and a wide variety of social phenomena, from the production of new knowledge (Hillier & Penn, 1991) to the generation of creative work environments, as well as the location of vandalism and crime (Hillier, 1988; Hanson & Xu, 1991; Hillier et al, 1989a; 1989b; 1989c; 1993). Furthermore, they have also showed that while the design does not directly cause social malaise, it may contribute to the process whereby a neighbourhood becomes stigmatised, leading to

allegations of social breakdown (Hillier et al, 1987; Hillier 1996b; Shu, 1999). The modelling method used will be the 'axial map' method, developed at the University College London, to investigate the configurational properties of a network (Hillier & Hanson, 1984).

An 'axial map' is a matrix of the fewest and longest lines of sight and movement that can be drawn along the streets and public space of the system. Each streets network position is analysed in relation to all other streets in the network using a computer programme that considers each line to be a node in a graph and calculates the depth to every other line in the system. A measure called 'Global Integration' determines how each line is ultimately linked to all other lines in the system. The computer programme 'Axman' calculates spatial accessibility (integration) values of each line and colour codes them from red to blue, with red lines representing high spatial accessibility (most integrated) through orange, yellow, green, light blue and dark blue for low spatial accessibility (least integrated).

The model calculates a spatial accessibility value for each street based on the complexity of routes and how they link with each other. Therefore, a centrally located street, well connected into its surroundings, will be relatively easy to reach from everywhere else and as such will have a high spatial accessibility value, while a cul-de-sac, being more difficult to reach from the rest of the network, is likely to have a low spatial accessibility value and, consequently, will experience lower movement along its length. This gives a good visual representation of the configurational structure of the system being analysed.

For the process of settlement consolidation it is possible that this will manifest itself in different ways, such as the level of informal networks between residents, the success of local retail, levels of crime on streets, and the willingness of residents to invest in their housing and their community. This research will test these conjectures by measuring aspects of consolidation on various sites through detailed questionnaire surveys, site observations and analysing the results.

CHAPTER 4: THEORETICAL AND CONCEPTUAL FRAMEWORK

4.1 The Modernisation Theory

For approximately five decades the planning and design of human settlements in South Africa was governed by the political ideology of a separate development and planning ideology of modernisation. A central theme of the Modernisation Theory has its basis in functionalist thought, that urban life is compartmentalised into broad categories of activity (for example; live, work, play and transport means) which dictates the structure, resulting in the spatial separation of these activities.

Modernisation Theory sought development in terms of the capitalistic definition of economic growth. Growth was perceived as part of a natural process. Development was associated with economic growth, progress and higher levels of civilisation (Burky, 1993). These ideologies have led to the development of mono-functional activities, often fragmented and environmentally sterile, characterised by low levels of service and high levels of inconvenience. Furthermore, they generate an enormous amount of movement at great cost in terms of money, time, energy and pollution. There is little evidence of a cohesive locational environment, which integrates both urban activities and structures. The approaches to development and planning in terms of the modernisation theory were based on assumptions shared by modernisation researchers and certain concepts that were drawn from European evolutionary theorists (Alvin, 1990). In terms of the evolutionary theory, social change was unidirectional, progressive and gradual, moving societies from one stage to another to make them more homogenous (Chinchilla, 1983; Alvin, 1990). Modernisation scholars drew their assumptions from the functionalist theory, which emphasised the interdependence of social institutions and the importance of pattern variables at all levels of change (Parsons, 1964). In essence, the theory postulated that modernisation was a process that pervaded all aspects of social behaviour, urbanisation and participation (Alvin, 1990).

In respect of housing, modernisation means the adoption of a western culture and standards resulting in shelter being conventional housing units, which ultimately led to the bulldozing of slums and re-housing people in public housing (Burgess, 1992). By the 1970's, it became clear that the modernisation theory had failed. The Modernisation Theorists advocated a top-down approach in respect to the implementation of housing development programmes, in which the state should play a central role with little or no

involvement from the beneficiaries themselves (Alvin, 1990). Hence, there was a flood of critics against the Modernisation Theory (Rodney, 1972; Amin, 1977; Borhman, 1995). The South African housing landscape was also greatly influenced by the modernisation theorists. An example of their influence is the sprawling townships of Chatsworth, Phoenix, Sundimbili, Hambanathi, Umlazi, KwaMashu and Austerville.

With the promulgation of the Housing Act in 1997 (Act No. 107 of 1997) the legislative framework for the post Apartheid NHP was established, which sets out in one comprehensive document, the overall vision for providing housing in South Africa. The document furthermore attempts to reverse the effects of the ideologies contained in the modernisation theory. The challenges that underpin the policy is to create a framework for settlement making which will enrich the lives in settlements and serve as an instrument of urban reconstruction and planning. The Government's Urban Development Framework (South Africa, Department of Housing, Urban Development Framework, 1997) called for "the physical, social and economic integration of towns and cities", and stresses the need for higher density and more compact human settlements.

The ideas, which have shaped the current NHP can be seen to be derived directly from earlier efforts to formulate the National Housing Strategy in particular, the work of the Independent Development Trust (IDT) which was established in 1990 and the influential report of the De Loor Task Group, published in 1992. However, evidence of certain aspects of genealogy of the process of policy formulation can be found elsewhere (Spiegel et al, 1994).

The most important feature of the NHP framework have been determined by its overall commitment to what has been termed the 'incremental approach' to public housing provision. This approach, which is sometimes labelled more prosaically as 'self help', is closely associated with what has undoubtedly become, during the 1980's, the dominant paradigm in the housing policy and practice internationally – the 'support approach' (Wakely 1986, Hamdi & Goethert 1989). The result of this policy framework relating to the incremental approach was that all beneficiaries with little or no income would, with the capital subsidy, end up with a serviced site and a top structure that they would own.

4.2 The Dependency Theory

Amin (1976), was one of the most prominent neo-Marxist economists of his generation, offering a critique of capitalism and global economics based on the idea that the world's rich 'core states' were exploiting the poor periphery – a situation that they could only escape through conscious self-reliance. Through works such as *Unequal Development*, Amin (1976) has developed some of the core arguments of the dependency theory – the idea that global economics were based on unequal co-dependency between the First World and the Third World countries.

One of the three theoretical perspectives that have been explored in understanding African politics is known by the name of Dependency Theory. Scholars from the Dependency School of thought such as Baran (1966), Amin (1976), as well as Frank (1967) and Wallerstein (1976) all questioned the gains from free trade. The central argument of the Dependency Theory, which was formulated as a critical response to the Modernisation Theory, stressed that the wealth of the metropolis was a result of the poverty of the third world.

This Dependency Theory, alias theory of underdevelopment, regards the development of capitalism in underdeveloped countries, as a different process from what richer countries had experienced in the nineteenth century. The theory argues that the development of developed countries creates the underdevelopment of Third World and capitalism hinders economic expansion, technological progress and social change. Migdal et al (1994) captures the above phenomenon in this concise phrase, "these contemporary relationships of dependency, like the Apartheid ones, worked to the political-economic advantage of the developed West and to the disadvantage of the underdeveloped Third World". According to Frank (1967), the developed countries were never underdeveloped, though they may have been undeveloped. In conceptualising underdevelopment, Frank (1967) examined expansion of capitalism and pointed out that the economic, social, political and cultural relations that we now observe were the result of the historical development of capitalism. The influence of dependency thinking in South Africa was mainly among Marxist thinkers opposed to the Apartheid regime.

Neo-classical critiques of modernisation gave rise to two development strategies, the basic needs approach and the redistribution with growth in the 1970s and 1980s

respectively (Burgess, 1992). The underlying assumption was that economic growth could be achieved by addressing poverty, unemployment and inequality.

As much as international development paradigms influenced planning and implementation of programmes in South Africa, among other factors the impact of these programmes was mediated by race, gender and class. Despite the high levels of economic growth experienced in South Africa in the 1960's, the benefits did not trickle down to the masses as had been envisaged by modernist scholars. Instead, the levels of poverty increased and became more visible in the form of squatter settlements in the urban areas. During this period, the government began mass housing programs for Blacks, which saw the establishment of townships such as Umlazi, KwaMashu, Phoenix, and Chatsworth in Durban, which were completed in the 1970's (Maasdorp & Haarhoff, 1983). The modernisation of housing through bulldozing squatter settlements and the construction of formal housing benefited the working class in South Africa. However, the technocratic approach used in the planning and development of the mass housing schemes gave little or no room for beneficiary involvement.

The implementation of the housing delivery programme within this context will form part of the comprehensive perspective in evaluating and interpreting these housing settlements.

4.3 The Movement Economic Theory and locational configurations

There have been numerous evaluation studies undertaken on human settlements. However, most of these studies have been orientated to the identification of social and economic variables that could be affecting the settlement process, without much consideration being given to the locational variables.

The theoretical background is that locatioal configuration can ultimately affect complex social processes, including patterns of movement. This has the potential to impinge on the development of the type of social community and economic activity. Researchers have already found that the locational configuration of streets play an influential role in determining differences in the concentration of movement (Peponis et al, 1989; Hillier et al, 1993; Read, 1997; Penn et al, 1998). As patterns of movement affect land and space use, the spatial configuration seems to be critical at the budding stage of many social processes like the building of community networks, the development of commercial activity, the levels of crime and the satisfaction with the neighbourhood.

Therefore, it is conjectured that spatial configuration could play a significant role in accounting for diverse experiences in the consolidation of human settlements.

This research thesis will relate to a generic socio-spatial process described by Hillier (2001) by which urban space is built, lived and understood. Three basic papers published by Hillier supports the theory that the locational configuration of settlements does contribute to its sustainability. This process described by him is as follows:

"In *Natural Movement* (Hillier et al 1993), it was shown that the structure of the urban grid has systematic and independent effects on movement patterns, which could be captured by integrated analysis of an axial map. In *Cities as Movement Economies* (Hillier, 1996a), it was shown that natural movement and the urban grid itself impacted on land use patterns, by attracting movement seeking uses such as retail to locations with high natural movement and sending non-seeking uses such as residences to low natural movement locations. This then attracts more movement to the high movement locations and this in turn attracts further uses, creating a spiral of multiplier effects, resulting in an urban pattern of dense mixed use areas set against a background of more homogeneous, mainly residential development. In *Centrality as a Process*' (Hillier, 2000) it was then shown that these processes not only responded to the well-defined configurational properties of the urban grid, but also initiated changes in it by adapting the local grid conditions in the mixed movement areas in the direction of greater local intensification and metric integration through smaller scale blocks and more trip efficient, permeable structures" (Hillier, 2001).

The multiplier effect from movement patterns to land use distribution, triggered by spatial factors, therefore needs to be examined in settlement planning and consolidation. As put forward in Hillier et al (1998a; 2000) the principal findings of the European Union (EU) study of developing cities, the North American stage of research can be summarised as follows:

"Spatial and locational factors especially, the layout of the settlement and its relation to the urban context, have played a major role in the development of the settlements and the different degrees to which, they have become consolidated. The critical spatial factor in the development of the settlements/neighbourhoods is the degree to which the settlement is able to develop 'edge orientated commercial activity' through its outward facing edges, and participate in wider local economy. The critical spatial property that sparks off the process is 'local spatial advantage', meaning the degree to which the settlement is spatially integrated with respect to its local contextual area. A prime determinant of the development of this type of economic activity is the direct adjacency of outward facing settlement edges to streets and roads with significant local vehicular movement,

and the accessibility of the internal layout of the settlement to the lines on which this occurs. Where this 'edge orientated commercial activity' is strong, the overall level of self generated economic activity in the settlement increases. This then has series of beneficial effects: the reported experience of mugging and burglary (but not necessarily of drugs and alcohol) in the settlement is lower, there is a greater consolidation of houses, and there is a higher level of community development".

There are several authors (Jacobs, 1961; Coleman, 1986; Newman, 1992), who have contributed to the understanding of the socio-spatial relation. A case in question is Jacobs, who identified sound clues for understanding the role of the traditional street in every day life (Jacobs, 1961), but has been misinterpreted more than once. In fact, she has been cited for theoretical justification of projects that practically eliminate the street and replace it by controlled areas, under the idea of producing a 'defensible space' (Newman, 1972; Coleman, 1986).

In the EU studies of the North American settlements, the relation between social and spatial variables has been studied mainly through comparative studies between different typologies of social housing. Among these were comparisons of morphologically different settlements with respective analysis of their level of satisfaction and consolidation. The recommendations of these studies emphasise the importance of origin, management and social participation, in the future outcome of different housing settlements. Without underestimating the importance of these studies, which are the basis for the development of post Apartheid design and management proposals, they tend to offer recommendations that are either too general in that they are little more than declarations of good will or too specific, in that they respond to special cases.

Both the international classic contributions and the EU study have suffered from a lack of objective spatial descriptions that would allow the authors to build complex yet applicable recommendations. The aim of this research is therefore to draw together the EU experience in the social study of human settlements with the English theoretical and methodological approach to the spatial aspects. The goal is to improve the understanding of the differential in consolidation process of neighbourhoods by incorporating spatial variables into the analysis.

4.4 Summary

The theories of development as described above, more specifically modernisation and dependency theories, present severe limits and show that housing for the poor or low-cost housing cannot be shaped following their models. The Modernisation Theory privileges Western culture over traditional practices, which means that informal housing cannot receive a close attention from the advocates of the Modernisation Theories. The Dependency Theory spells out the causes of underdevelopment and criticises the development model suggested by the Modernisation Theory. However, it does not offer an alternative for low-cost housing development and in turn human sustainable development.

The following chapter entitled 'housing policy and practice' stresses the importance of housing policy in the creation of pleasant neighbourhoods and the establishment of sustainable human settlements. It is believed that housing production stimulates the economy, creates jobs and improves communities living experiences. In this sense, it contributes to the amelioration of people's well-being. Unfortunately, developing countries, including South Africa have failed to provide quality and affordable shelters to low-income households through conventional housing policy, thus resulting in the proliferation of slums and informal settlements and the continuous degradation of living conditions.

Furthermore, the chapter argues that there is no defined model of housing policy that all countries can follow. Instead, the housing policy in which the international community, more specifically the World Bank, has been involved has changed over time to face unique challenges found in developing countries. The involvement of the World Bank in the topic confirms that housing constitutes an important issue in the realisation of quality living environments.

In relation to South Africa the aim of this chapter is to show that the lack of focus in locational planning, which resulted in the provision of poor quality and poor location housing, has exacerbated the vulnerabilities of low-income groups and the creation and propulsion of informal settlements. Thus, the low-cost housing produced in South Africa by means of State housing subsidies may not be considered as sustainable and an important asset for poor households.

CHAPTER 5: URBANISATION, SLUMS AND SUSTAINABLE DEVELOPMENT

5.1 Introduction

Developing Countries in general and Africa in particular have been experiencing rapid urbanisation. Indeed, the urban population of developing countries is growing faster than the rural population. In South Africa for example, the Department of Housing (1997) through the Urban Development Framework estimated that more than half of the population live in urban areas.

UNCHS (1996) recognises the importance to protect 'city life' when argued that: "Cities and towns have been engines of growth and incubators of civilization and have facilitated the evolution of knowledge, culture and tradition as well as industry and commerce. Urban settlements, properly planned and managed, hold the promise for human development and the protection of the world's natural resources through their ability to support large number of people while limiting their impact on the natural environment" (Department of Housing, 1997). UNCHS (1996) and UN Habitat (2006/2007) have established a direct link between urbanisation and sustainability and have urged governments, especially in developing countries to plan for urban development. Bromley (2005:1) argues that

:

"the Millennium Development Goals commit the international community to an expanded vision of development, one that vigorously promotes human development as the key to sustaining social and economic progress in all the countries, and recognizes the importance of creating a global partnership for development."

Elaborating on the issue of urbanisation, UN Habitat (2006/2007) revealed that in the year 2007 human beings would either move to a city or be born in one. And the biggest cities or 'Mega cities' with more than 20 million people will be found in the developing world. Undoubtedly, it appears that the failure to deal properly with the issue of urbanisation will result in an urban crisis, which can be perceived in environmental deterioration, food shortage, housing crisis and the inadequacy to deliver services such as water, electricity and health care.

The growing number of slums, which was the concern of UN - Habitat (2003) and also UN Habitat (2006/2007), shows that there has been an absence of forward planning to deal with the rapid urbanisation facing underdeveloped countries. Therefore, they are failing to adequately respond to the issues brought by rapid urbanisation such as to find affordable urban land, design affordable housing and supply food and health care for the poor. As a result, it is seriously affecting the quality of urban life and reducing the possibility for the urban poor to improve their lives.

The rapid increase in the urban population logically increases the demand for land, housing, water, electricity, health care, jobs and education. With regard to housing for example, in South Africa, Lindiwe Sisulu, the Minister of Housing stated, "rapid urbanisation is causing the demand for housing to grow faster than the Government can deliver it" (Mail & Guardian, 14 October 2006). While the South African government reacts to the housing needs of the urban poor by the provision of state subsidised housing, Bromley (2005) emphasised the need to create jobs at the centre to facilitate housing in urban areas. According to him, if urban areas offer plausible and expanding employment opportunities, then post Apartheid urban immigrants will have the means to accumulate income with which to improve their existing houses or to acquire improved housing.

Adequate responses to rapid urbanisation means, to take into account the importance of the environment, which according to Eisner, et al (1992), responds to the needs of the people living in urban areas, especially the urban poor. In other words, to ensure sustainability, urban development must seek to improve the welfare of urban residents and the preservation of the environment. The writer perceives that slums, urbanisation and sustainable development are mutually interconnected issues. The response of one lies in other. Apparently, slums are the outcome of rapid urbanisation and sustainable development is a combined response to both the issues.

Sustainability in itself is a broad issue that embraces ecological, social, development, and institutional and geographical aspects. The most commonly cited definition of 'sustainable development' has been drawn from the Brundtland report, over a decade ago (WCED, 1987). It is a broad concern and valid starting point, that actions taken today should not compromise the interests of future generations. However, it is such a broad definition that the term sustainable development is often understood as meaning different things to different interest groups that use it. The phrase 'sustainable development' is in itself a paradox. It appears to put together two irreconcilable

principles, that of environmental sustainability and economic development.

Literally, sustainable development refers to maintaining quality development over time. There are contentions and confusions over what 'development' is, how it should be achieved and what should be 'sustained' by sustainable development. Although, there is little refutation about different strands of sustainability to be considered, such as ecological sustainability, social sustainability, economic sustainability and cultural sustainability, disagreements about the relationships between these different dimensions of sustainability and sustainable development proliferate. For instance, some may argue that social sustainability, i.e. maintaining existing social norms and introducing changes within social limits is a social constraint on development and therefore is a core element of sustainable development (Munro, 1995). Others may define social sustainability, as the social conditions necessary to support environmental sustainability, which is the heart of sustainable development, and therefore all social development goals should be considered within the limits of environmental capital (Mitlin & Satterthwaite, 1996).

Yet, it is rarely operationalised as a single coherent ideology (Adams, 1990). The concept lacks clear definition and, as such, is multifaceted, multidimensional and highly contested (Redclift, 1992). Many international agencies, governments, multinational corporations, and so on, subscribe to the Brundtland Commission's definition as outlined in the report *Our Common Future*. Referring to Eisner et al's (1992) plan to protect the physical environment, sustainable development may be firstly seen as a development that does not intend to exploit the resources to the end that it destroys them. Secondly, sustainable development should not interfere with nature and finally, sustainable development ought to seek the preservation of the diversity of life, as we depend on it for our food and existence.

Mainstream hegemonic discourses of sustainable development tend to follow from the definition that includes basic needs, eco-development and sustainable use of resources (O' Riordan, 1988; Lele, 1991). However, the Brundtland Report (1987) definition has led to a much-heated discussion and is often interpreted with considerable variety, to suit specific purposes. Sustainable development has been chastised for being a 'cliché'; 'terribly versatile'; 'a truism'; and 'beguiling in simplicity' (Redclift, 1987; O' Riordan, 1988; Adams, 1990; Holmberg & Sandbrook, 1992). It is an array of differing interpretations for the support of various interested parties (Blowers & Glasbergen, 1995). Sustainability is a far more complex concept than the mainstream

interpretations of sustainable development. It addresses additional ethical features, such as the appropriate management of nature, reflecting on the more traditional concerns of environmentalism (Adams, 1995). In its strongest sense, sustainability, as O' Riordan (1981) suggests, can be a highly bio-centric and ethical endeavour. Indeed, a continuum of environmental concern exists, which encompass both techno-centrism and eco-centrism.

It is difficult not to be in favour of sustainable development, as it seems to hold out the hope of development with at least no further environmental degradation and an improved quality of life (Atkinson et al, 1997). It offers to bridge the gap between economic growth and environmental preservation, without significant changes to the capitalist market system (Escobar, 1996). Whatever the definitions and understanding of sustainable development are, the concept provides a post Apartheid perspective or paradigm to interpret and possibly to steer social change. Housing is a basic component of the built environment and social development. Examining its development in this post Apartheid perspective would help understand, whether changes or developments of a society are achieving the tenets of sustainable development, howsoever one defines it.

The World Conservation Strategy (1980), the Brundlandt Report (1987), and the United Nations Conference on Environment and Development (UNCED), amongst others, were instrumental in shaping the concept and principles of sustainable development. Since the Rio Earth Summit in 1992, several international events have taken place, where sustainable development thinking and principles have featured prominently and have influenced outcomes and recommendations. Internationally, neo-liberal policies have led to an increasingly market based and inter-dependent global economy, which has been associated with rising global poverty and inequality, and growing environmental degradation. Strong sustainability calls for a re-conceptualisation of the relationship between people and the environment, both at the global and local level and for a post Apartheid way of thinking about economic growth and development (Bond, 2002). The World Summit on Sustainable Development (WSSD) in Johannesburg in 2002 reaffirmed international and local commitment to sustainable development and Agenda 21, the long-term action plan for sustainable development that emanated from the Rio Earth Summit.

This chapter will explore the process of urbanisation in developing countries in general and particularly in South Africa on one hand and sustainable development in terms of

built environment, construction, social, cultural, construction and technology recycling waste management on the other. The focus will be on housing, which is one of the crucial issues created by rapid urbanisation and will examine whether the approach adopted by underdeveloped countries to solve housing issues responds to the criteria of sustainable development.

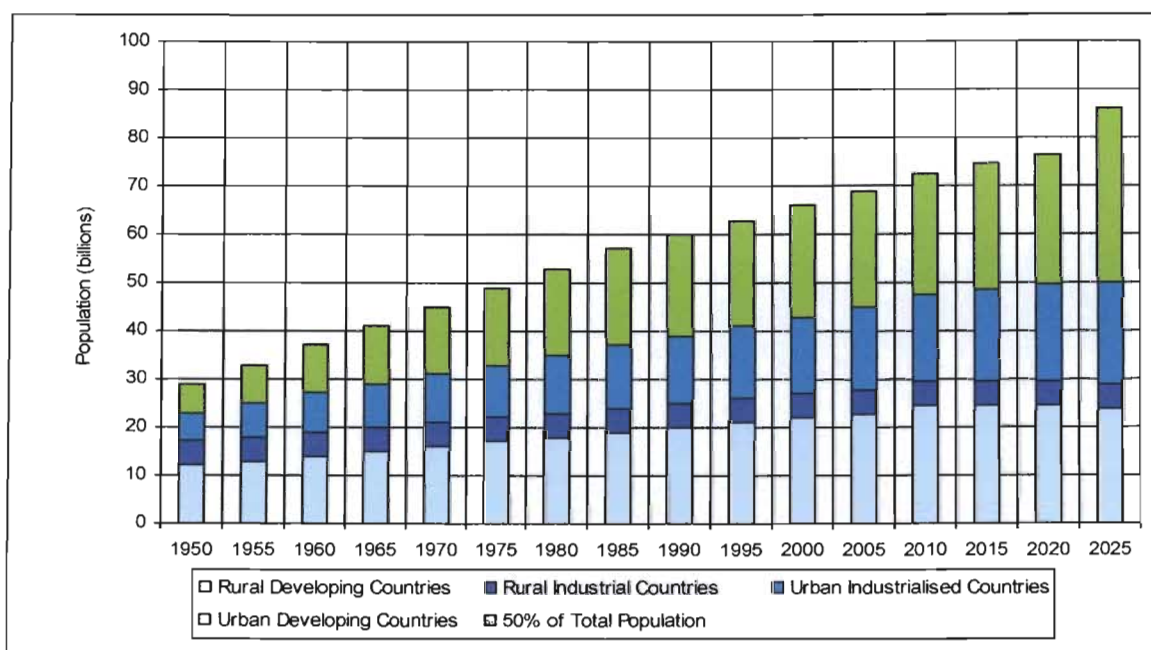
5.2 Urbanisation in Developing Countries: An Overview

Rapid urbanisation is a crucial challenge facing the developing countries and has negatively impacted the urban population, especially the urban poor. Before UN-Habitat (2006/2007), UNCHS (2001) raised the concern of rapid urbanisation process in the world with emphasis on developing countries. It states, "In 2000, 2.8 billion people (47.0% of the total world population) were living in urban areas. Of these, 2.04 or nearly 72% were living in Africa, Asia and Latin America. The recent data provided by UN-Habitat (2006/2007) reveals that:

"in 2005, the world's urban population was 3.17 billion out of the world total of 6.45 billion. Current trends predict that the number of urban dwellers will keep rising, reaching almost 5 billion by 2030. Between 2005 and 2030 the world's urban population is expected to grow at an average annual rate of 1.78 per cent, almost twice the growth rate of the present world population."

The main causes of the increase in urban population in developing countries as recognised by UN-Habitat (2006/2007) are in-migration from rural to urban areas, reclassification and the natural population growth. In contrast to the developed world cities which are growing at a slower pace averaging 0.75% a year, sub-Saharan Africa has an annual highest urban growth rate of 4.5%, followed by South-Eastern Asia at 3.82 per cent, Eastern Asia 3.39%, Western Asia 2.96%, Southern Asia 2.89% and Northern Africa 2.48%.

Figure 5.1 reveals the strong inter-relationship between urbanisation and industrialisation, and in doing so contrasts the post-war growth in human settlements between the industrialized and the developing countries (UN-Habitat, 1996). Throughout the developing world, however, the rate of urbanisation is not uniform. Figure 5.1 also illustrates the proportion of urban population by regions in the developing countries and compares these figures with global percentages. It shows the narrowing of the gap between the developing countries and the world as a whole.

Figure 5.1 World Urban Population (1950-2025)

Source: Adapted from United Nations, Population Division, 2002

During the period from 1965 to 1975, the population increases in rural areas of developing countries accounted for more than half of the global population increase. Two decades later the picture had been reversed to more than half of the global population growth occurring in the urban areas of developing countries. During the same period the average annual urban population growth of developing countries had increased from 24 million to 51 million people. Almost one half of the urban population growth in developing countries is caused by rural-urban migration. Table 5.1 illustrates this scenario.

Table 5.1: Urban Population and Level of Urbanisation, By Region (1950 - 2025)

Region	Urban population (millions)					Share of population living in urban areas (per cent)				
	1950	1975	1995	2000	2025	1950	1975	1995	2000	2025
Latin America and Caribbean	69	196	358	401	601	41.6	61.3	74.2	76.6	84.6
Sub-Saharan Africa	20	70	184	233	661	11.3	21.0	30.8	34.0	51.4
North Africa and Middle East	27	90	208	246	465	26.3	45.3	59.3	62.5	75.3
South Asia	11	33	82	105	284	9.9	16.8	25.4	28.4	47.6
India	62	132	251	292	630	17.3	21.3	26.8	28.6	45.2
East Asia and Pacific	36	104	223	264	486	16.8	27.0	39.9	42.7	59.0
China	61	160	369	443	832	11.0	17.3	30.3	33.4	54.5
Developing countries	286	785	1,675	1,983	39,527	17.0	26.3	37.4	40.5	56.9
Industrialised countries	452	753	909	943	1,108	54.1	68.8	73.4	74.7	82.4
World total	738	1,538	2,584	2,926	5,065	29.3	37.7	45.2	47.5	61.1

Source: Adapted from United Nations, Population Division, 2002

Although Africa has a long history of urban settlements, which possibly date from as early as 2000BC and ranged across the continent from the modern State of Ghana to that of Zimbabwe, the urban population of the continent has always represented only a small minority of the total population. However, while this is still the case in most sub-Saharan African countries, the urban population of the sub-continent has expanded rapidly throughout the course of the twentieth century. Moreover, although the impetus for this increase in urbanisation is largely credited to the colonisation of Africa from the 1880s onwards and the Europeans desire for colonial administrative centres and ports from which to ship raw materials, in reality, it was not until 1950 that the rate of urbanisation began to accelerate rapidly (United Nations, 2000).

It is necessary to examine the fundamental causes of urbanisation. According to Preston (1988), an issue that is often overlooked is the increase in population due to the natural rate of increase in the urban population itself. In addition to this, migration of people from rural to urban areas usually leads to increased 'urbanisation' in a country. An increase in the proportion of the population living in urban areas in the Third World is largely the result of economic growth and development of a country. While, the importance of rural to urban migration, as a source of increase in urban population varies from place to place, as Preston (1988) notes, judging from the unusual rapid urban growth in Africa, it is likely that urban rural migration is more important a source of growth than natural population increase is. This point is supported by Harris (1990) amongst others, who estimated that for the period of 1965 to 1980 the contribution of migration to urban growth was 51% in the case of sub-Saharan Africa, 26% for East Asia, 40% for South Asia and 36% for Latin America and the Caribbean.

Given that rather large Figures are often associated with the rates of urbanisation and the growth of cities in Africa, it is no wonder that many commentators tend to use cautious terminology to analyse the changes. For example, in his overview of urbanisation in the Third World, Preston (1988) regularly used the phrase 'unusually rapid growth' in the African context. However, a major problem with such statements is the implicit assumption that there is a 'usual' rate of urban growth. Traditionally, this has involved a rather ethnocentric debate as to whether there are contemporary patterns of urbanisation in currently developing countries during the nineteenth century, as argued by various academics such as Davis and Golden (1954) and Hoselitz (1957).

Using Hoselitz's (1957) work on South East Asia to illustrate this argument, it was proposed that many of the countries examined were 'over-urbanised' or when compared to historical examples set by currently more developed countries, contemporary developing countries have a much lower proportion of their labour force engaged in non-agricultural occupations, in relation to the size of their urban population. This in turn raised the possibility that due to 'excessive' population, urban centres would lose much of their dynamism and their capacity to be agents of change in contemporary developing countries, a role they supposedly filled in the case of European and American economic development. In addition to this, and combined with the preceding argument, was the prospect that an excessive urban population would increase the demand for social and infrastructural projects, which were less productive to use in a developing country with scarce capital resources.

Furthermore, as many countries have moved towards independence during this period, especially Africa, and adopted economic policies aimed at fostering an industrially orientated economic development, governments were simply not interested in the issues related to over-urbanisation. Instead, rapid urbanisation in Africa, accompanied by positive economic performances throughout the 1950s and 1960s, seemed to support the modernisation theories, within development economics at the time, when the twin forces of industrialisation and urbanisation would propel current developing countries on a path of economic development, similar to the historical precedent set by currently developed economies.

Finally, a major weakness of the 'over-urbanisation' hypothesis was that the concept did not seem to be part of a wider theory of economic development. As Moore (1984) points out, "there was no attempt to link the idea of 'over-urbanisation' to any over-reaching theory of development". This, he argues, put the ideas at a severe competitive disadvantage in the academic world of grand theories of development.

United Nations Human Settlements Programme draws a link between urban expansion and the growing number of slums. It states, "In 2001, 924 million people, or 31.6 per cent of the world's urban population, lived in slums. The majority of them were in developing regions, accounting for 43 per cent of the urban population, in contrast to 6 per cent in more developed regions" (2003, 68). The report warns that if concrete measures are not taken, in the next 30 years, the global number of slum dwellers will increase to about two billion. According to United Nations Human Settlements Programme (2003), although slums do not accommodate all the urban poor, nor are all

slum dwellers always poor, slums are the direct physical and spatial manifestation of urban poverty and intra-city inequality.

Referring to the United Nation Human Settlements Programme (2003) report, it can be argued that poor housing conditions including slums and housing backlogs are the result of unplanned rapid urbanisation that underdeveloped regions have been experiencing. In fact, the increase in population or demographic trends requires the mobilisation of additional resources in order to deal with the post Apartheid demand, including the need for adequate and affordable shelter created by the population growth. Unfortunately, given the degradation of living conditions in the cities of developing countries (UNCHS, 1996), it seems justifiable to stress that governments of underdeveloped countries are irresponsible in facing the socio-economic challenges of rapid urbanisation. As Badshah (1996) notes, "the performance of government is critical to the effective management of urban growth. While access to basic infrastructure, shelter and employment depends much on the private initiatives and enterprise, these are critically affected by public sector policies and functions, which only government can perform".

5.3 Urbanisation: A Theoretical Framework

The process of urban population growth or urbanisation in under developed countries is genuinely a subject of debate. Whatever reasons that can be evoked to explain the process of urbanisation, it is held from disciplines of study such as sociology, psychology, and philosophy, that human beings always seek better living conditions. Based on this belief, the major cause that explains the process of urbanisation is the search for better living conditions in urban areas.

Bromley (2005) distinguishes the normal process of urbanisation, which has been a 'gradual process' in developed countries from urbanisation process in underdeveloped countries. According to him, the normal process of urbanisation occurs as a response to perceived improvement in employment opportunities offered by the urban areas. In this sense, urbanisation is perceived as a strategy to bolster national development. However, contrary to the developed world, the increase in urban population in developing countries is the result of, what Bromley calls, "distress rather than post Apartheid and promising urban opportunities" (2005, 7). In other words, the degradation of living conditions in rural areas is one of the main causes stimulating urbanisation processes in developing countries.

From this approach, it can be argued that the efficient way to stabilise the growing urban population in developing countries is to provide the rural population with opportunities such as employment, education and health facilities for which they migrate to urban areas. However, in the underdeveloped world, not only the living conditions in rural areas are worsening, but also urban areas are unable to absorb the population growth and to offer better living conditions, than in rural areas. As a result, poverty is moving from rural to urban areas. One may affirm that the urbanisation process in developing countries is bringing more stress than the promise of sustainable development.

In the light of some development theories, Tait (1997) provides a useful explanation of urban development, which is the result of the urbanisation process. According to him, in relation to the modernisation approach, the urbanisation process has to be perceived as a need for economic growth and the effort to correspond to the socio-cultural change. In relation to Marxist theories, Tait (1997) argues that the urbanisation process should be understood as a motion underpinning the expansion of capitalism. This means that urban areas must develop with the same speed or rhythm as the capitalist mode of production. Tait (1997) points out that the urbanisation process must be considered as an outcome of the integration into the world economy. From Tait's (1997) perspective, underdeveloped countries have to deal with urbanisation, in order to correspond to the challenge of development that the current globalising world presents. Therefore, urbanisation can be understood as a chance for under developed countries to bolster the development process. However, the urbanisation process is not only a sign of "promising urban development", it is also an important issue, as it requires the mobilisation of additional resources and better management.

UNCHS (1996) defines a city as a 'living space' that offers a framework of urbanisation process in relation to the need to protect our 'living environment'. In this sense, the growing urban population must be an adjunct to the safety of living environment. Since human beings are at the heart of living environments, the urbanisation process can be understood as a force leading to the improvement of social conditions such as health, shelter and sanitation. In other words, the focus should not only be on urban economic growth or urban development, but also on the protection of our physical environment and the improvement of living conditions of the urban population.

5.4 Informal settlements and slums: a global perspective

Informal settlements are defined as housing that is constructed on land without formal permission from the authorities, and which has not been properly purchased through the normal system and zone for residential development. The lack of permission from the local authorities implies that the households constructing houses in informal settlements do not necessarily abide by official planning regulations, enforced on formally planned, surveyed and serviced residential developments. Throughout the globe, informal settlements are often found on land that is unsuitable for human settlements such as on steep hillsides, swampy low lying land, landfill sites, beside open sewers and near noisy airports or industrial sites (Mitchell & Bevan, 1992).

In 1999, it was with the post Apartheid 'Cities without Slums' initiative of the World Bank and UN-Habitat (through their jointly funded Cities Alliance), that the term 'slum' drew international attention. Cities Alliance defined 'slums' as neglected parts of the cities, where housing and living conditions are appallingly poor. Slums range from high-density, squalid central-city tenements to spontaneous squatter settlements without legal recognition or rights, sprawling at the edge of cities (Cities Alliance, 1999, cited in UN-Habitat, 2005a). In 2000, the United Nations Millennium Development Declaration made reference to this initiative and a special task group was convened to give meaning to the term 'slum'. 'Slum' was then defined as any area that met the following six criteria: lack of basic services, inadequate building structures, overcrowding, unhealthy and hazardous conditions, insecure tenure, and poverty and exclusion (UN-Habitat, 2005a). In other words the United Nations Millennium Development emphasised that slums are unsustainable and actions should be taken to improve the living conditions of people living in them.

Slums arise from the poor people's need to find affordable and accessible housing. They are created by the market or by the people themselves, when an increasing number of people in poverty meet inadequate housing and planning responses. The Global Report on Human Settlements (2003) defines slums as a contiguous settlement, where the inhabitants are characterised as having insufficient housing and a lack of basic services. The proportion of the population living in slums or squatter settlements in developing countries is more than a third of the overall population. Slums are seen in practically all parts of the world, but with higher concentration in the developing world cities. About 50% of slum dwellers were in South-central and Eastern Asia (if combined), 14% in Latin America and 17% in sub-Saharan Africa.

The studies carried out by UNCHS shows that between 70-95% of all post Apartheid housing built in developing countries in the last 30 to 40 years were built in informal settlements (UNCHS; quoted in Kombe, 2000). In some cities in developing countries, such as Dakar, Mombasa, Casablanca and Calcutta, between 60 to 70% of urban population are reported to be living in slums. In few cities, such as Douala, Uganda, Ibadan, Lome and Rabat, the proportion is said to be in excess by 70%. The proportion in Africa is rising rapidly as population increases and urban housing shortages continue, while it is falling in Latin America due to regularisation and slum improvement (United Nations Human Settlements Programme, 2003). This estimate of the slum population in major regions of the world is reflected in Table 5.2. These Figures must be treated with caution. Doubt exists regarding the accuracy and comparability, since different definitions of slums have been used in different studies.

Table 5.2: Estimate of Slum Population in Major Regions of the World

Major area, region	Total Population (millions)	Estimated Slum Population	
		(thousands)	Percentage of urban population
World	63134	923,986	31.6
Developed regions	1194	54,068	6.0
Europe	726	33,062	6.2
Other	467	21,006	5.7
Developing regions	4940	869,918	43.0
Northern Africa	146	21,355	28.2
Sub-Saharan Africa	667	166,208	71.9
Latin America & the Caribbean (LAC)	527	127,567	31.9
Eastern Asia	1364	193,824	36.4
South-central Asia	1507	262,354	58.8
South-eastern Asia	530	56,781	28.0
Western Asia	192	41,331	33.1
Oceania	8	499	24.1
Least developed countries (LDC's)	685	140,114	78.2
Landlocked developing countries (LLDC's)	275	47,303	56.5
Small island developing states (SIDS)	52	7,321	24.4

Source: a) Total population: *World Urbanisation Prospects: The 2001 Revision, Table A. 1.*

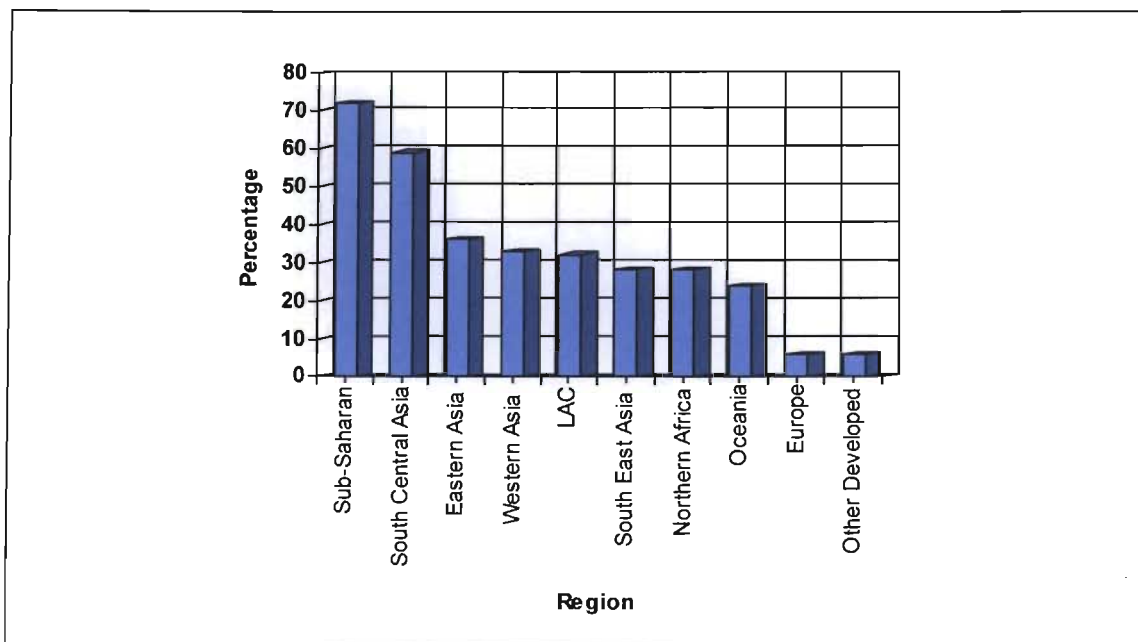
b) Slum population and percentages calculated by UN-Habitat using data from DHS (1987-2001)

The lack of accurate data is also a major problem. As long as cities have no idea of how many dwellings are within their urban areas and choose to exclude slum dwellings from statistics, it seems almost unfeasible to map the substantial increase in the number of slum dwellers during the last decade. In Asia, general urban housing standards improved considerably during the decade, and formal building kept pace with

urban growth. This was also the case in South-East Asia until the Asia crisis of 1997. In some countries of Latin America, there was tenure regularisation and a large drop in the number of squatter households, which reduced the number of slums. Nevertheless, housing deficits remained high and slums continue to exist in most cities. Cities in sub-Saharan Africa and in some Arab states showed considerable housing crisis, with rents and prices rising substantially while household incomes fell, probably corresponding to higher occupancy rates. In addition, slum areas increased in most cities and the rate of slum improvement was very slow or negligible in most places (Global Report on Human Settlements (GROHS), 2003).

Figure 5.2 shows that a slum is a worldwide phenomenon that can be found in developing countries and in developed countries as well. Sub-Saharan Africa has a high rate of urban population residing in slums compared to other regions in the world. In fact, the Figure also reveals that while cities in developed countries have only 6% of urban population living in slums, 72% of urban population in sub-Saharan Africa find their home in slums.

Figure 5.2 Slum Dwellers As A Percentage Of Urban Population By Region



Source: Global Report on Human Settlements, (2003)

The formation and extension of slums in the world, particularly in sub-Saharan Africa portray the negative impact of the rapid urban growth in Africa. A slum is the shelter dimension of urban poverty (UN Habitat, 2006/2007) and demonstrates the inability of governments to adequately deal with the housing needs of the urban poor.

Although, a slum is a major sign of urban poverty and the inability of governments to provide adequate shelter to urban poor households, the United Nations Human Settlements Programme (2003) has emphasised the complexities surrounding slums issue in sub-Saharan Africa. Slums and poverty are in principle closely related and mutually reinforcing. However, not all the residents of slums are poor, some are capable to rent or to own a house in formal settlements and it is not exclusive to find poor people in adequate formal housing. The report also elucidates that even though most of the slum dwellers work in informal settlements, it is not unusual for them to have incomes that exceed the earning of formal sector employees. In most cities, slum settlements provide both affordable shelter and good access to employment. Urban squatters are not homogenous groups, some are better off than others. They are capable of maintaining an adequate shelter in rural areas or places of origin to ensure their base in rural areas, and it is the poorest, who are the most disadvantaged (Hardiman & Midgley, 1989).

5.5 Urbanisation and slums in Africa

All the statistics including those recently provided by the UN-Habitat (2006/2007) reveal that Africa has a high rate of urbanisation with an annual urban growth rate of 4.58 %. The same statistics also state that the urban population of Africa will keep growing and in future, the biggest cities called 'Mega city' or 'hypercity' with the population of 20 million will also be found in Africa. Table 5.3 illustrates the exponential decadal urban growth rate in Africa from 1920 to 2000.

Table 5.3: Urbanisation in Africa

Urbanisation in Africa 1920- 2000 (% of total pop in cities of at least 20,000 persons)								
1920	1930	1940	1950	1960	1970	1980	1990	2000
4.8	5.9	7.2	9.7%	13.4	16	22	25.5	28.3

Source: United Nations – *Growth of the World's Urban and Rural Population 1920 – 2000* and World Bank

The deteriorating economic conditions in rural areas and the natural population growth do not fully explain the increase in urban population in Africa. Political instability, one of the causes of forced migration, also widely contributes to the increase of the urban population. In fact, Africa may be described as the most turbulent region in the world. In central Africa for example, more specifically in Rwanda, the ethnic-based conflict, which led to the genocide in 1994, forced hundreds of thousands of people from the

country within a few days and become Tanzania's second largest city within the country (www.youthxchange.net/main.b238_urbanisation-f.asp).

It has been observed that in Africa, the increase in urban population is not accompanied by economic growth. The majority of urban poor households in Africa live in informal settlements. Studies conducted by Payne (1989), shows that informal housing accounts for almost 80% of all post Apartheid housing units. The housing crisis created by the rapid urban growth, mostly visible in slums formation, manifests the failure of urbanisation processes in Africa, which should in principle have led to urban development, as it has been occurring in some countries in Asia such as China. As a result, socio-economic disparities and unemployment and poverty rates are getting higher. The most common deprivation experienced by urban households in sub-Saharan Africa is, according to UN-Habitat (2006/2007) a lack of access to improved sanitation. In fact, the statistics show that 45% of the urban population suffers from this deprivation, while 27% suffers from overcrowding. In South Africa for example, more than half of the population living in urban areas experiences urban housing crisis, as government struggles to meet the housing needs of the urban residents, more specifically the poor households (Department of Housing, 1997; Mail & Guardian, 2005).

5.5.1 Urbanisation and slums in South Africa

Like other developing countries and especially, since the official demise of Apartheid in 1994, South Africa has been experiencing a high rate of urbanisation as its urban population is growing faster than the rural population. Another contributing factor to urbanisation in South Africa is the abolition of the Influx Control Act in 1986 (Cox et al, 2004). In addition to internal migration, South African cities are also experiencing the influx of international migration from African neighbouring countries such as Zimbabwe and Mozambique. As Landau (2005) observes, given its entrenched position as a regional focal point for trade and travel, South Africa has become, post Apartheid, a primary node in regional migration flows.

Statistics provided by the Department of Housing (1997) reveals that more than half of the population of South Africa reside in urban areas and research conducted by the University of Stellenbosch's Institute for Futures Research concludes that an estimated 80% of South Africa's population will reside in cities or towns by the year 2026 (The Star, 18 August 1996). Furthermore, Cornwell (1995) points out that urbanisation in

South Africa has been taking place at a pace unprecedented in its history, making the country's cities among the fastest growing urban centres in the world.

It can be argued that the rapid urbanisation currently occurring in South Africa is the consequence of the segregated policies of Apartheid regime. As Mabin and Smit observed, "towns were conceived as primarily white places" (1997, 198). With the abolition of the Apartheid legislation (legislation forbid black people to settle in cities without having had a formal job), it appears that the influx of migration from rural to urban areas that South African cities have been experiencing is primarily the movement of black people, previously excluded to settle with their families in cities.

The urban population growth is not a post Apartheid phenomenon that the South African post Apartheid government is actually dealing with. Although the influx control was instituted by the Apartheid regime, migration of black people from rural to urban areas was occurring consistently. As Mabin and Smit (1997) observed, the scale of urban expansion in the 1950's and 1960's surpassed anything which had preceded this period. In fact, black people were obliged to move to cities to look for formal jobs, which were in the hands of white people. Also, migration from rural to urban areas is considered by Charlton (2004) as one of the low-income livelihood strategies.

Informal settlements in South Africa are inextricably linked with the past government's policies of separate development. These policies, in turn, produced very distinctive urban forms, and town planning had racial separation as its major objective. One of the outcomes of Apartheid policies relating to urbanisation was the exacerbation of the housing crisis in black townships. Influenced by the Stallard Commission (1921), official policy as it came to be implemented, permitted African people in urban areas only as long as their presence was "demanded by the wants of the White population" (Swilling, in Mckendrick, 1993). Legislation effectively prevented Black people from acquiring land and homes, especially in urban areas. In fact, the 1913 Land Act alienated Blacks from most of the land, forcing them into wage employment for survival. During the 1930s, massive informal settlements were formed just beyond the urban fringes.

In addition, the creation of 'independent states' adjacent to city boundaries including formal Black residential areas during the 1960's and 1970's, further spurred the growth of informal settlements along the urban edge. Informal settlements grew as a result of a lack of housing alternatives as well as the devastating drought of the late 1970's and

the early 1980's, which forced people to seek livelihoods in urban areas (GROHS, 2003).

The need for illegal occupation of land and informal dwelling arrangements in South Africa stems from a deep marginalisation and exclusion, from formal access to land and development. Informality has made possible the survival of a large percentage of the urban population, enabling a range of precarious livelihoods. In South Africa, many examples of informal settlements exist and their location makes them prone to the negative effects of natural disasters (Napier & Rubin, 2005). Homes built on riverbanks collapse during floods. For example, residents of Stjwetla in Gauteng braved the flooded Jukskei River, to retrieve their possessions being washed away in the floods (Mail & Guardian, 2000) on the same sites.

The questions of who reside in slums and why do they establish themselves there, is constantly raised. This scenario may be better illustrated in South Africa among residents of informal settlements and may offer greater understanding of some of the complexities surrounding the issue of slums. Cox et al (2004) who have studied urbanisation in South Africa and the changing character of migrant labour pointed out the existing relationship between migrants residing in urban areas and their families and relatives in rural areas and their place of origin. He believes that some migrants, although they live in urban areas, are willing to keep contact with their families in rural areas.

It has been observed that it is not unusual to find some slum dwellers in urban areas having adequate shelters in rural areas, where their families live. Slum dwellers opt to reside in slums for livelihood strategies or for the purpose of saving money for their families in rural areas. Referring to this particular point, some authors such as Spiegel et al (1996) raised concern about the existing diversity among residents of informal settlements, which must be taken into account by policy-makers while elaborating policies aiming to solve informal settlements or slum issues. Another argument comes from the provision of low-cost housing, which is criticised by many authors (see housing policy in South Africa discussed above) in relation to their poor quality and poor location. With regard to the poor location of subsidised housing, which does not offer economic opportunities, it is typical that some poor people may prefer to stay in slums, where they are close to their work place and can enhance their livelihood strategies.

It appears that informal settlements and slums growth are responses of the urban poor to the housing crisis, created by rapid urbanisation growth in Africa. International communities through the United Nations Human Settlements programme (2003) and recently UN-Habitat (2006/2007) raised concerns about the growing number of slums accompanying the urban population growth in the world in general, and in Africa, in particular. Importantly, the formation and expansion of slums in Africa should be understood beyond housing crisis and raise concern about the need to properly plan for the urban poor, so that they can improve their livelihood strategies and in turn their living conditions and consider themselves as the substantial members of the society. This analysis adheres to Bromley's (2005) statement, when he argues that job creation or strategies to improve the income of poor households' should be the focus of Housing Policy in Africa.

5.5.1.1 The challenge of housing crisis in South Africa

Statistics provided in 2005 by the South African Minister of Housing illustrates an alarming housing crisis facing South Africa. In fact,

"A total of approximately 2,4 million households live in informal housing structures. From census data we know that of these households about 400,000 are living in some form of structure in the backyard of a property owned by someone else. About another 1 million live in a shack or informal structure on their 'own' stand – rented. About 740,000 of these 1, 4 million households are renting their dwelling – suggesting that of the 1 million or so living on their 'own' stand in informal settlements; about one third are renting the land and/or the dwelling. Of the 2, 4 million informally housed households; about 800,000 are on the approved housing subsidy list and still waiting for their homes. This suggests that there is about 1, 6 million households who are in some way not formally part of the programmes to access subsidies to obtain formal housing" (Sisulu, 2005)

Although the South African government has initiated a low-cost housing programme to overcome the legacy of the Apartheid regime, more specifically poor housing conditions of the majority of urban black poor people, the data provided by the Minister of Housing reveals that to date the housing crisis still persists. Rapid urban population growth has been pointed out by the Housing Minister to be the main obstacle for a successful low-cost housing delivery.

South Africa's democratic elections and other reforms have driven the process of urban migration and urbanisation at an extraordinary pace, creating post Apartheid spatial and social urban landscapes. Rural migrants and blacks from the low-income sector of the population, being virtually excluded from the urban housing market, are forced to

seek accommodation through a self-help approach producing various types of squatter settlements, which were almost absent in pre-reform South Africa. These informal settlements are generally perceived, from the policy-makers point of view as undesirable in terms of urban planning and governance because of their association with unsuitable land use, poor housing construction, severe infrastructure deficiencies, intensified social disorder and deterioration of the urban environment. The emergence of these post Apartheid spatial and social landscapes within South African cities, forming a controversial migrant shelter/community, has given rise to policy concerns as South Africa moves to promote urbanisation in an orderly fashion. The slum clearance program as well as the in-situ upgrading programme introduced by the government has extended the opportunity for the settlement dwellers to obtain a subsidy of R38 984 from the government.

Informal settlements in South Africa are seen as an unlawful or illegal occupation of land, or an unauthorised development (Huchzermeyer, 2004a). The self-help housing, more specifically the autonomous or the spontaneous form, which led to informal and squatter settlements, is seen by many authors such as Rodell (1983) as the inability of a given government to supply adequate and affordable housing for its citizens through housing programmes. The issue of informal or squatter settlements that South Africa is facing embodies the effort of poor people to solve their housing needs themselves, as a means of survival.

The positive approach to autonomous or anonymous form of self-help housing has been given by Obudo et al, (1988), who argues that it is the manifestation of urban growth to which government should react. Two possible reactions of government may be identified: either the government may legalise and upgrade informal and squatter settlements; or it can seek sites and services schemes in order to relocate existing residents and to create post Apartheid settlements. The former focuses on institutional and infrastructural development and social improvements for existing squatter areas and the latter aims at the relocation of squatter areas under current municipal regulations and planning controls. International experience has shown that the first strategy has achieved considerable success and the second has increasingly lost its viability (Payne, 1989; Linden, 1994; Aldrich & Sandhu, 1995).

The first strategy is structured within an informal system and effectively enhances people's initiatives and neighbourhood spirit. These are perceived as vital in dealing with low-income shelter problems. By contrast, the second strategy entails more inappropriate government intervention in such matters as site selection, land supply,

housing standards and community administration. It has also been recognised, through case studies, that non-governmental forces have generally performed better than government organisations, in facilitating suitable ways to meet the housing demand of the urban poor (Sen, 1992).

In South Africa, the first ten years of housing delivery was characterised by scant attention on in-situ upgrading and the focus on the second strategy or relocation into post Apartheid sites, as a solution to overcome informal settlements issue. Only after severe criticisms regarding relocation (Baumann, 2003 & Khan, 2003) the South African Housing Department (2004) adopted an ISUP with a dedicated subsidy mechanism, as part of a larger refinement of the South African NHP in the form of a document called *Breaking Post Apartheid Ground, A Comprehensive Plan for the Development of Sustainable Human Settlements*.

Informal housing even if based on the illegal occupation of land, is recognised by some authors, such as Baumann (2003) and Huchzermeyer et al (2004) as a more affordable and more immediately accessible solution to the housing deficit and is preferable to relocation, as it supports poor households' livelihood strategies. These settlements, therefore, require technical and socio-economic intervention and in-situ upgrading programme should be envisaged in the global perspective of empowering urban poor people residing in informal settlements, instead of a simple replacement of shacks by habitable shelters.

Although the South African Housing Department has adopted informal settlements upgrading as a solution to deal with housing inadequacies and housing backlog, it has been observed that the dominant approach among government is to react to post Apartheid land invasions by deliberately ignoring them, or by repressing them through an approach of 'zero tolerance' as in several South African municipal housing strategies, for example: the city of Johannesburg's, 2000 Housing Strategy (Spadework Consortium, 2000, cited in Huchzermeyer, 2004a). This approach tends to avoid questions regarding the socio-economic and legal exclusion that causes people to invade land, and instead labels the invaders as greedy and criminal 'land grabbers'. The more 'transformative' policy approach is to recognise the larger pressures and desperations that lead to land invasions, and also to recognise that informal settlements, as embarrassing as they may be inherently have a role to play in ameliorating the housing backlog.

5.5.1.2 Meeting the challenge of informal settlements in South Africa

Informal settlements are complex (Smit, 2006) and diverse in a variety of ways, such as their physical form, the nature of poverty, vulnerability and social problems within the settlement, and rural linkages of the residents. Most informal settlements initially seem haphazardly laid out and composed of a chaotic assortment of dwelling types, but in reality they often have very complex physical forms that are closely aligned to social networks and livelihood activities. The spatial arrangements in informal settlements can greatly facilitate social support networks. Households that are part of the same social network can build their shacks next to each other and extended families can build larger shacks. Households that operate home-based enterprises, such as spaza shops are easily able to locate themselves in accessible locations that can attract more customers.

Most of the open space in informal settlements is communal space, but there is also sometimes fenced-in 'private' space surrounding a dwelling. Most dwellings in informal settlements within the Ethekwini Region of KwaZulu-Natal are shacks made of wood or corrugated iron. The sizes of dwellings in informal settlements can vary greatly, depending on the number of people in the household, the economic activity undertaken, and whether or not there are tenants. Having tenants is often impossible in post Apartheid housing projects due to the size of the houses. A study of housing projects in the Western Cape revealed that about a third of all post Apartheid RDP houses were actually smaller than the informal dwellings they had lived in previously (Thurman, 1999). The level of service provision in informal settlements varies, but at best there are only a few communal standpipes and a few communal toilets. In the Quarry Road informal settlement in Durban, the households have free access to the use of communal standpipes. The local authority also provided mobile communal toilet facilities. The lack of proper roads and storm water drainage are a major hazard and inconvenience, as flooding can destroy shelters and damage people's possessions. Lack of access to electricity can result in reliance on energy sources (Huchzermeyer & Karam 2006).

The housing crisis in South Africa is one of the huge challenges created by the rapid urban population growth. The policy responses within this approach may involve, setting aside portions of conveniently located land with basic services for a relatively informal and rapid form of occupation under flexible but secure tenure, while also allowing existing informal settlements to expand where possible, and simultaneously

addressing the affordable housing demand through formally planned channels. South Africa's post Apartheid housing vision or plan, through applying the term informal settlement eradication may be entrusted as a broadly responsive and in parts transformative approach. However, the fact that reception areas as a response to rapid urbanisation of the poor are envisaged in the policy the tendency in South Africa is to focus on the forceful prevention of post Apartheid land invasions in the absence of a working model for structured and legalised informality (Department of Housing, 2004).

In countries with transforming policies, including South Africa, the complex process of informal settlement upgrading is usually slow. Ambitious programmes are seldom completed within the anticipated framework (in Brazil, for example, see Huchzermeyer, 2004b). In Rio de Janeiro's extensive Favela-Bairro programme of the late 1990s and early 2000s, the tendency was to neglect the less cosmetic goals of community participation, regularisation and income generation. The associated limits to redressing socio-legal exclusion in Rio de Janeiro have been highlighted (Souza, 2005). In South Africa, there are fears that Cape Town's N2 Gateway Project, which targets informal settlements along the freeway from the airport to the historic centre of the city, may repeat these mistakes (Houston, 2005).

The most famous among such struggles were probably those of the people of Crossroads near Cape Town (Cole, 1987). Since the scrapping of influx control in 1986, there has been in principle, no legal obstacle to settlement in the urban areas. Leadership positions in squatter settlements often seem to be usurped by warlords. The leadership of these warlords often assumes quasi-traditional forms (Phillips & Swilling, 1988:41), with some authority delegated to headmen appointed by the warlord. The right to acquire land in an informal settlement is also subordinate to the acceptance of the political authority of the warlord, which is similar to the situation in tribal tenure areas. Informal taxes also have to be paid to the warlord, which is often not accounted for (Phillips & Swilling, 1988; Cole, 1987).

Urbanisation accompanied by massive rural to urban migration is universally regarded as an inevitable development process for almost all economies (Lewis, 1955; Kuznets, 1966; Shenerys & Syrquin, 1975; Todaro, 2000). Associated with this development is the demand for affordable urban housing. Like elsewhere, self-help housing emerges from the crisis associated with the incapacity of government to meet its citizens' need for housing. Although, there is some harsh criticism against the practice of self-help housing, such as it deepens social inequality, as mentioned in the previous chapter

advocates of self-help housing such as Turner (1972), Mathey (1992) argue that it can constitute the housing solution for poor urban population.

5.5.1.2 (a) Supporting informal settlements in South Africa

Informal settlements and the associated form of Self-help housing are part of almost every urban area in South Africa and represent the dominant form of housing delivery for the urban poor. In spite of the massive housing delivery effort of the South African government over the past five years, the rate of housing delivery has barely kept pace with the rate of post Apartheid household formation.

Despite the predominance of informal settlements and growing housing backlogs, there has been concerted effort by the State to deal comprehensively by supporting informal settlements in the post Apartheid period. The phenomenon of informal settlements and details on how they were viewed and dealt with particularly by the authorities, date back to colonial times in South Africa (Parnell & Hart, 1999). Given this historical perspective, Marx (2003) argues that informal settlements and the associated forms of Self-help housing have not emerged by accident; however, it is an expression of urban development (Obudo et al, 1988).

South Africa has a dual human settlement pattern, the formal and the informal. According to Hasan (1999) this duality obscures the 'informality' and 'illegality' that informs everyday life in the 'formal' world. Where 'informal' is equated with inferior, the solution is to make the informal settlements more formal and hence improve it.

Some of the answers lie in the complexity of the spatiality of informal settlements themselves (Huchzermeyer, 1999). As a form of urban development, informal settlements mediate and represent the legal, social, economic, environmental and political forces of the day. Another set of answers lies in reconstructing the narrowly maintained disciplinary boundaries dealing with housing and the view that policy and legislation are essentially neutral instruments (Fernandes & Varley, 1998).

Given the complexities surrounding the issue of informal settlements (Baumann et al, 2004), one may argue that it is deeply embedded and form part of social, political and economic relationships, and that the key may not necessarily be one of 'improving' informal settlements, but one of 'supporting' informal settlements. According to Roux (2004), one of the ways to support informal settlements is, to protect the rights of inhabitants of informal settlements including their right to access adequate housing and

to initiate effective provision for informal settlements upgrading. Likewise, other authors such as Baumann and Huchzermeyer (2004) and Wimpey (2004) pointed out that supporting informal settlements should lead to a clear understanding of poor households' livelihood and asset management strategies.

The question that arises is why the government must support informal settlements. Does it not mean that through this process, the state is supporting illegality and encouraging other poor households to invade land for meeting their housing need?

5.5.1.2 (b) Informal settlement: economic activities

Baumann (2003b) based his argument on an ethical point of view to support informal settlements in general and informal economy in particular. He argues that many, if not most, poor households in South Africa permanently inhabit the 'informal economy', and it is unethical and politically dangerous to ignore their needs. Thus, economic activities in informal settlements, which leads to an informal economy is the response to the inability of formal economy or the first economy to create enough jobs to benefit the majority of South Africans, more specifically unskilled labour and urban poor households. Referring to Baumann (2003b), one may argue that supporting informal settlements is synonymous to helping the poor households to enhance their livelihood strategies and improve their living conditions and enter in formal economy in the long run.

As informal-sector home ownership presented an affordable and feasible way to secure shelter for urban poor families, it seems reasonable for the South African government to support informal settlements and in turn an informal economy. According to Baumann (2003a) most urban poor households, especially unskilled ones rely on micro-economic activities. Thus, poverty alleviation that constitutes the keystone of South African policies entails the State's support of urban poor economic activities, such as the development of micro credit that suits the needs of urban poor households, including their need for adequate and affordable shelter.

Likewise, Keivani and Werna (2001) noted that in developing countries, the informal modes of housing provision or informal settlements constitutes the direct way for the urban poor to satisfy their housing need and to participate as residents of formal settlements in 'city life'. Therefore, developing countries including South Africa should consider informal form of housing delivery, as the housing provision allows a large number of urban poor to find affordable shelter. In this sense, informal settlements

represent a valuable addition to housing stock. In South Africa, this state of affairs is exemplified by Tomlinson (2006) when she pointed out that an increase has been observed in the number of households seeking accommodation in informal settlements, backyard shacks and overcrowded formal black township houses.

Similarly, Charlton (2004) further argues that in South Africa, informal settlements and subdivided warehouses in cities has become *de facto* an alternative for the urban poor to the state-housing programme. Indeed, Charlton (2004) observed that the informal mode of housing delivery is meeting at least some of the needs of the poor, including housing need and the way to strengthen their livelihood strategies. It appears that the "State is forced to tolerate and accommodate a certain degree of illegality and irregularity" (Keivani & Warnar, 2001, 271). In other words, given the incapacity of the South African government to efficiently provide adequate and affordable shelter through state housing programmes to all poor urban populations, the focus should not be only limited to subsidise low-cost housing, but should also be extended to what is happening in the informal sector.

However, for the state, the illegality of these settlements and the dwellers need for urban services and legal tenure has presented an opportunity for political manipulation, as improvements in the city services were tied to electoral patronage. The political influence often plays an important role in the design of a relatively low cost public housing assistance programs and policies (Collier, 1976; Castell, 1992; Hardoy & Satterwaite, 1986; Burgess, 1988). Specifically, governments found greater possibilities for constituency building through intervention in the area of low-cost informal home ownership. In South Africa, the case of Joe Slovo Village in Port Elizabeth, Eastern Cape, which was seeking to secure land and housing for a large number of desperate people living in intolerable conditions, illustrates the exploitation by political aspiration and party politics, which resulted in deepening confusion and conflict (Huchzermeyer, 2006).

In addition to inadequate attention on informal sector activities and informal-sector home ownership, Housing Policy that focuses merely on the conditions of squatter settlements does not benefit the poor equally across all household types. Some authors such as Charlton (2004) pointed out that although, there is a growing awareness of the heterogeneity of the urban poor and the role that women play in the households, some laws still discriminate against women. With regard to the Housing Policy, it has been observed that single mothers, who first received housing subsidies

when living with their husbands, are no longer eligible to receive housing subsidy grants again. Clearly, South African Housing Policy is involved in a discriminatory practice of housing assistance that favours the demographic composition of households with both the partners.

The overarching notion of the discussion above indicates that housing analysis and research cannot aggregate the poor into a homogenous group based on income, therefore, it is assumed that a universal emphasis on informal-sector home ownership will benefit all. Variations in household composition based on the gender and age of the head of the household, plays an important role in determining appropriate housing options for the poor.

The main concern of international community more specifically UNCHS (1996) is to deal with the issue of rapid urbanisation process in a sustainable manner, which will guarantee both the adequate living conditions of the urban poor and the preservation of our living environment. However, one may ask how to achieve sustainable development, aimed at economic growth. Although economic growth should be included in sustainable development, environment preservation, improvement of social aspects of people, more specifically urban poor and cultural diversity should be a part of sustainable development as well.

Social aspects in relation with fair political and social systems allow people not only to improve their living conditions, but also to freely undertake their actions. How do people living in informal settlements and slums improve their housing conditions, if they are living under a constant threat of eviction? This shows that informal settlements and slums are unsustainable. UNCHS (1996) urges governments to put in place social justice and a democratic system allowing people to participate in decision making related to them and which improve the living conditions of the people including intellectual, emotional, moral and spiritual aspects. Charlton and Zack (2003) who studied low-cost housing in Africa, pointed out that residents worry about the future of their children as they live in an environment (far away from urban centres) which does not provide economic, social, political and cultural opportunities. It can also be argued that subsidised housing lacks social sustainability. Social aspects of sustainable development reveal that people, more specifically poor households should be the beneficiaries or the target of economic development.

Another important aspect to achieve sustainable development is the preservation of the diversity of cultures. Culture refers to the experience of people and allows understanding of people's activities. It is the way people think, perceive and approach realities. Modernisation Theory, which aims to destroy 'traditional culture' and to privilege 'modern culture', seems to be contrary to sustainable development. Referring to housing, Spiegel et al (1996) stresses the role of diversity in housing delivery, which must conform to the diversity of cultures. In this sense, low-cost housing in South Africa is unsustainable since it ignores the needs of migrants who are temporary residents, and only focus on the needs of permanent residents.

Besides the aspects analysed above, to deal with rapid urbanisation in a sustainable manner, this thesis emphasises the role of the spatial form in achieving sustainable development. It also argues that low-cost or subsidised housing in South Africa lacks the importance of place and the pleasant neighbourhood in the improvement of living conditions of the poor households'. The debate below will focus on urbanisation and sustainability in general and South Africa in particular.

5.6 Urbanisation and sustainability

Urban sustainability means that current cities that are flourishing will survive and will continue to meet the needs of coming generations. This requires a strong political commitment (UNCHS, 1996) which should stimulate people's creativities in order to keep economical, social, cultural and political activities or 'city life' vivacious and gives poor households opportunities to improve their living conditions and mingle in society. Through a good shaping of physical environment, which is the focus of this study, the policy makers can foster creativities among residents in the cities and in turn contribute to preparing for the blooming of cities in the future. In other words, creativity in 'city life', which is an activity of mind aiming to improve the existing living conditions of people, should be put at the centre of urban sustainability.

The concept of sustainability originated in traditional societies, while sustainable development originated in science. The principle of sustainable development has its foundation in the belief that human beings exercise full control over nature and science and that technology are the tools to address the complications enforced by the environment on society. In practical terms the wealthy or strong should keep scope for the weak or unprivileged to survive. The increase in urban populations (See Figure 7.1 and Table 7.1) in the world, particularly in sub-Saharan Africa, raises concern about the

capacity of institutions, to formulate effective policies, which positively impact on the living conditions of the urban poor or promote sustainable development. The preservation of our environment or 'living space' emerges as a concern of urban development as well.

Some of the key issues pertinent to improve sustainability of urban environment are land-use patterns, traffic and transportation and environmental pollution. With the rapid growth of cities, problems of congestion and sprawl intensify. Failure to develop strategic objectives and infrastructure investment policies up to the standards of metropolitan area results in inadequate patterns of land use. Good location of housing in general and low-cost housing in particular and the form that a city may take play a determinant role in improving urban sustainability. In fact, good location of housing facilitates traffic and transportation systems as people do not travel long distance to work and in turn they could save money budgeted for transport for other expenses such as education, health, and food. Besides, it is widely believed by its proponents that compact city rationally utilises land and with its high residential and employment densities, it matches urban sustainability and reduces environmental pollution (Todes, 2003; Neuman, 2005; Holden & Norland, 2005).

In developing countries, the most common means of motorised travel are buses and minibuses operating as taxis. With road improvement, urban development spreads along major routes, causing suburban sprawl, inefficient use of land and resources, and environmental pollution (Rogers & Power, 2000). In South Africa low-cost housing is developed in sprawl form or in the periphery of cities and towns, thus making the cost of maintenance and management higher (Department of housing, 2004), it is believed that compact cities may offer opportunities to poor people to improve their living conditions (Todes, 2003).

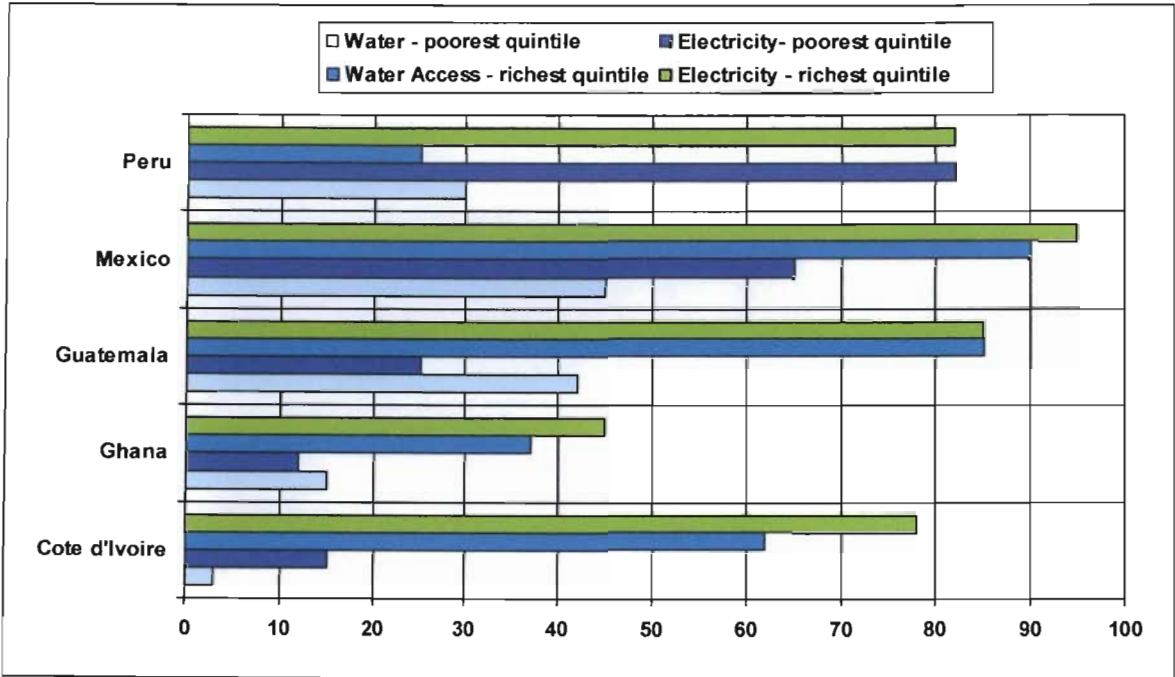
Environmental pollution dominated the proceedings of the 1972 Stockholm Conference. It became clear that the interests of developing countries were incompatible with those of developed countries. The Brandt Commission was primarily concerned with development. In the introduction of 1983 report, Willy Brandt warned that deteriorating economic conditions can threaten the political stability of developing countries and that further decline is likely to cause the disintegration of societies and will create conditions of anarchy in many parts of the world (Brandt Commission, 1983). The World Commission on Environment and Development attempted to reconcile environmental and development objectives (WCED, 1987). The 1992 Earth Summit in Rio de Janeiro focused on comprehensive environmental controls. Despite

international recognition of deteriorating environmental conditions, and eight UN and four European sponsored conferences on the global environment since 1972, there is no agreement on an universal policy.

Industrialisation and the spread of informal settlements with inadequate sanitation systems have contributed to increase in water pollution, affecting those dependent on surface or ground sources of water supply and downstream communities (WHO/UNEP, 1992). To add to the problems facing Third World countries, water borne diseases are a serious problem such as those without easy access to piped water in the Metropolitan areas of Southern Brazil are 4.8 times more likely to die from diarrhoea than those with piped water to their house (UNCHS, 1996). As the World Bank points out, "during the past 15 years, the share of households with access to clean water has increased by half, and power production and telephone lines per capita have doubled" (1994, 1). The fact that low-income settlements are provided with piped water does not mean that there is always water in the pipes. This has long been a problem in poor cities around Africa, but also seems to have afflicted sophisticated cities like Bogota and Buenos Aires in recent years (Perelman, 1994). According to the World Bank, those who are poor gain only limited access to infrastructure improvements.

See Figure 5.3.

Evolving appropriate sustainable city strategies for development requires the re-examination of modern day frameworks of 'the city' as well as its components. The modern day framework has, for over a century, ensured that cities develop at the same phase as political and economic resources. In other words, this meant that as long as there was ample money to disperse as well as access to other resources, modern cities could develop rapidly with little consideration being given to their natural environment and long-term sustainability. Sustainability can be achieved as long as some very basic issues are examined, developed and implemented. Prior to the modernist movement, the majority of town planners, architects and engineers had a natural understanding of the relationship between built form and natural environment. One characteristic of the modernists was the imposition of their rational concepts to make the earth conform to their vision of man. In order to achieve sustainability, smooth amalgamations of traditional building practices and modern technologies can be developed and implemented.

Figure 5.3 Impact of urbanisation on water and electricity services

Source: World Bank (1994)

Rural India is still a good example of a sustainable model instituted upon self-construction, self-management and self-financing, where respect for nature is an essential part of the culture and religion and the protection of resources is a necessity and at the same time, a tradition. The environmental sustainability of rural areas is however, closely linked to urban development. Indeed, a lack of suitable housing is one of the principle causes of unsustainability. Housing is the centre of physical and social life, but also the focus of moral life and ethical choice (Cohen, 2000).

Table 5.4: Principles of sustainable development

- The public trust doctrine, which places a duty on the State to hold environmental resources in trust for the benefit of the public.
- The precautionary principle (erring on the side of caution) which holds that where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.
- The principle of inter-generational equity, which requires that the present needs are met without compromising the ability of future generations to meet their own needs.
- The principle of intra-generational equity, stating that all people currently alive have an equal right to benefit from the use of resources, both within and between countries.
- The subsidiarity principle, which deems that decisions should be made at the lowest appropriate level, either by those directly affected or on their behalf by the authorities closest to them (though for some transitional issues, this implies more effective international laws and agreements).
- The polluter pays principle, which requires that the costs of environmental damage should be borne by those who cause them; this may include consideration of damage occurring at each stage of the life-cycle of a project or product.

Source: Carew-Ried et al, 1994 as summarised by Selman, 1996

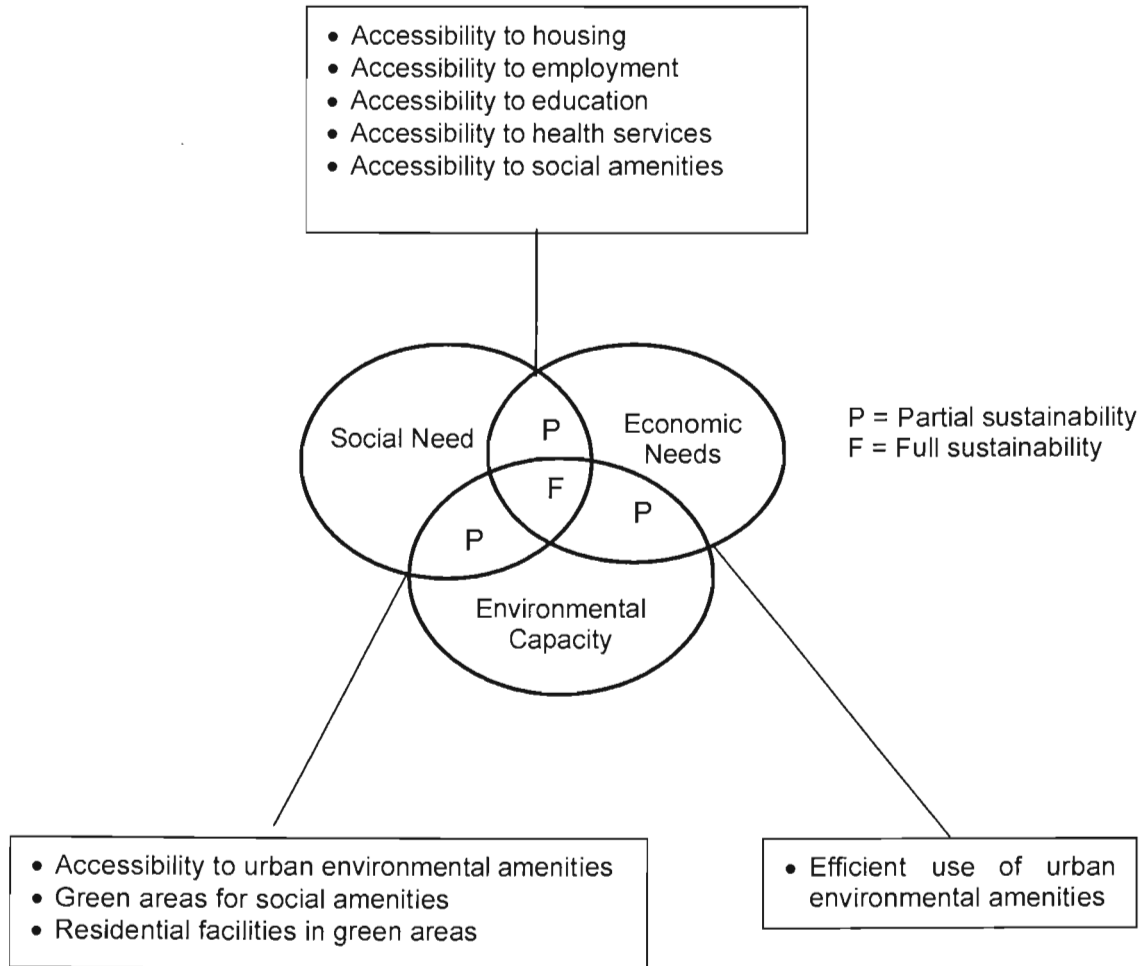
Source: Carew Reid et al, 1994 as summarised by Selman, 1996

Principles of sustainable development rely on the aptitude of governments to mobilise resources for the general interest of the people, especially for the least advantaged and to ensure an equitable distribution of the wealth of the country. If there is inequality in the distribution of the wealth of the country, it should, as the Rawls' (1972) second principle of justice state, for the greatest benefit of the least advantaged of the society. On the other hand, principles of sustainable development emphasise the importance of economic growth in harmony with the nature and our physical environment. It should be noted, according to the World Summits held in Rio de Janeiro in 1992 and in Johannesburg in 2002, cited above, that developed countries are more concerned about the destruction of physical environment than developing countries.

Figure 5.4 illustrates the prerequisites of sustainable development, namely access to adequate housing, employment, education, health services and accessibility to social amenities to which under-developing countries should adhere to so that the majority of their population including the urban poor people can enjoy the benefits of sustainable development.

Figure 5.4 Pre-requisites of sustainable development

(The relationship with all the sectors for Sustainable Development and the positive results arising out of the interaction between the different sectors).



Source: Readapted from Barton, 2000

With regard to access to adequate shelter, which constitutes the focus of this debate, underdeveloped countries failed to meet the challenge for low-income households (Erguden, 2001). As a result there is a widespread formation and expansion of slums, which are synonymous with the failure to establish sustainable development in under developed countries.

Table 5.5 provides criteria that favour sustainability in general and sustainable development in particular. It illustrates the useful way to deal with components such as global ecology, natural resources, local environment, soil provision, economic sustainability and social sustainability.

Table 5.5: Criteria contributing to the creation of sustainable human settlements

Global Ecology	
Climate stability	<ul style="list-style-type: none">• Location that minimise trip lengths, and are well served by public transport• Design that fosters walking and cycling and discourages car reliance
Energy in transport	
Energy in Buildings	<ul style="list-style-type: none">• Energy-efficient built form and layout• Development of community renewable energy
Biodiversity	<ul style="list-style-type: none">• Wildlife refuges and corridors
Natural Resources	
Air quality	<ul style="list-style-type: none">• Traffic reduction and air quality management
Water	<ul style="list-style-type: none">• Local sourcing and demand management• Local surface water/sewage treatment, aquifer recharge
Land Soils	
Minerals	<ul style="list-style-type: none">• Higher densities to reduce urban land take• Local compositing / organic recycling schemes
	<ul style="list-style-type: none">• Locally sourced and recycled building materials
Local Environment	
Aesthetical quality	<ul style="list-style-type: none">• Attractive pedestrian scale local environment• Legible environment with a sense of place• Design reflecting distinctive landscape and cultural heritage
Image and heritage	
Soil Provision	
Access to facilities	<ul style="list-style-type: none">• Accessible, good quality health, educational, retailing and leisure facilities
Built space	<ul style="list-style-type: none">• Diverse, affordable good quality housing stock• Adaptable, good quality commercial / institutional space
Open Space	<ul style="list-style-type: none">• Accessible well run parks/playground/play fields / allotments.
Infrastructure	<ul style="list-style-type: none">• Adaptable, easily maintained road and utility networks
Economic Sustainability	
Job Opportunities	<ul style="list-style-type: none">• Diverse and accessible job opportunities with good local training services
Economic buoyancy	<ul style="list-style-type: none">• Encouragement for local offices / workshops, home-working and telecentres
Social Sustainability	
Health	<ul style="list-style-type: none">• Pollution free environment facilitating healthy exercise, local food production and mental well being
Community safety	<ul style="list-style-type: none">• Safe traffic calmed streets with good visual surveillance.• Access to housing for all social groups
Equity and choice	<ul style="list-style-type: none">• All facilities easily accessed by foot or public transport, with special attention to needs of children and the disabled

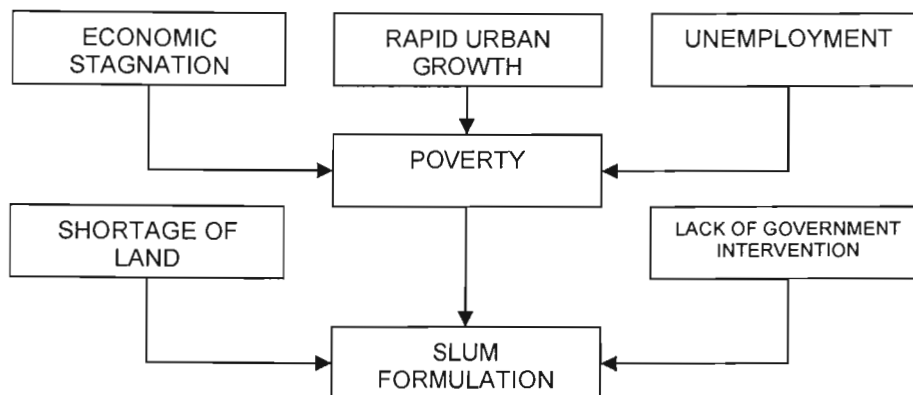
Source: Readapted from Barton, 2000.

For meeting the criteria of sustainable human development, a good quality housing in general, and low-cost housing in particular and neighbourhoods should respond to the criteria described in Table 5.5. The role of place or space play a crucial role in people's happiness and a good design of place or space contribute to stimulate people's creativity. Coupled with the degradation of shelter conditions, environmental pollution is

one of the factors affecting sustainable development negatively. Although developing countries are not directly responsible, in the degradation of the physical environment, the widespread development of slums and informal settlements, where services such as clean water and electricity are not adequately provided, contribute to a great extent to environmental pollution.

UNCHS (1996) focuses its attention on the creation of sustainable human settlements. This is to say that human beings are the first beneficiaries of sustainable development. It has been acknowledged that the challenges of human settlements are global, but every region and specific site face different problems, which need specific solutions (UNCHS, 1996). Irurah and Boshoff (2003) confirm this statement, when they define specific problems of the developed and developing countries related to sustainable development. Developed countries have to stabilise their economic growth through a shift away from over production and over-consumption, as well as towards the redistribution of resources to the poor within these economies (and the majority of poor in developing countries). Poorer developing countries face the challenge of stabilising urban population growth and fast-track growth responsibly, in order to meet the basic needs of the majority now living in squalor, and to stabilise over-consumption by the wealthy elite. These agreements were signed in two World Summits: Earth summit in Rio de Janeiro in 1992 and the World Summit for sustainable development in Johannesburg in 2002. Figure 5.5 draws the current picture of underdeveloped countries, which seriously affect the realisation of sustainable development, more specifically the improvement of poor people's well-being.

Figure 5.5 Obstacles to Sustainable Development in Developing Countries



Source: Re-adapted Global Report on Human Settlements, 2003

UNCHS (1996) enumerates a range of issues that impede the phenomenon of sustainable development in developing countries. These issues are homelessness; increasing poverty; unemployment; social exclusion; family instability; inadequate resources; lack of basic infrastructure and services; lack of adequate planning; growing

insecurity and violence; environmental degradation; and increased vulnerability to disasters. Poor people living in slums and informal settlements usually face most of the issues as described by the UNCHS (1996). The issues enumerated above are aggravated by the rapid urban growth and the inability of the Governments to create an environment such as job opportunities to correspond with the pace of rapid urbanisation.

An important aspect in sustainable development is the decisive role that policy-makers have to play in a democratic society, where social justice and the improvement of living conditions guide policy decisions. Indeed, economic growth, socio-cultural responsiveness and institutional capacity outline the framework in which sustainable development should be achieved. While job creation and poverty alleviation constitute the main challenges facing economic growth, the role of government seems decisive as it has to formulate adequate policies which stimulate economic growth, promote social justice and allows for people to have equal opportunities and a participatory democracy where people, especially urban poor can participate in the decision making process (Rawls, 1972).

Socio-cultural responsiveness includes housing, in this case low-cost housing. Many authors, including Irurah and Boshoff (2003) argue that shelter-performance has emerged as the most strongly supported component, especially because it is linked to energy and water efficiency or conservation. In other words, housing is an important component of a built environment and in turn a decisive component that should be taken in account to achieve economic development.

Although developed countries and underdeveloped countries face different challenges regarding sustainable development, UNCHS (1996) states that the improvement in the quality of life within human settlement, especially in developing countries, is the key issue that drives the process of sustainable development.

5.7 Sustainable development in South Africa

An attempt to support sustainable development in South Africa is seen as an aim of the post Apartheid government to restructure and integrate cities, making them liveable for "low-income people to acquire housing in well-located areas, thus reclaiming access to urban opportunities that were lost under Apartheid" (Todes, 2003). In addition, Integrated Development Plan (IDP) conceived as a tool for "developmental local

government" to promote the economic and social development of communities (Harrison, 2006) emerged as the effort of post Apartheid government to integrate sustainable development in its agenda formally, so as to improve the living conditions of local communities.

In South Africa, the development debate related to sustainable development was dominated by modernisation, under-development and dependency theories. All of these theories have been reflected in literature of South Africa in the 1960's and 1970's and emerged again in the late 1990's. Sustainable development needs to be the heart of South Africa's development programme, as it ensures that the basic needs of people are met. The ending of the Apartheid era and the coming into being of a non-racial, democratic South Africa has unveiled a diverse set of developmental problems and issues. These sustainability concepts provide a vital threat to facilitate a coherent development dialogue between a host of development stakeholders.

The challenge of sustainable development provides a common goal of vision. With present development theory and practice, the sustainability concept has clearly emerged as a key organising principle for debate and dialogue around crucial policy strategy and institutional design issues.

In South Africa, the RDP, a policy framework which served as the election 'manifesto' of the ANC in 1994 forged a distinct urban form, a particular conjuncture of Capital State relations (ANC, 1994). The policy framework provided a detailed account of six basic principles for an integrated and sustainable programme-driven process that aims to provide peace and security for all (www.anc.co.za). The four key themes that formed part of the programme and which are compatible to sustainable development were identified as meeting people's basic needs; developing human resources; building the economy and democratising the State and society (www.anc.co.za). The proclaimed ideals and aims were sufficiently general in nature that almost anyone could subscribe to and reflected a social democratic basic needs agenda, which was a strong vision.

With regard to housing development, the RDP envisaged a significant role for housing, while some analysts argue that housing should play a leading role in economic growth and development. Housing delivery was seen as a means to link growth with development. The delivery of houses met basic needs and simultaneously stimulated the economy, according to this view. The macro-economic research group (MERG) argued: "it is generally recognised that housing plays an important role in the economy.

It is a significant sector itself in generating income and employment, and can act as a stimulus to growth and kick-start scenarios – with construction industry generating demand across sectors with high levels of employment-intensity, with limited demands on the balance of payments and with the potential, in South Africa, to be non-inflationary, since there is ample access capacity” (MERG, 1993, 76).

This understanding of housing delivery is based on government boosting aggregate demand in the economy through public investment. This boosting demand will stimulate other sectors through its backward and forward linkages. The Keynesians assumption that State intervention was needed to ensure full employment and equitable distribution of outcomes, implicitly serve as the basis for these arguments (Schott, 1982). The status of housing as a lead sector is disputed, however, as Tomlinson argues that the ‘growth and redistribution model’, saw housing investment playing an important role in a programme of social spending, but not as lead sector (Tomlinson, 1999).

In the vision of RDP, however, housing plays a vital role in catalysing development and in terms of directing government investment. In this sense, it can be considered as one of the ‘leading sectors’. As a result, providing housing held the promise of both enhancing access to physical assets such as housing, water and land and supporting multiplier effects in the economy. The housing subsidy programme was founded as a reformed version of the Independent Development Trust’s Programme. The post Apartheid programme also took an approach that relied upon formal-sector developers and contractors and therefore needed to be attractive, when compared to alternate projects such as middle-income housing. The 1997 Ministry of Housing report commented that, “there has been insufficient engagement by the private sector in certain parts of the housing programme, with the most significant players focusing their attention on more profitable and less painful avenues for investment” (Ministry of Housing, 1997 (a), 1). Having based the programme on supply, the compromise to prefer subsidy width over depth made delivery less attractive to developers, especially given the responsibility of social comebacks that furthermore acted as an additional layer of bureaucracy. There is an inherent inability of the subsidy to bridge the finance gap between income and housing costs. The programme explicitly envisaged that households would have to devote savings and/or secondary finance to housing consolidation (Ministry of Housing, 1997(a)). In this research no documents could be found within the Ministry of Housing supporting any detailed study of household finance or attention paid to the timing of savings and investments. According to Jenkins,

subsidy allocations to individuals have a higher take-up (100%) and greater access to secondary finance (24%), compared to social compacts take-up (41%) and about 9% secondary finance (Jenkins, 1999). In a sense, what this means is that a household earning an income lower enough to qualify for the maximum subsidy, did not possess an income high enough to qualify for a minimum loan, to build the type of minimum housing offered by developers and private sectors.

Although shortcomings were observed in the implementation of policies related to sustainable development in South Africa, one may argue that the attempt by the policy makers to further the course of sustainable development cannot be questioned. The debate below will analyse sustainable development and policies in South Africa.

5.7.1 Sustainable development and policies in South Africa

All policies set up by the post Apartheid government including RDP, housing policy, the bill of constitution and GEAR were aimed at strengthening South African democracy and in turn promoting sustainable development. As Dixon and Pretorius (2001) pointed out, the purposes of South African post Apartheid government included economic growth, job creation, equity and social development and strengthening the safety and justice sector respond to the criteria of sustainable development.

In relation to the urban population explosion which challenges sustainable development, South Africa responded in 1997 by adopting the Urban Development Framework which defines the visions and plans to follow, so that urban population growth can be the vehicle of sustainable urban development. This is to say that there is lack of policies to restructure South African society and to further sustainable development. The majority of the population particularly the victims of the prejudiced legacy of Apartheid can strengthen their assets, access to social services and enjoy a safe and healthier environment.

However, despite the existence of the above mentioned policies framework to promote sustainable development in South Africa, legacies of Apartheid such as high levels of poverty among urban and rural communities, unemployment and lack of social stability (United Nations commission for sustainable development twelfth session, 2004) continue to affect the majority of South Africans and cities continue to display a very sprawled and segregated profile (Todes et al, 2003). With regard to housing, although

an impressive number of low-cost housing was delivered, one may argue that the poor location and quality of subsidised houses jeopardised sustainable development.

It is not difficult to understand why development should be made 'sustainable'. The subsequent questions are of course how can we make development sustainable, and what are the deterrents or barriers to sustaining developments? These questions take us back to the genesis of the sustainable development paradigm. Hart (1999), in developing indicators for a sustainable community, cites useful examples to illustrate the need to integrate the economic, social and environmental segments of a society. The concept of sustainable development may be used by many for their own purposes. However, little attention has been given to the 'politics of policy' when engaging issues of the environment within the policy forum (Hinchcliffe, 2001). The application of sustainability ideologies to policy requires policy makers to address some particularly difficult and sometimes controversial questions. Luke (1999), for instance, suggested that as a social goal sustainability is fraught with a number of unresolved questions, such as sustainable for how long, at what level, for whom, and sustainable development of what? Answers to these questions will invariably be context specific, usually serving the interests of the economically powerful (Blowers & Glasbergen, 1995).

The essential component for achieving sustainable development on the Local Agenda 21 (LA21) model is partnership, with effective collaboration between public, private, voluntary and community sectors. Perhaps the biggest problem is not the processes but the paradigm shift involved, away from an assumption of competition between interests (in which there are winners and losers) and towards one of co-operation, seeking win-win situations. Creative policy-making that fulfils all the criteria include socially inclusive, economically viable, resource conserving and aesthetically pleasing factors (Barton, 2000).

In South Africa, among the aspects comprising sustainable development, namely environmental, social and economic, the great challenge may be to improve the social well being of the majority of urban poor. With reference to housing which constitutes an essential component of the built environment, a constituent of social development, an important economic sector and an entity that uses natural resources (including labour power) and produces energy and waste, its development certainly affects the ecological, economic, social and cultural sustainability of a place. Getting South

Africans under adequate and affordable shelter (Garden, 2003) is the huge landmark in the realisation of sustainable development.

The concepts of social sustainability, the social dimension of sustainable housing pertains to the social preconditions conducive to the production and consumption of environmentally sustainable housing; the equitable distribution and consumption of housing resources and assets; the harmonious social relations within the housing system; and an acceptable quality of housing and living environment.

These four aspects traverse a wide spectrum of social issues. The first aspect involves for instance, values, habits, rules, lifestyles, environmental consciousness and regulations. The second aspect would pertain to housing equity and housing standards, affordability, the role of government in housing and housing subsidy policies. The third aspect may be concerned with the landlord and tenant relationships, the relationship between the have the have-nots and the influence of the stakeholders in the housing arena, particularly that on housing price and rental, possibly involving the empowerment of the less privileged. The fourth aspect is more tangible and may refer to the internal housing conditions and the immediate environment, including the neighbourliness. The four aspects are inter-related or even inseparable. Similar to the qualitative and quantitative aspects of sustainable economic development, they cannot be maximised simultaneously (Barbier 1987).

The assessment of the social sustainability of housing is, therefore not an easy task. The indicator approach is certainly not applicable to constituents, which cannot be quantified, such as values, lifestyle, landlord and tenant relationships, and the influences of the stakeholders in the housing system. Benchmarks or normative sustainable standards are also difficult, if not impossible to be set for some of the constituents, such as the role of the government, the relationship between the haves and the have-nots. Generally, the first and the third aspects of social sustainability in housing that have been discussed above are difficult to be measured quantitatively. Qualitative assessments are of course as important as, if more than, quantitative evaluation. Qualitative analysis often yields deeper insights, although more subjective and interpretative elements are often involved.

The provision of adequate affordable shelters for the majority of the urban poor seems to be one of the critical issues that South African policy makers need to address. This is probably because the South African authority understand housing development as

the engine of economic development and a factor contributing to social stability (1994 Housing white paper, 1997 Housing Act). In other words, housing is conceived in South Africa beyond the simple provision of shelter and a keystone to achieving sustainable development.

5.7.2 Adequate shelter in South Africa: the challenge

Housing is about providing shelter to people, and sustainable housing development should not cater only for the housing needs of this generation, but also of those to come. While the primary concern of sustainable housing is to meet the accommodation needs of the citizens, the environment needs to be safeguarded from deteriorating to the extent, that it diminishes the ability of future generations to meet their housing needs. Furthermore, sustainable housing should not merely be about meeting basic needs, but should also improve living standards (Chiu, 1999). Improved living standards do not necessarily mean larger space and more facilities; it may refer to a shelter which is healthy, safe, affordable and secure, within the neighbourhood with provision for piped water, sanitation, drainage, transport, health care, education and child development (Chiu, 1999).

Statistics provided by the Minister of Housing (Sisulu, 2005) and the persistence of informal settlements reveals that the provision of adequate shelter is a pressing challenge currently facing sustainable development in South Africa. The issue of informal settlements, combined with the subsidised housing deepens the vulnerabilities of poor households (Baumann, 2003) and reinforces the negative legacy of Apartheid such as segregation, instead of contributing to improve poor households' socio-economic situations (Huchzermeyer, 2006).

The main obstacle identified by the DOH (2004) in the provision of well-located low-cost housing is the difficulty in accessing urban land for the poor. Poor households invade land for housing purposes. Huchzermeyer (2003) confirms this statement, while addressing some cases of evictions including Grootboom. In this sense, the management of urban land is a requirement for a successful provision of low-cost housing. However, as Doebele (1987) notes, the evidence shows the management of land by government of developing countries, including South Africa has been a discouraging one. Referring to South Africa, Huchzermeyer (2002) pointed out that the significant urban land for housing development is owned by the private sector. The 1996 constitution of South Africa protects private property and the post Apartheid

government has to negotiate with the private sector for acquiring suitable urban land for the development of housing. Acting otherwise, for example expropriation, will result in the violation of the constitution.

5.8 Summary

On one hand, this chapter has attempted to establish the relationships between rapid urban population growth that has been occurring in developing countries and the formation and expansion of slums and informal settlements. On the other hand, it has tried to present sustainable development as a model that should guide economic growth in general and urban development in particular.

It has been argued that the urbanisation process in developing countries is not the same as it has been in developed countries. Referring to Bromley (2001), it should be noted that while in developed countries the urbanisation process was accompanied by the development of the manufacturing sector and a promise of sustainable urban development, in developing countries, the urbanisation process is a sign of the degradation of the living conditions in rural areas. Since governments are unable to adequately deal with rapid urbanisation, UNCHS (1996) observes the deterioration of the living environment, which is exacerbated in the housing crisis. In South Africa, the Minister of Housing recognised that rapid urbanisation in South Africa hinders the programme of government to provide adequate shelter to poor households.

The UNCHS (1996) and the UN-Habitat (2006/2007) has raised concern about the growing poverty in urban areas as characterised by the proliferation of slums. In fact, slums have also been defined, as the shelter dimension of poverty and a direct relationship exists between the two. In South Africa, many authors including Huchzermeyer (2003) pointed out that the mechanisms to deal with informal and squatter settlements that consist of relocating poor people into a post Apartheid site called the Greenfield development or Project-linked subsidy are inappropriate. These mechanisms are based on the assumption that slums or informal settlements are merely due to a lack of formal housing and that the inhabitants of informal settlements are the perpetrators of illegality, as they invade private or public land on which to erect their shacks.

Given the destructive consequences of slums and informal settlements eradication observed in South Africa in terms of households' livelihood strategies, voices were raised for the support of informal settlements and the change in the perception of

informal settlements. In this sense, informal settlement upgrading has been seen as less destructive than relocation and may reinforce poor households' livelihood strategies. However, authors such as Baumann et al (2004) and Huchzermeyer and Karam (2006) warned that in situ upgrading should not only mean the replacement of shacks by formal houses or habitable houses, but it should be understood as the process aiming to empower poor people. Such a process seeks to alleviate poverty, lessen poor households' vulnerabilities and promote their inclusion into the urban fabric.

Although sustainable development is the focus of this chapter, other aspects of sustainability such as social, environmental or ecological, are also relevant for people's welfare. The discussion related to sustainable development pointed out two objectives. Firstly, the improvement of the living conditions of the urban poor must be addressed. This should be achieved through an efficient political system, which elaborates policies that allow for economic growth and social justice to promote a just redistribution of the wealth of countries. The second objective is the preservation of our environment, which supports the living conditions of the present generation and of generations to come.

Housing in Africa in general and particularly in South Africa has been identified as an important sector to stimulate sustainable development and constitutes a focal part of the social aspect of sustainable development. The social aspect of sustainable housing development should follow a well-defined approach. The four key components of this approach are identified as the social preconditions conducive to the building and use of environmentally sustainable housing; equitable distribution and use of housing resources and assets; harmonious social relations within the housing system and an acceptable quality of housing and living environment.

Adequate shelter that low-income households can afford is one of the prerequisites for sustainable development. Unfortunately, in South Africa, subsidised houses that provided for low-income households did not qualify for adequate shelter. Many authors including Charlton (2004) argue that it does not respond to the criteria of good quality and adequate location. The difficult access to affordable urban land was recognised as one of the main obstacles, which hampers the provision of well-located low-cost housing in South Africa.

CHAPTER 6: HOUSING POLICY AND PRACTICE

6.1 Introduction

Housing policy and practice are globally understood in terms of quality, quantity, price, ownership and control (Malpass & Murie 1999). This understanding embraces aspects related to the planning of housing, housing production and consumption, the market and the control of the State in all aspects of the housing process. According to Malpass and Murie, housing policy and practice are "usually thought of in terms of State housing policy, at both national and local levels" (1999,4). This means that the housing policy needs State intervention.

The role of elaborating housing policy, which is the prerogative of governments (Hopkins, 2003) aims at responding to the exigency to provide adequate shelter for everyone and to create sustainable human settlements (United Nations Conference on Human Settlements (UNCHS) Habitat, 1996). Although the role of housing development in employment generation, especially for unskilled people is globally recognised (World Bank, 1993), developing countries have failed to establish a viable housing policy allowing everyone to access adequate shelter. Erguden (2001) attributes this failure to the existing gap in the developing countries between policy formulation and the implementation process. He argues that in developing countries there is a lack of valuable implementation strategies, and this, together with a poor promotion of security of tenure and an inadequate supply of affordable land and infrastructure negatively affects the implementation of housing.

The housing crisis, as observed in the production and the extension of informal settlements mostly experienced in developing countries, including South Africa, is a highly visible dimension of poverty and exclusion (Huchzermeyer, 2002). These housing inadequacies in developing countries more specifically in cities have also witnessed the poor service provision in terms of room density or physical quality. In fact, in developing countries, the majority of the urban population are living at standards, that are clearly unacceptable when compared to the way most Europeans or North Americans live. In urban China, homes are so crowded that each person occupies an average of only 4.8sqm (Fujima, 1987). Similarly in Bombay 77% of households, with an average of 5.3% persons, live in one room (Misra, 1978) and many others are forced to sleep on pavements at night (Ramchandran, 1974). In

Ghana, room densities range from 2.5 to 3.2 in the cities of Kumasi and Accra (Hinderink, Sterkenburg, 1975).

In 1998, the *Global Strategy for Shelter* (GSS) to the year 2000 acknowledged the increase in the number of urban poor living in informal settlements and recommended that governments should withdraw from direct intervention in housing provision and focus on creating enabling strategies instead. This meant that the government or the public sector should encourage partnerships with other sectors, both private and non governmental organisations (NGOs) for making the housing market work better for low-income people. One of the reasons for partnerships, most influenced by the opponents of neo-liberalism, is that governments are generally ineffective in supplying required land and housing according to the diverse needs of communities (Payne, 1999). In addition, as the United Nations Development Programme (UNDP) 1990, Human Development Report stated that: "following this, the limited financial and human resources of municipalities and central governments make it particularly important to use the energies of all actors on the urban scene. The best way to release these energies for government is to shift from directly providing services to enabling others to provide them – being it formal or informal producers, community-based and non-governmental organisations or the urban residents themselves. Enabling strategies can yield the highest returns in the provision of shelter and urban infrastructure" (UNDP, 1990,92).

Again, in 1991 the World Bank presented a paper entitled "Urban Policy and Economic Development", an agenda for the 1990's which advocated for the private sector to be the main agent of development (World Bank, 1991). However, Devas and Rakodi (1993) contended that these enabling policies were clearly an attractive concept, but that there seemed to be little consensus about their precise meaning, let alone how exactly they were to be achieved or carried out.

The differences in housing conditions in different Third World cities are a function of differing levels of the per capita income, the distribution of wealth, the rate of urban growth, and the form of societal organisation. Perhaps no one had played a greater role in drawing our attention to the rationality of the poor with respect to their housing situation than Abrams (1964), Mangin (1967), and Turner (1967, 1969). They demonstrated that the shanty, which was so often denigrated as the ultimate and penurious living conditions, was frequently the basis of an adequate shelter. Rather than merely being a shack without services, it was the foundation upon which the more

fortunate, better off, or more innovative managed a way out of their poverty. Over time, the method of spontaneous housing tends to improve as inhabitants built outside walls, extra rooms, a solid floor, a solid roof, and sometimes a second floor. Abrams (1964), Mangin (1967), and Turner (1967, 1969) were able to show that over time many poor families were even able to consolidate their housing.

Most governments acknowledge certain responsibilities in assuring that their citizens are given access to minimum living standards, including the provision of decent and affordable housing. The scope of standards and the effectiveness of government intervention can vary significantly from one country to another. The Capital Market System, which is characterised by a minimal role played by the national government and the involvement of the private sector through a 'socialist redistributive system' features widely in the different approach to housing provision and urban development.

Housing provision in capitalist nations such as the United States, Canada, and Japan has been patterned according to a 'free' market model. It treats housing as a commodity and the provision of housing is based on supply and demand, where transactions are driven by profit of private investors. A fundamental assumption underlying the capitalist model of housing provision is that households that are unable to compete for the more desirable housing stock will occupy housing units that are vacated by the affluent households, who move into post Apartheid housing of higher standards (Tucker, 1989). The government's role in this housing delivery process is minimal, restricted to actions intended to ensure smooth market functioning.

By contrast, in centrally planned socialist nations such as China, Vietnam, Cuba and until recently, Nicaragua, in the Third World, a major theoretical premise of societal organisation is that the State distributes costs and benefits, resulting from functioning and development, equally among all segments of the population. According to this egalitarian ideology, the State must maintain full administrative control over rationally conducted planning, production, management and consumption processes. In line with these normative principles, housing is viewed and often legislated as an entitlement, and construction, distribution and management of housing are essential State responsibilities (Otnes, 1988; Marcus, 1990).

The capitalist and socialist models can fulfil a useful heuristic function in analysis. Each has its particular merits and demerits (Turner, 1976). The national system of housing provision commonly involves, in different ways and in different degrees actions by the

public sector (government), the private sector (profit seeking investors) and the popular sector, which are the end users. During the last decade, the inter-relationships among these three sectors has changed significantly in many countries such as in South America and Asia (van Vliet 1990 b). Although the changes that can be observed are complex and vary amongst nations, they typically revolve around post Apartheid roles of national government. The two trends that are particularly salient are 'privatisation and decentralisation'.

In different countries, these developments can occur for different reasons. Privatisation in Britain has been substantially inspired by considerations of political ideology, whereas in the United States, proponents have put more emphasis on the economic benefits of privatisation as a pragmatic technical exercise (Swann, 1988). In Hungary, privatisation in housing provision during the 1970's was propelled more strongly by political factors, with economic factors becoming dominant during the 1980's and 1990's.

During the past decade, with the influence of neo-liberalism, there has been a considerable socio-economic polarisation in housing in countries such as the United States, Canada and Britain, particularly across tenure lines (van Vliet, 1990 a). The result has been residualisation of the rental sector, typically already marginal to economic and political processes. Actual public housing expenditure was re-orientated towards consumers of housing within a framework that strongly favours private homeowners over renters. The privatisation of housing provision, one of the consequences of neo-liberalist policies is likely to intensify this polarisation. Unfortunately, greater reliance on market processes makes the economically disadvantaged more vulnerable, since they are not in the position to compete effectively in the market for quality housing.

6.2 The evolution of housing policies

According to Burns and Greber (1977), it is only since the 20th century, that major public policies have been initiated to elevate housing deficiencies throughout the globe. The modern housing policy is a product of the past three generations. Before World War II even the most advanced nations did not accept public intervention beyond regulatory measures to assure minimum standards of safety and health, such as building and occupancy codes.

Again Burns and Greber (1977) argue that the improvement in housing conditions, probably under the influence of neo-liberalism, were left to the market, the employers

or to the benefaction of philanthropists, whose efforts were too spasmodic to have any real impact. National legislation adopted in few countries remained dormant in the absence of large scale funding.

After World War II, efforts to address the housing crisis and providing housing for people were limited to the rich nations that could afford cost subsidies. Today, all countries throughout the world have adopted some kind of housing policy, regardless of their development level. Housing has now obtained a key position among social priorities, though its standing has varied among countries and differed over time.

While public programmes to reallocate resources in favour of housing have since become a global phenomenon, with few exceptions, the mix of Government action and market forces (UNCHS Habitat II, 1996) has varied greatly between the countries. However, in centralised economies, the administration of the housing sector and the construction of dwellings are clearly public responsibilities, although considerable private initiative has, in many cases, allowed for the production and ownership of small houses.

Since residential neighbourhoods are integral parts of city structures, housing policies have inevitably merged into more comprehensive programmes to improve the urban environment. Many of these programmes have included the building of post Apartheid towns and growth centres as well as urban renewal to cope with their needs (Burns, Greber, 1977). In more recent years many governments have begun to consider their role in a broader context of human settlement or what has been called 'human habitat'. An historical sketch of housing policies and their relationship to economic development can be traced back to the industrial revolution.

It is only since the industrial revolution that pressures for public intervention in housing markets have come into sharp conflict with general economic ideology. The laissez-faire philosophy sweeping Europe and the United States at the time implied reliance on the market forces in all or nearly all parts of the economy. Moreover, the industrial revolution was also responsible for the extraordinary pace of urbanisation, repeated in recent decades in the less developed parts of the world. In many urban areas of the less developed countries however, the dwelling still serves the dual purpose of a work base and a living place for people not fully integrated into the fabric of modern life.

As cities burgeoned with migrants from the country, first experienced in England in the 1750s and later the rest of Europe, coupled with the wave of immigration into the

United States, it became difficult to provide adequate housing. The wretched housing condition of the urban workers soon became the subject of considerable literature (Bowley, 1945). One group that developed initiative in its own interest was composed mainly of the capitalist employers. This solution widely emulated by the less developed nations of the world, produced problems of its own. Workers dependant on a particular employer for both a dwelling and a job, imply that the loss of one automatically resulted in loss of the other.

The ideology, under certain forms of Marxism was that housing was a non-productive capital expenditure and thus not a priority, which resulted in major housing shortages in some Socialist and Marxist countries (Kirkby, 1985). The cases of China and Cuba show different interpretations of this ideological tradition. Marxist – Leninist land and labour controls also had the effect of dampening the movement to cities. Variations on this ideology affected housing decisions in some African societies as well. On the other hand, societal elites supported policies which left the housing market to the invisible hand of capitalism or to separate non-governmental agencies. These major population movements resulted in high levels of urbanisation and low levels of provision of housing services.

It is noteworthy that the emerging Marxist-Socialist movement did what it could to exploit the housing misery of the proletariat for its purposes and disparaged and ridiculed reform efforts of any kind (Engels, 1950). In conformation with the general terms of radical socialism in most of the 19th century, reform was rejected. Only the revolution would have solved the workers housing problems, along with all the other problems of the masses (Engels, 1950). Despite the evidence of grossly unsafe and unsanitary housing and frequently exploited tactics of unscrupulous employers, public intervention was opposed for deeply held ideological beliefs.

Housing policies, generally, are placed in the service of ideological and political objectives (Klak, 1997). The main problem is that the philosophy or the ideology of the political regime (capitalism or socialism) on which housing policy is shaped does not always meet the real needs of the poor and vulnerable people. Some countries, notably the United States, encouraged home-ownership because this type of tenure is equated with responsible citizenship. On the other hand, there are countries that promote the notion of housing as a 'public utility' not only for the sake of improved communities, but also because they are seeking to replace the market mechanism with publicly controlled, if not publicly owned enterprises in key sectors of the economy.

An overview of the history of all housing policies has indicated that there is no evidence of a long run programme or a combination of programmes based on a clearly articulated rationale that has been executed with continuity to address housing problems. The key issue to be outlined in the evolution of the housing policy is to address the housing crisis. Much of the legislation owe their origins to emergencies such as wars and economic depressions. Moreover, subsequent legislation was designed to address housing crisis as it was occurring. In South Africa for example, the housing policy was elaborated to address the issues of inequality and fragmented planning created by the Apartheid regime (Housing white paper, 1994).

Political parties in power influence housing policies in some countries. For example, in the United Kingdom, the public and private sector finance of housing is quite reflective of the alternation of labour and conserve governments. A similar tendency can be observed in the United States, although housing programs vary even in the absence of political changes.

According to Maisil (1977), most housing policies have been built up on an *ad hoc* basis from decisions accumulated over a vast number of years. In some areas, rent controls adopted to meet the emergency conditions experienced in World War I are still in use today. In addition, it also happened that the housing policies resulted from one type of policy piled upon another in an attempt to shore up programmes, which were recognised as having major shortcomings, but which appear to be either economic, social or political necessities. Housing programmes have been forged by a combination of politicians, reformers, social workers, engineers, planners, architects, and occasionally economists. In many countries, the policies in use have severe internal contradictions. They are frequently not responsive to their expressed goals such as addressing the housing backlog or combating social inequalities.

The policy paper of the World Bank (1993) clearly describes the role played by the governments of developing countries in previous decades, on the evolution of housing policies and outlines the strategies that developing countries should implement in order for the housing markets to work efficiently and to meet the needs of poor people. Based on the neo-liberal beliefs, the 1993 policy paper of the World Bank calls for the private sector to play an active role in the supply of housing in the market and urges the government of developing countries to reduce their expenditure in housing. The paper argues for a real empowerment of the private sector in the housing delivery process in developing countries. Commenting on the policy paper of the World Bank

(1993) entitled *Housing, enabling markets to work*, Keivani et al (2005) comment that for the past three decades the World Bank has set the agenda for the international housing debate and therein have influenced national policies of many countries in at least a partial form if not in their entirety.

One may argue that the stability of the housing market, which is one of the main objectives of the World Bank, can only be attained if the increase in housing supply meets the housing demand. However, the policy paper of the World Bank (1993) focuses more on supply rather than demand side (Omenya, 2002). If the private sector supplies housing in the market while the housing demand is very low, this may result in two situations. Either the cost of housing in the market will fall down, which may discourage private sector to invest in housing or only a certain income group may be able to afford housing within the market. Therefore, urban poor households will be in this case excluded to provide adequate housing in the market.

The modernist mass housing of the 1950s, 1960s, and 1970s had become increasingly associated with the concentration of poor people in medium to high density housing on the peripheral urban locations. This is the pervasive effect of the Modernisation Theory. In fact, housing delivered according to 'Western culture' in cities is too expensive to be afforded by poor households. The option for poor households is to seek affordable housing in the peripheral urban location where cheap housing is provided. The solutions to the housing problems during this period had rapidly become the social and physical housing problems of the West. Policy emphasis shifted from object to subject (the person) subsidies and increasingly towards the promotion of individual home-ownership (Paddison, 2001). Essentially the housing policy pre-occupations, institutional structures and State and market responses of one period inevitably shaped the problems and policy options of the next.

In the 1960's the dominant spatial models that underpinned urban policies in developing countries were derived from the Modernisation Theory. It was argued that the structure of cities in developing countries was different because they were at different stages of a similar urbanisation process. Although, phenomena such as rapid urban growth, squatter settlements and over urbanisation to name a few were seen as similar, differences existed with regards to the extent to which, planners could and should intervene. In general and again in imitation of planning theories and practices that were dominant in developed countries, it was believed that strong regulatory intervention based on western minimum standards were necessary in order to control,

direct and rationalise urban growth. The principle planning tool that was used to achieve this was the master plan, which attempted to regulate and direct land use, the location of activities and the infrastructure, service and transport networks. In some countries sophisticated planning tools such as, spatial interaction models were integrated with master planning.

Dualistic models of the city were also highly popular and were used to explain and formulate spatial, employment, social and cultural issues and policies. It was also argued that the rapid proliferation of shanty towns on the urban periphery and on 'non-urbanisable' land was the result of direct migration of rural peasants to the city. In these settlements, these migrants reproduced the social, economic and cultural values and physical living conditions associated with 'traditional' or 'marginal' cultures. Furthermore, these values were seen as obstacles in progress towards modernisation. Urban policies were thus based on a refusal by the state to extend services and infrastructure to these settlements, and where possible, their eradication and the construction of conventional core units with 'minimum standards' in their place. The failure of these policies in the developing countries was clear by the late 1960's with the proliferation of slums and shanty towns, which were beyond state control. The supply of post Apartheid conventional housing units was minuscule in relation to the need. Despite the fact, that it was heavily subsidised, they were unaffordable to a large portion of the population.

In the 1970's a post Apartheid policy consensus emerged at the *Habitat One* conference (1976). The 'Aided Self-Help' approach adopted a far more positive attitude to the growth and servicing of peripheral squatter settlements and was underpinned by a post Apartheid spatial model. The approach was seen as a major response to the housing crisis of the urban poor (Mathey, 1992). The post Apartheid model discarded the polarised spatial dualism of the earlier model, functional rented inner city slums and peripheral squatter settlements through the mechanism of the economic and residential mobility that was associated with the migrant's life cycle in the city. In this model inner city slums were identified as deteriorating reception areas for post Apartheid migrants and peripheral squatter settlements that appeared to be developing constantly as a last minute option of residence for migrants.

The 'Aided Self-Help' housing approach involves some sort of collaboration between what have often been called the public and popular modes of housing construction (See Figure 5.1). In theory, all parties benefit from joint-venture schemes that range

from simple *in-situ* upgrading to substantial core-housing projects, with improved housing and capital resources being obtained through a limited investment committee by the State (Potter & Lloyd-Evans, 1998).

In the late 1970's and early 1980's the importance of the housing debate regarding policy, shifted towards slum and squatter settlement upgrading in the form of 'integrated development projects'. Some slum and squatter settlement upgrading projects proved more replicable by incorporating middle class groups within project areas. They were capable of generating cross-subsidies for a larger number of poor people. Some countries such as India and Indonesia managed to achieve urban improvement on a large scale by using these projects under the supervision of 'unified metropolitan authorities'. However, problems of affordability and cost recovery often emerged in newly upgraded projects as exposure to taxation, increased rents and the cost of improvements led to the exclusion of the lower-income groups. This is one of the reasons why Burgess (1985) criticised 'self help housing' as it requires additional charges that the poor cannot afford.

During the early 1980's it was recognised that projects had to satisfy affordability, cost recovery and replicability criteria, if they were to provide the quantities and quality of housing and services required for low-income groups. The pursuit of the 'affordability-cost recovery-replicability' formula became more rigorous under growing economic, fiscal and political pressures and led to significant changes in policy over the decade. This is because, as advocated by Keivani and Werna (2001), the self-help policies were not implemented by the international agencies and national governments in accordance with the advocates of the Self-Help-Housing policy, in which Turner is the main defender. Indeed, Turner (1972) supports the Self-Help-Housing policy that aims at "supporting and enabling the informal self help processes by increasing the direct access of informal low-income households to financial, material and technical resources" (Keivani & Werna, 2001, 198). Moreover, in the early 1980's, attention focused almost exclusively on sites and service projects, but in the face of infrastructure services, land cost and large scale middle class encroachment, it rapidly became clear that these solutions were not affordable by the poor and they could not meet the cost recovery or replicability criteria.

By the mid 1980's and with the emergence of debt crisis, structural adjustment measures, and an escalating land and production cost, the possibilities for using these policies to satisfy the 'affordability, cost recovery and replicability formula' dramatically

receded. Under the impact of economic recession, shaking public expenditures and reduced subsidies, sites and services projects were almost entirely phased out. In fact, as Omenya argued, "the World Bank incorporated Self-Help-Housing into the wider realm of global macroeconomics, founded on neo-liberal theories" (2002, 3). It may be argued that in implementing Self-Help-Housing, the World Bank sought more the sake of economic efficiency than the effective housing solution for the urban poor. As a result, slum upgrading projects were reduced in number and almost exclusive attention was paid to squatter settlement upgrading. In general, emphasis was placed on the provision of public and private housing finance, on the reduction and targeting of subsidies, financial regulatory reform and on the private sector provision. All these measures largely resulted in the poor being denied access to resources. In some countries, such as Columbia and Turkey, housing was used as a micro-economic tool for reactivating the economy and significant increases in output were achieved. However, by the end of 1980's it was generally recognised, that these policies were incapable of making significant in-roads into urban shelter and services problems.

By the beginning of the 1990's, a post Apartheid urban policy framework was created, which was based on the neoliberal analysis of the reasons behind the failure to achieve 'affordability, cost recovery and replicability' formula'. A fundamental significance attached to the policy was institutional and managerial reforms, rather than 'bricks and mortar' and technical approaches for achieving these goals. Policy measures reflected the general goals of neoliberal analysis, elimination of supply and demand-side constraints withdrawal of the State and the encouragement of privatisation. Furthermore, the elimination and targeting of subsidies, deregulation and regulatory reform, institutional capacity building, increased participation and political/administrative decentralisation were addressed.

The establishment of viable, socially and economically integrated communities in areas allowing convenient access to a range of amenities and opportunities is without doubt the main challenge confronting the housing policy. A range of 'enabling' policies and 'lending instruments', that would help create a well-functioning housing sector, was proposed which, would serve the interest of all participants in the sector. They included measures to stimulate demands such as: the development of property rights, the development of mortgage finance, and the targeting and rationalisation of subsidies. Measures to facilitate supply included: provision of residential infrastructure, reform of urban regulation and standards, and the stimulation of competition in the building industry. The privatisation of appropriate services, contracts to small scale enterprises,

informal workers, private firms, and NGOs were all encouraged. In the form of enablement, State housing policies were not directly concerned with the creation of post Apartheid housing stock, but were confined to the provisions of bulk infrastructure for land development and the upgrading of settlements (World Bank, 1993).

The extent to which South African policy-makers have embraced the 'enabling' approach is widely debated. At a very general level, it can plausibly be argued that the South African government's model does appear to be similar to that of the World Bank (Goodlad, 1996), but it has drawn very selectively on narrow technical arguments, an uncritical understanding of the pre-Mandela housing policy and with little consideration of the beneficiaries needs (Jones & Datta, 2000). The enabling strategy fitted well with the post Apartheid ethics of the 1980s, which called for private-public partnerships, emphasising the benefits of social capital and in general, underplayed the possibilities of institutional conflicts (Sanyal & Mukhija, 2000).

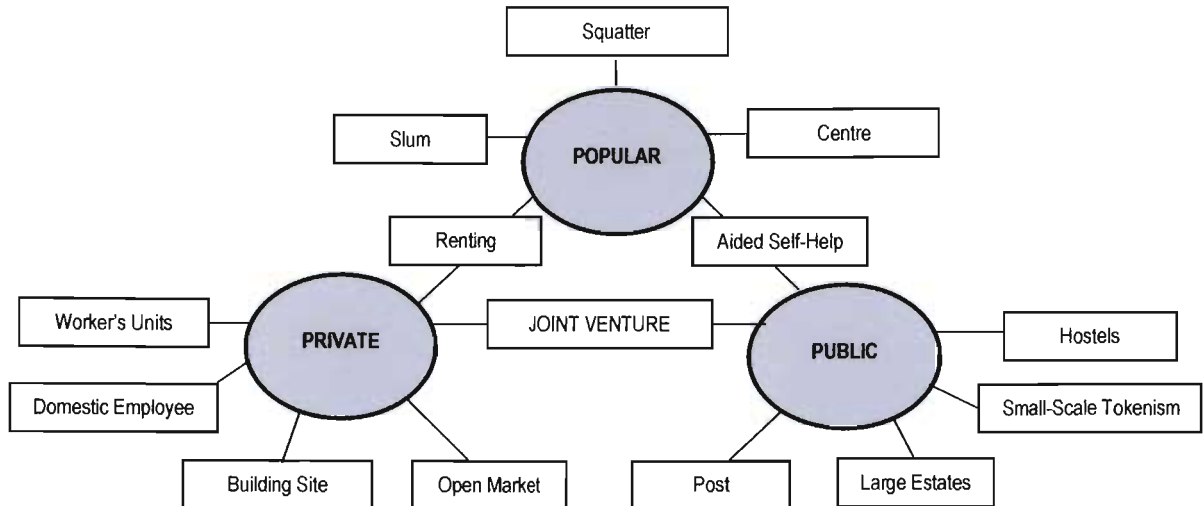
Currently, the ability of the 'Housing enabling strategy' (World Bank, 1993), the policy which is derived from the neo-liberal theory of benefiting urban poor and alleviating their housing problems is being questioned (Omenya, 2002). This policy implemented by the World Bank to stimulate housing market to work efficiently and to improve the living conditions of the urban poor is as Keivani and Werna state "inappropriate to the context of most developing countries and ignore the need for expanding the role of informal private land market and developers" (2001, 192). As a result, the failure of neo-liberal theories in developing countries exacerbates the growing poverty and vulnerabilities of urban poor as expressed in the formation and expansion of informal and squatter settlements. UN Habitat (2006/2007) states that in 1990 the World had 715 million slum dwellers and today, there are approximately 998 million slum dwellers in the world. In addition, it is estimated that 133 million people living in cities of the developing world lack satisfactory and durable shelter. The report of UN Habitat (2007) reveals that previous policies adopted did not improve the life of the urban poor as expected. Instead, it proliferated the degradation of human environments in general and housing conditions of the urban poor in particular.

The evolution of the housing policy for the future finds its basis in the Millennium Development Goals and urban sustainability. In recent years, the focus of housing policy has shifted to the creation of sustainable housing. According to Choguill (2007) housing policies of the future should seek to meet three primary objectives for building sustainable housing. Firstly, the housing policy should provide the basis for household

improvement, which calls for the participation of communities in housing projects. Secondly, it should facilitate the empowerment of poor people through construction of affordable housing and the creation of jobs; and finally to provide to the urban poor the feeling of self-worth, so that they can consider themselves as members of society. It can be argued that the main focus of housing policy in developing countries has shifted to alleviating poverty, combating vulnerability and the exclusion of urban poor.

The typology of Low-Cost Housing as presented by Smith (2000) may be considered as one of the models while elaborating and implementing housing policy in developing countries. The main strength of this typology is that it seeks to meet the needs of poor households and does not privilege ownership or rental option alone. The model is based on the following pre-assumptions of continued socio-economic mobility by urban residents which constitute an important livelihood strategy for the urban poor (Charlton, 2004). Furthermore, the transition of residents from renting to owner occupation; and a clear differentiation of settlements based on rental tenure from those based on legal or quasi-legal owner occupation is included in this model.

Figure 6.1 Typology of Low-Cost Housing Supply



Source: Smith, 2000

According to this typology there are three main actors in the development of low-cost housing, namely: public sector, private sector and the community or the main beneficiaries of the low-cost housing project. Research in peripheral settlements reveals that households and communities, in contrast to the public sector, were building affordable housing through the evolutionary process of self-help and self-management. This is the assumption of Turner (1972) who pointed out that where

people are in control of their housing process, great results are obtained. It was argued that the incorporation of these principles and the process into public housing policies and the extension of public investment for infrastructure and services to these settlements would allow for the expansion of State output and increased urban development.

The resulting policies recognised: the significance of home ownership and the influential role of security of tenure for housing improvement and finance (Smit, et al, 2004); a need to incorporate progressive development procedures for built areas, materials, structures and services; a need to reduce housing and infrastructure standards to affordable levels; a need to develop and provide access to appropriate technologies and materials; a need for self contributions and participation in project implementation; and a need to encourage informal sector participation in housing development.

Although, in Smith's (2000) typology of low-cost housing supply, he states that migrants can be incorporated into hostels. Criticism of the provision of low-cost housing in general, may be formulated on the grounds of a failure to fulfil the expectations of migrants. Poor management, higher expected costs, particularly the difficulty of recovering these, together with the failure to institute parallel and essential structural reforms in land markets, material supplies, building regulations and taxation systems all contributed to this disillusionment, particularly for the international agencies (Pugh, 1995). UNCHS (1996) in contrast, sees the main problem of increasing costs, resulting from inappropriate technologies or user prejudices and considers more efficient management as the opposite response. Furthermore, according to Keivani and Werna (2001) the crucial problem in the provision of low-cost housing is the lack of understanding of unconventional or informal mode of production, which constitutes, according to them, a mode of housing provision in developing countries. Such misunderstandings often lead to inappropriate policies.

While many of the overviews of low-cost housing policies, which appeared during the 1990s, have presented perspective analysis of an evolving situation, it would be true to say that they represent a continuation of established and conventional evaluations. Few have sought as yet, to place the examination of urban housing provision within the context of post Apartheid concerns, which have become increasingly prominent in development studies, particularly the notion of sustainability, perhaps because of the sheer scale and visibility of its problem areas, such as squatting (Smith 2000). Tipple

(1996), however, examines ways of literally sustaining government-built housing through, what he terms transformations or extensions built for a variety of purposes.

There are also more focused policy debates, which revolve around linking particular themes within the housing, urbanisation and sustainability. One such focus which has constituted an important part of the housing debate for some years, but particularly so in the late 1990s, relates to sharing and renting. Little is known about sharing, although it is a common practice, and few governments have formulated specific policies on renting other than simple rent control. It would be true to argue that neither of these positions have changed substantially in 1990s, despite the fact that the incidence of both sharing and renting has increased, as has homelessness, due to a variety of constraints on both formal and informal housing construction in the face of continued urban population growth. Many socialist states exerted such strong controls over the urbanisation process as to preclude the growth of the massive unauthorised settlements and almost all low-cost housing was provided either by the state or within the existing rental market. However, as state socialism has retreated and control over population movement has relaxed, urban squatting has emerged as a prominent phenomenon, particularly in Africa. Elsewhere in the developing world, many concerns still relate to a more 'conventional' public housing schemes, such as large-scale clearance and redevelopment that were being discarded decades ago in other countries (Smith 2000).

Such increases hold extremely important implications for housing policy, few of which are being recognised. Many of the attempts of community involvement in local improvement projects are unsuccessful because they are based on a false assumption of the desire for owner-occupancy and a related vested interest in community development. This failure to incorporate tenancy issues into community development programmes is not for lack of information. Indeed, renting indicates that it is quite a diverse form of housing in its own right. Gilbert (1993) suggests that in Latin America most landlords operating on a small scale, has similar socio-economic characteristics for their tenants and is not exploitative. Recent research in Africa, however, indicates a different situation, not only with respect to the range of types of landlordism, but also to the extraordinary degree of exploitation, which occurs (Grant, 1996). Effectively, what is occurring is a privatisation of housing supply, the benefits of which tend to filter upwards through an hierarchy of housing elites.

In the last decade, home-ownership became the dominant tenure preference, fuelled by re-orientation of subsidies. The conflation of what Kemeny (1980) has referred to as

'political tenure strategies' with expressed popular desires was embodied in a variety of policy documents. As the economic commission for Europe has stated that "the fact is that for most people owning their own home is a basic and natural desire" (1983, 79).

6.3 Objective and subjective priorities for housing

Housing policies should be shaped not only by the objective criteria for output allocation, but also by the beneficiaries' preferences. The failure of modernisation and neo-liberal theories to meet the real needs of the urban poor can be attributed to the fact that the focus of housing policies is more on the objective criteria of housing such as making the city clean and beautiful; and the search for macro-economic stability rather than what the poor really need. In fact, nobody knows better the needs of poor households than the poor themselves. This is acknowledged by the World Bank (2000), which recognises that the poor are the experts of poverty. The positive impact of housing projects on the amelioration of living conditions in creating jobs and alleviating poverty rely on the participation of its beneficiaries or consumers.

The importance attached to housing by consumers varies among countries as well as among groups within the countries. Just as clearly, housing does not occupy a universally favoured position in consumer rankings. Empirical evidence on consumer related preferences for housing, shows mixed results. The significant reason highlighted was the importance of occupants' perceptions of their present accommodations and of people's awareness of the benefits of improved dwellings. Adler (2002) for example who studied slum upgrading programmes in Kenya pointed out that ownership is not always a priority of the urban poor. In addition, Spiegel et al (1996) states that there is a need to consider the diversity of choice among consumers of low-cost housing. In fact, while migrants in urban areas who still have linkages with their families in rural areas may require a transitional accommodation; other consumers may need a permanent residence.

Subjective priority of housing highlights the need for policy-makers or the implementers of low-cost housing and slums upgrading to actively involve consumers in housing projects. Participation remains, according to Martin (1983) one of the key successes of low-cost housing developments. Indeed, as Martin (1983) observes, the active participation allows meeting the need of consumers and if the project did not bring the results expected results such as the visible amelioration of consumers' living conditions, participants can easily accept the failure and may become more aware for future projects.

The point of these observations is not that policy makers should determine their course of action on the sole basis of consumer surveys of one kind or another, although such surveys would be useful for specific projects. The point is, rather, that stronger consumer preferences for housing cannot be taken for granted. Preferences vary with a host of circumstances and differ with the population groups. Furthermore, these observations highlight the complexity and the diversity of needs, which must be taken into account while implementing low-cost housing projects.

6.4 Housing policy and state intervention

Government policy plays an important role in the analysis and explanation of the development of housing policy. However, it is not possible to establish a direct connection between the political leanings of the government (left-wing or right-wing, liberal or conservative), the policy implemented and the output of the public housing system. The existing public housing system, with its established institutional structure, forms the framework within which post Apartheid policy is developed, and can also form a significant counterforce to the implementation of a desired policy (Boelhouwer & van der Heijden, 1992). Kleinman (1996) uses the term 'path dependency' in this context. Moreover, various exogenous factors, such as economic and demographic developments, also influence both policy choices and the possibilities for implementation. Lundqvist (1992) has developed an analysis framework in which government policy takes a central place, and within which both the institutional structure of the housing system and the various exogenous factors are taken into account. Lundqvist regards public housing policy as the result of interaction between the political balance of power and the ensuing compromise-based policy proposals on the one hand, and the institutional structure of the housing markets on the other. Policy is then placed in the context of economic and demographic development in which, it is to be implemented before the relationship between policy and policy effects can be established.

Overall, there is a broad consensus that the state must play a role in housing processes (Malpass & Murie, 1999). However, there is no consensus about the kind of State interventions in the housing process. Such interventions depend on the political ideology of the State, whether it embraces neo-liberal or socialism strategies and the resources of the country. The evolution of housing policy debated above, has shown that there is no specific or defined state intervention in housing that every state must follow, although there is an agreement about the importance of housing in the global

economics of the countries and the social aspects of the populations (World Bank, 1993, UNCHS Habitat, 1996, Eugeden, 2001).

The role of the state in housing, as formulated in the years after 1945, has been questioned from virtually every conceivable political perspective in most advanced capitalist countries (Westergaard & Resler, 1975). Most explanations of the reasons for the consistency of trends in housing policy debates places overwhelming emphasis on political ideologies in the face of a changing world economy. Economic crises since the early 1970s have had a disastrous effect on social democratic style consensus politics and have encouraged a flowering of market liberalism as the dominant political ideology (Aaron, 1972). In practice, governments have continued to intervene in economic and social affairs as much as they did in the past. Their intervention now, however, is overlaid with market based ideology and an acute awareness of the need to offer an 'economic sweetener' to prospective voters. Changes in housing policy consequently, can be said to be a clear example of the shifts in political terrain.

It is necessary to distinguish the underlying reason for state intervention in housing from the ends and means of particular individuals or interest groups such as political parties. However, the underlying reason for state intervention is itself a matter of dispute and subject to different theoretical interpretations (Mishra, 1981). The consensus and conflict theories are broadly representative of two ends of the theoretical spectrum underlying state intervention (George; Wilding, Routledge & Keagan 1976). Functionalist approaches tend to assume a basic consensus on fundamental social values and frequently employ the organic analogy, to represent society and to emphasise the interdependence of individuals and groups. Society is seen as having a tendency towards equilibrium, so that events or circumstances that are damaging or destabilising stimulate a response to restore the health of the social system (Murie & Forest, 1980). The state, given the assumption of a broad consensus, is seen as acting on behalf of 'society as a whole'. In the case of state housing policy, functionalist theories explain intervention in terms of the need to eliminate dysfunctional features of an industrial society, such as unhealthy and overcrowded dwellings. The State acts on behalf of society as a whole to bring about a general improvement in living conditions. Such perspectives tend to explain the development of social policy generally in terms of a process in which the revelation of intolerable and inhuman conditions somehow inexorably leads to reform by an enlightened society steadily evolves (Bowley, Allen & Unwin, 1945).

Between countries, there are contrasting general economic, social and political contexts, and differences specific to housing provision itself – such as in the sources of finance, tenures, subsidy systems, housing production, consumption, location and design. Henderson (1999) for example points out that healthier states do not adopt Self-Help-Housing as a strategy to tackle housing backlog or housing crisis. The impact of one part is misunderstood, when it is isolated from the whole. A policy, for instance, that 'works' in one country might have radically different effects in the social context of another country and may have a greater impact on the amelioration of the living conditions of the poor.

Capitalism and market mechanisms, based on liberal theories, were regarded as the best general forms of economic organisations, but situations arose where the state had to intervene to relieve the burdens experienced by those who bore the costs of market failure (Donnison & Ungerson, 1982). The issue with regard to housing was not simply a matter of individual welfare. A poorly housed workforce could also have adverse consequences for general economic development of a country. The philosophy underlying this prescription for the state intervention can be described as *liberal-interventionist* (Cutler, Smith & Williams, 1986).

Marxism ideology which founded its origin in the devastating practice of capitalism and the struggle of workers in general, would suggest a different intervention of state in housing process different from a capitalist state. The Marxist theory based on the notion of class domination and conflict suggests that phenomena such as housing policies should be seen as the products of a class struggle. Here the state is not seen as a benevolent agent of welfare improvement for all, but as an arena for class struggle. In general that struggle results in State policies, which serve the interests of the dominant class, but the subordinate class may win occasional battles and wrest certain concessions to its interests (Byrne & Damer 1981).

There have been substantial changes in housing provision over the last 50 years, and considerable theoretical shifts and debates within housing research (Ball, 1986a). Within those developments, a number of common trends can be identified. The most significant was the acceptance in most advanced capitalist countries by the 1940s, of the need for substantial state intervention in housing provision. In industrial societies, unfettered markets could not create sufficient adequate working-class housing. The problem was seen as one of high cost, of even minimally acceptable housing in relation to working class incomes.

State intervention has to result in the minimum of intervention into pre-existing market processes commensurate with improving working class housing conditions and limiting additional state expenditure (Aaron, 1972). Subsidies and regulatory controls were the best means of achieving those goals. As a corollary, to ensure the efficient use of subsidies and regulation, the state might also have to encourage a reordering of the contemporary institutional framework of housing provision.

The actual history of the development of state intervention into housing provision and the forms it has taken has varied widely between countries (Burnett, 1978; Merret, 1979; Duncan et al., 1985; Harloe, 1985). However, decent housing for the working class is not a desire by them alone; it is a long-term advantage for a large proportion of the population living in unhealthy or seriously inadequate accommodation. This is to say that the provision of decent housing is a requirement that a state, whether capitalist or socialist must provide to its citizens. An efficient and productive labour force, must be adequately provided with the services such as education, health-care and housing, which maintain and enhance the capacity to labour (Burnett, David & Charles, 1978). Unfortunately, for capitalist interest, the provision of decent housing for the working class has proved to be unprofitable. It is, therefore, in the interest of industrial capital to have this conundrum resolved by state intervention. But, the political reasons leading to the State intervention were generally couched in terms of a common ideological framework.

The nature of the housing problem as perceived by the liberal-interventionists (Cutler et al, 1986) is that the framework has influenced both the forms of state intervention and successive investigations of its success or failure. Social democracy had been the dominant ideology of housing interventions in Europe. But supporters of state intervention, had however, accepted the general terms of contemporary housing debate, laid down by liberal-interventionists. The liberal-interventionists perspective has a long tradition stretching back into the nineteenth century (Duclaud-Williams, 1978). In fact, the insignificant income of the workers in relation to the market price of housing stimulates the state to intervene in one form or another to combat the inequality, which was occurring in the housing sector (Svenarton, 1981).

Modern neo-classical economists like Myrdal (1993) are more optimistic about the robustness of the capitalist system and argued for the converse strategy. They suggested that raising the incomes of the poor is the only efficient (i.e. non-market

distorting) way of improving bad housing conditions (Muth, 1969; Robinson, 1979). The arguments of such economists, however, have been put forward in a context where social security systems are widespread and the taxation of incomes substantial and all pervasive.

Early liberal-interventionists were aware of one of the problems of subsidies. If they were given to private agencies, a significant part of the subsidy would end up enhancing the profits of these agencies, so that the final outcome of subsidies in terms of the quantity and cost of housing would be uncertain. Therefore, suitable agencies had to be found to avoid the problem. In this sense, state intervention was desirable in order to combat or to reduce inequalities generated by the private housing market. One of the main means of tackling the problem was to take rental housing out of the private market, in the form of social housing while leaving other aspects of provision, like the actual building of the housing to market forces (Bullock & Read, 1985).

In some countries, because of associated political developments, constraints were put on other private agencies to implement housing delivery projects. In Germany, for instance municipal acquisition of suburban land was instigated from the turn of the century, while in Britain, at times there has been low-interest funding of local authority capital works and a limited creation of local authority building departments (Hallet, 1977). However, such innovations were piecemeal and on a small scale, and not systematically introduced through recognition of the interlinked nature of the housing provision. In addition, despite the arguments about the efficiency of social housing as the vehicle for improving working-class housing conditions, political consensus could rarely be achieved simply by subsidising rental housing. Governments particularly those on the right, have often over the past 50 years wanted to encourage home-ownership, so subsidies have been given, either as a tax relief or as production subsidies.

The South African social structure and the institutions through which capitalism has developed since the post Apartheid democratic order of 1994, were established through a mixed economy comprising a balance between the State, the market, the family and occupational welfare. The social and economic conditions in South Africa immediately after the 1994 elections were severe, therefore strategies for reconstruction and recovery from Apartheid included a range of political, policy and social reforms. Constitutional reform granted South African citizens an equal minimum standard of healthy civilised life. The expanding scope of State involvement was

evident in extended social security schemes, mass education and a housing subsidy scheme, all of which were seen to complement and enhance the possibilities for modernisation and sustained economic growth. The provision of housing for the poor was and still is almost exclusively in the hands of the state. An expanding economy and extended welfare provision contributed to an improvement in living standards.

Marxist theory predicts quite widespread agreement that the state should be involved in housing. There remains, however, the issue of the extent and form of intervention. This is because, there is a conflict between dominant and subordinate classes arising out of their differing points of view on housing. Despite the existing conflict between dominant and subordinate classes, understood as dialectic relation, the provision of adequate housing for the working class is important primarily for its contribution to the productive process. Thus the commitment for a Marxist State to improve housing conditions is contingent upon this contribution. For the working class, decent housing is desirable in itself, as an item of consumption, and as a prerequisite of a satisfactory standard of living (Chapman, David & Charles, 1971).

Despite the differences between functionalist and Marxist theorists, most would broadly agree that State intervention arises from the failure of the market mechanism to produce and distribute a socially acceptable supply of housing. Thus, the reasons for State intervention are the problems caused by the market, and the objective of housing policy is to overcome the deficiencies of free enterprise. It is one thing to agree that there is a problem, but agreement on remedies is much more difficult. Here, it is necessary to distinguish between ends and means to an end and to turn to considering the policy objectives of particular individuals and groups.

It is recognised that there have been shifts in political emphasis in every country since World War II, but the principles of subsidy and state regulation have generally survived intact. Considerable changes, however, have occurred in both the patterns of subsidy and the instruments used to put them into operation. Although subsidy and security of tenure have been the main instruments in the liberal-interventionists armoury of housing policy tools, Mandelker (1973) observes that a variety of other schemes have been used, schemes which interestingly, do take account of specific agencies involved in the process of housing provision.

Land-use planning has been another form of intervention. Early proponents of land-use planning primarily couched their arguments in terms of the beneficial effects of planning

on housing provision (Sutcliffe, 1981; Bullock & Read, 1985). Claims that planning would reduce land and infrastructure costs and produce better estate layouts and urban spatial structures were made. Again, for its principal theorists, the prime role of planning has been seen as directing the market rather than going against it, an approach which contains fundamental logical contradictions (Ball, 1983). The high cost of land has also been tackled in some countries at various points in time through taxation schemes, the cheap purchase of land for privileged uses or through the large-scale acquisition of land, the latter often being associated with the development of post Apartheid towns and suburbs.

In many West European countries shift is also observed in state intervention in housing. Although, the state still plays a key role by funding research and development in construction, but now the aim of housing intervention in Western countries is more a gradual, piecemeal transformation of the house building process. As Fuerst (1974) argues, the retreat, however, is not only a political and ideological one; it is also a severe defeat for a strong 'statist' version of the liberal-interventionist philosophy. According to Headey (1978) the shift witnessed in state intervention is not seen as the bankruptcy of one form of intervention, but as denying the feasibility of any major initiative. Indeed, the ideology of West European countries believing in market forces looks contradictory with State intervention.

6.5 Housing in the developing countries

In developing countries, as in more industrialised nations, housing has been to some extent provided for urban residents for several decades. Immediately, after World War II, the government housing estate for low-income workers was a relatively post Apartheid concept in colonial Africa. Housing was provided for returning veterans and the post Apartheid urban labouring classes partly as a social welfare measure and partly as a means of securing a more urbanised workforce. However, developing countries failed to provide enough affordable housing to deal with the issue of urban development created by the population growth and the migration from rural to urban areas. As Tripple notes "in most African countries, public housing projects account for less than five percent of the total housing production" (1994, 590). Referring to Tripple, developing countries will not successfully address the issue of urban development unless they increase their expenditure for public housing.

A conference of the International Labour office (ILO) had resolved in 1953 that "adequate housing accommodations and related facilities are one of the essentials of a good life, one of the fundamental requirements of an efficient, satisfied labour force, and one of the foundations of satisfactory community life". The housing committee of the United Nations in 1970 adopted a resolution in the General Assembly that instructs the developing countries to take steps, to provide improved housing and rental facilities in both urban and rural areas, especially for low income groups. They urged that effort be made to expand low-cost housing in both public and private programmes. Numerous studies such as Napier and Rubin (2005) show a strong correlation between a bad housing and environmental disasters and hazards. Since, strong relationships exists between bad housing and disease, delinquency and other manifestations of social deviance, developing countries are struggling to provide adequate shelter to every one as required by UNCHS Habitat II (1996).

Undoubtedly, housing the poor in the developing world is one of the major challenges of the 21st century (UNCHS, 1996; Erguden, 2001). Currently, one of the most crucial issues facing developing countries is the shortage of affordable accommodation for the urban poor, who constitute the majority of the low-income group. Over the last three decades, most official housing programmes have failed to reach considerable portions of this group. According to Woodfield (1989), factors contributing to this failure undoubtedly include the inability of housing programmes to provide enough affordable dwellings for the urban poor.

It is almost impossible to determine the shortage of housing in the developing world, as not only is there insufficient data, but also there is little agreement between countries on the units of measurement or what constitutes adequacy. When dealing with people who are actually homeless, UNCHS (1996c) suggest that 100 million people in the world lack any shelter at all and sleep on pavements, in parks or shop doorways, under bridges, in transport terminals or in night shelters provided for the homeless. Specific characteristics indicative of housing shortage includes crowding, sharing of housing or multi-habitation, widespread squatting and high rents for even poor quality housing.

Adequate housing has important benefits not only for individuals and their families but for society as a whole. Housing, as a United Nations report put it, "is one of the major determinants of the social situation" (1975a, 235). Because housing conditions affect the health, wellbeing and personal developments of people housing policy has become an important field in social planning (Bookwalter & Dalenberg, 2004; Stewart &

Rhoden, 2006). Large increases in the urban population of developing countries have dramatically increased the demand for housing (Uytenbogaardt & Dewar, 1992) and the governments' responses related to the housing problem created by urban population growth are either inappropriate or ineffective. Indeed, as Dwyer (1975) noted, many governments have failed to deal with the housing problem in a coherent way. Instead, their response has been characterised by neglect, apathy, irrational bouts of destructive slum clearance and the occasional construction of symbolic housing schemes which do little to ease the housing shortage.

In South Africa, the failure to adequately deal with the issue of urban development led to severe housing shortage and the formation and expansion of informal settlements, with the major proliferation taking place from 1980 onwards (Mabin, 1992). The originality of South Africa compared to other developing countries to deal with the issue of urban development, more specifically the matter of migration from rural to urban areas, was the unjust law aiming to restrict the access of land for African people in urban areas. As it was difficult to prevent migration from rural to urban areas, consequently in the absence of any alternative to legally acquire land for housing, invasions of land and informal settlements seemed inevitable.

Many governments have accorded a low priority to housing because they believe that the expenditure on housing consumes funds required for productive investment in industry. Each country in the developing world has a seemingly unique set of factors, which have played a role in the history and development of urban housing and related policies (Hardoy & Satterthwaite, 1989). Although Western housing policies are unsuited to the needs and circumstances of most developing countries, they have been widely copied, albeit in a haphazard fashion.

The most significant trend since World War II has been the emergence of a housing policy in many of the less developed countries. Many developing countries have been inspired by a large-scale public housing projects which were built in many European countries after World War II. Although a few, such as Mexico, has initiated government aids before the war, it is only since the late 1940's that the principle of public intervention was adopted more generally and housing programmes reached substantial magnitude (Burns, Greber, 1977). British housing policies were exported to many developing countries during the colonial years. For example, legislation enacted in Aden in 1948 replicated British housing regulations, the type of house which could be built, its size, amenities, external appearance and even the height of the fence, which could be erected (Abrahams, 1966).

In developing countries, formal housing is both scarce and expensive in relation to the average wage levels. Thus, low-income households have found niches for themselves in cheaper alternatives, often in single rooms in central city rented housing. Rooms in the city centre 'vecindades' are the norm for Latin American low-income households (Edwards, 1982). It is estimated that 35% of urban dwellings in Africa are single rooms (United Nations, 1987a), while in some cities the proportion of households living in single rooms rises above 70% (Peil & Sada, 1984; Malpezzi, Tipple & Willis, 1990). Others have built houses in squatter settlements on peripheral or unused land, or found rented rooms in the squatter settlements (Amis, 1987).

The pervasive development of housing policies was also stimulated by the increase in the number of countries that were fighting off colonial rule. Only exceptional colonial administrations had concerned themselves with the housing and sanitary conditions of the native populations. With independence, the post Apartheid countries embarked on a search for post Apartheid methods of governance, which included social legislation patterned after programmes adopted in developed parts of the world through decades of trial and error. Large numbers of rural residents were relocated to the large cities, which has been the seed of colonial administrative and economic activities (Krausse, 1977). This form of urbanisation, however, was not typical of the process in the industrialising West. As Berry (1981) argues, in the West, the population movement was more incremental, moving in stages from smaller to larger cities since the population was concentrated in urban areas for a long time. Urbanisation in developing countries, however, is not an analogous process. Unlike these partially populated rural districts of most Western countries such as England where this early urbanisation and development took place, many developing countries have for centuries been characterised by dense populations.

One of the most distinguishing characteristics of housing policies in the less developed countries is a far clearer conceptual and practical integration of general economic development strategies that never existed in the now advanced nations. Housing policies in many of the less developed countries have emerged concurrently with the formulation of general development objectives and strategies and with the creation of governmental planning organisations, even though their effectiveness varies greatly from country to country (Lubove, 1962). The housing policies of the less developed countries show great variations in scope and method. The development levels and growth rates of many of the less developed countries differ sharply, and these differences affect the intervention of government in the housing market, such as the

rapid growth of Brazil, Israel, Mexico and Puerto Rico, which has placed these countries at development stages that are far ahead of nations such as Bolivia, Kenya and Turkey.

The housing policies of the less developed countries may be classified into two categories: One type of policy more or less emulates programmes of the advanced nations, though it adapts to local conditions such as Housing Finance. Access to housing finance for the urban poor remains a crucial issue in developing countries. In South Africa for example, it is widely believed that access to housing finance substantially contributes to improving the housing conditions of poor households (Finmark Trust, 2006a, 2006b; Tomlinson, 2007). Governments have sought to improve the financial structure supporting the housing sector by creating or strengthening public and private mortgage lending institutions.

In South Africa, beside the housing subsidy provided to low-income households earning an income up to R 3500 by the government, the Association of South African Banks are committed through the financial sector charter (FSC) to providing R 40 billion to people earning between R 1500 and R 7500 by the end of 2008 (Banking Association of South Africa, 2005; Tomlinson, 2005; Finmark Trust, 2006b). Government guarantees of mortgage loans have been introduced in several variants in America, and public support has been given to the establishment of savings and loan associations, especially in Latin America. At the same time, less developed countries have embarked on social housing programmes funded and subsidised mostly by central government and based on various European models. In terms of standards and type of construction, the public housing projects usually represent a veritable leap into the future in comparison with the stock of dwellings available for the mass majority of the population (Burns & Greber, 1977). Public housing projects in many of the less developed countries have been integrated with urban development programmes of a scale unmatched in the advanced nations. An example is Mexico City, which provides large facilities and professional personnel to help migrants adjust to urban life and to teach them to use a city house properly, offers rich educational programmes for occupational training and the use of a variety of sporting facilities.

Another type of housing policy is more realistically geared to the economic and fiscal capacity of less developed countries. The policy has been developed after taking into consideration that the European models for government funded and subsidised housing had severe constraints. It became clear that low-income countries could not

provide improved dwellings for any significant part of the under-housed population, if their programs concentrated on projects built to the standards of advanced nations (Fischer, 1959). In view of the vast gap between worker's income and even the subsidised rents in post Apartheid standard housing, most projects benefited people who had an above average income.

One of the famous policies to emerge was 'autonomous housing' which let squatter groups construct their own housing with their own resources (Turner, 1976). The policy generally involved providing some basic resources to the residents of an area to improve their own housing. In almost all of the instances of this policy, governments altered their positions from 'slum clearance' to 'sites and services' schemes. Under this method, the government provides land, plans the layout of the site and circulation, secures land tenure for the occupants, and installs facilities for water supply and waste disposal. Provision is also made for playgrounds and other community requirements. The building of the housing units is left to the residents, by whatever means available to them. In some cases existing units are dismantled and transported and handheld by foot from a cleared slum to a post Apartheid site regardless of their low structural qualities and amenities.

In Nigeria, the government's program to address the housing crisis, particularly the direct construction of housing units, has been associated with a number of flaws and as such, failed to achieve its intended objectives. For instance, as far back as 1960's, the World Bank criticised Nigeria's public housing programme as being "unsatisfactory because it produced too few houses and it also produced the wrong kind of houses" (1965, 4). The houses built were too expensive, limited in number vis-à-vis the urban population, off undue high quality, and a big drain on government resources. The high overhead costs often associated with constructing public housing estates meant that such housing projects require massive subsidies to be replicable and affordable for the low-income groups, who were intended to be the original beneficiaries (Buckley et al, 1993). Criticisms have also been levelled against the inability of housing projects to include the cultural diversity characterising the country as well as their failure to integrate income-generating components as part of the overall shelter design (Awotona, 1993; Arinah, 1994).

The Global Strategy for Shelter (GSS) to the Year 2000 (UNCHS, 1990), calls on all countries to develop realistic housing policies to enable them to make serious in-roads into the housing supply backlog and establish a policy framework, which will keep pace

with housing needs in the long term. In order to fulfil this, governments are encouraged to adopt an enabling approach, setting in place policies and fiscal arrangements that will enable the construction and maintenance of housing rather than providing it directly through government activity. In addition, GSS recognises that housing is a positive contributor to local and national economic development, where it is provided in a labour-intensive way using local building materials, small and medium sized contractors, and local labour. Housing provision can be an important provider of employment especially for poorest groups in the society (UNCHS, / ILO, 1995). In recognition of the continued scarcity of housing for most people in developing countries, the GSS calls for the scaling-up of housing programmes to encourage output.

6.6 The World Bank and housing

Policies that affect the performance of the housing sector as a whole tend to affect the housing conditions of the poor. "In broad terms, when housing policies are designed to enable housing markets to function well, limited resources are effectively translated into housing improvements. When markets are not functioning well, access to good quality, affordable housing and infrastructure will be in short supply, with the inevitable result that better off households will capture most of the benefits of housing and infrastructure improvements" (The World Bank, 1993).

In order to best serve the interests of the poor, it is essential to formulate policies that improve the overall functioning of the housing markets and at the same time, to ensure that policies do not discriminate against the lower-end of the housing market.

Generally, subsidy systems in most developing countries, including centrally planned economies, are poorly targeted and often highly regressive (The World Bank, 1993). Almost all developing countries have considerable scope for improving their housing policies, policies that encourage the market to provide more, better and cheaper housing to enable the poor to house themselves; and improve the effectiveness of the subsidy systems. Housing policies in countries such as Brazil, South Africa and Thailand that are targeting the poor should ensure that resources are translated as effectively as possible into improvements in their housing conditions, which in turn contribute to their wellbeing. In addition to policy formulation, operational instruments are necessary to enable housing markets to work effectively. Table 6.1 summarises a list of operational instruments for the market to work well and to serve the interests of the poor.

The 1993 policy paper of the World Bank prescribes what the governments of developing countries should do and what they should avoid in order to stabilize the housing market. To enable the housing markets to work seven objectives have been defined, namely: developing property rights, developing mortgage finance, rationalising subsidies, providing infrastructure, regulating land and housing development, organising the building industry and developing policy and institutional framework. To achieve the objectives mentioned above, the World Bank urges the governments of developing countries to reduce their expenditures in public housing and promote private sector to lead the housing process.

Table 6.1: The do's and don'ts in enabling housing markets to work

Instrument	Do	Don't
Developing property rights	<ul style="list-style-type: none"> ✓ regularise land tenure ✓ expand land registration ✓ privatise public housing stock ✓ establish housing taxation 	<ul style="list-style-type: none"> × engage in mass evictions × institute costly titling systems × nationalise land × discourage land transaction
Developing mortgage finance	<ul style="list-style-type: none"> ✓ allow private sector to lend ✓ lend at positive/market rates ✓ enforce foreclosure laws ✓ ensure prudential regulation ✓ introduce better loan instruments 	<ul style="list-style-type: none"> × allow interest-rate subsidies × discriminate against rental housing investment × neglect resource mobilisation × allow high default rates
Rationalising subsidies	<ul style="list-style-type: none"> ✓ make subsidies transparent ✓ target subsidies to the poor ✓ subsidise people, not houses ✓ subject subsidies to review 	<ul style="list-style-type: none"> × build subsidised public housing × allow for hidden subsidies × let subsidised distort prices × use rent control as a subsidy
Providing infrastructure	<ul style="list-style-type: none"> ✓ co-ordinate land development ✓ emphasise cost recovery ✓ base provision on demand ✓ improve slum infrastructure 	<ul style="list-style-type: none"> × allow bias against infrastructure investments × use environmental concerns as a reason for slum clearance
Regulate land and housing development	<ul style="list-style-type: none"> ✓ reduce regulatory complexity ✓ assess cost of regulation ✓ remove price distortions 	<ul style="list-style-type: none"> × impose unaffordable standards × maintain unenforceable rules × design projects without link to regulatory/institutional reform
Organising the building industry	<ul style="list-style-type: none"> ✓ eliminate monopoly practices ✓ encourage small firm entry ✓ reduce import controls ✓ support building research 	<ul style="list-style-type: none"> × allow long permit delays × institute regulations inhibiting competition × continue public monopolies
Developing a policy and institutional framework	<ul style="list-style-type: none"> ✓ balance public/private sector roles ✓ create a forum for managing the housing sector as a whole ✓ develop enabling strategies ✓ monitor sector performance 	<ul style="list-style-type: none"> × engage in direct public housing delivery × neglect local government role × retain financial unsustainable institutions

Source: A World Bank Policy Paper (1993)

The intention formulated by the World Bank to stabilise the housing markets is in itself noble. Many authors including Gibson et al (2004) agree with the World Bank, when they point out that making the housing markets to work for the poor should be

considered as an objective and approach for governments and development agencies. However, the question that arises is which sector between the public and the private should lead the process of stabilising the housing market. For the World Bank, this role is devoted to the private sector. The 1993 World Bank's policy paper states that governments should not engage in direct public housing delivery and the role played by the local government should be neglected.

It has been observed that the housing policy model proposed by the 1993 World Bank's policy paper did not meet the housing needs of poor households in developing countries, including South Africa, which has tried to shape their housing policy according to the proposed model. In South Africa, Tomlinson (2006) observes that the houses delivered in the first ten years of South African housing delivery by the private sector were not considered by the beneficiaries as adequate housing. For the private sector, the main reason for not providing adequate shelter to the beneficiaries of low-cost housing was the insufficient amount of housing subsidy allocated for top structure. Although many authors including Baumann (2003) noted that the South African housing budget is lesser than 5 % of the total of government expenditure, as defined in the 1994 Housing White Paper, the private sector should not drive alone the process of housing delivery.

The private sector is keener on making profit than on serving the interests of the poor households. It is believed that only an integrated approach which favours a true partnership between public, private sector, NGOs and beneficiaries, (where there is no stakeholder which dominates other sectors) may stabilise housing markets and creates sustainable neighbourhoods. In this sense, it can be argued that an increase in housing expenditure is necessary, but not sufficient to stabilise the housing environment. If the beneficiaries are put aside and the public sector is dominated by the private sector, the housing market will continue to discriminate against the poor and deepen their vulnerabilities, as it happened during the first ten years of South African housing delivery. Some criticism formulated against the involvement of the World Bank in the housing policy includes more specifically the search for economic efficiency through economic growth theory defended by the neo-liberalists, in which the implementation widens the gap between rich and poor people instead of bridging it. The history of the last three decades of the World Bank is also characterised by its interventions in housing policy and the will to solve the housing crisis in developing countries. The following section highlights different stages of the evolution of the World Bank's Housing Policy in the last three decades.

6.6.1 The evolution of the World Bank's housing policy

The evolution of the World Bank's housing policy through two decades can be divided into three stages. The first decade of the World Bank housing policy focused mainly on 'sites-and-services' and slum upgrading projects. The second gradually shifted the emphasis to housing finance development and recently there has been a third gradual shift in 'housing policy development' loans, which corresponds too many policy changes suggested here. Some of the key dimensions of the evolution of the Bank's housing policies are illustrated in Table 6.2. The Table which recapitulates the main activities undertaken by the World Bank related to housing policy in developing countries during the last three decades reveals that the World Bank deployed continuous efforts and shifted focus from one to another to meet the housing needs of low-income groups.

The World Bank substantiate shifts in housing policy to the objective to create a better housing environment in developing countries, which satisfies suppliers as well as consumers, here poor households and housing suppliers (private and public sector). It can be argued, if the involvement of World Bank in housing policy is benefiting the urban poor in alleviating poverty, in reducing their vulnerability and in contributing to their social inclusion. The change of focus may indicate that housing policy is a slippery issue, which needs revision on regular basis to create sustainable human settlements. The implementation of South African Housing Policy, more specifically the development of housing finance, which actually goes down the market to serve the low-income groups better (BASA, 2005; Finmark, 2006; Tomlinson, 2007) confirms this argument. The change of focus in housing policy indicates the pathological sign of malaise and the failure to realize its stated intentions.

Omenya (2002) questions the effectiveness of the involvement of World Bank in the housing policy to improve the housing conditions of poor households and advocates that the implication of the World Bank in housing policy is based on neo-liberal belief of economic efficiency. This means that the shift in housing policy in the last three decades is motivated by the need to foster economic growth in developing countries rather than the creation of an environment which aims at empowering poor households.

Table 6.2: The World Bank housing policy, 1970's – 1990's

Objectives	
1970's	Implement projects to provide affordable land and housing for the poor, achieve cost recovery Create conditions for large scale replicability of projects.
1980's	Create self-supporting financial intermediaries capable of making long-term mortgage loans To low and moderate income households reduce and restructure housing subsidies.
1990's and beyond	Create a well functioning sector that serves the needs of consumers, producers, financiers, and local and central governments; and that enhances economic development, alleviates poverty and supports a sustainable environment.
Role of Government	
1970's	Emphasis on direct provision by government of land, housing, and finance to facilitate progressive development of housing conditions by project beneficiaries.
1980's	Emphasis on provision of housing finance, mainly by public institutions; rationalisation of housing subsidies (reduction, improved targeting and shift from financial to fiscal)
1990's and beyond	Adoption by government agencies with policymaking, co-ordination and regulatory responsibilities of an enabling role to facilitate provision of land and housing by the private sector; improved coordination of sector and macro-economic policy.
Policy and Lending Instruments	
1970's	Sites and services demonstration projects emphasising affordable housing and infrastructure standards; tenure security; and internal cross-subsidies.
1980's	Housing finance projects emphasising interest rate reform (to enhance resource mobilisation and improve mortgage instrument design; subsidy design; and improved institutional financial performance of government agencies involved in direct provision of land, infrastructure and housing.
1990's and beyond	Integrated array of lending and policy instruments to stimulate demand (property rights development, housing finance, and targeted subsidies); facilitate supply (infrastructure provision, regulatory reform; and building industry organisation); and manage the housing sector as a whole (institutional reform and co-ordination with macro economic policy).

Source: *A World Bank Policy Paper (1993)*

Sites and services and slum upgrading projects, initiated in Senegal in 1972, indicated the first fundamental shift in housing policy in the post-war years, the shift from total public housing provision to public assistance in private housing construction (Grimes & Orville, 1976). This shift was based on the perception that in most developing countries legal housing produced by the private sector was not affordable for most urban residents; that mass production of high-standard houses to meet urban needs require massive subsidies that most governments in market-orientated economies were either unwilling or unable to afford. Furthermore, that low-income households in developing countries were building affordable houses through an evolutionary process, with self-help and self-management of the building process; similarly, by providing secure land tenure and basic infrastructure services increased the incentive of households to invest their savings, labour and management skills in housing increased (Agarwal & Ramgopal, 1983).

Sites and services and slum upgrading projects sought to translate these observations into practical solutions by implementing more affordable building standards and providing basic infrastructure services. In this manner, the serviced sites, with secure titles or long term leases, would provide households with an affordable foothold in the housing sector without requiring subsidies. These projects although in some cases relatively large were conceived as experimental demonstration projects seeking to meet three primary objectives: the provision of affordable adequate housing for low-income families; cost recovery from beneficiaries resulting in the elimination of public subsidies; and the replicability of such projects by the private sector, demonstrating that it could move down-market to produce affordable houses in large numbers. The involvement of the World Bank between 1972 and 1990 in 116 sites and service and slum upgrading project in 55 countries such as Botswana, Senegal, Tanzania, and India corroborates the ideology of neo-liberals stating that the Governments of developing countries should either withdraw or reduce their expenditure in public housing in order to achieve economic efficiency (World Bank, 1993).

The failure of the concept that economic growth will automatically bring improvement in the living conditions of the poor was visible in the performance of the three objectives defined by the World Bank in sites and service and slum upgrading projects. While the first objective of site and services and slum upgrading, which was the physical provision of low-cost housing units, was broadly achieved, unfortunately, the large majority of projects met neither the second nor third objectives that focused primarily on "cost recovery from beneficiaries to reduce or eliminate housing subsidies, and replicability by the private sector" (World Bank, 1993, 6).

With the institutionalisation of self help housing, including sites and services and slum upgrading, poor people are sometimes required to pay a certain amount of money for land and services that they cannot afford. Burgess (1985) concludes that State Self-Help-Housing named as the 'artisanal production' of houses, in which poor people were involved, included the purchasing of land. This was adopted by the World Bank as a housing solution for developing countries which in fact resulted in a deepened poor households' vulnerability and was understood by the defenders of Marxism as the root cause of underdevelopment.

It can be argued that the financial weakness, which characterises poor households, is the main reason for explaining the failure of the second objective of sites and services and the upgrading as set up by the World Bank between 1972 and 1990. The third objective, replicability by the private sector is inherent of the second objective. In fact, the private sector considers the housing sector as a business, where the possibility of making profit is not excluded. Therefore, it seems logical for the private sector not to engage in projects, which are financially not sound. The successful housing projects likely to meet the three objectives as defined by the World Bank through site and service and upgrading should aim not only at providing shelters to poor households, but also to economically empower them in reducing their vulnerabilities.

The shortcoming of the World Bank housing projects between 1972 and 1990, failed to attract the private sector into site and services and slum upgrading, and in turn to reduce government expenditure in public housing, which resulted in the World Bank to reorient its housing investment towards housing institutions.

A significant shift in housing policy and practice within the World Bank took place during the early 1980s. Lending gradually moved away from sites and services towards lending to housing finance institutions. This shift was motivated by two broad objectives. First, there was a perceived opportunity for the World Bank to address broader economic issues in the soliciting of countries. A well-functioning housing finance system contributes to the objectives of the finance sector through improved domestic resource mobilisation and to fiscal objectives by making subsidies more transparent and better targeted (Bertrand & Buckley, 1987). The second and perhaps more immediate objective were to affect overall policies and performance of the housing sector through the broad instrument of housing finance system development. In part, the shift to housing finance operations provided recognition that the previous approach, which emphasised individual sites and services and upgrading projects, could not by itself address the growing shelter needs of poor urban dwellers, because of its limited scope. The World Bank lending for housing finance has been relatively successful. An assessment of the Bank's housing finance operations suggested that a number of financial, fiscal, and real objectives of housing finance lending had been attained (World Bank, 1983).

6.6.1.1 Limitations of self-help policies

Self-Help-Housing which was adopted by the World Bank as a policy to solve the housing needs of the urban poor households in developing countries and was

implemented under the term 'Site and Services and slum upgrading projects' between 1972 and 1990. In South Africa where Self-Help-Housing is incorporated in the Housing Policy under the appellation of People's Housing Process (PHP), the Department of Housing recognised that Self-Help-Housing allows beneficiaries to be "in control of important decisions such as how the house is designed, how resources are used where and how they can obtain affordable building materials and how the house will be built" (Department of Housing, 1997). Marais et al (2003) confirms the assumption made by the South African Department of Housing regarding Self-Help-Housing when he pointed out that houses produced through Self-Help-Housing are bigger and cheaper than the government houses delivered through low-cost housing known in South Africa as RDP houses. Besides, it is widely believed by the advocates of Self-Help-Housing such as Turner (1972), Mathey (1992), Schulist and Harris (2002) and Marais (2003), that it has the ability to provide access to shelters for thousands of families where conventional housing could only reach hundreds (Turner, 1972, Mathey, 1992).

Although it is advantageous, Self-Help-Housing should not be taken as a panacea to solve the housing needs and problems of urban poor households. Virulent criticisms against Self-Help-Housing emanates from the Marxist view of which Burgess (1985) is the pioneer. Burgess (1985) who was inspired by Althusser (1977) and Poulantzas (1973) criticises Self-Help-Housing from a political, economic and ideological point of view. Related to economic point of view, based on the 'artisanal form' of housing production in which many poor households in less developed countries are engaged, Burgess argues that Self-Help-Housing creates additional charges that poor households cannot afford. In fact, Burgess observed that in the artisanal form of housing production, land is illegally purchased and there is an absence of service cost and non payment of taxes. However, in 'assisted Self-Help-Housing' known in the literature as 'State Self-Help-Housing' like sites and services and upgrading project initiated by the World Bank between 1972 and 1990, claims that land is developed for the purposes of exchange, providing services and where taxes are payable. However, these additional charges place economic pressure on poor households, which are already of a weak nature.

Self-Help-Housing was also challenged by Marcuse (1992) who outlines ten weaknesses such as it violates sound and necessary planning principles, it produces only a temporary solution to the immediate housing problem and it does nothing to redistribute social resources in accordance with need. In this sense, it can be argued

that Self-Help-Housing legitimises poverty (Kerr & Kwelle) instead of combating it. In one of the ten weaknesses of Self-Help-Housing which may be considered as the summary of the weaknesses, Marcuse (1992) avers that Self-Help-Housing is inefficient.

Regarding South Africa, Huchzermeyer (2002) observes that poverty and inequality are the main causes of poor housing conditions; therefore acts as the stimulus to Self-Help-Housing which is adopted as an housing solution for the poor households in the situation of economic and political crisis (Harm, 1992). In this sense, without combating the main causes of poverty and inequality, Self-Help-Housing cannot constitute a durable housing solution for South Africans' poor households. Instead, it will legitimise poverty and inequality. Besides, like in other developing countries, South Africa has a high rate of unemployment and people who are underemployed. Implementing Self-Help-Housing means that the housing market is extracted from the building industries; and unskilled people are hired for housing development, while there are qualified and skilled people who can be efficient for the job. This means that the implementation of Self-Help-Housing in South Africa may decline the construction industry. Although Self-Help-Housing facilitates some people to acquire building skills, it does not solve the unemployment issue in the short term. It only prepares those who are involved for the long run, where they can be useful for the construction industry.

Although critics of Self-Help-Housing, Mathey (1992) who has analysed Self-Help-Housing in Cuba, persists in arguing that Self-Help-Housing should be considered as a realistic housing solution for the poor households in developing countries. He pointed out that limits of Self-Help-Housing stand in capitalist societies and that the study of Self-Help-Housing in socialist countries is needed in order to have a complete approach of Self-Help-Housing.

Mathey's (1992) counter argument regarding the limits of Self-Help-Housing could stand if housing crisis in developing countries, including South Africa, was only a housing problem requiring a housing solution, which is not related to other issues such as poverty, inequalities and unemployment. However, as housing crisis results from economic crisis and an unfair political system, an integrated solution, which does not only focus on poor households, but on all income groups including middle and high incomes, is required for a durable and global housing solution. As the Self-Help-Housing seeks to tackle the housing crisis without combating the causes of housing crisis, it should not be considered as a sustainable housing solution for poor households in developing countries.

6.7 The Housing Policy in South Africa

6.7.1 Introduction

The current South African Housing Policy contained in the 1994 White paper evolved from the National Housing Forum, a multi-party non-governmental negotiating forum, comprising of members from government, business and community and development organisations (Huchzermeyer, 2001; Khan & Thurman, 2001; Charlton, 2004). This forum undertook investigations and debated key issues of policy, some of which were used by the Government of National Unity when it was elected in 1994. One of the key concepts of the housing policy is combating and addressing homelessness, whereby a house is understood as something more than a mere shelter (Charlton, 2004).

In October 1994, the National Housing Accord was held at Botshabelo in the Free State. This Accord was significant since all the key parties including government, business, communities and individuals agreed to work together to achieve a housing vision for South Africa (Jenkins, 1999). The Housing White Paper published in 1994 provided a roadmap in achieving the national housing vision. All policy and policy refinements fell within the framework set by the White Paper.

With the adoption of "Urban Development framework" in 1997 as an official response of the Ministry of Housing to the 1996 Habitat agenda (Huchzermeyer, 2002) and the promulgation of the Housing Act, 1997 (Act No. 107, 1997), now, the Supreme Housing law in the land, the legislative framework for the housing policy in South Africa was established. The Housing Act and the Urban Development Framework aligned the NHP with the Constitution of South Africa and prescribed the roles and responsibilities of the three spheres of government viz, national government, provincial government and local government. In addition, the Housing Act of 1997 laid down administrative procedures for the development of the NHP.

The NHP intended to address the issue of fragmented cities (Harrison, Huchzermeyer & Mayekiso, 2003) and a dysfunctional housing market observed the problems inherited by the post Apartheid government both on the supply and demand sides. The observation from the supply side was the issue of a severe housing shortage, lack of end-use finance and insufficient land for housing construction. From the demand side, there was evidence of a lack of affordability from the majority of Black people due to high rate of unemployment, the non-payment of housing rentals and service payments

boycotts. The NHP was strongly influenced by the need to address and normalise these problems. Consequently, the Policy takes advantage of a number of opportunities that also exist within the environment.

South Africa's Housing vision comprises the overall goal, to which all implementers of the housing policy should work. The vision is outlined in the definition for 'housing development' contained within the Housing Act, 1997 (No 107 of 1997) states that:

"...the establishment and maintenance of habitable, stable and sustainable public and private residential environments to ensure viable households and communities, in areas allowing convenient access to economic opportunities, health services, educational and social amenities, in which all citizen and permanent residents of the Republic will have access to:

- (a) permanent residential structures with a secure tenure, ensuring internal and external privacy and providing adequate protection against the elements; and
- (b) potable water, adequate sanitary facilities and domestic energy supply".

The vision is reinforced in both the Urban and Rural Development Frameworks (URDF) which extend the vision to focus on improving the standard of living of all South Africans, with a particular emphasis on the poor and those who have been previously disadvantaged. The National government's goal is to increase housing delivery to a peak level of 350 000 units per annum (this is, of course, subject to fiscal affordability) until the housing backlog is overcome.

One may argue that the will of the post Apartheid government to create a post Apartheid South African society defined as democratic, integrated, and based on the principles of equity, fairness, non-racialism and desegregationist, cannot be questioned. However, the way this vision is translated into policies including the NHP and the impact of formulated policies on the creation of a post Apartheid South Africa are the subject of debate. Research related to housing policy and its contribution to the creation of sustainable human settlements reveals that either the implementation of housing policy through low-cost housing is deepening the segregation created by the Apartheid regime (Huchzermeyer, 2003) or it does not translate the original intention, to use the housing policy as an instrument to restructure South African society (Napiers, 2005). Harrison, Huchzermeyer and Mayekiso, (2003) further argued that the fragmentation of South African cities persists despite the end of Apartheid.

The discussion below of the contents of the main policy documents constituting the framework for housing policy, undoubtedly highlight the importance of housing development in the creation of a post Apartheid South Africa. The question that arises from the debate is why, despite the existence of policies, aiming at redressing South African society and the will to empower people, who were previously disadvantaged, after more than ten years of the housing delivery and the demise of Apartheid, South African society still looks fragmented and unequal as it looked in 1994 (Harrison, Huchzermeyer & Mayekiso, 2003). Are the existing policies inappropriate to redress the imbalances that exist in South Africa? Is the implementation of policies giving rise to post Apartheid problems? It seems that the problem lies within the housing policy itself (Huchzermeyer, 2002 & Charlton & Kihato, 2006) and in its implementation (Radikedi, 2005).

6.7.2 The development of the National Housing Policy

The 1994 post Apartheid Housing White Paper defines seven strategies for the development of housing in South Africa namely: stabilising the housing environment; mobilising housing credit; providing subsidy assistance; support for the peoples housing processes; rationalising institutional capacity; facilitating speedy release and the servicing of land and co-coordinating government investment in development (Department of Housing, 1994). According to Charlton and Kihato (2006), the Housing Policy as defined in the 1994 Housing White Paper aims at meeting the basic needs of the population, especially of the poor households, building the economy, democratising the State and Society and developing human resources. The disadvantaged are the first targets of the Housing Policy in Apartheid terms; secondly people presently living in inadequate shelter and lastly people earning less than R 3500 per month (Baumann, 2000).

According to Baumann (2000), the housing policy can be defined in macroeconomic terms and focuses on quantitative, both in terms of its understanding of the housing backlog and the targeting criteria appropriate to eliminating it. In addition housing policy assumes the appropriateness and viability of conventional public and private sector system effecting housing delivery. And it prioritises institutional adjustments intended to streamline and to create delivery channels utilising these conventional systems. Finally, the housing policy is based on a consolidated capital subsidy system for land, services and housing. One of the areas that the housing policy did not exploit is, according to

Baumann (2000), the relationship between housing policy and the alleviation of poverty. This relationship argues Baumann (2000) is complex and not well understood.

The framework of the South African Housing Policy was also influenced and strengthened by the RDP which was a social programme of the ANC. Later, in 1996, the Growth, Employment and Redistribution Strategies (GEAR), the neo-liberal programme of the ANC came to boost the economic strategy set by the RDP. The NHP and the implementation thereof must accommodate the parameters set by GEAR, while responding to their challenges. The policy implications of RDP and GEAR may be summarised as follows: poverty relief and social development should be given high priority and policy must be implemented to facilitate job creation and the development of human resources.

The RDP initiated in 1994 by the post Apartheid government is aimed at correcting an unjust system, especially providing access to basic needs and adequate shelter. In respect of the housing policy, the RDP aims to meet the basic needs of the poor, developing human resources, building a vibrant economy and democratising the State and the society. For achieving the goal of meeting basic needs of the poor, the ANC planned to build at least one million houses in the first five years (Beall et al, 2000). GEAR is another programme which comprises four objectives, namely, a competitive fast growing economy which creates jobs for all work-seekers, a redistribution of income and opportunities for the poor, a society in which health and education are available to all and where homes are safe and the places of work are productive (Stavrou, 2001).

GEAR has a significant impact on the implantation of NHP in terms of the availability of funds that the Government has for Housing Support Programmes. The central theme of GEAR is that it requires national fiscal discipline restricting government investment in terms of performance of the overall economy. Inadequate shelter is, according to the South African housing policy, one of the outcomes of poverty and is understood as a lack of income and a relic of Apartheid.

The influence of RDP and GEAR policies on the South African NHP to achieve its stated objectives is a matter of concern. The RDP policy explicitly mentions the building of one million houses for low-income earning people. The ANC through its RDP policies emphasises housing improvement, thus the improvement of poor households' living conditions as one of its set priorities. However, the RDP policy did not focus on

the accessibility of funds and the institutional capacities to deliver not only an impressive quantity of houses, but also quality houses. As a result, the ANC did not succeed in delivering one million houses in five years following its first democratic election, nor did it deliver quality houses for poor households in an attempt to enhance their livelihood.

Although GEAR aims to accelerate economic growth and achieve macroeconomic stability, the illusion of housing may be established in the assumption underlying the economic growth averring that economic growth and macroeconomic stability will bring about an improvement in their living conditions and in turn, they should be able to acquire housing in the market. However, the way that GEAR influenced the outcome of the housing policy has been questioned. Baumann (2003) for instance asserts that, GEAR limits the housing budget even though increases are necessary to meet the Stated housing goal, with this result being a paradox, as a significant increase in the National Housing Budget allocation will clash with GEAR until the latter succeeds in increasing macroeconomic growth appreciably. In other words, the success of the implementation of the Housing Policy is a function of macroeconomic stability.

This means that for the sake of economic efficiency or macroeconomic stability the government may reduce its housing budget, which may negatively affect the performance of the housing delivery. The 'incremental housing', which is a progressive realisation of housing delivery obeys the logic as imposed by the GEAR policy. In fact, with financial constraints the ANC government had to choose whether to deliver a less number of houses with good quality in good locations or an impressive number of unfinished houses in poor locations and more specifically in the peripheries of cities and towns, where the cost of land is cheap. It appears that the implementer of GEAR will prefer the latter alternative hoping that with macroeconomic stability, people would eventually be able to improve themselves and their housing conditions on their own.

6.7.3 State intervention in housing

There are four categories of intervention that have been identified by the Department of Housing, which include: financial, incremental housing programmes; social and rental housing programmes; and Rural Housing Programme (www.housing.gov.za). Many authors such as Khan and Thurman (2001) have pointed out that financial intervention is the key State intervention in housing. Probably because, according to the Department of Housing, financial intervention is designed to facilitate immediate access

to housing goods and services and it creates an enabling environment to provide implementation support.

The financial intervention focuses on providing subsidy to the households that are unable to satisfy their housing needs independently (Baumann, 2003). The most significant principle underlying this strategy is based on the constraints imposed by the need for fiscal discipline, as the government is not able to provide a sufficient subsidy to cover the costs of providing a formal complete house to every South African family, who is in need of shelter. Consequently, the subsidy policy is based on the principle of width rather than depth (Khan & Thurman, 2001), where a large number of families will get a lesser subsidy, rather than a smaller number of families getting a larger subsidy. It can be argued that the national housing budget is too low to realise the assumptions defined in the housing policy and to attain its targets. In fact, as Gilbert (2004) argues, the 1.4 % of the total South African government expenditure allocated to housing remains very small when compared to international benchmarks fixed at, at least 5% of the total state budget. This is to say that South Africa is unlikely with its national housing budget to address the current housing backlog. As a result, the current housing budget negatively affects the number and quality of houses that are constructed. Government acknowledges that the subsidy provided is not enough to purchase an adequate house. Therefore, it promotes partnerships between the provision of state subsidies on one hand, and the provision of housing credit or personal resources in the form of savings and labour on the other (Charlton, 2004).

Each of the nine provinces in South Africa has a Provincial Department of Housing (PDH). Located within this Department are Provincial Housing Development Boards (PHDB), that administer these respective Housing Development Funds. Each Provincial Housing Development Fund receives a budgetary allocation from the South African Housing Fund, which receives its annual allocation from the National Budget. The PDH then decides how the housing funds will be allocated and disbursed.

There is no doubt that the South African government financially intervenes in the public housing sector in order to create good quality environment for poor households. Although the sufficiency, effectiveness and the efficiency of the government's financial intervention in the housing sector is a subject of debate. There is wide agreement that the limited amount allocated for housing subsidy does not allow every South African to access adequate housing as defined in chapter II, section 26 of the 1996, Constitution of the Republic. The incremental housing supplies limited houses in the amount

allocated for Housing Subsidy.

6.7.3.1 The housing subsidy scheme and incremental housing

The Housing subsidy scheme is qualified as the cornerstone of the NHP (Khan & Thurman, 2001), designed to accommodate social demands, enormous existing and projected backlogs, fiscal constraints, and to minimise housing and financial sector market distortions. In South Africa the Housing Subsidy Scheme was implemented on the 15th March 1994 and replaced all previous government subsidy programmes. The scheme provides a subsidy to households earning up to R3500 per month, to assist them to acquire secure tenure, basic services and a top structure. A range of subsidy mechanisms are provided, namely, the Individual Subsidy, the Project Linked Subsidy, the Consolidation Subsidy, the Institutional Subsidy, the Relocation Assistance Subsidy and the Rural Subsidy. In the link entitled subsidy programme, the South African Website of the Department of Housing outlines criteria for having been granted a housing subsidy (www.housing.gov.za). According to the criteria of eligibility, it is stated that "a person qualifies for a housing subsidy only if, he or she is married or cohabits with any other person or is single and has proven financial dependants; he or she is lawfully resident of the Republic of South Africa; he or she is legally competent to contract, he or she is over 21 years of age, if not married. The gross monthly household income of his or her household does not exceed R3 500 per month; the beneficiary or spouse has not received a subsidy from the Government to buy a house previously and he or she is a first time property owner".

In relation to the value of the subsidy granted, Table 6.3 below outlines the different types of existing subsidies and criteria, based on income, for being a beneficiary of the National housing subsidy. It appears from Table 6.3 that the National Government's financial intervention through housing subsidy lacks a global vision, since it includes all income groups but focuses only on the low-income households. This may endanger the creation of an integrated society, in separating low-income households from other income groups. In the first 10 years of housing delivery, middle income groups earning between R 3500 and R 7500 were merely overlooked. In fact they were neither eligible to be granted housing subsidy from the National Government programme or to obtain a loan from the financial institutions. There was no housing market for the middle-income group.

Although institutional subsidies may be utilised for rental and social housing, the small amount displayed in Table 6.3 reveals that housing policy gives priority to the ownership option and overlooks the rental option. In fact, in South Africa, there is a tie between urban and rural areas (Cox et al, 2004) and Charlton (2004) argues that migration is one of the poor households' livelihood strategies. Neglecting rental option means that some poor people are denied the possibility to enhance their livelihood strategies, therefore, instead of helping poor people to improve their living conditions, the financial state's intervention in Housing contributes to low-income households' impoverishment. Indeed, Spiegel (1996) who emphasised the lack of diversity in the South African Housing Policy, pointed out that the housing needs of the migrants are not taken into account in the 1994 South African Housing Policy.

Besides, criteria related to income is based on the formal income obtained from the public sector or formal private sector, which does not reflect the overall income, including informal income that in reality is an individual's monthly income. Baumann (2003) has argued that most South Africans rely on the microeconomic sector to maintain their living standard. This means that an individual who earns a formal income up to R 3500 may be better off than, some of those earning between R 3500 and R7500. Although objective, criteria related to income does not illustrate what most South Africans really earn as a monthly income. This is why the definition of poverty, being a lack of income, held by the tenants of liberalism, presents some limits. Baumann (2003) for instance understands poverty in terms of vulnerabilities or lack of assets, which can generate income.

Likewise, Table 6.3 displays many types of subsidies, which make the National financial intervention in housing very complex and sometimes difficult to manage. In fact "beginning with project-linked subsidies that required applicants to be members of the housing project, and then followed by the introduction of individuals subsidies, credit-linked subsidies, and institutional subsidies to support cooperative housing, the ANC's housing policy has grown in complexity" (Pottie, 2004, 607). Although individual and project linked subsidies aim at helping poor households, there are still a large number of South Africans, who are either badly housed or homeless (Olufemi, 2000 & Pottie, 2004). Regarding the housing backlog, which continues to grow (2004) one may advocate that there is a need to rethink the housing subsidy mechanism, in order to make its access easier and to help those who are in desperate need of housing to benefit from it.

Table 6.3: The South African housing subsidy scheme quantum amounts for the period 1 April 2007 to 31 March 2008 in respect of a 40m² house only

Individual and Project Linked Subsidies	Top Structure Funding only	Own Contribution	Product Price
R0- R1500	R38 984, 00	None	R38 984, 00
R1501 – R3 500	R36 505, 00	R2 479, 00	R38 984, 00
Indigent, Aged, Disabled & Health Stricken	R38 984, 00	None	R38 984, 00
Institutional Subsidies			
R0- R3 500	R36 505, 00	Institution must add Capital	At least R38 984, 00
Consolidation Subsidies			
R0 – R1 500	R38 984, 00	None	R46 484, 00 *
R1 501 – R3 500	R36 505, 00	R2 479, 00	R46 484, 00 *
Indigent: Aged, disabled & health stricken R0 – R3 500	R38 984, 00	None	R46 484, 00 *
Rural Subsidies			
R0 – R3 500	R38 984, 00	None	R38 984, 00
Peoples Housing Process			
R0 – R3 500	R38 984, 00	None	R38 984, 00

* Product Price = R38 984, 00 PLUS serviced stand previously acquired at R7 500, 00 = R46 484.

Municipal engineering services are to be funded from other Government resources as a last resort but may also be funded from the annual housing funding allocations to Provinces.

Source: Website of the Department of Housing, 2007 (www.housing.gov.za)

According to the private sector (contractors) to which the Government confined the task to build RDP houses for the low-income people, the amount of individual subsidy which, in the first years of housing delivery should cover the purchase of land, the cost of services and top-structure was too low to produce quality houses in a good location (Tomlinson, 2006). The Department of housing which was not aware of the limited amount of housing subsidy to produce quality houses have discretionary powers in various provinces of the Republic of South Africa, regarding increase of subsidy to compensate for unexpected abnormal development costs arising from location, geotechnical or topographical conditions and in the case of a person with a disability. In addition, an increased amount can be awarded to a household, where a member is disabled.

Government has been regularly updating the amount of housing subsidy in order to improve the quality and location of low-cost housing. Therefore, houses delivered by the private sector should be improved in quality and location. In fact, Table 4.3 reveals that there is an increase in the amount of housing subsidy which currently is R38 984 (top structure funding only) compared to the previous individual subsidy of R16 000 for top structure. However, whilst the continuous effort of the National government to increase the housing subsidy should be welcomed, the inflation or the increase in cost

of purchase of land in urban areas and of building materials, should also be taken into account.

The consolidation subsidy granted to the beneficiaries who have already accorded individual housing subsidy, reveals that the original intention of the National government was not to finance the delivery of a finished top structure. As Rust (2004) argues, according to the 1994 Housing Policy, RDP houses should be considered by its beneficiaries as a simple structure, which needs to be improved and developed according to their housing needs through an incremental process.

Incremental housing is one of the forms of Self-Help-Housing and directly involves housing beneficiaries. In South Africa, incremental housing or progressive housing delivery has been conceived to supplement the government's financial intervention in housing, which with the financial constraint imposed by the neo-liberal policy through GEAR was unable to fully finance low-cost housing development before reaching the macroeconomic stability.

The main advantage of incremental housing is that the beneficiaries have the opportunities to catch up with their housing need in the way they would like them to be. The success of the incremental housing project is the function of the availability of funds, which makes it possible to undertake the improvement or development of the already existing houses. In South Africa, apart from the constraint of access to housing finance for the beneficiaries of RDP houses (Finmark Trust, 2006), the quality of the first housing product (RDP houses) needed repair to meet the beneficiaries' housing needs. This may involve additional funds that poor households may not always afford. Another constraint to the development of incremental housing in South Africa is the rate of poverty and unemployment among poor households. These limit their housing choices as they have to make pressing choices such as bring food on the table and invest for their children's education.

Financial instability coupled with the difficult access to housing finance by poor households and the high cost of building material are the main causes impeding the smooth realisation of incremental housing in South Africa (Finmark, 2006).

6.8 The South African housing policy: a critical overview

The evaluation of the South African Housing Policy should be undertaken in accordance with its self-set of assumptions contained in policy documents such as the 1994 Housing White Paper, the 1997 Housing Act, and the 1997 Urban development framework which outlines South Africa's vision for Urban development. In other words the critique of the South African Housing Policy should inspire from the original intention to use housing development as an effective tool to restructure and to redress the inequalities observed during the Apartheid era, to address poverty and to promote an integrated development. For much of the 1990s, debate over South Africa's national housing policy tended to focus on issues of quantitative delivery and the Government's failure to meet its self-set targets in this regard. At the end of the decade, however, questions emerged about the qualitative impact of the policy (Tomlinson, 1996; CSIR, 1999; Thurman, 1999; Gear, 1999; Built Environment Support Group, 1999).

Many authors, such as Baumann (2001), Huchzermeyer (2001), Charlton (2004), Khan and Thurman (2001), argue that there is a tension within the policy itself. Historically, in analysing the discussions and forums from which the housing policy evolved, Charlton and Kihato (2006) argued that the housing policy was inconsistently developed and influenced by personalities, trends, and politics. As a result, the principle of research-led policy has been unequally applied to policy development. Besides, Baumann (2001) asserts that the content of the housing policy lacks particular attention to the relationship between housing policy and poverty alleviation. Khan and Thurman (2001) identified areas of tensions within the policy. Firstly, there is a tension between the basic right of having access to adequate housing contained in the RDP, the Constitution of the Republic of South Africa and Housing Policy and the fiscal constraints explained in macroeconomic and sectoral programmes such as GEAR. The contradiction appears in the fact that the provision of adequate housing to everyone is limited to available resources. The former Minister of Housing, Sankie Mthembu-Mahanyele (1996) made it clear, when she advocated in the Northern Cape that the State would support those who support themselves and the State does not have enough resources to adequately house every South African.

The second tension within the housing policy is perceivable from the concept of progressive realisation defined in the 1994 Housing White Paper with the original intention to deliver adequate housing to every South African (Huchzermeyer, 2001). Consequently, it appears, as observed Khan and Thurman, that "the disjuncture between mass delivery versus a quality product (2001, 10)". This is to say that there is

a contradiction between what is intended and what is translated into policy. The progressive realisation of housing delivery is according to Baumann (2000) determined by the macro-economic progress. Thus, the accomplishment of housing delivery including incremental housing depends on the economic growth and the stability of macroeconomic programmes.

The third contradiction within the housing policy is seen in the focus on supply versus demand approach (Omenya, 2002). As Khan and Thurman (2001, 11) argue, "having based the programme on supply, decreasing budgets and the preference for width over depth has made entry into the low-income housing markets by developers less attractive". As a result, "the market driven, State assisted approach combined with declining budgets has made it very difficult for other role players (beneficiaries, local authorities and even NGOs) to engage with housing delivery in a socially responsive and politically viable manner" (Khan & Thurman, 2001, 11).

Another contradiction within the policy may be seen with the conception of the subsidy. The capital subsidy scheme provides grants of up to R38 984, 00 per low-income household for internal infrastructure and top structures (www.housing.gov.za). The income-graded subsidy, the main instrument of the housing programme is regarded as progressive and broadly in accordance with the World Bank principles. There have, however been very significant problems encountered with the subsidy programme. Most substantively, the subsidy programme has been criticised from numerous angles.

The Council for Scientific and Industrial Research (CSIR) notes that the subsidy criteria exclude individuals without dependents, such as elderly single persons with independent adult children or people who choose to live alone, such as single woman (1999). In addition, the rapidly diminishing ability of the subsidy to bridge the financial gap between income and housing costs is a major contributor to the poor development outcomes. Although, the government never intended for the subsidy to be the only financial contribution to housing, the policy never required any form of 'personal stake' as a condition for receiving the subsidy. There is an increasing debate in government circles that some form of savings scheme should be linked to subsidies, modelled along the lines of the Chilean scheme and the World Bank (1993) proposals. This has already been implemented. In fact, an amount of R 2479, 00 is actually required from households earning an income between R 1501 and 3500 (See Table 6.3). The concern raised by many in progressive circles is that this approach could discriminate against the very poor who earn irregular and/or poverty income (Tomlinson, 1999).

It may be argued that although there is an existence of a plethora of policy documents relating to housing in South Africa, there are still some issues that present shortcomings within the policy itself that need to be evaluated. This is especially necessary if the housing policy is to meet the needs of the poor. Another area that should be explored for a complete evaluation of the housing policy is the implementation and delivery of actual low-cost housing or RDP houses.

The ability of the South African housing programme to deliver housing units on a large scale cannot be questioned. In fact, to date, the Department of Housing has succeeded to delivering almost 2.3 million government-subsided housing units (www.housing.gov.za). Commenting on the number of houses delivered, Rust argues that "it is widely acknowledged that South Africa's housing programme has led to the delivery of more houses in a shorter period than any other country in the world (2003, 36)". In addition, Smit, points out that "one must be impressed with what South Africa has achieved (1999, 2)", compared to the rates of delivery elsewhere in the world.

While there have been considerable modifications and revisions to the housing policy over the years, it can be argued that the South African Housing policy has failed to meet its self-targets and realise its vision as defined in the policy documents such as the 1994 Housing White Paper, the 1997 Housing Act and the 1997 Urban Development Framework. In fact, issues related to quality, efficiency, effectiveness and sustainability of the housing programme still persists. Despite considerable criticism, dwellings tend to be of a generally poor design, environmentally unsound, unsuited to the local climate, relatively expensive to maintain at a physically comfortable indoor climate, locationally peripheralised and spatially marginalised. In addition, dwellings are not conducive to social, economic, aesthetic or environmental sustainability. All the above-mentioned aspect places a great burden on the resources of the country and the poor inhabitants of the houses.

The outcomes of the South African Housing Policy have been criticised by a number of authors (Omenya, 2002; Huchzermeyer, 2003; Baumann, 2003; Charlton, 2004; Khan, 2003; Napier, 2006; Tomlinson, 2004; Rust, 2004). Omenya (2002) for example notes that the initiative in housing the low-income remains a top-down approach, with little consultation and beneficiary satisfaction. Importantly, Omenya (2002) observes that the housing market, despite the Government subsidies, has neither normalised nor delivered the expected results and the private sector involvement remains low. Moreover, Khan (2001) notes that the mobilisation of finance for low-cost housing

constitutes a serious constraint in the present housing policy and strategy and Rust (2004) asserts that the access to housing finance for low-income household remains a critical issue in South Africa.

The Department of Housing (2003, Section 3) is not unaware of the shortcomings of houses delivered, especially in relation to the poor location of the low-cost housing projects. The document has stated that the Housing projects have made little contribution to the ideas predominant in the 1990s in terms of integrating, compacting and restructuring the Apartheid city. Moreover, the general urban trend over the last ten years has seen both the growth in the areas of poverty increasingly spatially dislocated and the concentration of wealth in increasingly isolated and protected areas located away from traditional urban centres. The main result of wealth decentralisation has been to reinforce segregated settlement patterns along lines of economic privilege (cited in Charlton, 2004).

Another severe criticism of the South African housing delivery comes from the way that housing policies deal with the issue of inadequate housing, understood broadly as a lack of a formal house (Baumann, 2000). Although the definition of inadequate housing can be applied to inhabitants of formal settlements too for example, people staying in overcrowded houses, however the focus seems only to be on residents of informal settlements. Rather than accepting informal settlements as a leading and dominant way of life for millions and supporting them as 'productive and creative housing solutions' (Hall & Feirffer, 2000, 246 - 248), the housing intervention is geared towards removing the scourge of informal settlements, their eradication and ensuring that post Apartheid informal settlements are effectively prevented.

An incomplete perception and a lack of understanding of the complexities of informal settlements (UN Human settlements, 2003) in South Africa has led to the creation of inappropriate policies. In fact, despite the intensive housing subsidies and the availability of credits and loans, Huchzermayer and Karahm (2006) observe that informal settlements remain a perpetual challenge. As Khan (2003) explains it, although, the post Apartheid housing policy struggles to improve informal settlements and to create employment, in the absence of adequate planning frameworks and a proper coherent programme to deal with vested interests in the land markets, settlements in the periphery will continue to develop with poor infrastructure.

Relocation and subsequent reconstitution of communities as per the subsidy

qualification criteria not only creates artificial communities in peripheral locations but also can be exceptionally brutal. Research conducted by Baumann (2000) reveals that relocation is an inappropriate response in dealing with the issue of informal settlements. Relocation as argued by the CSIR (1999) and Baumann (2000) creates an economic reconstitution of communities, changes the status of housing assets, limits freedom of movement, reduces the savings capacity and creates the disruption of a social network which in turn increases insecurity, vulnerability to crime, and an inability to absorb or support an extended family. Besides, the Department of Housing acknowledged the devastating impact of relocation, in that the application of the subsidy schemes to informal settlements destroys the fragile livelihood and coping strategies of the poor. In fact, not unlike the residualisation of the informal economy, informal settlements are spaces wherein the most critical aspect and dynamics of developments occur' and which house approximately 7.3 million people, are viewed as illegal, disorderly and consequently a 'problem' (Minister of Housing, 13th October 2000).

It can be argued that relocation could be an effective way to deal with informal settlements if it was simply a housing problem. However, as Huchzermeyer (2006) argues, it is a misconception to understand the informal settlement issue as a housing problem only to which, housing is a solution. Charlton (2004) makes this argument very clear when she notes that "a shack in Alexandra in Johannesburg, while physically problematic in many ways, may however offer livelihood opportunities far superior to an 'RDP' house on the periphery of the city". This is to say that replacing shacks with proper homes is perhaps a noble intention, but the social and economic consequences of this type of formalisation need to be factored into official thinking. Many criticisms of government policy point out that in-situ upgrading is far less destructive of survival networks (Baumann, 2000; Huchzermeyer, 2006), but government counters that in situ upgrading is seldom possible as most of the land occupied illegally is unsuitable for development. Thus, it asserts, the necessity of securing post Apartheid land and the relocation of affected communities.

Another weakness of housing delivery is seen in the tenure options. The emphasis on private ownership and the narrow fixation on the production of housing units is not supportive of urban restructuring objectives, viz. higher density housing in areas that maximise the access of the poor to amenities and objectives and opportunities (Todes, Pillay & Kronge, 1990). Khan and Thurman (2001) point out that in many developing countries rental housing constitutes two-thirds or more of the housing stock.

Unfortunately, in South Africa, housing policy pays scant attention to this kind of housing delivery. Social housing, defined as an housing option for low-to-medium income persons that is provided by housing institutions, and excludes immediate individual ownership (Department of housing, 2003), in principle promote a rental housing option for the poor, but excludes the very poor. In fact, Social Housing is not designed for the poorest of the poor, but for those who earn a regular income and who can pay for housing (Khan & Thurman, 2001).

Another concern about the housing delivery is the capacity of local authorities to be attentive to the housing needs of communities. The Constitution of South Africa (1996) has assigned five roles to local government. Regarding housing delivery, local government must ensure the provision of services to communities in a sustainable manner and should promote a safe and healthy environment. The 1998 White Paper on local government assigns a development role to local government, which makes it responsible for an integral part of housing projects and also responsible for poverty alleviation. Thus, there is an imperative need not only to mobilise financial resources for housing projects, but also to utilise them effectively and efficiently. It can be argued that there are various series of capacity deficits related to the ability of Local Government politicians and communities to engage meaningfully in housing intervention.

According to Pottie (2004), local government is unlikely to achieve its developmental role. In fact, he notes that close to one third of local authorities bordered on insolvency. Importantly, few councils had the necessary skills in place to shift from direct service provision to the development of integrated development plans or have the ability to negotiate long-term service provision contracts with private-sector service providers. In addition, unethical and corrupt practices, perceptions widely held by the majority of South Africans (Reddy et al, 2003), within local government are incompatible with any development goals of local government.

Although an impressive number of houses have been delivered (2.3 million according to the Department of Housing), the South African housing policy is characterised by a slow delivery. This is seen by the persistence and growing number of housing backlogs estimated at three million homes (Pottie, 2004) and referred to in South Africa as a long waiting list. The slow delivery of houses is one of the reasons, which stimulated the post Apartheid vision of housing policy referred to as BNG.

It is recognised that the National Department of Housing is always making attempts to address a number of weaknesses observed in the housing policy and its implementation. To date, it is recognised that the emphasis of the housing programme, at least in theory, attempted to shift from the quantity delivery to more qualitative aspects of delivery. The Department of Housing acknowledges that they must improving access to housing subsidies, prevent subsidy fraud; crack down on corruption; give the poor access to more housing options, promoting integrated rural and urban development; capacity building; and installing measures and systems to monitor and evaluate progress and trends (Minister of Housing, 1999).

Weaknesses of housing delivery discussed above reveal that "the 'solution' to the problem of using housing to address poverty positively in South Africa may be deceptively simple in theory, but will probably prove difficult indeed in practice" (Baumann, 2001, 21). In fact, the World Bank (2000), in its report entitled "Voice of poor: can anyone hear us?" recognises that poverty is multidimensional. This is to say that the solution to address poverty should be integrated. According to Baumann (2001), if the South African government plans to address poverty, it should be more democratic and pay more attention to the opinions, needs, and lives of its low-income homeless constituents.

After 10 years of housing delivery, voices were raised and severe criticism was formulated in order to either amend the existing housing policy or to formulate a post Apartheid housing policy, although the preamble of the Housing White Paper states that "the time for policy debate is now past – the time for delivery has arrived" (Department of housing, 1994, 4 quoted in Huchzermeyer, 2001). In response to the weaknesses presented by the delivery of houses in the first ten years of the housing policy, the Department of Housing has adopted in October of 2004, the BNG which aims at accelerating housing delivery and making housing markets work better for poor people. The adoption of BNG by the Department of Housing in 2004 outlines a post Apartheid direction for South African Housing Policy in the development of sustainable human settlements and traces a post Apartheid line for research.

6.9 A comprehensive plan for the development of sustainable human settlements

6.9.1 Introduction

It is widely acknowledged that the South African Housing Policy, which encompasses the main ideas and visions that is explained in the 1994 Housing White Paper and other policy documents such as the 1997 Housing Act and the 1997 Urban Development Framework fell short of attaining its stated intentions. Napier (2005) explains that what is realised in terms of housing delivery is contrary to the original intention. Given the shortcomings of Housing delivery in the first 10 years, BNG was developed. It aims at addressing the complications related to housing delivery and focuses on the government's challenge to face the issue in perspective of the housing backlog over the next five years.

According to the Department of Housing (2004), the complications related to housing delivery that BNG intends to address are created both by the population growth estimated at 2.1 per cent between 1996 and 2001 and by an increase in the rate of unemployment, estimated at 16 per cent in 1995 to 30 per cent in 2002, thus creating greater pressure on the income of households. The first direct consequence of the increase in the population growth and increase in the rate of unemployment is the difficulty to address the issue of the housing backlog, which was estimated at 1.5 million in 1994. Currently, as Tomlinson (2006) observes there are massive increases in the number of households seeking accommodation. These households are located in informal settlements, backyard shacks, and overcrowded formal township houses. Napier (2004) agrees with Tomlinson (2006) when he affirms that the current housing backlog is estimated at 3 million.

The second direct consequence is the change in the nature of the housing demand and the pace of urbanisation, which has resulted in the increase in the number of households living in poor housing conditions, albeit the important increase of government expenditure on housing subsidies (Tomlinson, 2006). Statistics of housing development (2004) show that there is an increase of 26 per cent in households living in informal settlements. In fact, in 1996, 1.45 million households were living in informal settlements and in 2001 this number increased to 1.84 million. Statistics provided by the Department of Housing (2004) related to the amount spent for housing subsidies reveals that in the first ten years, from 1994 to 2004, the state invested R 29, 5 billion/ US\$ 4.9 billion which resulted in 1.6 million low-cost housing units being built.

This amount had increased from R2, 69 billion/US\$0.44 billion in 1996/1997 to some R4.5billion/US\$0.75billion in 2004/2005 and a total of R50million/US\$8.3million had been added to the 2005/2006 budget to address capacity constraints. Furthermore R500 million/US\$83million is expected to be added to the 2006/2007 budget and R1.5billion/US\$0.25billion was added to the 2007/2008 (Minister of housing, 2005 cited in Tomlinson, 2006).

6.9.2 The emergence of Breaking New Ground

The Stated intention of the post Apartheid government through the development of housing has been described by Biemann et al (2005) as the rebuilding, regeneration, modernisation and growth of marginalised neighbourhoods and fragmented cities. Low-income households were one of the direct targets of the housing policy and the relocation of informal dwellers to post Apartheid sites was the way to deal with housing inadequacies; ownership and the tenure option promoted by the housing policy (Charlton, 2004). It is widely acknowledged that the South African Housing Policy adopted in 1994 was influenced by neo-liberal theories, more specifically by the policy of the World Bank (1993) entitled "enabling markets to work" (Omenya, 2002; Tomlinson, 2006). The implication of this policy was to increase the private sector involvement in housing delivery (Keivani & Werna, 2001) and to reduce as much as possible the role of government in housing delivery. In other words, the "enabling market" policy suggested that housing delivery must be determined by market forces. In South Africa, this neo-liberal ideology has been translated in the 1994 Housing White Paper to ensure that the government should facilitate and not deliver.

As a result of this influence, subsidies were allocated to private sector contractors who were responsible for building houses for the low-income households. As Tomlinson put it: "private sector developers, operating within the post Apartheid policy framework, carried out specific tasks, such as applying for subsidies on behalf of beneficiary communities, identifying and servicing land, and building rudimentary top structures". The focus was on the supply side and beneficiary choices or preferences were not given attention in the first ten years of housing delivery.

Likewise, it has been observed that there was a lack of effective participation by the communities in the low-cost housing delivery system. Many authors such as Baumann (2000) and Huchzermeyer (2006) pointed out that the pervasive lack of meaningful participation in policy formulation and in the housing delivery is one of the main factors

contributing to the failure of housing delivery in South Africa. The lack of community participation in the delivery of low-cost housing may be explained by the fact that the Government allocates housing subsidy to the private contractors, who act as implementing agents and are responsible for building houses for low-income households. According to this system, the beneficiaries of low-cost housing are seen as mere recipients. Participation could be effective in PHP, being one of the modes of housing delivery. However, even in this process, which is considered as a better example of people's involvement in housing development and delivery, in South Africa, the lack of meaningful financial support for PHP projects constitutes a major problem impeding the effectiveness of this mode of housing delivery (Manie & Tapela, 2004).

Many authors saw the dysfunction of the housing market as the principal weakness of housing delivery in South Africa (Khan & Thurme, 2001; Rust, 2002; Charlton, 2004). As Omenya (2002) asserts, the housing market has neither normalised nor delivered the expected results. It has been observed, for example that the housing policy over the first years of its implementation has disregarded the middle-income group defined in South Africa as people earning between R 3500 and R 7500. Before the commitment of the Banks through the Financial Sector Charter, to provide R 40 billion by the end of 2008 (Finmark Trust, 2006; Banking Association of South Africa (BASA), 2005; Tomlinson, 2007), the middle income group was neither eligible for State housing subsidy, nor eligible for loans from the financial institutions. As a result, there was no housing market for this income group.

Apart from the concerns raised about housing for the low-income group, the existence of two housing markets has been observed (BASA, 2005). Whilst the first housing market experiences a high rate of growth, the sub-market or the second housing market, which constitute RDP houses and properties in former black townships does not prosper. BASA (2005) has observed that trade in the secondary housing market is characterised by a slow rate and entrenched by a high level of informality. Bridging the gap between the first and the second housing market and to unlock the economic opportunities for the poor is one of the aims of the post Apartheid housing vision or plan. Furthermore, the change of approach to deal with informal settlements, especially the promotion of up-grading programmes which now receives greater attention in terms of policy, and the promotion of social housing as the way to enhance inner city renewal, have been qualified by Tomlinson (2006) as some of the paradigm shifts of BNG.

Unexpected outcomes of the first 10 years of housing delivery may be explained by the shortfall of macro-economic reforms introduced to attain its stated goals such as accelerating economic growth. As Baumann (2000) argues the success of housing delivery was the function of macro-economic reforms performance. According to Tomlinson (2006) the time when ANC came into power, the South African economy was performing badly. It was expected that the economic crisis understood by ANC as the relic of Apartheid (Baumann, 2003) would improve and with economic growth. Households would be able to improve their income and thus, be able to provide housing for themselves through the open market system. The failure to address housing issues in both supply and demand sides resulted in the slowing down of housing delivery. Statistics provided by the Department of Housing (2004) reveal that the percentage of the total allocation has declined from 17% in 2000/2001 to 11% in 2003/2004. The post Apartheid plan or vision adopted by the Department of Housing also intended to bolster housing delivery.

6.9.2.1 Post apartheid housing vision or plan for the next five years

BNG in concordance with the Apartheid vision of the Housing Department (2004, section B) outlined the post Apartheid housing vision and objectives that need to be met. This includes accelerating the delivery of housing as a means for poverty alleviation, utilising the provision of housing as a major job creation plan and making sure that property can be accessed by all as an asset for wealth formation and empowerment. Furthermore, the combating of crime, the promotion of social cohesion and improving the quality of life of the poor were addressed. Although the Department of Housing states that BNG does not aim at replacing the existing policy but to enhance it and to give it a post Apartheid tonus in the light of complaints registered in the first ten years of housing delivery, some authors such as Tomlinson (2006) argue that BNG has brought significant shifts in the housing process in South Africa. She firstly points out that BNG shifts the focus away from 'quantity' to 'quality' of housing delivery, particularly for the delivery of sustainable human settlements. Secondly, she notes that BNG operates a shift from 'breadth' to 'depth', explained in the objective to support the entire residential property market, and no longer focuses only on the low-income households as initially stated in the Housing Policy of 1994. The major change is that low-income households earning an income between R 3500 and R 7000 who were disregarded in the first 10 years of housing delivery now receive attention from the Department of Housing as government has agreed to pay half of their deposit, owing to the fact that they are granted housing finance from a financial institution.

The third significant change brought about by the BNG is, as Tomlinson (2006) argues the shift from supply-side to demand side delivery or from Greenfield Developments to in-situ upgrading. Here it is acknowledged that BNG focuses on informal settlements upgrading, as proven by a number of authors including Baumann (2000) and Huchzermeyer (2004). Furthermore, it supports poor households' livelihood strategies and safeguards their social networks, instead of stressing on relocation to post Apartheid sites as a solution to overcome and address the issue of informal settlements. This shift has the advantage to enhance community participation, which has been overlooked in the first ten years of housing delivery. Associated with this shift is the increase of State financial support to the PHP. As Manie and Tapela (2004) assert, less than 10 % of housing has been delivered via PHP. This has been insignificant compared to international experience of Self-Help-Housing, where it is seen that this process despite its weaknesses, has "the ability to provide access for thousands of families where conventional housing could only reach hundreds" (Rodell & Skinner, 1983, 3). Meaningfully, BNG also takes into consideration the importance of social housing, which provide quality and affordable housing to the low and middle-income sectors in the urban regeneration process, more specifically the renewal of inner cities.

The last significant outcome of BNG pointed out by Tomlinson (2006) is the moving beyond the 'chicken and egg' debate with regards to housing finance. It is acknowledged that although risks associated with low-income borrowers, such as defaulting on the re-payment of loans (BASA, 2005) the banks agreed to mobilise housing fund (R 40 billion by the end of 2008) for the low-income households who were previously not eligible for banks loans. Currently, mortgage is also extended to low and middle-income groups earning an income of between R 1500 - R 7500. However, the ease to obtain mortgages from the bank and its effect to improve housing conditions of the low-income households is subject to much criticism (Finmark Trust, 2006).

6.9.2.2 Challenges facing the implementation of the BNG

BNG has placed an explicit focus on the creation of sustainable human settlements with its intention to combat segregation, to overcome poor quality housing, which characterised the provision of low-cost housing over the first 10 years and to unlock economic opportunities of poor households (Landmark, 2005). However, analysts such as Charlton and Kihato (2006) point out, that the way BNG will achieve these particular objectives are not articulated. Napiers (2005) observes that in the BNG there is a

confusion between the role of State and the residents, in the commitment to urban restructuring and furthermore, he points out the lack of consideration for better public spaces. In addition, Todes (2006) argues that while the principles of densification, desegregation and urban restructuring were overlooked over the first ten years of housing delivery, unfortunately these principles reappear and the commitment to such changes in the implementation of BNG remain very weak. The further debate related to post Apartheid challenges facing the implementation of BNG, will analyse two challenges namely; informal settlements upgrading and the access to housing finance for the low-income households.

Given the proliferation and the extension of informal settlements, despite the significant State financial intervention through housing subsidies, one may argue that informal settlements in South Africa is a complex issue (UN Settlements, 2003; Smit, 2006) and strategies to deal with them have been limited and inappropriate (Huchzermeyer & Karam, 2006). Informal settlements upgrading as one of the strategies adopted by the BNG have obviously had a direct impact on the living conditions of poor people (Baumann, 2000) and have received support by many important authors (Baumann & Huchzermeyer 2004; Baumann, et al, 2004; Bolnick & Meyer-Prentice, 2004; Huchzermeyer, et al, 2004; Roux, 2004). International experience of upgrading programmes reveals that this practice must be incorporated in the global perspective of alleviating poverty, lessening vulnerability of poor households and promoting social inclusion.

However, Charlton (2006) observes that BNG has not learnt from the previous experiences of upgrading programmes. This has resulted in limiting the positive outcomes of this practice. In addition, Baumann and Huchzermeyer (2004) have raised concern about the capacity of BNG through the post Apartheid informal settlement-upgrading programme to empower inhabitants of informal settlements in addressing their human and socio-economic needs. The challenges facing South Africa to date is to change the perception of informal settlements as a lack of house or title deed or unlawful occupation (Huchzermeyer, 2004) which requires a housing solution, as an expression of certain socio-economic realities, which necessitate a global and an integrated solution. It can be argued that the authors cited above, who support informal settlement-upgrading agree that by ignoring the complexities surrounding the issue of informal settlements will undoubtedly result in the perpetuation of informal settlements.

Related to the informal settlements upgrading, concern was raised about the criteria in the choice of informal settlements, which should benefit from the upgrading programme. Although the integrated development plan (IDP) should lead the choice that informal settlements which are most affected by crime, poverty and unemployment, should benefit from the programme, political motivation seems to guide the choice and as a result, the outcomes of upgrading programme is limited or jeopardised (Napier, 2005). Like informal settlements, access to housing finance may be considered as one of the stumbling issues facing BNG.

Although there is an existing financial product available for low-income households, research conducted by Finmark Trust (2005) concludes that for many poor households, the prerequisites for loans and the long period for re-payment (20 years) overcomplicates their access to housing finance. Pillay (2006) also observed that low-income households are not enthusiastic about the existing finance product put in place for them. According to Pillay (2006) these financial products do not take into account the behaviour, preferences and experience of low-income households who may need a loan not to acquire a house, but for improving their homes. There is a wide consensus in South Africa that access to finance in general and to housing finance in particular can improve housing conditions of the poor and thus eliminate unemployment and stimulate black economic empowerment (Finmark Trust, 2006a, Tomlinson, 2007). Although, the importance of finance is recognised, Collin (2006) observes that the majority of poor people do not have access to housing finance in South Africa and the financial needs of poor households are not well understood by the formal financial institutions. In other words, financial product design, more specifically mortgage credit put in place by the formal institutions are inappropriate for low-income households (Smit, 2003; Tomlinson, 2007). The challenge facing the BNG is to improve the access to housing finance for the low-income households and to make the housing market work better for low-income groups.

Problems are identified in both supply and demand sides. From the supply side, lenders, especially formal financial institutions find it risky to work with low-income households as the past experience reveals that this market is unprofitable and the risk of defaulting is very high, given the high rate of unemployment that characterises this segment of population. The low-income households however point out that the financial product in their disposition is simply unaffordable. Consequently, many authors have remarked that low-income households rely on micro loans to supply them with the credit that they need to improve or to build their homes.

The failure of the formal and private housing institutions to design products that efficiently works for the low-income group increases their preference to work with middle and upper income groups. As a result, there is actually the existence of two housing markets. The first housing market generally composed of the middle and the upper income groups prosper and witness a boom. BASA (2005) observes that in the last years, properties costing R 200 000 upward, double their prices and in some cases even triple. However, the second market costing less than R 70 000 generally constituted of RDP houses and houses in former black townships, slump. In fact, trade in this sector is very slow. This does not stimulate the private sector to invest in the second market.

The biggest challenge for the BNG is to break the existence of the two housing markets and to increase the incentive of the private sector to invest in the construction of adequate and affordable housing, defined by BASA (2005) as houses costing less than R 100 000, as it is engaged in the first housing market.

6.10 Summary

The importance of housing in the socio-economic welfare of the population and the degradation of the living environment in developing countries have been proven over the previous three decades by the implication of international agencies, more specifically the World Bank in the housing sector. It is also acknowledged that a change in housing policies has been witnessed in developing countries, to meet the emerging challenges such as the growing poverty in urban areas created by the rapid growth of population and urbanisation. Despite the efforts of governments in developing countries such as South Africa, access to adequate shelter for everyone as recommended by UNCHS (1996) still remain a challenge. Beside, the challenge of adequate shelter for everyone, post Apartheid challenges such as poverty alleviation to reduce the vulnerabilities of the urban poor and to allow their inclusion in the urban fabric have occurred. In other words, the post Apartheid challenge facing the housing policy of developing countries is to ensure that the policies must contribute to the creation of sustainable human settlements.

South Africa conceived of its housing policy differently to other developing countries. In fact, after the democratic elections in 1994, the ANC led government attempted to set up policies, including a housing policy to restructure South Africa. The originality of the South African housing policy compared to other housing policies is that the post Apartheid government considered it as an effective tool to redress the imbalances that

existed in South Africa and to stimulate the economy in order to improve the living conditions of poor households that were disadvantaged during the Apartheid era and, in turn to create sustainable human settlements. Since democracy the NHP has given rise to a highly integrated arrangement of institutions, such as the Provincial Department of Housing, The National Housing Financial Corporation and Thubelisha Homes, to name a few. These institutions create a strong and cohesive structure and are well placed to address both the changing problems and opportunities that exist within the environment.

In addition to these institutions there is a range of private sector, NGOs and community based institutions and organisations within the housing sector. These organisations have a critical role in assisting the government in dealing with the massive housing backlog. These non-State organisations include suppliers of material and services to the housing sector; the construction sector; the financial sector; employers; communities, civil society and non-governmental organisations.

The South African Housing Policy offers enormous opportunities for all stakeholders in the housing sector. In addition, it offers the opportunity for the broader South African society to continue to grow and develop as the housing crisis is overcome. The government is committed to a South Africa, in which each and every person has access to adequate housing in a manner that supports their development as functioning members of society. However, according to Baumann (2003) the failure of macro-economic reforms through Structural Adjustment Programmes to foster economic growth as expected, on which housing policy performance is based, is one of the causes of the poor outcome of housing delivery in South Africa. For the Department of Housing, the limited access to affordable land for low-cost housing in the urban areas of South Africa is one of the main causes of the poor outcomes of the first ten years of housing delivery.

The provision of land for low-income housing has therefore been a very complex matter for the scale. The White Paper on urbanisation (South Africa, 1986) states as a point of departure that land for housing should be provided well in advance, but, because of the strong resistance by the more privileged groups, the State is experiencing numerous problems in trying to provide such land. South Africa is, however, not the only country where the provision of housing has been totally inadequate. Leckie (1990) provides a useful international orientation concerning housing provision in the world.

Land in South Africa is a scarce resource and thus it is an easy target for speculation. Unlike other socialist states that have nationalised land, or at least attempted to control the transfer of land, in order to safeguard the optimum use of the land and in turn serve the social needs of the community, South Africa has a free market policy in respect of land acquisition and distribution. Expropriation is considered problematic since it would tend to threaten the government's support from a significant portion of the population. On the other hand buying the land at market related prices is largely beyond the means of a young democratic nation. Often nationalisation and re-privatisation of former large landholdings is the adopted practice. The government can in turn build up popular support, particularly among the rural population. It should be interesting however, to observe, whether the State can succeed in controlling the transfer of land ownership and prohibit the practice of land speculation.

Analysts such as Baumann (2003); Khan and Thrume (2003), Huchzermeyer (2003); Charlton (2004) and many others agree that the housing policy that was adopted post Apartheid failed to achieve its stated goals. Concerns were raised about the poor quality and poor location of low-cost housing and the difficult access to housing finance for low-income households. Conclusions drawn by housing researchers such as Huchzermeyer (2003) and Baumann (2003) is that, instead of empowering poor people through housing delivery, the provision of low-cost housing either deepens poor households' vulnerabilities or perpetrates segregation created by the former Apartheid regime. In response to complaints about the poor results of the first ten years of housing delivery, in 2004 the National Department of Housing adopted a post Apartheid vision or plan for the next five years, referred to as BNG. This primarily aims to bolster housing delivery and to stimulate the creation of sustainable human settlements through supporting informal settlement upgrading and supporting the entire single property housing market.

Despite the huge progress being made in the housing finance sector, especially after the adoption of BNG, access to housing finance for the low-income group, remains complicated and the housing market for poor households remain dysfunctional. Regarding the development of the housing policy in South Africa, Pottie (2004) observes that it has grown in complexity. This thesis explores the direction taken by the housing policy, which is biased from its origin. The policy focuses on the provision of houses for low-income households. The policy does not succeed in empowering the poor. Baumann (2003) explains this idea when he argues that given the financial situations and the way most of the low-income households earn their incomes in South

Africa the housing policy should have relied on micro-economic reforms rather than on macro-economic reforms.

The empirical part of this thesis will analyse and compare two different neighbourhoods. The first type of neighbourhood was developed through government intervention, where the State provided a 30m² RDP houses to low-income households. The second type of neighbourhood was not developed through the RDP process. The research will focus and investigate the transformation of these neighbourhoods and the manner in which they are succeeding to develop and integrate them into the urban future. Regarding the first type of neighbourhood, essentially developed through housing subsidy, Zack and Charlton (2003) observes that its beneficiaries are concerned not only about the poor quality of their houses but also about the future of their children as they live in settlements, which do not provide them with economic, social and educational opportunities. The provision of subsidised housing in the peripheries of towns and cities raises concern about the importance of the urbanisation process and sustainability in South Africa.

CHAPTER 7: SOCIAL HOUSING AND THE CREATION OF SUSTAINABLE NEIGHBOURHOODS

7.1 Introduction

Compared to other modes of housing productions such as Self-Help housing, social housing is a relatively post Apartheid mode of housing delivery in the world. Turner (1986) and Mathey (1997) qualify Self-Help housing as the oldest mode of housing production throughout the world. Unlike South Africa where social housing is post Apartheid and underdeveloped, and initially does not constitute an important part in its housing stock, Europe has an Apartheid tradition of Social housing. In a country such as England, social housing represents almost one-third of its entire housing stock (Pawson, 2006). In Ireland for instance, social housing, as a mode of housing provision saw its origin from the late nineteenth century and its expansion was fuelled in other European countries as a result of World Wars I and II (O' Sullivan, 2004). According to MacLennan and More, social housing sectors in Europe "originated in the period 1900 to 1920. They grew rapidly from the mid-1950s to the mid 1970, first with post war reconstruction and then welfare state expansion and urban renewal" (2001, 105). While self-help housing is necessarily obtained with the active participation of its beneficiaries and adopts ownership as tenure, social housing which is essentially a rental option does not necessarily require its beneficiaries' involvement in its production.

Undoubtedly, housing plays a determinant role in urban regeneration. In South Africa for instance, social housing has been used as a tool to regenerate inner cities and to create sustainable neighbourhoods. It is common knowledge that housing is not a mere shelter only (Department of Housing, 1997). It is also considered as an essential feature to the successful delivery of sustainability as it can affect transport, health and employment. Given the amount of resources used to build and maintain housing projects, it may be noted that housing can make a useful contribution to sustainability. In advocating that where we live matters, UN-Habitat (2006-2007) recognises that housing affects the quality of life of its occupants. Although the first ten years of housing delivery failed to create sustainable neighbourhoods, housing delivery in South Africa has been conceived as a tool to achieve some national goals such as the restructuring of the South African society by addressing massive inequalities created by the Apartheid regime. These goals include creating jobs, alleviating poverty and accelerating the national economic growth (Department of Housing, 1994 & 2004).

Harloe (1995), Fitzpatrick and Pawson (2007) have highlighted the main characteristics of social housing. The first element is the ownership, which is managed by public sector or by organisations, which do not seek to make profits. The second feature enumerated is the receipt of public subsidy. And the last element specified is the provision at below market rent. As one of the modes of housing delivery and an important tool for urban regeneration and urban efficiency, "social housing may not only help improve the provision or quality (or both) of affordable homes, but also have wider impacts on health, education, employment and the environment" (Smith, 2006, 270). This means that the social housing project should "undertake a livelihood assessment to understand livelihoods activities and potential to establish the need for facilities to support livelihood activities such as creation of trading space for economic activities of residents" (Tonkin, 2006, 4). Livelihood strategy, which is important for low-income households' survival, can be understood as the search for economic activities for generating additional income. Some analysts such as Owusu establish a linkage between livelihood strategy and survival strategy, which is seen as "responses to economic crisis for exploring the dynamic nature of the environment in which livelihood decisions are made" (2007, 452).

Social housing is therefore defined as "housing that is subject to rent control and access restrictions which the owner has to accept in return for subsidization" (Kirchner, 2007: 88). In countries such as Germany, landlords may receive subsidies from the State and in return they have to determine their tenants and fix rent according to the State regulations. Besides, Tsenkova and Turner have defined social housing as "a part of rental housing stock whose construction was 'significantly supported by the Government through subsidies, cost sharing, tax deductions and other legal advantages'" (2004, 190). It should be recognised that there is not a unique definition of social housing that applies to all of Europe. In Germany for instance, social housing is provided by the private sector (Tsenkova & Turner, 2004; Fitzpatrick & Pawson, 2007). In South Africa, the definition of social housing provided by the Social Housing Foundation (SHF) is not substantially different from those of Europe. In fact, social housing is defined as a housing option for low-to-medium income persons that is provided by housing institutions, and that excludes immediate individual ownership. It should be noted that the restructured definition of social housing provided by the department of housing in 2004, put an emphasis on low-income households as the main target of social housing (DoH, 2004).

Although the multiplicity of definitions of social housing, it may be noted that social housing refers to rental housing which are owned by the state or by organisations which do not aim to make profits. In some cases social housing may be owned by both, the State and the organisations, which do not seek to make profits. The major aims of social housing are firstly to provide affordable and quality housing to low and middle-income groups. Secondly, it seeks to accelerate the provision of adequate housing for poor and disadvantaged people and finally it seeks to respond to the universal call for access to adequate housing for everyone in this planet.

It should be pointed out that social housing does not suffer from poor quality and poor location like low-cost housing in South Africa. In some countries in Europe, more specifically the Netherlands and Sweden, where social housing is developed, social housing is opened to all income groups including high income households and rent does not differ from private rental housing (Kirchner, 2007). As a result, there is a limited risk of social exclusion or stigmatization as all income groups live together and share the same facilities.

In Europe, social housing has been a subject of massive government interventions and reforms, especially in England where it has been observed that a huge transfer of social housing units from local authorities to registered social landlords has resulted in the reduction of budgets allocated to social housing. In addition, reforms have been introduced in the access, pricing and subsidies of social housing (MacLennan & More, 2001; Malpass, 2001; March, 2004; Smith, 2006; Gruis & Niebor, 2007). Moreover, as it constitutes an important part of housing stock in Europe, social housing has been considered as a tool to reduce the emission of carbon dioxide and in turn to promote and increased awareness of sustainable issues, as well as sustainable buildings. Bordeau (1999), Sunikka & Boon note "in the European Union, buildings account for over 40% of the total current energy consumption and 30% of all carbon dioxide (CO₂) emissions" (2003, 1).

Located near to work places and major economic activities, social housing is used in South Africa as an important tool to stimulate and promote urban regeneration and the creation of sustainable neighbourhoods. Smith (2006) identifies three roles of urban regeneration. Firstly, regeneration stimulates economic development by attracting investment and creating jobs. Secondly, by improving the quality of urban built environment and public services, regeneration has been connected to physical development. Finally regeneration pursues social and community development. Finally,

it enables urban residents to meaningfully play an active role in the economy and social life of their respective communities. Apart from the objectives assigned to social housing, in South Africa, social housing also plays the role of tackling the persistent housing backlog, estimated at three million units (Pillay & Naude, 2006).

The aim of this chapter is twofold. Firstly, it outlines the general international experience of social housing, especially in Europe. The evolution of social housing as well as the challenges it faces in the creation of sustainable settlements are also reviewed. Secondly, this chapter will analyse social housing in the South African context in line with the NHP. In this section, a rapid overview of social housing projects in Johannesburg and Cape Town will be analysed. Finally this chapter will highlight some elements that South Africa can learn from in terms of social housing in Europe in order to enhance the creation of sustainable neighbourhoods. The main contention guiding this chapter obeys the foremost principle of sustainable development which is formulated that what is built today as a housing unit should not become a problem in terms of the environment, as well as social and economic aspects for future generations.

7.2 Conceptual analysis of social housing

Social housing comprises two main concepts namely, 'social' and 'housing'. The term 'social' attached to the concept of 'social housing' does not refer to a charity issue or to housing which is delivered for free. Instead, it merely means rental housing that is provided by means of state subsidy for low and middle-income households and in some cases for all income groups, including high-income groups. In countries such as Ireland, social housing is not only funded by the state but it is also managed by it. The concept of housing is widely debated and in this study, it is analysed in its relations to sustainable issues. To date, more specifically in Europe, social housing is conceived as a means to foster sustainable issues, through energy efficiency such as the improvement of the thermal performance of the buildings and the reduction of carbon dioxide. It is evident that there is a close relationship between an efficient social housing and sustainable concerns.

As one of the modes of housing delivery, social housing belongs to the public housing sector and puts an emphasis on good location, which means that social housing projects should be close to urban facilities such as shopping centre, clinics, schools and work places. Moreover, social housing uses high densities, which have advantages for the rational utilisation of land and a reduction of transport cost, in the

sense that households may walk to reach their destinations instead of using public or private transport. Furthermore, in reducing the possibility of travelling by cars, social housing contribute to the preservation of the environment. It may be argued that social housing can contribute to environmental sustainability not only in its construction but also in offering to its residents the possibility to use resources efficiently.

Even though it should not be considered as a panacea for the urban poor, social housing constitutes an opportunity for urban poor to live in a healthier environment which offers them the possibility of enjoying urban facilities (Tonkin, 2006). While public housing in general aims to help low-income households to access adequate housing, social housing adds to this end the contribution to sustainable issues. The following part of this chapter will explore social housing in Europe and will more specifically emphasise the contribution of social housing to enhance sustainable issues.

7.3 Social housing in Europe

7.3.1 Overview

Contrary to South Africa where social housing is relatively post Apartheid and constitutes a negligible part in its entire housing stock, Europe has an important tradition of social housing. Sunikka and Boon (2003), who studied social housing in five countries in Europe namely, the Netherlands, Germany, the UK, France and Finland, in connection with environmental policies, provide useful statistics of social housing in the entire housing stock and rental stock. In the UK for instance, one-third of the entire housing stock and 60% of the rental stock are constituted by social housing. Besides, in the Dutch housing sector, social housing represents 36% of housing stock and 15% in Germany. In France, social housing represents 46% of the total rental stock and 48% in Finland (Sunikka & Boon, 2003). Furthermore, as Carter and Fortune (2006) assert, social housing in Europe has been central to the development of a sustainable development policy.

The literature on the social housing sector in Europe does not put an emphasis on some fundamental aspects attributed to social housing such as the use of high densities, the proximity to urban facilities and the rationalisation of land uses. Probably, European cities are not as fragmented as South African cities which are in need of restructuring. Instead, the literature focuses on the implementation of sustainable issues. The voluntary or involuntary omission in the literature related to social housing

in Europe on some fundamental issues attributed to social housing as enumerated above, may explain that European countries and South Africa do not face the same challenges regarding social housing sector.

Following the Tokyo Protocol which has pressurised governments throughout the world to integrate sustainable development policies in their agendas, the establishment of sustainable buildings and the reduction of the emission of carbon dioxide (Sunikka & Boon, 2003) become a major concern in Europe. Several concerns have been raised about social housing in Europe to increase its efficiency and effectiveness in the implementation of sustainable policies. In pursuing the welfare of the people and the preservation of the environment, sustainability must include an awareness of the following issues; energy, water, pollution, transport, ecology, land use and health. Unfortunately, unlike energy efficiency which covers an important number of articles, little has been said in the literature of social housing in Europe about the use of water in terms of water efficiency which, however, also constitutes an important element to estimate the implementation of sustainable policies.

Regarding energy, McKay and Khare (2004) argue that although the concern is more related to the economy than the environment, energy conservation is both, an economic and environmental issue. They encourage registered social landlords who own social housing units to execute energy management programme in order to reduce energy consumption and green house gas emission.

In Europe, Sunikka and Boon (2003) argue that the public sector and the registered social landlords who are managing social housing units are aware of sustainable issues. Attempts to achieve high energy efficiency as one of the positive responses to sustainable issues have been observed in the construction of post Apartheid social housing units in Europe. Macias et al have studied the application of night cooling concept to social housing design in dry hot climate. Indeed, "instead of using fan forced ventilation for the night ventilation, the developed design aims to implement solar driven night ventilation by solar storage" (2006, 1104). Bahaj and James (2007) outline the concept of urban energy generation in built environments, more specifically the use of micro generation with focus on photovoltaics in social housing. They point out that if buildings can be made energy efficient and produce their own energy; this will not only have a real impact on the overall energy demand but also in tackling climate change. In the UK, Carter and Fortune (2006) point out that the government has been allocated massive investment to improve the quality of rented social housing and to introduce

sustainable development policy that addresses the environment, economy and society in equal measure. The idea behind energy efficiency is that although the reduction in energy consumption has positive impact in the preservation of environment, in the long run, energy efficiency leads to economic benefits as it allows residents to save their money. Importantly, the reduction of energy consumption obeys the main principle of sustainable development as it seeks the interest of the current users and at the same time preserves the environment through the reduction of greenhouse emission.

It can be observed that attempts and efforts to integrate and implement sustainable policies in social housing in Europe cannot be questioned. Indeed, governments seek to improve the quality, the access, the pricing and the subsidies for social housing. Besides, post Apartheid buildings which are under construction integrate principles of sustainable issues. However, post Apartheid buildings of social housing represent a small proportion when compared to the entire housing stock (Sunnikka & Boon, 2003). This is to say that although there are government guidelines and an awareness of sustainable issues from the owners and managers of social housing, there is a lack of widespread management of sustainable policies in Europe. It may be asserted that the implementation of sustainable policies concern only the post Apartheid buildings and not the entire housing stock. One may ask why the implementation concerns only the post Apartheid construction of social housing units and not the entire housing stock which constitutes social housing.

The following sections of this chapter, which focus on the evolution of social housing and the challenges it has been facing in Europe, attempt to answer this question.

7.3.2 Evolution of social housing in Europe

Currently, the social housing sector in Europe seeks strategies to improve its effectiveness and efficiency. The introduction of competition in the social housing sector, which is one of the main principles of neo-liberalism, explains the attempt of the public sector to restructure the social housing sector. According to Malpass (2001), the restructuring of the social housing sector in Europe can be dated back to the 1970s.

The process of restructuring or the attempt to improve effectiveness and efficiency in the social housing sector can be perceived from the transfer or the shift of ownership from local authorities to registered social landlords or organisations which do not seize opportunities for profit. Referring to Wilcox (2000), Malpass (2001) notes that in

England, 3.5% of social rented housing were owned by not-for-profit organisations in 1970. In 1998, the percentage rises to 23% and is likely to increase again in the near future. Many authors, including Smith (2006) and Malpass (2001) establish a close relationship between the process of transferring social housing stock and the urban renewal processes.

Smith (2006) notes that the transfer of housing stock does not only seek to generate the investment that registered social landlords need to improve the quality of social housing and environments. It also emphasises social housing regeneration processes and has objectives such as the promotion of social, economic and cultural developments. Besides, Smith argues that regeneration seeks to respond to issues of "economic decline, unemployment, demographic change, low wages, poor level of health and nutrition and bad housing" (2006, 271). Malpass (2001) argues that stock transfer is required to stem the decline in standard and demand. It can be understood as a desire to promote efficiency through competition in bringing more players into the housing market.

Regarding the restructuring process which is happening in the social housing sector in Europe, it may be argued that the transfer of social housing stock from local authorities to register social landlords or not-for-profit bodies should be encouraged if firstly, it intends to improve the quality of the entire housing stock, not only the post Apartheid construction of social housing units. Secondly, this process is useful if it aims to revitalise the social housing sector and increase economic opportunities of low-income households. In other words, the stock transfer is highly appreciated if it is motivated by the desire to integrate or improve sustainable issues in the entire social housing sector. Nevertheless, the stock transfer is ineffective if it jeopardises the access to quality housing for low-income households and if it inhibits their livelihoods strategies. Indeed, restructuring process should profit all income groups, should particularly aim to improve the welfare of poor households.

The stock transfer process is usually accompanied by a budget cut which constitutes another element of the restructuring process, when compared to earlier decades; there is now a low investment in the social housing sector in Europe in general, particularly in England (Malpass, 2001). Social housing has now to compete with other social services for public and private funding (McKay & Khare, 2004). Tsenkova and Turner (2004) who have studied the future of social housing in Eastern Europe with the focus on restructuring processes which have been occurring there. The nature of the reforms

that have been happening in Western Europe is to introduce the private sector in the management of social housing sector. This means that the housing sector, including social housing is no more an exclusive realm of government. Like in Western countries, the major aim of the reforms is to improve the effectiveness and the efficiency of the social housing sector.

In Western Europe, the reforms which have been occurring do not constitute an entire government withdrawal from the housing sector. Gruis and Nieboer (2007) have observed that although the adoption of a neo-liberal policy, many governments in Europe still have a substantial influence in the social housing sector. The introduction or the reinforcement of neo-liberal principles in the social housing sector in Europe should be understood in line of increasing social housing efficiency and effectiveness. This process aims at enabling social housing markets in promoting competition in this sector. The reduction of the government budget for social housing means that registered social landlords or not-for-profit organisations must look for strategies to keep the standard of social housing. Besides, the reduction of the budget may explain that the government wants to play the role of enabler rather than that of provider. This approach presents advantages as well as weaknesses.

The intervention of the government in housing in general and social housing in particular, through mechanisms such as rent control and the allocation of subsidies, has been conceived on the basis that this sector cannot be left only to the principles of market forces. In fact, by the mechanism of rent control, the government determines the amount of rent for social housing sector. This fixation is not guided by the golden principle of 'supply and demand' which requires that the amount of rent be high if the demand is higher than the supply and be less if the demand is lesser than the supply. It can be noted that the amount of rent, according to the mechanism of rent control is determined according to the average income of the residents of social housing. The aim of rent control is to help the 'very' low-income households to profit from the social housing sector. The main idea was to regulate and stimulate the housing market and to ensure that both poor income households and high income households have access to adequate and quality housing. As Gruis and Nieboer have stated, "market forces leave an unattractive rental sector in their wake with high rents for sub-standard housing" (2007, 46). Leaving the social housing sector to be ruled by market principles may lead registered social landlords to seize opportunities for profit, like the private sector, rather than to facilitate access to adequate housing for low-income earning people.

The noble intention of the government to intervene in the housing market does not remain without challenges. Advocates of neo-liberalism argue that the intervention of the government in the housing market can perpetrate the disturbance of supply and demand sides. Besides, as Gruis and Nieboer (2007) argue, rent control may negatively impact in the production of housing units and may push private sector away from the housing sector. Rent control means that registered social landlords do not enjoy freedom to determinate rent prices according to the housing demand. They have to fix rent prices according to government legislation which does not necessarily follow the market value.

Alongside the issue of rent control, the advocates of neo-liberal policy criticise the allocation of subsidies. Three different roles in the housing process may be attributed to the allocation of subsidies. Firstly, subsidy helps in the production of housing units. Secondly, subsidy may aim to maintain and upgrade housing units and finally it facilitates and makes possible the access to adequate housing for low-income households. According to the defenders of neo-liberalism, the allocation of subsidy has negative effects in the housing market. Indeed, it can lead to inefficiencies in the production process and may result in a higher cost of services. The role advocates of neo-liberals to assign to a government to regulate the market through relevant laws and so as to make it work for all income groups. In other words, the intention of the government should be to seek economic efficiency, as well as social equality. However, the outcomes of the implementation of neo-liberal policies across the globe, including South Africa, have shown that inequalities have instead been reinforced (Smart, 2003).

The introduction or the reinforcement of market principles in the housing sector in Europe did not entirely substitute the intervention of government in the housing sector through mechanism such as rent control and the allocation of subsidies. It may be argued that given the importance of housing in the achievement of people's welfare, the government, whatever the adopted system (neo-liberalism or welfare) has the obligation to facilitate the access of adequate housing to all income groups including poor households. The question that arises is how will the government intervene in the housing sector without jeopardising the functioning of market principles and at the same guaranteeing the access to adequate housing for low-income households? In order words, how it can be possible for a government to adopt neo-liberal policies and to remain a welfare state? Although this chapter does not focus much on government intervention, it is worth noting that the intervention of government which suits all

political systems should aim at ensuring economic efficiency and promoting at the same time social equality.

Ensuring the balance between neo-liberal policies which recommends 'free-market' and the intervention of government in the social housing sector remains one of the biggest challenges in Europe. The following section of this chapter will highlight the challenges that face social housing in Europe.

7.3.3 Challenges facing social housing in Europe

Unlike South Africa where a severe shortage of social housing units is among the biggest challenges to be addressed, European countries, more specifically England and France do not currently experience a severe shortage of social housing units among its challenges. In fact, Hall and Hickman (2005) note that social housing in France has been experiencing a decrease in demand in comparison to the supply. This situation has generated issues of empty properties, depressed house prices and a high stock turnover.

Three challenges facing the social housing in Europe will be analysed in this section. Firstly, social housing in Europe is facing the issue of finding the balance between 'free market' and the interventionist approach. Indeed, it can be noted that even though the adoption of neo-liberal policies in Europe, many governments are still intervening in the housing sector. Secondly, social housing is considered as a 'safety net' for low-income households. This conception leads to the issue of stigmatisation or social exclusion. The challenge is how to open the social housing sector to other income groups and at the same time keep the conception of a 'safety net'. This is the second challenge that social housing in Europe is facing. The last challenge that will be analysed is related to the issue of sustainability. In fact, as it has been pointed out, the implementation of a sustainable policy in social housing in Europe such as the management of the environment programme, and the reduction of energy consumption, only concern the post Apartheid buildings under construction (Sunikka & Boon, 2003). The challenge is how to integrate sustainable issues to the post Apartheid construction of buildings and to extend it to the entire housing stock as well.

7.3.3.1 Balance between neo-liberal policy and interventionist approach in the social housing sector.

A free market system is one of the main characteristics of the neo-liberal policy. It aims to leave market functioning to the golden principle of 'supply and demand'. Economists believe that in the free market system, government intervention is not needed to regulate the market. Indeed, the golden principle of 'supply and demand' should itself regulate the market. With the focus on the principle of competition in the free market system, the continuous search of efficiency and effectiveness has become the biggest advantage of the neo-liberal principle.

The interventionist approach or welfare state has for objective to tackle inequalities created by the market approach and to ensure that access to adequate housing does not become the exclusive realm of high income groups or 'wealthy people' only. The advantage of maintaining two approaches that is the market-based and interventionist approach is that all income groups are served and it is likely to create an integrated society where all income groups share the same facilities. The focus on low-income households should not lead the policy-makers to omit middle and high income groups. A housing solution that works for all income groups must be integrated. In other words, housing provisions should avoid to create or to reinforce segregation like as in the case of South Africa (Huchzermeyer, 2003).

It may be argued that the combination of a neo-liberal principle which is market-driven and the interventionist approach is likely to improve the quality of the existing housing stock which may result in enhancing urban regeneration. Besides, the housing needs of low-income households are taken into consideration. Addressing the challenge of finding the balance between neo-liberal policies and the interventionist approach may mean that it is possible for the Government to find a housing solution which can satisfy the housing needs of all income groups.

The main objective of social housing which is to accelerate the provision of adequate housing for low-income households leads to identify social housing as a 'safety net' for low-income households. This conception leads to the *facto* segregation. Keeping social housing as a safety net for low-income households while other income groups have the access to social housing is the challenge that social housing has to face in Europe.

7.3.3.2 Approach to integrate all income groups in social housing

The concept of a safety net refers to the environment where low-income households feel safe and comfortable and where it is possible for poor people to undertake economic activities such as trading to generate income. Designed for people in the greatest need for housing, the main beneficiaries of social housing are essentially low-income households and in some cases, like in South Africa, middle income groups. Obviously, the 'safety net' presents many advantages for low-income households. It may be argued that 'safety net' contributes to create a friendly environment and a place where low-income households can safely undertake their activities to interact and connect with other people from the same background. The reinforcement of social linkage which may lead to economic advantages that are important for the survival of low-income households is the most significant assets which can be derived from 'safety net'.

While a 'safety net' is very beneficial for the residents of social housing, it is likely to become synonymous of a place where it is possible to identify poor people and those who are in the greatest housing need. As social housing is inhabited by low-income people and people in greatest need of housing, the risk in creating segregation is very high in social housing. The question that arises from the restructuring of social housing is how to keep together the concept of a 'tenure of choice', where the access to social housing is no longer a function of income groups or of being in a desperate housing need but of a choice, and the concept of 'safety net' which promotes social assets for low-income households.

In Europe, Sweden and the Netherlands the access to social housing is not limited to a category of income households. All income groups, including higher income groups may access social housing (Kirchner, 2007). As an advantage, the social housing has not been stigmatised or identified as a factor which spreads segregation and a concentration of poverty. While the integration of all income groups in the social housing sector presents advantages and can be favourable to market-based principles, it can also discriminate against poor people who cannot compete with middle and high income groups. In their study related to the reform of social housing in England, Fitzpatrick and Pawson (2007) point out that the challenge of keeping together the understanding of social housing as a mixed 'tenure of choice' and the 'safety net' for low-income households can be addressed if the government gives attention to the

distribution of the choices created. This means that the government should ensure that access to social housing does not discriminate against poor households.

The last challenge that social housing has been facing in Europe is about the implementation of sustainable policies in the social housing sector. In fact, it is believed that social housing can play a determinant role in the implementation of sustainable policies which has environmental, economic and social benefits. While there is no doubt that registered landlords are aware of sustainable issues and that they integrate the sustainable policy in the construction of post Apartheid social housing units, it is not evident that the implementation of sustainable policies is extended to the entire housing stock. The challenge to be addressed is to implement sustainable policies in the entire social housing stock and not only in the post Apartheid social housing units.

7.3.3.3 The implementation of sustainable policy within the social housing sector

The implementation of sustainable policy in the social housing sector has environmental benefits as it can significantly reduce the emission of carbon dioxide. Implementation such as energy efficiency does not only have environmental benefits, it can, also produce economic benefits for the residents. In fact, the concept of 'energy efficiency' which is one of the means to foster sustainable development refers to the rational utilisation of energy which becomes in developing countries including South Africa a scarce and costly resource. In saving energy, households save money which they can use for other ends such as education, food and entertainment.

However, in Europe, as Sunikka and Boon (2003) have stated, the progress in sustainable management in the social housing sector has been slow. This is because the implementation concerns only the post Apartheid social housing units which in principle constitute only 1% of the entire social housing stock. The question that arises is how registered social landlords and local authorities who are aware of sustainable issues do not extend them in the entire social housing sector.

One of the plausible explanations may be that the government estimates that the expansion of environmental policies in the entire social housing stock may be more expensive than the construction of post Apartheid social housing units which incorporate environmental policies. This approach explains the transfer of the ownership of the social housing stock to the registered landlords or non-for-profit organisations. Among reasons that motivated the transfer of social housing stock, the

literature points out the need to promote efficiency and effectiveness in bringing about competition in the sector, the need to improve the quality of social housing stock and the desire to bolster urban regeneration (Malpass, 2001; Smit, 2006; Gibb & Nygaard, 2006).

The second explanation of not incorporating the environmental policies in the entire social housing stock is the adoption of neo-liberal policies which encourage the private sector to be more and more involved in service delivery. In fact, neo-liberal principles require governments to reduce their expenditure for social services and to intervene as less as possible in social services, including the housing sector. Related to rental housing, including the social housing sector, the reduction of government budget opens the door for private sectors to invest in the housing sector (Lux, 2001). One of the advantages of the neo-liberal policy is to stimulate the search for efficiency and effectiveness in the housing market and the promotion of economic growth. Proponents of neo-liberal principles believe that economic growth will bring about poverty alleviation. However, the reality contradicts the assumption of neo-liberal principles as it shows that it either creates or deepens inequalities instead of bringing the improvement of poor households' living conditions.

In South Africa, before the release of BNG, the rental housing sector and social housing in particular has been a subject of scant attention from the government (Department of Housing, 2004). This is because the housing policy contained in the 1994 Housing White Paper privileges ownership option over the rental option to which belongs the social housing sector (Omenya, 2002). In South Africa, social housing is conceived as one of the housing solutions for the urban poor who have chosen the rental option. The main challenges facing the social housing sector in South Africa are firstly that this mode of housing delivery is not designed for the poorest of the poor who earn a monthly income between 0 and R1500. It requires households who have a regular and formal income and who are earning a monthly income between R1500 and R7500 (Tonkin, 2006). The second challenge is that the stock of social housing or the supply is very limited and does not satisfy the demand for social housing (SHF, 2005). Finally, unlike in Europe, the focus on environmental issues in the management of social housing in South Africa does not receive a very close attention (Tonkin, 2006).

The following part of this chapter will analyse social housing in South Africa, with emphasis on the issue of sustainability.

7.4 Social housing in South Africa

7.4.1 Overview of public housing programme in South Africa

The South African government has committed itself to provide adequate housing with the ownership option to low-income households. Between 1994 and 2004, the South African government has delivered more than 1.6 million houses, mostly through the subsidised programme of the national government (Lizarralde & Massyn, 2008). Although the impressive number of houses delivered, severe criticisms have been levelled at the public housing project initiated by the South African government. Characterised by its poor quality and location, low-cost housing in South Africa has failed to create sustainable human settlements and to contribute to the national priority of restructuring South African society (Department of Housing, 2004). Indeed, low cost housing did not address structural, economic and spatial disfunctionalities created by the Apartheid regime. According to Pillay and Naude (2006), South Africa is facing a low-cost housing crisis.

Related to sustainable issues, low-cost housing is environmentally unsound and unhealthy. It raises serious concerns about the future of its residents. Goebel (2007) points out that, although there are some positive aspects in the provision of low-cost housing, there is growing concern regarding the social and environmental sustainability of the low-cost housing. Besides, in a study conducted by Charlton and Zack (2003) regarding the perception of low-cost housing by its beneficiaries, the authors note that even though the pride resulting from owning a house, beneficiaries of subsidised houses are worrying about the welfare of their children. In fact, with its poor location, especially in urban peripheries, low-cost housing in South Africa does not provide its beneficiaries with economic and social opportunities (Huchzermeyer, 2003).

The substantial shift was operated after ten years of the implementation of the 1994 housing policy in 2004, when the government released its post Apartheid vision or plan for the development of sustainable human settlement referred to as BNG. The following section will focus on the evolution of social housing in line with housing policy.

7.4.2 The evolution of social housing in South Africa in line with housing policy

The South African housing policy contained in the 1994 housing white paper did not give much space to rental housing in general, particularly social housing. Omenya

(2002) and other analysts such as Khan (2003) affirm that the 1994, post Apartheid housing policy gave priority to the ownership option over the rental option. Surely, the government considered housing as an end instead of conceiving it as a means which should help to achieve other goals such as households' happiness or the alleviation of poverty (King *et al*, 2003 cited in Osbone, 2005). This understanding of housing as an end has led to the failure to offer to households many housing options in practice to access adequate housing as it is defined in the 1994 Housing White Paper.

Besides, the 1994 South African housing policy omitted to include in its programme the housing need of middle income households. Consequently, middle income groups were neither eligible for the government public housing programme, nor for bank credit. There were not enough housing solutions for this income bracket like for low-income and high income groups. The voluntary or involuntary omission of middle income groups in the post Apartheid housing policy was a serious obstacle to an inclusive and integrated solution to the housing need of all income groups and compromised the socio-economic and spatial restructuring of the South African landscape. The rental housing sector, including social housing became an area of close attention from the policy over the last few years.

Although substantial shifts operated in the housing sector, BNG is not to be considered as a post Apartheid housing policy (Department of Housing, 2004). It is merely a post Apartheid plan or vision which aims to revitalise the development of sustainable human settlement in promoting urban integration, socio-economic development and the regeneration of the urban infrastructure and environment (DoH, 2004). As one of the modes of housing production, social housing starts to emerge in South Africa from the adoption of the BNG by the Department of Housing. The SHF which has among the objectives to provide capacity building and technical support to social housing institutions and local governments assigns among objectives to social housing, the regeneration of inner cities, the development of well located land, and the accommodation of higher density development. Besides, given the underdevelopment of the rental housing sector in South Africa, social housing also intends to address the increasing demand for rental housing, especially in urban areas and widen the range of housing options available to the poor (DoH, 2003). In addition, social housing appears as one of the housing solutions for middle income groups who were disregarded during the first ten years of housing delivery. With its good location, particularly in relation to access to economic and other urban opportunities and facilities, social housing is a significant tool to promote economic, social and cultural sustainability in South Africa.

Developed in cities which are, according to UNCHS Habitat (1996), an engine of development, social housing may be primarily seen as an urban housing delivery option.

Compared to the low-cost housing project which raises major issues about social and environmental sustainability (Goebel, 2007), social housing supports the economic, social and cultural development of low-income communities as it is close to job opportunities, markets and transport. In addition, it fosters job opportunities to emerging entrepreneurs in the housing services and construction industries (DoH, 2003). Furthermore, social housing utilises high density housing which presents as advantage a rational use of land and infrastructure integration into existing areas. Urban land is central to economic and social housing development.

As it has been developing in the heart of urban environment, social housing offers to its residents the possibility to use urban facilities to undertake survival activities such as trading. More importantly, in promoting high density housing and rational utilisation of land, social housing is a factor contributing to the quality living environment and social integration in South Africa. In this sense, social housing may be used to promote compact city, which according to Todes (2003) is an effective way to restructure South Africa's cities which remain fragmented and unequal (Harrison *et al*, 2003).

The regeneration of inner city is one of the roles attributed to social housing in South Africa. It is achieved through design and the delivery of quality housing. Design constitutes an integral part of social housing and quality housing creates a quality living environment. The design of social housing should not only be limited to an architectural perspective but, it should also include residents of social housing's views. This is one of the challenges that contemporary planning must address when designing social housing. According to Friedman (1998) effective planning activities should include the views of the people who should benefit from planning activities. Alongside the planning issue which social housing must addressed, the issue of urbanisation should be raised as well. In fact, cities where social housing has been developing attract people from rural areas for multiple reasons. This means that design of social housing should include the issue of urbanisation in for example designing social housing units for migrants who live temporarily in cities before returning to their living space.

From the architectural point of view, alongside the creation of a beautiful living environment, social housing can support social sustainability of its residents if it

prevents some levels of crime through design. From residents' perspective, the design of social housing can promote economic sustainability of its inhabitants, particularly poor households if it creates a trading area or a space which supports small businesses and allows low-income households to undertake economic activities in order to improve their living conditions (Tonkin, 2006). These two aspects of design should go hand in hand in the promotion of urban regeneration because the omission of one of them can negatively impact on the creation of sustainability. Therefore, the private sector may be reluctant to invest and as a result, social housing will fail to contribute to the creation of jobs.

Regarding the perspective of residents of social housing, it is believed that the purpose of urban regeneration is for the improvement of poor households' well-being. If social housing does not enhance economic opportunities for poor households, it will create a beautiful living space but it will not empower poor households. In that sense, the outcomes of urban regeneration driven by social housing will be similar to those of neo-liberal policies. In fact, it will not profit poor households and will empower those who are 'already wealthy'.

Tonkin (2006) has conducted research to assess the performance of social housing in relation to its contribution to spatial, economic and social sustainability in South Africa. Three social housing projects have been analysed of which two are in Johannesburg and one is in Cape Town. Tonkin (2006) argued that the outcomes of the implementation of social housing in South Africa have yielded mixed results. It can be noted that by its very good location, rational utilisation of land, the use of high density environment and its architecture innovation, social housing creates a quality living environment and offers economic opportunities to its residents and supports their social integration into the urban fabric. These elements should be achieved through the design of social housing. Indeed, it is believed that efficient social housing may be considered as a chance for the urban poor.

The following section will highlight the contribution of social housing in the development of unsustainable human settlement.

7.4.3 Social housing and sustainable issues

Tonkin (2006) enumerated that key elements to be considered when evaluating whether or not a social housing project promotes sustainable issues include the

following; good location, mixed use environment and livelihood consideration. Secondly, issues such as tenure, household participation and capacity building should be considered. Thirdly, environmental sustainability and energy efficiency, as well as typology and unit design are very important. Finally, the issue of affordability should not be overlooked.

In his study related to three housing projects located in Johannesburg and Cape Town, Tonkin (2006) notes that the issue of location does not pose a threat for the residents of these three projects. Residents of these three social housing projects can enjoy urban facilities. This confirms the fact that social housing contributes to the creation of a sustainable housing environment by its location in relation to urban opportunities or facilities. In considering the issue of location, it is expected that residents, particularly poor people will benefit from a good location in minimising the time and the monetary cost when travelling to work, schools, shopping centres and clinic.

However, with the lack of enough firms which characterises South Africa to absorb the high level of unemployment, residents of social housing are sometimes required to travel a very long distance to work in the area where they can find job (Baumann, 2003). Referring to the lack of enough formal employment, it can be argued that, although located in the heart of cities, close to public transport and other urban opportunities, social housing in South Africa fails to attract significant investment surrounding its projects. Two possibilities may be presented here: either social housing should be established in areas where a lot of firms are implanted, so that residents are close to their work place and may walk to go to work, or social housing should stimulate private investment and promote job creation around its projects. The first possibility seems easier and workable but it is not evident that available and affordable land for housing development may be always found around the areas where firms are located.

Related to sustainable issues such as energy efficiency and the recycling of grey water, Tonkin (2006) notes that none of the social housing projects studied in Johannesburg and Cape Town initiated an environmental programme to save electricity or to recycle water. This lack of awareness of environmental sustainability, particularly the reduction of energy consumption which has economic benefits for residents, shows that social housing in South Africa fails to play one of its assigned roles of promoting sustainable policy. As Tonkin argues, with its higher density environments, social housing presents "ideal opportunities to promote energy efficiency

and environmentally sustainable technologies on a large scale, both in terms of reducing monthly costs for residents and reducing costs on the environment" (2006, 7).

Although the advantages that social housing presents such as its good location in relation to urban opportunities and facilities and its rational utilisation of land which leads to higher density housing environments, social housing faces many challenges in South Africa. Among challenges, Fish (2003) notes the lack of affordable land in urban areas. Besides, issues of affordability and lack of finance may be considered major obstacles inhibiting the smooth functioning of the social housing sector in South Africa. The following session of this chapter deals with challenges that social housing must address in order to play its roles of promoting urban regeneration and accelerating the access to affordable quality housing for low-income households.

7.4.4 Challenges facing the social housing sector in South Africa

It has been noted in the section above that, when compared to Europe, social housing is relatively post Apartheid and underdeveloped in South Africa. The achievement of social housing so far reveals that it presents mixed results (Tonkin, 2006). Highlighting some positive outcomes of the social housing sector, the Johannesburg Housing Company (JHC) (2005) which is one of social housing institutions, believes that it has achieved two main goals. Firstly, it succeeded in supplying quality affordable housing to low-to middle income groups. Secondly, it created sustainable communities in the inner city of Johannesburg. Besides, JHC (2005) claimed that it added 8% to the residential stock of inner city of Johannesburg. However, JHC is aware that given the high demand for rental housing in general and particularly social housing in the inner city, more social housing units are needed to satisfy such growing demand. It can be noted that social housing in South Africa must address the issue of severe rental stock shortage.

7.4.4.1 Addressing the issue of social housing shortage

The main challenge facing South African social housing sector is to increase its delivery so that low and middle income groups who have chosen the rental option may be adequately served. This is a central issue which summarises other challenges and shows that to date, the demand for social housing units is higher than the supply for social housing units in South Africa. According to the department of housing, the objective was to provide 50 000 social housing units of all types within five years to

meet the rental housing need of low and middle income groups (DoH, 2004). This may be possible with the financial capacity and the improvement of partnership between public and private sectors. The challenge of increasing social housing units bears at the same time others challenges such as to increase finance and to address capacity building within social housing institutions. Besides, as the housing development is a function of availability of land, issues of affordability and availability of urban land should be addressed.

7.4.4.2 Addressing the financial capacity issue

Without addressing the financial issue in allocating substantial subsidies for social housing in South Africa, this mode of housing delivery is unlikely to fully achieve its goals of providing quality affordable housing to low-to middle income groups. It will sacrifice the rental housing need of low-income and will only benefit middle and high income households. Although the department of housing (2004) advocates that the target of social housing are people who are monthly earning between R1500 and R7500, Tonkin (2006) argues that only people earning a minimum of R2400 can afford the rent in the social housing sector. In fact, in its start, social housing in South Africa was not designed for low-income households. It intended to serve middle income groups defined in South Africa as households earning a monthly income between R3500 and R7500. The shift intervened in 2004 when the definition of social housing inserted and highlighted low-income households as its target (DoH, 2004). The challenge to be addressed is to mobilise enough funds for social housing institutions not only to manage and monitor the social housing sector but also to make social housing sector accessible for low-income people.

The mode of tenure option adopted by social housing requires residents to have a regular and permanent income that may help them to honour their rental obligation (Fish, 2003). With the high rate of poverty and unemployment in South Africa, one may argue that without significant subsidies to accommodate poor households, social housing in South Africa will exclude this segment of population. The question that arises about poor households who cannot afford to inhabit in social housing units is to know what will happen to them if they do not benefit from the public housing programme either. They will probably end in informal settlement which is, according to Huchzermeyer and Karam (2006) a perpetual challenge in South Africa.

Alongside the challenge of increasing finance for the efficiency and effectiveness of the social housing sector, the issue of a lack of capacity to manage and monitor the social housing sector should be addressed.

7.4.4.3 Addressing the issue of a lack of capacity in the social housing sector

The increase of a social housing stock presumes that there are competences to manage and monitor the social housing sector. South Africa suffers from a lack of skills (Baumann, 2003). The report of SHF shows that the capacity within government and housing institutions is limited to manage and monitor the social housing sector (SHF, 2005). It can be noted that the lack of skills is one of the biggest challenges to be addressed not only in the social housing sector but in all sectors. Improving the capacity in social housing sector can have the advantage of introducing innovations in the sector and to improve the management in the social housing sector. Besides, the social housing sector cannot fully achieve its defined goals if the issue of limited capacity is not addressed. In fact, in its study related to three social housing projects in Johannesburg and Cape Town, Tonkon (2006) observes that residents were not aware of environmental sustainability such as saving energy or water through energy efficiency or water recycling.

The introduction of post Apartheid technologies in the social housing sector which may have environmental and economic advantages for residents, and the running of the management of energy efficiency programmes require skilled people to direct the project. It can be argued that the lack or the limited capacity in social housing in South Africa prevents it in playing a role of promoting sustainable policies. The final challenge to be analysed in this chapter is the availability and the affordability of urban land for social housing development.

7.4.3.4 Addressing the issue of available and affordable urban land for social housing development

The issue of land in general and urban land in particular is one of the burning issues in South Africa. Urban land is fundamental to the success of the social housing development. The Department of Housing (2004) attributes the poor quality and location of low-cost housing which has been developing in urban peripheries to difficult access to well-located urban land at affordable prices. The supply of social housing cannot be improved within addressing the urban land issue which characterises the housing sector in South Africa. The private sector turned away from affordable housing,

delivered for low-income households, because of difficult access to adequate and affordable land (BASA, 2005). Apart from the difficult access, the urban land market is dysfunctional in South Africa and does not profit poor households who sometimes rely on land invasion to fulfil their housing need (Huchzermeyer, 2003).

The dysfunctionality of the land market in South Africa which is perceived in the existence of two land markets, namely the formal and the informal land market, slows down the delivery of social housing. According to analysts such as Carey *et al* (2003), the existence of two land markets in South Africa is the result of bureaucratic and complex procedures observed in the current formal land system. Among the solutions to address land issue in South Africa, Royston and Narsoo (2006) suggested including informal land market in the global strategy relating to land issues. The history of developing countries, including South Africa, is characterised by slavery, colonialism and Apartheid. It can be argued that during these past periods the distribution of land has not been conducted on the basis of justice and fairness. This means that land reform should be included among the solutions for addressing the urban land issue in South Africa.

Although the complications surrounding the urban land issue which remains a fundamental prerequisite for the smooth supply of social housing units, social housing remains the ideal regarding the rational utilisation of land. Compared to public housing, namely called RDP housing which uses horizontal expansion and therefore a huge space of land, social housing presents a sustainable solution related to urban land. In fact, social housing uses vertical expansion and does not need a huge space of land for its development. With its vertical development, social housing accommodates a lot of households in using a reasonable space of land. In this sense, social housing, which uses a high density development, responds to the issue of urbanisation in allowing its residents, mostly urban low-income households to compete for resources within urban centres (McCarthy, 2006).

Three main challenges, namely, the access to finance, the building of capacity and the access to urban land have been analysed in relation to the severe shortage which characterises the supply of the social housing sector in South Africa. From the demand side, poverty and unemployment have been seen as the main obstacles inhibiting the smooth functioning of social housing. In fact, poverty and unemployment impact negatively on low-income residents of social housing to honour their rental obligations.

The following and last session of this chapter will draw on the social housing experience in Europe to enhance social housing sector in South Africa.

7.5 Enhancing the social housing sector in South Africa

Undoubtedly, the social housing sector in South Africa has a lot to learn from the European experience of social housing. In fact, Europe has a tradition of social housing dating back from the late nineteenth century (O' Sullivan, 2004). Besides, social housing in Europe constitutes an important part in the entire housing stock in general and rental housing stock in particular.

Two issues will be analysed in this section. The first issue is to include poor households and people in the greatest housing need as targets of social housing and the inseparability of social housing and the promotion of sustainability. The first issue to be highlighted is at the level of the definition of social housing. The research conducted by the Development Action Group regarding the social housing sector in South Africa reveals that social housing should be considered as one of the modes of housing delivery aiming to meet the housing need of South Africans and not a panacea or a substitute for housing the urban poor (Tonkin, 2006). The lesson to be learnt here is that social housing can be extended to poor households and people in the greatest housing need who opt for the rental housing option. This will provide the urban poor with the opportunities to enjoy urban facilities and to enhance strategies to improve their living conditions. It should be noted that the revised policy draft for social housing put an explicit mention on low-income households in the definition of social housing (Department of Housing, 2003). However, the implementation of social housing offers another reality. From his study of three social housing projects in Cape Town and Johannesburg, Tonkin (2006) shows that low-income households who earn less than R 2400 per month could not afford the social housing. Without raising the debate about accountability and corruption at the level of spheres of government who finance social housing in South Africa, it could be noted, in referring to the European experience of Social housing that poor households can effectively benefit from social housing. The solution would be for the government to increase its subsidies for social housing and to use mechanisms such as rent control to ensure that low-income households can meet their rental obligation.

Alongside the issue of access to social housing by the poor, the study conducted by Tonkin (2006) reveals that the social housing sector in South Africa is not fully aware of the close relationship existing between social housing and sustainable issues. In fact, it

is easier, cheaper and practical to deliver services and to enforce sustainable policies in social housing projects than in RDP housing. In using buildings which can cover a lot of units, social housing managers can control the use of water, electricity and the removal of rubbish. Referring to the European experience of social housing, South Africa can use social housing sector to raise the consciousness of tenants to save energy, water and resources so that other generations can not experience perturbations in water or electricity supply.

7.6 Conclusion

Social housing can be viewed as a useful tool to accelerate the delivery of quality and adequate shelter to low-income households who are unable, either to purchase a house through the housing market or to rent in the private housing sector. Besides, it has been shown that social housing cannot be understood outside of the framework of sustainable issues. In fact, social housing promotes the awareness of sustainable aspects such as economic, social and environment. Tonkin (2006) argues that the connectivity of sustainable aspects in the delivery and management of social housing are key for sustainable settlements and sustainable communities. It has been argued that by its design social housing is a vehicle of urban regeneration.

Many countries of Western Europe (such as England and Netherlands) and South Africa do not have the same experience in the implementation of social housing. While social housing has been a subject of massive government interventions through access, rent control and allocation of subsidy (Pawson, 2006), the South African housing sector has failed to increase its delivery for social housing, despite the growing issue of urbanisation which has been increasing the demand for rental housing, particularly in inner cities. It has been noted that social housing in South Africa did not achieved its defined goals yet. Probably, because South Africa is still learning the experience of social housing from European countries and the lack of financial and institutional building limits the performance and implementation of sustainable policies in the social housing sector (SHF, 2005).

Social housing is very developed in many countries of Western Europe such as England, Netherlands, Germany and France (Sunikka & Boon, 2005). Currently, in Europe, the social housing sector seeks to improve its delivery in improving the access and pricing and subsidies (Pawson, 2006). The implementation of social housing in Europe does not go without challenges. It has been noted that residents of social housing who are low-income households and people in greatest housing need have been experiencing issues of segregation and stigmatisation.

However, although the high risk of segregation and stigmatisation present in the social housing sector, authorities in charge of housing, particularly in England, considered social housing as a 'safety net', a friendly environment allowing poor households to enhance strategies and to develop assets in their disposition for improving their welfare (Pawson, 2006). One of the challenges of the future of social housing in Europe is to widen the access of the social housing sector to all income groups so that the risk of segregation and stigmatisation can be reduced and to keep at the same time the concept of 'safety net'.

In South Africa, emphasis has been put on the good location and quality of social housing units. Conceived as a tool to foster the development of sustainable settlements, social housing should not exclude poor households and people in the greatest housing need. Mechanisms should be envisaged, such as the increase of housing subsidies to integrate these categories of the population in the social housing sector. The failure to do so will worsen the housing conditions of the urban poor and will increase the possibility for them to rely on informal settlements.

CHAPTER 8: SETTLEMENT AND NEIGHBOURHOOD PLANNING AND DESIGN

8.1 Introduction

As discussed in the previous chapter rapid urbanisation in developing countries, including South Africa, has been exacerbating urban poverty. One of the domains explored in this thesis is the deterioration of shelter conditions and living environments of the urban poor households. This chapter attempts to focus on the influence of neighbourhood planning and design on household satisfaction as well as the stability and sustainability of the human settlements.

A pleasant neighbourhood is where potable water is available, food and other goods can be purchased, there is sufficient waste disposal and sanitation being provided, and police and fire protection is present (Branch, 1985). Furthermore, where residents are satisfied with living conditions, and improvements for the poor can be made - healthy communities are developed. As Mohan and Twigg (2007) pointed out, "a sense of place and community are clearly important questions." The UN-Habitat's (2006/2007) statement, which emphasises the importance of place and community, claims that where we live matters.

Town planning which basically deals with issues such as roads, buildings and land, affects the socio-economic life of residents. As Broady (1968) notes the physical form and layout of buildings and spaces could determine the quality of social or economic life of inhabitants (cited in Taylor, 1998). The direct implication of the relationship between the physical environment and the socio-economic life of residents is that neighbourhoods should be understood beyond the physical form of environment and must be designed in a way to stimulate socio-economic activities of the residents.

Recent studies conducted in some parts of the world about city life ascertain a close relationship between inhabitants' happiness and a pleasant neighbourhood (Djebarni & Al-Abed, 2000; Mohan & Twigg, 2007; Pan Ké Shon, 2007). In their study of low-income public housing in Yemen, the study concluded that a neighbourhood is a determining factor in an inhabitants' well-being and affects the overall housing satisfaction. Although from the survey of English Housing (2002/2003), Mohan and Twigg (2007) argued that there is an association between local socio-economic context and the perception of the neighbourhood quality of life. They pointed out that the

question of people's happiness couldn't be approached in abstraction from the place, in which they live. In other words, Mohan and Twigg (2007) stressed the importance of a place in relation to people's perception of the quality of life. In a French survey, seeking to determine residents' perceptions of their neighbourhood, Pan Ké Shon (2007) pointed out that the reasons for the residents' satisfaction or dissatisfaction reflect both personal inclinations and characteristics of the neighbourhood. Hence, a neighbourhood plays a crucial role in the inhabitants' welfare.

In South Africa, the relationship between built environments, more specifically housing and the socio-economic life of residents appeared in the 1997 Housing Act, where housing is perceived beyond the simple existence of a shelter. The 'quality of life' survey conducted in South Africa by CASE in 2006, found that although the "place of residence is not a significant predictor of life satisfaction, because all the areas under study suffered from severe economic disadvantage, with deficits in income; employment opportunities and dissatisfaction with housing and public services" (CASE, 2006, 13), residents of formal housing areas are more satisfied with their quality of life. This was especially when compared with those living in informal settlements, where neighbourhoods do not provide necessary social amenities. It can be argued that public housing or subsidised housing has given priority to the delivery of shelter without focussing on the creation of pleasant neighbourhoods. This explains the existence of low-income housing in the poor locations and the perpetuation of poverty among residents of these housing schemes.

Besides, in her study related to the satisfaction of personal and environmental quality of life in Soweto, South Africa, Westaway (2006) argued that inhabitants of squatter camps had the lowest levels of satisfaction with regards to their personal and environmental quality of life. She concluded that adequate housing or in terms of Salmela (2007) 'a happy home' contributes to a stable society and is the main constituent of neighbourhood satisfaction, thus recognising that there is a strong relationship between the two.

The intrinsic relationship between neighbourhood and adequate housing should stimulate planners, policy-makers and communities to design housing projects which are lively, convenient, safe, close to work place and shops, facilitate poor households' livelihood strategies and prevent the degradation of the physical environment. In this sense, planners in general and urban planners in particular have a significant role to play in the creation of sustainable neighbourhoods, which contributes to the

inhabitants' life satisfaction and promotes comfortable urban life.

Essentially, this chapter explores the elements, which contributes to the creation of convenient neighbourhoods that are, "capable of producing high quality environments, in terms of spatial design and organisation, use of natural resources, social improvement and engagement and standard of living" which in turn bolster the creation of sustainable human settlements (Nedovic-Budic & Cavric, 2006, 399).

8.2 Evolution of settlement planning

Modern town planning, sometimes called country planning, defined as "the art and science of ordering the use of land and the character and siting of buildings and communicative routes" originated partly in response to the overcrowded, unhealthy industrial cities of the nineteenth century (Taylor, 1998, 6). As Taylor (1998) observed, although planning activities may greatly affect the realisation of economic, social and political ends, it is primarily concerned with land use and the physical environment.

Urban planners stand accused of exacerbating social and environmental conditions, such as car-dependence, poor local accessibility and social exclusion, which are the factors negatively affecting urban life (Marnot & Wilkinson, 1998; Barton & Tsourou, 2000). Current planning is based on the policies that encourage the State to become ideologically conservative and more subservient to the needs and demands of capital, turning away from the simultaneous pursuit of both economic growth and welfare. Moreover, as Beauregard (1989) has argued, everywhere in Europe the proponents of the Welfare-State project seem to be ideologically in crisis, confused and internally divided (Beauregard, 1989).

The 1980s witnessed a general process of industrial restructuring throughout the world (Priore & Sabel 1984; Albrechts & Swyngedouw, 1989; Amin, 1994). There are several versions explaining this round of restructuring. A dominant interpretation, however, is that the Fordist mode of development based on an international spatial division of labour in the industrial realm and on regular state intervention resulting in the building of the Welfare State, has been superseded by a post Apartheid, more geographically open and market-based mode of production founded on a growing and all encompassing flexibility (Albrecht & Swyngedouw, 1989). During the 1980s and 1990s, mainstream planning was basically aimed at smoothing the negative implications of

uncontrolled economic development and was concerned with optimising the environmental conditions for an ever-widening economic expansion.

Under the spell of neo-liberalism, planning became increasingly associated with inefficiency, regulation and excessive cost, hindering individual freedom and the functioning of a free market economy. Neo-liberals and conservatives assumed that the economic factors spontaneously develop towards an optimal state of affairs or, if this would prove to be only partially true, then only very limited state intervention is desirable. Procedural rationality and formal efficiency gained in respect of the disadvantage of substantive and normative rationality, which deals with the questions as to what planning is all about, who profits from it, what kind of society planners really help to plan and where the societal responsibilities lie. As a consequence of this proceduralist approach, planning came more than ever under the spell of technical and positivistic reasoning (Harvey, 1997; Swyngedouw, 1987).

As during the high tide of Fordism, many people were able to improve their condition of living as now an underclass was emerging (Gans, 1991). Underclasses were emerging especially in poor regions and cities leading further to the satisfaction of poor and rich regions (Wilson, 1991). Another related problem concerned the rebirth of nationalism, an ideology that again gains respectability everywhere (Gellner, 1983; Hobsbawn, 1992). This ideology couples itself to the economic restructuring and changed ideological outlook. In fact, nationalism aims to spread negativity and to direct widespread discontentment towards the weakest parts of society, such as the 'ethnic' minorities, the disadvantaged, the unemployed and the excluded. Political activities move away from the traditional, political representational institutions to the spheres, which traditionally were not considered political such as the mega-enterprise, high-tech research and the media (Beck, 1988; Huyse, 1994). The ability of the capital to circulate globally redefined and weakened the role of traditional state-based politics (Offe, 1984; Castells, 1989).

Planning has become so complex that planners cannot keep up with it. Planning protrudes in so many directions; the planner can no longer discern its 'shape' (Wildavsky, 1973). However, Wildavsky warned, if planning is everything, then maybe it is nothing. Most planners have not left the modernist mode of thinking, but often seem to be engaged in an enterprise, which on the theoretical level, consists of a rather associative and intuitive made-up mix of both modernist and post-modernist insights, some of which even contradict each other. It will be necessary to take post-modern

objection seriously and to incorporate these views substantially and systematically in the planning theory (Wildavsky, 1973).

Critical planning theory, communicative planning and radical planning are related. They are concerned with equity, the distribution of power in society and the extent to which planning reflects this distribution (Friedmann, 1987). Hillier (1993), explains practical reasons for planning decisions should involve the Aristotelian notions of persuasion, reflection upon values, prudential judgment and free disclosure of ideas (Forester, 1989). Only when each community involved listens to others and recognises the legitimacy of the different perspectives, a level of shared understanding can be reached in which areas of congruence or overlapping qualities can be discovered. For Hillier, rational debate is possible between proponents of different truths, provided that their system of thought intersect at some point and that the instrumentalism of 'expert culture' (Dryzek cited in Hillier, 1993) is not overpowering.

One important consequence of the search for sustainable urban development has been a resurgence of interest in compact city theories and policies. While there have been a number of attempts to define and clarify the concept of the compact city and its relationship to sustainable urban development, it is possible to offer a tentative and composite definition of a contemporary compact city that aims to strengthen urban, economic, social and cultural activities in pursuit of environmental, social and global sustainability benefits derived from the concentration of urban functions.

The current resurgence of interest in policies for compact cities dates from late 1980s and has largely been propelled by the search for the global sustainability goals on climatic change and resources used as embodied in the Brundtland Commission Report (WCED, 1987) and the UNCED Agenda 21 proposals (1993). Interest in compact city policies over the last ten years has almost been exclusively limited to the experience of developed countries such as the US, Europe, Japan, and Australia. There are a number of reasons for encouraging interest in the compact city debate in developing countries. Perhaps most immediate is the global scale of the environmental problems to which the policies are addressed.

Given the fact that less than a third of the world's population live in developed countries, a proportion, which is set to decline further, it is clear that the success or failure of these policies will depend on their simultaneous application in developing countries. The impact of inadequate environmental infrastructure and services on the

health and productivity of the urban poor has been recognised along with the socio-economic impacts of environmental degradation in poor neighbourhoods. The question of how to bring the urban poor and the not so poor into the range of effective demands capable of improving the coverage and maintenance of urban infrastructure and services has proven to be particularly intractable.

Although some proponents of sustainable urban development (Cohen, 1996) and global cities (Sassen, 1991) identify a tendency towards 'urban convergence' and 'globalisation' as a homogenising force, it seems more likely that the formulation of successful compact city policies will be based on recognition of this differentiating dynamic. Differences may manifest themselves in all aspects of urbanisation and urban development process and this in turn has a bearing on the applicability and viability of compact city policies in developing countries (Burgess et al, 1997).

The lack of empirical data on existing density levels and trends, and a lack of clarity on what are the most appropriate indicators to measure them, poses a problem for the assessment of densification policies for cities in developing countries. However, the levels and rates of economic and social development are the most important issues. Indeed, the failure of the rate of economic development to match the rate of demographic growth can only lead to the deterioration in all aspects of sustainability (UNDP, 1992; Satterthwaite, 1999).

The first call for greater urban compaction was made almost 25 years ago (Dewar, 1975) and grew increasingly vociferous from the late 1980s onwards. In 1995, the State formally committed itself to compaction policies with the publication of the Development Facilitation Act (Republic of South Africa, 1995). The first chapter of this Act defines a set of principles that must be considered in all land development decisions. Inter alia, paragraph [3] (1)(c) (vi) is intended to discourage the phenomenon of sprawl in urban areas and contributed to the development of more compact towns and cities.

The South African NHP promotes low-density forms of development. The Government use of the one-off capital grant tied to the freestanding single-storey residential unit as the overwhelmingly dominant policy instrument promotes large, mono-functional mass housing projects. Furthermore, certain Provincial Housing Departments only allocate subsidies to houses developed on minimum plot sizes (commonly between 300 and 450m²), a restriction, which contradicts the legislated calls for compaction.

According to Taylor (1998), it should be noted that from its beginning until World War II, planning activities focused on the physical environment and was an extension of architecture activities. Only after World War II, did planning start to escape from architecture and experienced, what Taylor describes as a paradigm shift. Two paradigm shifts were identified. Primarily, town planning shifted from design to science and secondly from the town planner being viewed as a technical expert to now being viewed as 'communicator'. The latter shift outlines the role of communities in the physical environment, in this case neighbourhood. Planners should communicate and engage with residents and design neighbourhood and housing projects the way inhabitants would like it to be. A shift from the modernity theory to post modernity has also influenced planning activities, especially the way to design neighbourhoods and housing projects.

8.2.1 Modern and Post-Modern Theory

Modernist thinkers consider themselves to be the inheritors of the philosophy of 'Enlightenment'. Modernists consider it their task to develop theoretical knowledge that can be of practical use. Rationally, by the way of critique, it can be proved that certain ruling conceptions, scientific statements or popular beliefs are one-sided or even fundamentally wrong, this is to say, counterproductive (Boehm, 1977; Sachs, 1995).

Underlying modernism was a more fundamental, intellectual orientation involving reliance upon reason and science. Taylor (1998) describes modernity as an optimistic belief that, through rational analysis and greater scientific understanding, human beings could create a better world for themselves. In this sense, referring to modern thinking, the planning of physical environment (cities, neighbourhoods and housing) should be driven by the use of rationality only. Cultural values should not according to modernist projects direct or guide the exercise of planning activities. The question that arises from modernist belief of reason is whether the physical environment designed reflects the will of residents and supports their livelihood strategies and contributes to their happiness. As Taylor (1998) observes, the high-rise housing estates built all over Europe and North America under the influence of modernism believed to have long been fiercely criticised as soulless and inhumane environments.

South African town planning is a mixture of both the American and the British town planning system using modernist concepts that placed emphasis on land control and zoning regulations in the built environment. During the Industrial Revolution the

emphasis was on public health and planners were concerned with separating industry from residence, thus reducing overcrowding by encouraging suburban expansion. The style of planning was referred to as 'piecemeal blueprint' and involved limited and relatively small-scale interventions at municipal level (Beauregard, 1989). Modernist town planning is more concerned with maintaining coherence and progress. Residential areas of low densities were also a characteristic feature of Modernist town planning and this was often accompanied by uniformity in housing design and layout of homogeneous areas.

As Taylor (1998) notes, from the late 1960 onwards, the rejection of modernism by a movement of thought called postmodernism became evident and planners therefore acknowledged its planning mistakes, and tried to correct some of them by embarking on environmental planning, development of social and post-modernist theories and communicative planning. Postmodernists argued that the confidence of modern man in his or her thinking and judging faculties as adequate tools for understanding reality has to be revisited. Postmodernism advocates pluralism and diversity as well as the importance of recognising social differences. It further maintains the need for a planning approach that is more integrative instead of paternalistic and prescriptive. Community participation is one aspect of development that can be associated with postmodernism since, it seeks to define community priorities and needs, and implements them in practice.

Under the influence of modernism, planning theorists paid scant attention to urban design and aesthetics. This attitude changed during 1980s, with the emergence of post-modernism. A number of planning theories turned against the anonymity of functionalist modernism and argued for a richer, more aesthetic urban environment (Taylor, 1998; Tewdwr-Jones, 1999).

The history of town planning activities or the way to shape physical environment was also influenced by colonialism, especially in Africa which has seen itself divided into European powers, after the conference of Berlin in 1885.

8.2.2 The colonial influence on Africa

Colonial cities were not just a physical reflection of economic and cultural change, but were agents of societal transformation in their own right. Indeed, writers such as Christopher (1988) discussed the nature of colonialism largely through its settlement

patterns. For Christopher there were two main types of colonial settlements, those found largely in European settled areas and those developed in the colonialisation of populous pre-existing societies. In this latter context, many different types of urban forms were produced depending on the factors such as the nature of indigenous culture, the extent to which it was urbanised, the scale of the colonial presence and the integration of planning practices.

As Eisner et al (1986) suggests that the use of the term neighbourhood should not in principle be intended to suggest a place where persons, Europeans or indigenous people were to be forcefully segregated by race, religion, or income. They pointed out that neighbourhood is defined "as physical environment wherein social, cultural, educational, and commercial facilities are within easy reach of the residents" (1986, 268). Great emphasis in the planning of neighbourhood is put on the good location of school, shops and work place. Besides, transportation systems must be convenient, recreation facilities should be available and security around and within the neighbourhood should be provided. The question that arises from the colonial planning of African cities in general and neighbourhoods in particular is, whether the aim was to shape physical environments for the advantage of both Europeans and Africans or the motivation was to perpetrate the living standard of Europeans, which may not suit African people.

Although Africa experienced major historical change and evolution before the establishment of direct European rule, it was the colonial experience, lasting in most parts of Africa from the late nineteenth century until at least the early 1960s that had the greatest effect on urban form. Poisnot et al (1989) argued that the most striking aspect of colonial urban planning is the partition of urban space into two zones, the 'Europeans' city and the 'indigenous' city. The extreme attention to the needs of European settlers, who generally received very high level of planned urban services and infrastructure, with, by contrast, relative indifference to the African majority was one of the characteristics of urban planning that was rooted in the very fabric of the colonial State.

The bifurcated nature of colonial urban space was originally conceived to 'protect' Europeans from 'disease' thought to be carried exclusively by indigenous people. In many African towns, the separation of races was promoted by town planning. One of the most important elements of this policy was the establishment of an open, neutral zone to separate Europeans from other groups. In fact, not all colonial cities enforced a

strict separation of races, a Mombassa proposal for racial separation was rejected on the grounds of cost (Stren, 1978). While different groups lived at least side-by-side in Dar es Salaam, in Ghana and in Nigeria – the standard of infrastructure in the neighbourhood inhabited by Europeans was many times higher than in African areas.

This dual system of housing and land use was justified by two major reasons, first, Europeans paid both local and national taxes and contributed to the colonial economy in a way that Africans did not; and secondly, Europeans were 'used' to living in cities with European standards of infrastructure, while Africans essentially 'rural' would not live permanently in the towns. Both these justifications for the dual provision of space and facilities dissolved by the 1950s, as Africans moved permanently into the towns and began to constitute an increasingly powerful urban middle class (Stren, 1978).

The most profound impact of colonialism on Africa is the structure of its economy. These elements have left indelible traces on urban form and function. The imposition of the colonial economic framework resulted in an intense, but very divergent spread of capitalist economic activity in mining, primary agricultural production including plantations and transportation and communication activities. At the same time, colonial implantation in most areas outside South Africa did not prove sufficiently robust 'to change the essential character of African societies'. Nevertheless, foreign capitalism together with the fiscal demands and economic planning of the colonial state, compelled or persuaded the majority of Africans to be linked with international economy (Fieldhouse, 1986).

Britain had a major influence in shaping the pattern of urban development and planning in South Africa. Colonial governments provided the necessary infrastructure to facilitate trade and maintain public order, but unfortunately they were more interested in what they could extract from their colonies than the conditions of the indigenous people (Devas & Rakodi, 1993; Devas, 1993; Watson, 2002).

Most colonial cities including South Africa were subjected to formal planning exercises in the form of blueprint master plans. Such plans tried to modernise African cities in the Western image and often resulted in the large-scale removal of informal settlements and small traders. At government level, dissatisfaction with these traditional, rigid and inappropriate master plans led to two rather different responses: Structural Planning and Action Planning. These plans were designed to provide a broader strategic framework for subsequent local plans, and were to take account of the regional

context, and of transportation, housing, sanitation, water and environmental issues. The growing inability to implement the plans and the advice from the World Bank to replace the plans with urban management approaches meant that most urban areas expanded without formal state planning and were considered 'ungoverned' (Devas & Rakodi, 1993; Devas, 1993; Diaw, Nnkya & Watson, 2001).

8.3 The African cities today

African cities depict dark pictures of realities such as underdevelopment, a high level of poverty, and a higher number of slums compared to other regions in the World. Africa is also a region in the World that is struggling to provide adequate and affordable shelter to its residents (Erguden, 2001). Sub-Saharan Africa is described as the least urbanised region in the world, where there is a significant feature of strong urban-rural ties, which keep many people in a perpetual motion between urban and rural bases (Watson, 2002). Colonial influences of city planning reflected in growing inequality are still visible. As Watson pointed out, that "within many cities, highly differentiated patterns of access to resources are reflected in the growing spatial divisions between a well-connected elite and the larger mass of the poor. Most African cities developed a formal, well-serviced business and residential 'core', which housed first the colonial masters and subsequently the local political and commercial elite and foreign investor" (2002, 286).

As a result of these inequalities, African cities have been assisting in the development of informality, which becomes a major livelihood survival strategy for the urban poor. In fact, Watson (2002) has commented that in years to come, the declining state capacity to deliver urban services, together with the rapidly growing urban poor, has resulted in an extensive informalisation of the urban fabric and use of urban land. In fact, post-colonial African authorities failed to demarcate cities from colonial reality of planning cities, thus resulting in separate neighbourhoods, for white and indigenous people. In South Africa, the struggles of the post Apartheid government to restructure South African cities, which still look dislocated and fragmented, illustrates an example in this case (Boraine et al, 2004).

With regard to housing, many governments in developing countries have persistently refused to see the provision of adequate shelter as a priority issue in the development process. Low-cost housing provision, in particular, is considered to be a resource-absorbing rather than productive effort with huge losses to investment in industry and industrial infrastructure.

The question that arises from the debate is whether African cities today should follow the Western model of planning or should they be designed according to the realities facing African cities. Watson (2002) pointed out that the realities facing Africa, especially the crisis is more complex than anywhere in the world. Referring to Chabal (1996), economic decline, political instability 're-traditionalisation', and marginalisation are identified as the main crisis that planners have to face in Africa (cited in Watson, 2002). As planning aims to shape a physical environment, which in turn should influence on the socio-economic condition of inhabitants, more specifically the urban poor, Watson concludes that "it is not possible to think about planning in Africa outside the issue of development, since positions on planning are inevitably underpinned by assumptions related to wider economy and society" (2002, 292).

Referring to the economic crisis in Africa, which is reflected in the growing informal activities and the tie between rural-urban areas, the planning of African cities today should not overlook these ground realities, which have become the survival and livelihood strategies for African urban poor. Many authors, including Keivani and Werna (2001), Charlton (2004) and Tomlinson (2006) have shown that informal housing constitutes an important part of housing delivery for the urban poor in Africa. Thus, it should be integrated in the overall housing delivery programme. Ignoring any informal modes of housing delivery will only proliferate the housing crisis that African cities have been facing. Likewise, in his paper titled 'Conceptualising livelihood strategies in African cities', Owusu (2007) concluded that, in Africa there are multiple livelihood strategies, which should be taken into account while planning the development of African cities and argues for the usefulness of the informal sector, which he considers as the main survival strategies for understanding African urban economies. According to him the African economic crisis is one of the outcomes of neo-liberal economic reform policies.

Colonialism and Western ways of planning African cities should not be the reference of African cities today. In South Africa for example, the post Apartheid government has manifested its will to demarcate away from the Apartheid way of planning cities, which has racial criterion as the main characteristic to foster separate development.

Another characteristic outlined in the planning of African cities is the search to respond to changing needs (Badshah, 1996). The emphasis is put on the role of decentralisation. As Badshah asserts, "Since 1970, however, it has become evident that centralised government, with a few exceptions, has neither brought prosperity nor

alleviated poverty. Given the present state of the urban environment, it is clear that central planning and administration have not worked in the cities either" (1996, 18). Associated to the decentralisation is the partnership between public and private sector, NGO's and communities, which are the beneficiaries of planning activities. It is more and more evident that the government alone cannot satisfy or meet the needs of the urban poor (Payne, 1999).

The successful planning of African cities today should be guided by what Badshah (1996) calls a post Apartheid vision for sustainable and equitable development. This vision privileges and protects the interests of the urban poor. As Badshah (1996) notes, sustainable and equitable development provides fairness and opportunities for all income groups and races and not just the privileged few. This vision means that there is a possibility for the urban poor to improve their quality of life and to pursue their happiness like other income groups.

This vision of sustainable and equitable development is different from the planning of African cities by colonialism and the Apartheid regime in South Africa. In South Africa, the post Apartheid government set up policy frameworks in order to create a post Apartheid society in which, all income groups and different races can enjoy the privileges of urban facilities.

8.4 The re-emergence of South Africa

The post Apartheid South African vision emerged from the first democratic election of 1994, which had a major impact on both research directions and policy formulations to rectify the imbalance of Apartheid. With regard to South African cities, Boraïne et al (2006) noted that the South African post Apartheid government had developed a vision inclusive of non-racial cities in which democracy is stable and development flourishes. Democracy is understood as the antithesis of Apartheid in which legacy must be removed, so that the vision of sustainable human settlements may be realised.

The adoption of the post Apartheid South African constitution in 1996 by the Parliament inaugurated a post Apartheid vision of sustainable development. This post Apartheid vision later explained and consolidated in the Urban Development Framework attributed developmental role to the local government. Fostering local economic development is among the prerogatives attributed to local government, which according to Boraïne et al (2006) must provide to the majority of residents,

especially the poor with the means to earn a reasonable living. According to the constitution, local governments, including municipal governments are expected to: provide democratic and accountable government for local communities; ensure the provision of services to communities in a sustainable manner; promote social and economic development; promote a safe and healthy environment and to encourage the involvement of communities and community organisations in the matters of local government.

In managing its administration and planning processes, municipalities are required by the constitution 'to give priority to the basic needs of the community and to promote the social and economic development of the community' (Section 53, Constitution of South Africa). To strengthen the direction already taken by the constitution and the discussions leading up to its promulgation, the South African government phased the reorganisation of local government institutions from a 'pre-interim phase' (during which there were widespread discussions as to the post Apartheid structure and functions of local governments), through an 'interim phase' (from municipal elections in 1999), culminating in a final stage in 1999, when a post Apartheid system was finally established (White Paper on local government, 1998). Two subsequent pieces of legislation, the Municipal Structures Act (1998) and the Municipal Systems Act (1998) and the Municipal Systems Bill (1999) make detailed provisions to enshrine the practical mechanisms needed to support participatory and developmental municipal governments.

The struggle of African cities to survive during the fading years of the twentieth century continues into the post Apartheid millennium and has been conditioned as much by their colonial history as it has by the post Apartheid global economy with which they are faced. Clearly, attempts at structural transformation during the 1970s did not sustain real growth. In the decade that followed, African cities were plunged into severe crisis, a crisis from which they have not emerged. But in general, African cities are transforming both their own physical landscape and their social and political structures into post Apartheid forms that better reflect their unique cultural and historical conditions.

8.4.1 Planning in South Africa

South African human settlements are characterised by spatial separation of residential areas according to class and population groups; urban sprawl; disparate levels of

service provision; low levels of suburban population density areas in the urban peripheries and the wealthy in core and intermediate areas. These factors render South African human settlements inequitable, inefficient, unsustainable, expensive to manage and maintain, and exacerbates poverty and unemployment (Department of Housing, 2000). Although Apartheid planning has sought the reconstruction of South African cities (Mabin & Smith, 1997), planners were led by the ideology consisting to enforce segregation through planning activities. As Younge puts it, "Urban planning during the Apartheid era suffered from 'top down' planning processes, aimed at segregation of settlements, disempowering certain racial groups economically, and rigid control over land use in order to protect White residential areas from incursion by commercial and industrial uses" (1999, 3).

The post Apartheid planning seeks to reverse the situation created by the Apartheid regime of fragmented cities by creating integrated cities. Although, Harrison et al (2003) noted that South African cities are still fragmented. In addition, the 2004 report of South African Cities Network (SACN, 2004) pointed out that although efforts have been made in improving access to urban facilities, "South African cities are more unequal today than they were ten years ago and many social and human development challenges have consequently been compounded" (Boraine et al, 2004, 272). Referring to unsatisfactory housing conditions inherited from Apartheid regime, the 2004 report of the State of South African cities network affirmed that the post Apartheid government failed to reduce the housing backlog, and about a quarter of households in the nine cities of South Africa live in shack settlements or shacks in backyards or in informal stands.

According to Floyd, (cited in Smith 1989) and Oranje (1997) the factors that influenced the current post Apartheid planning were the policies of the government, trends in planning in the U.K., the U.S, France and Germany, the reformist, modernist or postmodernist models of development. In other words, Floyd and Orange asserted that the emergence of South African planning legislation has also been influenced by western modern planning, which in turn bear the influence of modernist way of planning.

Development theories and rational decision-making as part of a modernist movement had a profound impact on planning during the 1960s and early 1970s (Africa, 1993; Taylor, 1998; Harrison, 2001). Modernists had a desire to radically break away from the past and believe that the world could be a better place by casting aside

tradition and creating a neatly ordered urban form. The theory of planning as a rational process of decision-making and action, coupled with the systems view of planning, continued to dominate planning theory in the 1970s (Taylor, 1998; Tewdwr-Jones, 1999).

For some 50 years, the planning and design of settlements in South Africa has been dominated by the political ideology of separate development and the planning ideology of modernism. The ideology of modernism had resulted in dominant city planning management systems and policies have almost been entirely imported from the UK, Europe and the US and applied locally. The planning emphasised strongly on anti-urban or pro-urban ethos. The focus has been on the free-standing building surrounded by private space as the basic building block of settlements. The single free-standing house on its own plots is entrenched as the image of the 'good urban life', even in the case of the low income communities and to avoid 'conflict' the major activities of life, being living, working, playing and movement were separated.

The approach to settlement building is largely quantitative or programmatically determined. Capacities are calculated and thresholds of different facilities are determined to derive a 'menu' or programme of elements, and planning becomes a more or less efficient assembly of the parts, without particular concern for a framework which holds the whole together. Commonly, different disciplines make decisions about different elements of structure in virtual isolation from each other.

The concept of the neighbourhood unit clustered residential dwellings into discrete cells or neighbourhoods that focus inwardly onto centrally located community facilities in the belief that this promotes a sense of community. The cells are not integrated but are simply linked by movement infrastructure. The technological efficiency dominates the virtual exclusion of social or environmental considerations; particularly prevalent concern is the freedom of vehicular movement. The private vehicle is seen as the primary mode of movement and settlements are scaled to the motor car, despite the fact that an increasing majority of households will never own a car.

Since most urban development has occurred since the advent of modernism, these characteristics are widely prevalent in South Africa. With the adoption of 'grand Apartheid' in the late 1950s, the dramatic reconstruction of South African cities and the spatial re-engineering gave impetus to regional planning and a policy of decentralisation. Significant resources were allocated to regional planning in order to

deal with the Group Areas Act that required complete segregation of racial areas, for example, a freehold township such as Sophiatown was entirely destroyed and a working-class suburb for whites, called Triomf, was established on this land (Smith, 1989; Africa, 1993; Oranje, 1997).

The government demolished inner urban areas and cleared squatter locations, breaking up families and relocating them outside the cities to fulfil their ideological aims. However, McCarthy (in Smit, 1989) argues that Apartheid spatial engineering in the cities cannot be explained solely in terms of the forcing of legislation. Clearly, White capital had a say in it as well. In Durban, White businesses acquired prime land and banished Indian traders to 'Oriental Plazas' (Oranje, 1997; Smit, 1993). Low-cost housing projects, however, did not solve the housing problem and the Verwoerd government came up with a 'site and service' scheme by mid 1950s. This scheme came to an end in the late 1960s as government decided to focus its building endeavours in the homeland towns, in order to curtail the Black urbanisation process. South Africa was now conceived as a 'separate development' and the government undertook to create viable economic homelands and Bantustans.

In all of this, planners acted as the spatial designers and administrators of the Apartheid city. As Harrison states, "planning was deeply (yet unevenly) implicated in the system that systematically deprived the majority of South African citizens of basic rights and livelihoods" (2001a, 82).

South Africa started experiencing more manifestations of open political revolt during the mid 1970s and 1980s due to the progress of the Black Consciousness Movement and liberation movements in the north of South Africa, international pressure, the Soweto uprisings and a dramatic rise in membership of Black trade unions in the cities. Far-right political parties re-emerged in the late 1980s, at the same time when liberal Whites started to lobby for change in social Apartheid – the latter realising the threat that international isolation posed to South Africa's domestic economic growth (Smit, 1989).

A serious dilemma for progressive planners was that virtually every intervention in black urban life occurred under the watchful eye of the State Security Network run by the police and the military (Smit, 1989, Oranje, 1997, Harrison and Khan, 2001). The majority of planners however, served the same purpose as in previous decades namely, playing the role of political and technical experts. They followed the approach

as set out by the Apartheid government for planning, with very little moral or intellectual base.

In 1986, the government released the White Paper on Urbanisation, effectively reversing years of anti-urban policy by recognising urbanisation as inevitable. By then there was a massive housing shortage, exacerbated by the announcement of the end of influx control. Overcrowding and political revolt went on with deteriorating township conditions. The government would only provide plots serviced, in some cases where people could build their own houses (Smit, 1989).

The 1990s also saw the rise of competing and parallel fields of activity, such as economic development, environmental planning and project management with an increase in the blurring of boundaries and overlap between planning-related professions (Harrison & Todes, 2001b). Environmentalism became a major aspect of planning during the 1990s, and specifically after the United Nations Earth summit in Rio de Janeiro in 1992.

A central theme of the modernist movement has its basis in functionalist thought, which is dominated by concerns of efficiency and technology. Efficiency is largely defined in technological terms, with urban settlements seen as 'machines'. Urban life is compartmentalised into broad categories of activity, resulting in the spatial separation of these activities.

These ideologies have led to the development of mono-functional settlements, often fragmented and environmentally sterile. These settlements, particularly those created for the disadvantaged members of the South African society, are characterised by low levels of service and high levels of inconvenience, they generate enormous amounts of movement at great cost in terms of money, time, energy and pollution; they are expensive for inhabitants, and the quality of their public environments is appalling. There is little evidence of a cohesive spatial environment, which integrates urban activities and structures.

Significantly, the precepts of modernism and Apartheid were compatible. The emphasis on separation meant that Apartheid planners eagerly embraced the concept, which has resulted in the three spatial characteristics of low density, fragmentation and separation, which fundamentally describe South African towns and cities. The low-density sprawling cities spread further outward, in a seemingly formless and random

way. With fragmentation, development occurs in relatively discrete parcels or cells of land, frequently bounded by freeways or buffers of open space. Within the cells, environments commonly consist of discrete collection of parts, with no overarching cohesion. The separation of land uses, urban elements, and racial and class groups leads to mono-functionality, rather than a mix of uses.

With the advent of the 'post Apartheid South Africa' it is necessary to reverse the effects of these ideologies. The challenge is to create a framework for settlements, making which will enrich life in settlements and serve as an instrument of urban reconstruction and development. This has already been accepted in policy terms. The Government's Urban Development Framework calls for 'the physical, social and economic integration of the South African towns and cities' and stresses the need for higher density, a more compact and in terms of land use, more mixed use of settlements.

Similarly, the Development Facilitation Act, No. 67 of 1995, calls for environments that promote the integration of the social, economic, institutional and physical aspects of land development and the promotion of integrated land development in rural and urban areas. In addition to this the promotion of the availability of residential and employment opportunities in close proximity to or integrated with each other, to optimise the use of existing resources, including resources related to agriculture, land, minerals, bulk infrastructure, roads, transportation and social facilities. This framework is based on the integration of the human and nature-centred approaches to settlement making and planning.

The human-centered approach emphasises that the central purpose of planning is to ensure that the developmental needs and activities of people living in settlements are catered for and in particular, that the opportunities for people to achieve their full potential through their own efforts are maximised. This approach, rather than being purely cost or technologically-driven, is people driven and democratic. Lankatilleke supports this view when he argues that, "People are resourceful, rich in initiative and creativity and need recognition, encouragement and support. Solutions to problems are found in the hands of the people and not with technocrats, bureaucrats or experts" (1990, 24).

The nature-centred approach recognises that natural systems interact in highly synergistic ways, which must be respected, if breakdowns in them are to be prevented.

Human actions on the landscape, such as settlement-making, must thus be sensitive to ecological processes. Therefore, rather than imposing settlement development on the environment, this approach emphasises a design with nature, thereby creating synergy between man-made and ecological systems. Eisner et al (1992) considers the approach of preserving our physical environment as the basis of planning.

The objectives of post Apartheid planning were generally well-intentioned and progressive, but the high expectancies are now giving way to disappointment and even a sense of failure due to post Apartheid planning inability to support the government as needed. Harrison (2001a) ascribes disappointment to the planning of the low quality of housing provided in terms of RDP, to the apparent failure of planning to deal with the spatial fragmentation created by Apartheid, the slow and bureaucratic process of land reform and restitution, national government's inability to implement effective integrated development planning, and the difficulties that the planning profession has in responding to change. These failures have had tragic consequences for communities and individuals (Harrison, 2001a; Harrison & Todes, 2001a).

8.5 Planning of human settlements

8.5.1 Spatial structure

Spatial structure is a concept used to interpret, design and make human settlements. The spatial structure of a settlement results from an interplay between the formally planned or programmatic and the spontaneous or non-programmatic dimensions of settlement-making. The planned dimension is essentially quantitative. It requires the identification of the major elements of land use and the development of a land and engineering services budget. Bertaud (2002) identified spatial structure as the interaction between land markets and regulations. He enumerated three elements to define spatial structures namely, land consumption, density profile and the degree of mono-centricity, which is related to trips with central destination. According to him, spatial structure is characterised by the pattern or daily trips in mono-centric and polycentric cities and the average densities in built-up areas. This is to say that the form that a city may take influences land consumption and in turn housing production and consumption.

By contrast, the spontaneous or non-programmatic spatial structure is essentially qualitative, has at its core a concern with the whole rather than the parts. It reflects how people over time, have addressed the making of a place to meet their needs and enrich

their lives. Spontaneous environments reflect the timeless qualities referred as above. They do not depend on particular levels of technology or minimum levels of personal means, to operate well. The term 'structure' as used here, refers to the creation of a public environment, that realm which is shared by all inhabitants, as opposed to the private realms of individual households and businesses. In investment terms, this usually equates with public investment in the spatial structure, to which private investment and decision-making responds.

The art of planning and design is to shape city or neighbourhoods into a system of references that supports the processes of living, and which establishes a spatial logic eliciting responses from many actors, who contribute to settlement-making, settlement uncertainty and change rather than to simply accommodate the initial development program that necessitates the plan in the first place. As Healey states, "Planning represents a continual effort to interrelate conceptions of the qualities and social dynamics of places with notions of the social processes of 'shaping places' through the articulation and implementation of policies" (1997, 7-8).

The articulation and implementation of policies is an exclusive realm of the government (Hopkins, 2003). This is to say that the shaping of a city is not only the responsibility of planners. It also depends on political environment and the form that the State may adopt. Planners, as Bertaud (2002) argued, can only influence the shaping of a city or neighbourhood. It is the role of elected officials to define priorities and objectives, which may impact the performance of the city and the improvement of poor living conditions.

8.5.2 Settlement design: towards an integrated approach

The integrated approach, on which the framework for settlement-making is based, makes it possible to identify performance qualities, which should ultimately guide planning and to allow for the monitoring and measurement of plans and settlements.

Five elements characterise physical environments of compact city and in turn an integrated city. Firstly, they are scaled to the pedestrian; although commonly neither the pedestrian nor the motor car has absolute dominance. Referring to Hospers and Van Dalm (2005), pedestrians in the compact city, which should be according to them, 'a creative city', must be able to walk around and turn into another street from time to time. Secondly, a compact city, which is the opposite of sprawl city, has relatively high residential and employment densities (Neuman, 2005). It is observed thirdly that

structural elements of the integrated cities are integrated and the composite parts reinforce each other. Fourthly, an integrated city reflects a strong spatial feel, with well-defined public spaces. Lo et al (2003) argued that an open space is conducive to physiological and psychological health, compulsory to motivate people's creativity in the city. Finally, spatial structures of integrated cities are complex, offering choices in terms of intensity of interaction, privacy of living conditions, lifestyles, housing options and movement systems.

The development of such settlements requires the use of a wide range of resources, including land, money, building materials, manpower, energy and water. As a general principle, it is essential that resources be used as efficiently as possible (Eisner et al, 1992).

Many authors have argued that compared to a 'sprawl city', a 'compact city' allows a rational utilisation of land and improves social and economic opportunities for the poor. In other words, a 'compact city' is conducive to sustainable form of urban development (Burton, 2001; Bertaud, 2002; Hospers & Van Dalm, 2005; Neuman, 2005; Gusdorf & Hallegate, 2007). All the proponents of compact city agree that compact city improves city performance, more specifically in terms of transport systems and the preservation of the environment. Burton (2005) further argued that compact city may promote equality in the city. In South Africa for instance, compact city is a response to segregated and dislocated city planning of Apartheid and an effective tool to restructure South African cities (Todes, 2003)

The 1995 Freiburg statement on post Apartheid urban neighbourhoods stated that 'the overriding purpose of a post Apartheid neighbourhood is the care and culture of human beings'. It declares that it is important to learn from the traditional wisdom of city making, and to avoid the errors of modern peripheral urban development. The principles espoused emphasised the need for heterogeneous social composition with special attention to the needs of children, elderly and low-income groups. The facilitation of a 'good social life' provides an attractive human scale environment to give priority to pedestrians.

Likewise, the 1995 Freiburg statement on post Apartheid urban neighbourhoods stressed the importance of diversity of use, housing, work, shopping, civic, cultural and health facilities in a fine textured, compact, low rise urban fabric. It is acknowledged, that active and frequent participation of all segments of the population in planning and design of the area, thus an incremented not authoritarian design process must prevail

from a 'top down' model of planning. In addition, the design or the architecture of the integrated neighbourhood should reflect the identity that is rooted in the collective memory of the region, reflecting characteristics most valued by the local community.

Importantly, the transportation systems within the neighbourhood, which link to the city as a whole should encourage pedestrian, bicycle and public transport and discourage automobile use. Finally, the protection of the physical environment should not be left behind from the planning of integrated neighbourhood. This means that ecology must lead responsible development principles consistent with social responsibility and cutting energy use and pollution. Sustainable cities or in terms of Hospers and Van Dalm (2005), a creative city which is desirable and the synonymous of compact city "represents a quintessential physical response to many urban problems, such as land consumption in fringe areas, energy and resource waste, air pollution, accessibility, and social segregation" (Neuman, 2005). Emphasis on the protection of the physical environment is put when Schama (1995) conceived sustainability as a debate consisting to rethink our relationship to the nature, to earth, and to each other (cited in Neuman, 2005).

The preference of a compact city over a sprawl city is reinforced by contemporary urban designers. The 'post Apartheid urbanist' designers in the US and the 'Urban Village Forum' in UK have called for the revival of convivial, convenient, close-knit localities. The alternative to a sprawl city is simple and timely, neighbourhoods of housing, parks and schools should be within walking distance of shops, civic services and transport systems. The convenience of cars and the opportunity to walk or use transit can be blended into an environment with local access for all the daily needs of a diverse community. It is a strategy, which could preserve open space, support transit, reduce auto traffic, and create affordable neighbourhoods (Calthorpe, 1993).

These are reasonable aspirations for a civilised society. Calthorpe emphasises the desirable physical attributes in themselves as being uncontentious, but that their implementation is problematic. Others stress the social dimension, seeing neighbourhoods as a setting within which, people can take control of their own lives (Ward, 1976). According to Gibson (1994) a neighbourhood is 'the place', plus the people, one whole of which is common ground for everyone living and working in it'. He sees neighbourhoods as cells, which help keep the whole society, and advocates self-help at the neighbourhood level, which would not only revive a sense of local pride, but give some stability to a fragmenting society. The active involvement of local

communities, forming partnership with local government and businesses are central to any strategy for achieving sustainable development. As Lewis (2005) notes, engaging with the community for the long term is a key aspect of designing and delivering good homes and places that are sustainable.

8.5.2.1 The creation of opportunities

People come to settlements to improve their personal welfare. The opportunity to improve one's lot derives from the economic, social, cultural and recreational opportunities resulting from the physical agglomeration of people in settlements. However, the capability of settlements to generate opportunities is not only determined by the number of people, it is also affected by how settlements are ordered and made.

Of importance to developing countries, such as South Africa, is the need to create opportunities for small-scale economic activity. The reality is that, within the foreseeable future, a large number of people will not have to generate their own survival activities, via the small-scale and often the informal-economic sector. Research conducted by Finmark Trust (2006) reveals that in South Africa, small scale entrepreneurs and landlords may use their houses and housing finance as important assets to start their business. However, the research concludes that although, it is believed that the successful support of landlords and the small scale entrepreneur may contribute to aid unemployment and in turn improve the condition of life of poor households, they do not have easy access to housing finance.

The relationship between the spatial planning and the socio-economic life of households is documented in Taylor (1998) who argued that the physical layout of building and roads, affects the social and economic life of residents. It can be argued that the physical environment, in this case the neighbourhood should be designed or planned in a way to support and to create opportunities for poor households. Poor location of low-cost housing or subsidised housing in South Africa does not contribute to promote poor households' livelihood strategies (Charlton, 2004). As low-cost housing is located in peripheries of cities or towns, residents of subsidised housing travel a very long distance to reach their work and school places. This long distance costs them money and energy, and makes them vulnerable to crime (Landman, 2007). The pervasive outcomes of poor location of low-income households was already pointed out by Dewar (1984) who argued that "the creation of large dormitory townships on the urban periphery imposed considerable costs in terms of transport

time and travel costs, and marginalised them from wider urban opportunities. It resulted in sterile environments with poor services and facilities and undermined small-scale economic activity" (quoted in Todes, 2003, 111).

The idea of creating compact cities emerges to counter the imbalanced planning of the Apartheid regime and in turn provides social and economic opportunities to South African low-income households. Although the international experience of compact cities emerged from the efficient consumption of land use, service provision, transport costs and energy usage (Breheny, 1996; Hillman, 1996, cited in Todes, 2003), it is believed that in South Africa the creation of compact city, which is the antithesis of Apartheid city planning, would bolster economic and social opportunities for low-income people. As Todes (2003) notes, a compact city is linked to the idea of restructuring and integrating South African cities and making it achievable for low-income groups to acquire housing in well-located areas, and therefore the opportunity to gain access to urban opportunities that were lost through the Apartheid regime.

Compact city requires the promotion of higher unit densities that is the norm under the current model of settlement development. The case of increasing densities rests on a number of grounds. Higher densities create more opportunities for interaction, a climate in which economic activity and small-scale economic activity can thrive. Higher densities lead to increased support for public transport systems, improving their viability. Higher densities, by lowering unit costs, can also contribute to the more efficient use of infrastructure. Finally, higher densities can contribute to the efficient utilisation of land, the counteracting of urban sprawl, a reduction in travelling and a reduction in energy consumption and pollution. Compact city as Katz (1994) pointed out "is more energy efficient and less polluting because compact city dwellers can live closer to shops and work and can walk, bike, or take transit. Proponents claim it promotes more community-oriented social patterns" (quoted in Neuman, 2005, 12).

The above has implications for our thinking about movement. The challenge is to establish and maximise a continuity of movement systems, tying local living areas together. Movement systems need to be viewed not just as movement channels, but as spatial structuring elements. This line of thought leads to the conclusion that maximising access is as important as maximising mobility.

When a settlement is fragmented into a number of smaller, inwardly orientated parts, each part is largely reliant on its own internally generated resources. Consequently,

levels and cost of service and maintenance may be low and expensive (Department of Housing, 2000; Neuman, 2005). By contrast, when the parts of a settlement are integrated, each part benefits from a much larger area. Accordingly settlements should not be viewed only as ends in themselves. They should, also be viewed as instruments of restructuring, in the sense that they can be used to integrate a fragmented settlement environment. Compact city as its proponents argue increases social and economic interactions (Neuman, 2005).

A compact city can increase opportunities by enabling the evolutionary development of more complex settlements. When this occurs, a diversity of large and small scale activities can find viable locations within the settlement system. As Hospers and Dalm (2005) claim, the key of a creative city, in this case the achievement of a compact city lies in diversity both in the spatial, social and economic terms. A neighbourhood according to them must have several functions, so that their streets are filled with activity at all times of the day. This is to affirm that by its high residential and employment densities, a compact city is by definition conducive to increased social and economic interactions.

Another way that a compact city may create opportunities is by using the generating power of larger activities to attract smaller activities, both of which benefit from the movement flows that result from the presence of the other. The emphasis on the creation of opportunities in the compact city or the 'creative city' should be put on the promotion of small activities so that poor people can benefit from facilities and opportunities that cities offer and in turn find a way to improve their living conditions. Hospers explains this idea by advocating "building of the creative city asks for small-scale projects" (Dalm 2005, 11).

Compact city and the achievement of integrated cities as discussed above have indicated that planning may be used as a tool to making liveable cities. As Hospers and Dalm (2005) indicated, the built environment can increase the chances that urban creativity can originate. Although the building of an 'ideal city' or creative city is an illusion, creativity can benefit from the building.

Although, a compact city attempts to address some shortcomings created by a sprawl city such as high cost of services and maintenance, and its desirability by contemporary planners over a sprawl city, Neuman (2005) argues from empirical data in a research conducted titled 'the compact city fallacy' that the liveability and

satisfaction of neighbourhoods' residents is not only a matter of urban form, it is also a matter of personal preference. In fact, while it is widely acknowledged that a compact city is more sustainable than a sprawl city, a low density suburb may fit some inhabitants and business owner who seek a higher quality of life and higher profits outside the city. In other words, a compact city should not be seen as a panacea, which automatically brings people's life satisfaction or improve the poor' s living conditions, but as a form of city that presents more advantages than a sprawl form of city. Importantly, the achievement of a sustainable city or the creation of 'creative city' whereby people may safely conduct their daily activities and stimulate their creativity must triumph over the form that a city may adopt.

A neighbourhood, which contributes to improve households' welfare and preserves the physical environment, and which is pleasant and sustainable, is by definition convenient. It provides possibilities of choice to households to undertake their social, economic activities; it put a high emphasis on the importance of place and the sensory qualities.

8.5.2.2 Convenience

Good urban designs, which in principle produce good urban environments of which housing constitutes a large part, are according to Lewis "about the spaces between the buildings, the streets, the parks and the public facilities, the way post Apartheid fits with Apartheid, and how all these dimensions work together to make a sense of place" (2005, 4). They are by definition convenient and they allow inhabitants to conduct daily activities, quickly and easily. It is commonly assumed, that compact city is a sustainable urban form (Holden & Norland, 2005). These characteristics, such as a high residential and employment density, multimodal transportation, high degrees of street connectivity, sufficient government fiscal capacity to finance urban facilities and infrastructure contributes to a high importance being placed on people's happiness and welfare. Inconvenient environments usually connected to sprawl city, embodied in low-density, on the one hand impose on lifestyles, reduce choices and increase costs (Neuman, 2005).

Convenience is about people who should find through the shaping of urban environment a sustainable way to live. Access lies at the heart of convenience. In this regard access needs to be conceived in terms of movement modes. The first mode is a pedestrian movement, which is the lowest common denominator of movement and

which describes the primary movement mode of a large number of people in South Africa. The second is motorised movement in the form of public and private transport. Not all human activities and interaction opportunities exist within walking range. When this occurs, motorised transport becomes the more convenient movement mode.

For millions of South Africans, who cannot afford a motor car, public transport is crucial to facilitate movement. Although this does not deny the need to accommodate motor vehicles in settlements, the structuring of settlements, particularly for those who cannot afford private transport, should encourage and facilitate pedestrian movement and public transport systems which according to Lewis (2005) are a fundamental dimension of urban living and essential for a city or a town to work well.

Two forms of access are central to promoting convenience. The first form is access to economic, social, cultural and recreational benefits, which results from the agglomeration of people. The first form of access is a prerequisite to stimulate people's creativity or to create in terms of Hospers and Dalm (2005) a 'creative city'. It requires the intensification of settlements, the generation of opportunities for a greater range of activities and choices promoting complex levels of development processes. Movement is the integrating structural element underpinning the above.

Access to nature through green surface, parks and gardens is of utility as the access to urban facilities such as economic, social and cultural. In fact, as Salmela (2007) notes, the connection with the nature contributes to the mental development of people. Since settlements are, as a rule, places of intense human activity, the opportunity to escape from this intensity and to experience nature is of a great importance to people. For many, for the reasons of affordability, contact with nature has always been a collective contact, as it cannot be provided adequately within private gardens. In addition, the productive capacity of the land can be a vital settlement resource. For many settlement dwellers the opportunity to use the land productively, or to engage in lifestyles which incorporate dimensions of both urban and rural living, is crucial to their survival.

It is neither possible nor desirable for all parts of settlements to be the same. The reason for this is that clustering tendencies emerge in the structure of settlements as they grow. Activities requiring public support tend to cluster at the most accessible places. Nevertheless, it is important that all people have reasonably equal access to the opportunities and facilities which support living in settlements. Rawls' (1972) second principle of justice which claims the fair opportunities of chance among people

in the distribution and access of what Rawls calls 'primary good' must guide designers in shaping and making the city. Referring to Rawls' second principle of justice, compact city may be considered as sustainable if, according to Burton (2001), it encourages a 'fair' distribution of costs and benefits and if it is associated with benefits for the conditions or life chances of the disadvantaged, therefore reducing the gap between the advantaged and the disadvantaged.

8.5.2.3 Choice

Settlements which perform well are multifaceted places. They offer a diversity, and thus choice of places, lifestyles, activities and interaction opportunities. On the one hand, positively-performing settlements offer opportunities for human contact and interaction. Their activities and events play a major part in shaping the identity of the settlements. Importantly settlements provide opportunities, where people can live on their own, but not be alone. They also provide people with choices regarding the extent to which they wish to engage in social activity.

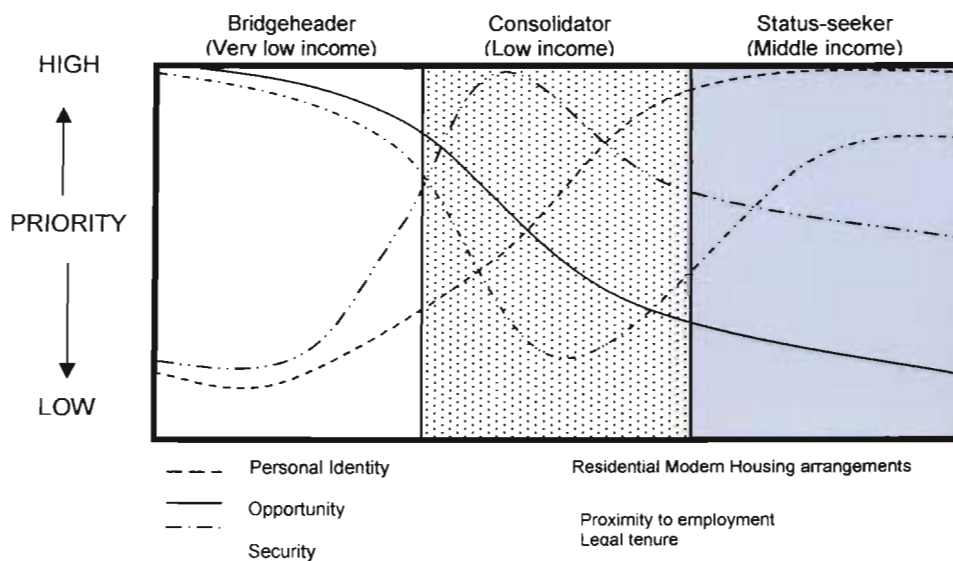
On the other hand, people also require places which are private, particularly in the sense of knowing who 'the locals' and who the strangers are. The degree to which people wish to live in intensive and vibrant environments, or quieter, more private, places varies from person to person and over the life cycle of households. The challenge is to promote environments which provide a diversity of choices, and to have choices that relate to relative degrees of privacy or exposure. The key to this lies in hierarchies of movement, public spaces and social institutions and the design of living areas.

In South Africa, although the housing delivery process may contradict some options and strategies contained in the Housing Policy, the 1994 Housing White Paper and other policy documents such as the 1997 Housing Act give low-income households, the beneficiaries of state housing programme many options to acquire adequate housing. Low-income households may access adequate housing via RDP programmes or through self-help programmes known in South Africa under the appellation of People Housing Process (PHP). In addition, the BNG reinforces choice of households in close association to social housing, which is a rental option. Amis (1985) has already seen the importance of choice when he advocated that ownership, which is one of the characteristics of the South African housing delivery (Omenya, 2002; Khan, 2003) is not necessarily a priority among poor people. In all the cases, households' choices and

preferences, which may differ from one country to another must prevail and guide the policy-makers (Lewis, 2005).

In fact, Alan Gilbert (1992) has argued that international comparisons of data on shelter are bedevilled not only by unreliability, but also by their subjective nature. What is acceptable as adequate shelter to a poor household in Durban or Sao Paulo may be quite different from that of a similarly disadvantaged family in Singapore or Lagos. The differing requirements of various points in the life-cycle of the migrant and/or low-income household will add further complexities (Figure 7.1). Thus for some groups proximity to employment may make relatively expensive inner city units with limited services acceptable, whereas other residents in wealthier cities may demand much high material standards.

Figure 8.1 Housing and household life-cycles in the city



Source: Author

8.5.2.4 Public institutions

Historically, the institutions which were most valued by society, such as institutions of learning, worship, exchange, markets and universities served as the key structuring elements of settlements. The citing of these, in turn, formed the basis for the locational choices of other, more important in reviving this tradition. However, in modern times, societies occupying settlements have become increasingly heterogeneous and diversified as a consequence it has become difficult to identify institutions, which

generally have recognised value. This does not however negate the importance of thinking about settlement structure in this manner. In the absence of certainty about what institutions will be prioritised by communities, the social space itself becomes the highest form of social institution.

The location of institutions is also of critical importance. Commonly, institutions in central places, are easily accessible in terms of movement patterns, and are announced as public spaces. The institution abutting onto the space gives unique character to the space and often attracts informal activities.

8.5.2.5 Public utility services

Public utility services refer to those engineering services that are essential to the functioning of settlements. They include water provision, sewage removal, stormwater disposal, solid waste removal and electricity supply. These services are essential to the maintenance of public health in settlements. They can be provided in various technological forms all of which have different cost implications as well as environmental and geometric requirements.

As a general principle, utility services should be provided as efficiently and as cost-effectively as possible, taking due cognisance of the human and nature centred approach to settlement making proposed herein. However, in terms of structuring the settlements, utility services should follow and not lead.

8.5.2.6 Quality of place

Quality of place is attained by embracing uniqueness as opposed to standardisation. In terms of the natural environment it requires the identification, a response to and the emphasis on the distinguishing features and characteristics of landscapes. Different natural landscapes, suggest different responses. Accordingly, settlement design should respond to nature.

In addition, quality of place can be achieved by site-making action, including topographical moulding in areas where soil is easily movable, to create greater diversity in the land form. This can include tree planting; to provide areas of shade and recreation; the use of supplementary sources of energy and building materials; wind protection and space definition; the creation of water bodies, as recreational features, sites of aqua-culture and visual relief; and creating choices of living condition.

In terms of the human-made environment, quality of place recognises that there are points where elements of settlement structure, particularly the movement system come together to create places of high accessibility and special significance. These are the meeting places of the settlement. Business and commercial activities, schools, clinics, libraries, community halls and other facilities and activities requiring exposure to a large number of people are associated with these places. In best cases, the importance of these places is recognised, only if they become the focus of public investment, aimed at making them attractive, user-friendly and comfortable to experience.

They also become the places that accommodate symbolic statements, such as objects of remembrance. These, then become memorable places, which shape lasting impressions of a settlement, significance of the social events or rituals that they accommodate.

8.5.2.7 Sensory qualities

Positively performing environments reflect powerful sensory qualities. They are the places, which are aesthetically appealing and add to the quality of people's living. The quality of public spatial environment plays a critical role as far as the sensory qualities of the settlements are concerned. The public spaces and places are the primary areas within which people engage in and experience urban life.

The role of public space in the lives of the urban poor is particularly critical. When the people are poor, the full range of household's needs cannot be adequately met by the individual dwelling. Accordingly, a significant part of their lives is played out in public spaces. If properly made, these spaces can give dignity and a sense of permanence to environments. They are the places where many social experiences occur and in a real sense, they operate as extensions to private dwellings. The implication is that all public spaces, of which the residential street is one of the important forms, should be viewed and constructed as social spaces. It is the integrated framework of public spaces that enhances the sensory qualities of settlements.

8.5.2.8 Safety and security

The element of safety and security is determined by the way people feel about the area and is one of the important factors in settlement planning and design. The built environment is one of the contributing factors in safety and security. The fabric and design of public places can deter criminal activity and enhance safety. To ensure safety

and security in the neighbourhood, the need is to focus on environmental design, community development and education, combining social prevention and physical changes.

As Newman has suggested, that one should design spaces and access so that people can't get mugged and assaulted in. Residential units should be so plugged into the main circulation patterns that there is constant surveillance (Newman in Mallows paper on Physical form in Housing Seminar, 1975).

The surroundings should be designated in a way that all the public spaces or neighbouring areas can be used without threat of being robbed or killed both indoors and within the immediate neighbourhood. Designs should encourage social interaction and community engagement. Appropriate lighting of spaces and prominent locations including existing streets, buildings, parks and other publicly accessible areas provide immense safety and security in the area.

8.5.2.9 Sustainability

Sustainability has two main dimensions. The one relates to the relationship between the built environment and the natural landscape. The other is the degree to which the settlement reflects 'timeless' qualities. Settlements exist as adaptations of natural landscapes and are dependent on resources drawn from a much larger scale. Two issues are central to achieving environmental sustainability. The first is the need to work harmoniously with the natural landscape, rather than causing breakdowns in natural systems, such as filling in wetlands to obtain developable land rather than developing higher-lying ground. The second issue is the need to recycle wastes to the greatest possible degree. For example, storm water and runoff can be used for irrigation purposes, and sewage can be treated as fertilizer.

The second dimension of sustainability is the degree to which the settlement reflects, in its structure and form, 'timeless qualities'. Sustainable settlements accommodate growth and change well, and are in turn enriched by processes of change. They have three primary characteristics. They are scaled to the pedestrian. They reflect a structural order, which allows logical reinterpretation by successive generations. They have a strongly spatial feel, with defined and generously made public spaces, spaces not determined only by immediate development needs, but made with the recognition that public space is important in its own growth.

8.6 Neighbourhood planning

8.6.1 The concept

The discussions in the previous part of the chapter establishes 'Neighbourhood Plan' as a set of guidelines outlining how an area should be developed and how it should change over time. A Neighbourhood Plan deals primarily with land use decisions such as housing and how to accommodate any increase thereof in terms of recreational needs, accommodation of traffic, public transit facilities, impact on the environment and commercial needs. Land use decisions must take into account economic and social impacts such as whether or not to support a commercial development in a particular neighbourhood and the effect it will have on other businesses in the vicinity.

Neighbourhood Plans should address the five essential goals, to build complete and viable communities, to protect the environment, to manage urban growth, to improve mobility and servicing efficiency and an ongoing planning and community involvement. Neo-traditional planning defines a specific model that directs how neighbourhoods should both look and function. Some of the characteristics are described in Table 8.1:

Table 8.1: Neo-Traditional Neighbourhoods

• mixed use core within walking distance of residents
• neighbourhoods focused on employment and civic centres
• grid street that provide multiple paths for drivers and pedestrians
• narrow streets with sidewalks and lanes behind homes
• housing for different income levels integrated throughout neighbourhood
• streets that are social spaces, such as a village green
• distinct architecture modelled on the regions vernacular
• creation of an identifiable sense of community

Source: Berman, 1996

8.6.2 The political environment and the shaping of neighbourhoods

A political environment is critical in the shaping of a city and on the well-being of households. Like the physical environment, the political environment or the form that a State may adopt (democratic or non-democratic) affects households' social and economic activities. Nowadays, democracy, as a form of government has been acknowledged as conducive to sustainable development and the creation of sustainable city where poor households' voices can be raised, heard and translated into policy. Democracy as Mugenyi (1988) observes goes hand in hand with development. In other words, democracy is a second name or is synonymous with

development. This statement is reinforced by Fakir (2005) who claims that there is no dichotomy between democracy and development. The government, according to liberal beliefs must guarantee the general interest and must provide real services (Harvey, 1989). The Table below illustrates what is expected from the democratic government in general, and particularly in urban areas.

Table 8.2: The scope for government intervention in the urban system

Area	Activities
Protection of the public	Law and order; protection of human rights and property rights.
Regulation of the private sector	administrative controls; tax and pricing programmes; land and building regulations; pollutions controls. Usually undertaken by the national State
Provision for public services	Infrastructure provision; housing programmes; basic needs, such as education, health care etc. Often municipal but national and private roles are common.
Redistribution of wealth	Taxation and subsidies; welfare programmes; wage regulations, tenure rights. A mixture of national and local processes.
Production	Means of production (land, labour, and capital) may be controlled by the State (national or local) or the private sector

Source: Devas and Rakodi C. (1993) Managing Fast Growing Cities, Longman, London

Participation by the households in the planning and design of the physical environment is one of the values defended and strengthened in a democratic environment without which it is difficult to achieve sustainable development. Ballard, Habib, and Valodia, (2006) argue that the effective democratic culture and the socio-economic transformation can only be achieved, when poor people's voices are heard in the corridors of power. In South Africa, many authors attributed the poor outcomes of the first ten years of housing delivery to the lack of effective and useful community participation (Baumann, 2003; Smit, 2003; Huchzermeyer, 2006).

To ensure the success of human settlements, it is essential for the residents or potential beneficiaries to participate in the planning and development process. People should be involved in responsible action directed towards solving mutual problems. Such participation is a process through which individual beneficiaries have direct roles

in the physical and social changes affect their immediate lives (Lankatilleke, 1990). Following Turner (1972) it can be assumed that a community has the capacity to deal with its own problems. Even in the most underdeveloped communities and among the most apathetic residents, latent skills can be developed to alter the environment. The approach to the problems through urban community development involves *inter-alia* following elements such as identification and development of local leadership, the development of civic consciousness and the acceptance of a civic responsibility and the coordination of municipal services to meet neighbourhood needs and problems.

In South Africa, the need to create democratic and developmental environments contributing to improving living conditions of the poor and to overcome the legacy of Apartheid has been recognised by the 1996 constitution of the Republic and the 1998 White paper on the local government. However, the effective participation of communities, especially the poor in the elaboration and implementation of policies and shaping of the physical environment remains one of the biggest challenges facing the post Apartheid government.

Alongside the issue of community participation, which is critical in the shaping of the physical environment (Lewis, 2005), the mismanagement and the unavailability of land necessarily needed for development projects, including housing constitute a major obstacle in the successful shaping of the city and neighbourhood. As Landman and Ntombela (2006) observe, poor households, especially the urban poor in South Africa

lack opportunities to participate in public and community decision-making and, they lack access to information that can guide their personal decisions.

8.6.3 Land issues and neighbourhood planning

Land is essential to all human activities (Doebele, 1987). The availability of urban land is a prerequisite for low-income households' livelihood strategies and plays a determinant role in the supply of housing and the shaping of the physical environment. Infact it is considered as an economic, political and social asset, capable of generating land mostly required for housing projects (Carey et al, 2003). In some cases of evictions happened in South Africa, Huchzermeyer (2003) pointed out that the grabbers of land was motivated by the desire to fulfil their need for housing. The successful spatial planning and the achievement of quality, places housing projects in particular as a function of an effective and rational management of land. This statement

justifies the choice of a compact city as it conserves the use of land over the sprawl city, which in South Africa exacerbates segregation and fragmentation of cities (Harrison et al, 2003), which have characterised Apartheid planning.

Despite the importance of land for the success of housing development, in developing countries, including South Africa, the management of land is ineffective and unprofitable for the low-income households (African Ministerial Conference on Housing and Urban Development (Payne, 1999; AMCHUD, 2005; Landman & Ntombela, 2006). According to the World Bank, the mismanagement of land and the difficult access to urban land by the low-income household is one of the major causes of the proliferation of slums. According to the World Bank, the development of slums is "the products of failed policies, bad governance, corruption, inappropriate regulation, dysfunctional land markets, unresponsive financial systems, and a fundamental lack of political will (Slum Prevention, 2001 cited in Landman & Ntombela, 2006).

The dysfunctionality of land market in South Africa has contributed to negatively affecting the quality and the location of housing produced for the low-income households. In fact, given the difficulties to acquire well-located urban land at affordable prices, low-cost housing has been developing in urban peripheries where land is cheap. Consequently, instead of constituting a way of compacting cities, viewed as a means to restructure and to integrate South African cities (Todes, 2003) low-cost housing development has been contributing to create sprawl city and the 'facto' segregation. The dysfunctionality of land market has also been pointed by Narsoo and Royston (2006) who highlight the existence of two land markets, formal and informal and the need to reconsider informal land market in order to meet the needs of poor and vulnerable people.

The ignorance regarding informal land market and the overcomplicated access to urban land for the poor, are not the only issues that characterise South African urban land market. Research conducted by BASA (2005c) indicated that at the level of local government, which should identify and find available and suitable land for housing development, focus have been put on poor households and middle income groups which are neglected. As a result, there is a risk of failing to create an urban environment where all income groups can share the same urban place and endanger the event of integrated cities.

Debate related to urban land market in South Africa reveals that poor outcomes of low-cost housing delivery is partially correlated to the imperfection characterising land

markets. One may argue that to find well-located urban land in areas allowing convenient access to a range of amenities and opportunities for the establishment of socially viable and economically integrated communities is without doubt the main challenge confronting the post Apartheid government. There is a need to make well-located urban land available for low-cost housing development, so that the opportunities that city offers may profit everyone living in them. Landman and Ntombela (2006) argued for the need to open up spaces for the poor in the urban form. A range of solutions including land reform and the recognition and support of informal land market have been suggested to make land markets work better and profit the poor households as well (AMCHUD, 2005; Royston, 2006). In short, in developing countries including South Africa there is an exigency to manage land rationally, especially urban land and to make its access possible for all income groups. According to Harvey (1997) who argued for the transformation of urban government suggested that the governments should provide real services, which include the release of land for urban projects aiming to improve the living conditions of the poor households.

8.6.4 Making land available for the benefit of all income groups

Land is a crucial factor affecting the supply of housing. Given the legacy of the past, which included colonialism and Apartheid in South Africa, many developing countries have a critical shortage of available land for suitable housing development and other development projects. This leads to the speculation and the rise of land price, considered a major cause of the land shortage. In addition, in many developing cities the concentration of land ownership is as bad as it is in the countryside. The United Nations (1975) observed that market forces do not usually operate effectively with respect to land, monopolistic tendencies are prevalent and land prices easily exceed those, warranted by demand. In the current stage, access to urban land for housing and other developments capable of generating income such as commerce and farming has become overcomplicated for poor households, who with their poor income cannot afford to acquire urban land (Payne, 1999). This is one of the reasons, if not the focal reasons explaining the proliferation of slums in developing countries.

AMCHUD (2005) was aware of the issue of land, most specifically the access of urban land for the low-income households. To improve the access of land in general and urban land in particular for the low-income group, it proposed land reform, the improvement in the security of tenure and property rights for the poor households, who rely on informal land markets. These proposals were further supported by Royston and

Narsoo (2006), and Carey et al (2006), who suggested integrating informal land markets in the overall strategy of land issues. According to Carey et al (2006) who have analysed land issues in South Africa, the current system dealing with formal land issues is too complex and expensive. It needs to be transformed and made flexible in order to allow poor households to access formal land market like other income groups. At the heart of all the solutions aiming to improve access to urban land for the poor households, is the political will. In fact, the government as Hopkins (2003) argued has the prerogative to elaborate rational policies, which in principle must seek general interest of all income groups and seeks means to implement them. Planners and other actors of 'society life' such as NGO's, private sector and communities should assist and enter in partnership with government to ensure that policies do not discriminate against any income group, but should ensure profit to all income groups.

In 1994, the Housing White Paper indicated the difficulty in the release of sufficient suitable land as constraints to timely housing delivery. It therefore set up an urban land problem statement related to scale, location and speed. In the period since 1994, local and provincial governments failed to play a proactive role in the identification and release of land. Instead, the project-linked subsidy route led by developers has dominated the housing process. This trend has contributed to an approach that seeks to maximise the proportion of the subsidy used by the 'top-structure', doing little to tackle the cost of well-located land developers have in the main or identified peripheral land for project-linked subsidisation. By contrast, in instances where political will have been evident in local government to identify well-located land for housing, progress has been thwarted by the objections of adjacent property owners (Royston, 1996; Bremer, 2000).

Housing the poor who cannot compete in the land market is one of the challenges facing South Africa. Given the unfair distribution of land which is entrenched in the history of South Africa, land reform which, according to the Centre for Development Enterprise (CDE) (2005) is a vital political issue, and seems to be a prerequisite to overcome the legacy of colonialism and Apartheid, which left the Black South African population landless and economically deprived with unsatisfactory housing conditions.

Comprehensive and effective land reform is an effective way of making land available for all income groups, especially for the victims of previous irrational management of land and a necessary means for poverty alleviation. As the article 75 of the Habitat Agenda states, "legal access to land is a strategic prerequisite for the provision of

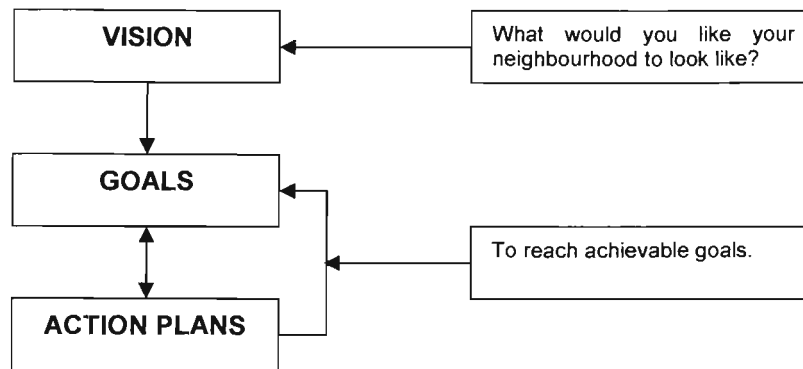
adequate shelter for all and for the development of sustainable human settlement affecting both urban and rural areas. The failure to adopt, at all levels, appropriate rural and urban land policies and land management practices remains a primary cause of inequity and poverty” (cited in AMCHUD, 2005, 3).

CDE (2005) questions the approach taken in South Africa to deal with land reform consisting of understanding it in starkly racial form, which means the transfer of ownership of farmland from Whites to Africans. As a result, land reform becomes an explosive and sensitive issue in South Africa. The Housing White Paper saw the Development Facilitation Act (1995) (DFA) as the key short-term intervention, intended to facilitate the speedy delivery of serviced land for low-income housing. However, CDE (2005) proposes an approach to put land reform in the overall process of people’s well being instead of mere redistribution of land to Black people. In fact, it is worth asking whether the redistribution of land will enhance the equity and contribute to the sustainable development, or will it just remain a political issue aiming to increase political popularity among the Black potential electorate.

Comprehensive and effective land reform and a successful low-cost housing call for a responsive planning which aims to build complete and viable communities to protect the environment, to manage urban growth, to improve mobility and servicing efficiency and to engage in community involvement.

8.7 Towards responsive or inclusive planning

In this study responsive planning, which is inclusive planning refers to the neighbourhood planning that includes the local authority, community and stakeholders. This responsive planning process helps to strengthen and add support to its implementation. To ensure continued success, the responsive or inclusive planning should address concerns over the economic, social and environmental sustainability of conventional development practices. It should also recognise connections between development and quality of life, and address the underlying systematic system factors that influence where, how and why development occurs. The responsive planning does three essential things. It provides a vision of what you would like your neighbourhood to look like, sets out clear goals to achieve that vision, and gives you an action plan to reach these goals. Figure 8.2 provides a sketch of a responsive planning guide to developing a neighbourhood plan.

Figure 8.2 A guide to developing a neighbourhood plan

Source: Author

Responsive planning adopts principles that promote mixed land-uses / planning, create housing opportunities and a variety of housing choices, and preserve open spaces and critical environmental areas. It provides a variety of transportation choices, it strengthens and directs development towards existing communities and creates workable communities. Besides, inclusive planning makes holistic decisions that are fair and cost effective and encourages and fosters community and stakeholders collaboration in development decisions.

Responsive or inclusive planning which involves community participation is by definition concerned with sustainability, and addresses not just post Apartheid development, but the need to support existing communities. It is the key to sustainability, in that greater social and economic diversity is essential to create a healthy community, and that the physical form of community needs to support and encourage such diversity rather than constraining it. For example, sustainable neighbourhoods are able to adapt a demographic and economic shift because they provide a richer variety of housing options and opportunities than single-use neighbourhoods.

In the end, sustainability is whatever we define it to be, but there are some key principles and issues to address that directly relate to the way we build, all our neighbourhoods. The characteristics of inclusive or responsive planning are reflected in Table 8.3 hereunder:

Table 8.3: Characteristics of responsive or inclusive planning

• different building types and uses are located in the same neighbourhood and on the same street
• buildings, streets and open spaces work together to create social friendly spaces
• transit and shops should be within five-minute walking distance to all homes
• street systems are interconnected rather than segregated
• infrastructures are lighter, greener, cheaper and smarter
• development works with the environment rather than against it. e.g. natural drainage systems

Source: *Author*

Participatory approaches essentially developed the research techniques which sought to give citizens a greater voice in the decision making process affecting their lives. Table 8.3 indicates that such approaches can run the full gamut of effectiveness, from mere lip service to situations, where participants initiate actions themselves. In theory, these approaches can increase the flow of information for planners and enable residents to prioritise their needs and to identify development goals, and the local resources to assist in their achievements.

8.8 Summary

This chapter has attempted to establish the close relationship between people's happiness and the neighbourhood. It essentially emphasises the crucial role of the place of sustainable development. This chapter subscribes to the UN Habitat (2006/2007) claiming that where we live matters. As where we live, or our neighbourhood is not isolated from the city, the form that a city may take or the shaping of the city constitutes a determinant aspect for people's satisfaction as well and could contribute to the creation of urban sustainability and in turn the improvement of poor people's living conditions. In this chapter the choice was made for compact city, which is the opposite of sprawl city. In South Africa for instance, advocates of compact city such as Todes (2003) argued that integrated and sustainable development could be achieved through the creation of compact city. As the shaping of physical environment is an incidence of socio-economic life of people (Taylor, 1998) the chapter has also shown that planning activities, which has the shaping of city as the most important of its attributes has an important role in the creation of pleasant neighbourhoods and people's happiness.

Planning activities have a long tradition, and the shaping of cities in underdeveloped countries, including South Africa has been influenced by modernism and post-modernism, colonisation and Apartheid. The tradition of planning revealed that before World War II, planning activity was the exclusive realm of architecture and only after World War II did planning become an autonomous discipline, different from the architecture. However, planning continues to use theories from other disciplines of study such as philosophy and sociology, for its progress. Related to the planning tradition, Taylor (1998) pointed out two major shifts which he names paradigm shifts in the evolution of planning. Primarily, planning activity shifted from design to science and secondly the planner' who was understood as a technical expert shifted to a 'communicator'. As a result, the place for community, the beneficiary of planning activity becomes an important component of planning activities. As Friedman (1998) argues, it is expected of a planner not only to plan for people only, but also to plan with them.

While modernism, post-modernism, colonisation and Apartheid influenced the shaping of African cities; colonialism intended to replicate the European cities' model into African cities. The criticism of this model of planning is that the shaping of cities was not profitable to all income groups and races and only Europeans were enjoying the benefits of urban opportunities. In South Africa, where Apartheid was instituted as political system, planning, including housing was an effective tool of Whites to dominate over Blacks. It appears that African cities today should not draw on these past models of planning. Planning activities and housing delivery should benefit all the income groups and enhance a veritable urban sustainable development through which poor households have the opportunity to improve their living conditions. One of the ways is the creation of pleasant neighbourhoods in which households may peacefully and safely undertake their daily activities such as shopping, going to work and going to school to name a few.

Although with some criticisms, this chapter has argued that compact city offers opportunities for households that sprawl cities do not. It is recognised for instance that a compact city with its high residential density facilitates transportation systems, rationally utilises land and reduces the risk of pollution in the city. In South Africa for example, the department of housing (2004) has recognised that sprawl cities which characterised the urban form of Apartheid, makes the management of a city difficult and costly. Subsidised housing in South Africa which is located far away from the city centre, force households to travel a very long distance before reaching their school or

work place, thus propagating sprawl. As a result, the outcomes of housing delivery did not foster the creation of quality urban environment. Instead it perpetrates the segregation introduced by Apartheid regime (Huchzermeyer, 2006).

This chapter also reviewed the role of political systems in the shaping of city or the creation of quality place. In essence, democracy is favourable to people's participation in the planning or the shaping of city. Democracy allows for the voices of poor people to be heard by those with power, a necessary condition for the improvement of people's living conditions (Pillay et al, 2006).

In South Africa, the importance of a democratic system in the achievement of a liveable quality urban environment and, in turn the improvement of living conditions of local communities appeared in the role assigned to local government in the 1996 constitution of our republic. Indeed, it is expected from the local government to democratise city and to play a developmental role through local economic development. It is argued in this chapter that the creation of a pleasant neighbourhood where all the income groups and races enjoy the privileges of urban facilities and where poor people can actively participate in decision making process, like other income groups, is not only the role devoted to planners, but essentially depends on a just and fair political regime.

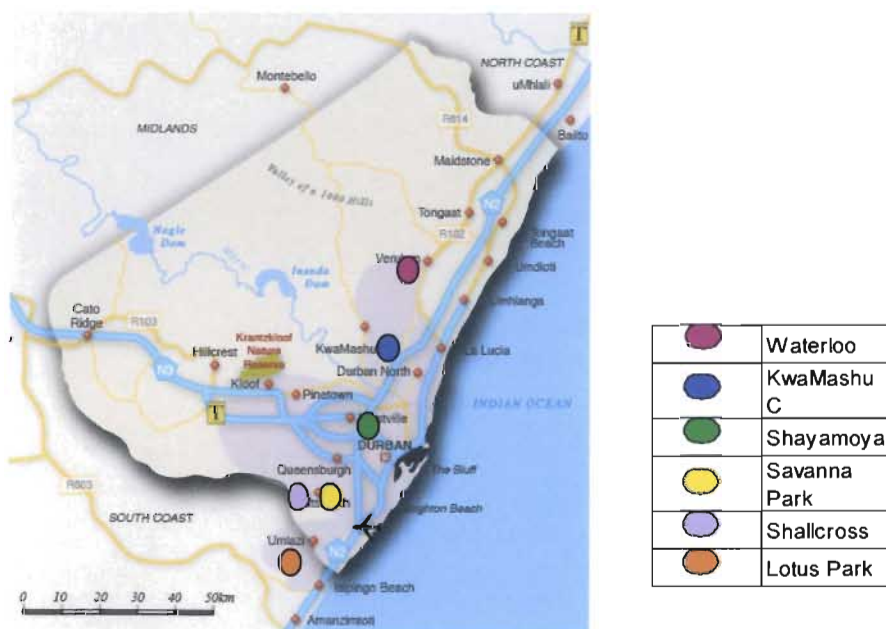
Finally, the availability of land, which plays a crucial role in the supply of housing, was reviewed in this chapter. In developing countries, including South Africa, the government failed to make urban land affordable and available for all income groups (Doebele, 1987). In South Africa for example, poor people have sometimes recourse to land invasion in order to satisfy their housing need (Huchzermeyer, 2003). Given the importance of urban land for housing development and the improvement of living conditions of poor households, land reform appears as a prerequisite for the creation of sustainable urban development today. Currently, in Africa, including South Africa, land reform is justified due to the unjust distribution of urban land in the past. In fact, during the Apartheid regime, Blacks were denied the right to reside in cities. Cities were exclusively for White people. They could stay in cities only for the purpose of jobs. This unjust policy overcomplicated the access to urban land for Black people. The Department of Housing (2004) explained the poor location of subsidised housing by the intricacy to find urban land for housing development. Also, CDE (2005) argues that land reform process will lead to the welfare of poor households and the overall economy of the country.

CHAPTER 9: CASE STUDY: THE SETTLEMENTS, DATA ANALYSIS AND FINDINGS

9.1 Introduction

Before analysing the urban structure of the selected sample of settlements, or assessing their levels of consolidation, it is necessary to understand the global structure of the city and the broader social and economic context within which the consolidation process of the settlements has occurred. According to estimations from the last National Census of Population and Housing, in the EtheKwini Region today there are nearly 3.5 million inhabitants. The massive growth in the urban centres, together with a lack of planning and effective control, brought a significant loss in quality of life to certain portions of the city, which was characterised by strong social segregation, environmental pollution, vehicular congestion, scarce urban equipment and an uneven distribution of services.

Map 1: EtheKwini region showing the settlements that were used in this study



Source: Author

Regarding the housing conditions in the EtheKwini Region, one may observe that there is a growing development of informal settlements. Pithouse (2006) notes that in Durban almost one in three people live in a shack-like home. This is despite the housing programme developed by the government to deliver low-cost housing to low-income

households earning between R0 and R3500. The authorities' response to the proliferation of informal settlements in the region is through the process of eviction, which does not help urban development and is considered as an anti-poor and inhumane policy (Huchzermeyer, 2007). The eviction and elimination of informal settlements as it occurs in the Ethekwini Region contradicts the new vision for the creation of sustainable human settlements as adopted by the National Department of Housing in 2004, which is in line with BNG. The new vision or plan proposes informal upgrading as a preferable and a non-disruptive solution to deal with informal settlements.

The actual city has to be understood as part of the regions incorporation into the Metropolitan District Council in 2004 and in the process, the taking over of the responsibility of former Bantustan Townships and settlements, which were set aside for particular race groups.

The Ethekwini region manifested itself in three basic transformations. Firstly, the emergence of a city with regional coverage, suburbanised and polycentric, with imprecise boundaries and whose expansive dynamism, which incorporated many neighbouring urban centres and rural areas. Secondly, the persistence of an unequal society and an extremely fragmented and segregated city, needed to be addressed. And lastly, the eruption of a group of new urban features, such as shopping malls, gated communities and decentralised business enterprise centres that had a strong effect on the structuring and articulation of the region.

In summary, an overview of the region can be described in at least three basic points. The first is that the extensive growth of the Ethekwini region did not necessarily integrate or incorporate socially and economically the neighbouring urban centres and rural areas. The second point is that Ethekwini is a strongly segregated and fragmented city, and shows little signs of improving in this regard. Both the racial mix of the inhabitants as well as their varying income levels dictates the segregation and fragmentation that is evident. The third is that there are a number of important transformations in the urban space, such as the rapid growth of some of the informal settlements, that are affecting the quality of life of the city's inhabitants, however there remains no real control over them nor adequate knowledge of their possible outcome.

9.2 General Background

This section is dedicated to the description of the six settlements in the sample. In the first section, each settlement is introduced through a brief background and description. The second section presents data about the inhabitants, referring to the social, economic and subjective valuation data that was collected on site. The third section presents the locational and movement patterns relating to the particular settlements.

9.2.1 The Savannah Park Greenfield Housing Project



Source: Author 2009

Plate 9.1: House in Savannah Park with improvements



Source: Author 2009

Plate 9.2: View of houses in Savannah Park

The Savannah Park Housing Project is considered an older settlement and was developed during Apartheid and is located approximately 30km west of the Durban Central Business District and adjacent to the M1 that links the Chatsworth suburb to Pinetown. The project was developed by the Apartheid government and catered only for the Indian race group. Although the terrain is hilly, it is evident that much thought had been put into the design of the project. The settlement has well serviced roads, stormwater drainage systems, sanitation, water reticulation, electricity and telephone facilities. It would appear that the design of the township was based on a manual that was produced by the former government guidelines for the provision of engineering services in residential townships.



Source: Ethekewini Municipality

Plate 9.3: Aerial view of Savannah Park Settlement

These guidelines provide minimum standards in respect of provision of services such as roads, stormwater drainage, sanitation and water reticulation and electricity. The settlement has playgrounds and parks, schools, shops, a petrol service station and a clinic. The houses that were built for the residents comprise of a freestanding 45m², two-bedroom unit with a kitchen and lounge as well as toilet and bathroom facilities.

The average size of each of the plots is between 350m² to 400m². These houses were allocated to the occupants for an amount of R35,000.00 and were under the legislation of Apartheid on a 'rent to buy' basis whereby the beneficiary had to pay back the capital amount of R35,000.00 in monthly instalments which was dependant on a proportion of their fixed monthly income. However, in line with the post Apartheid government's housing assistance policy, these units have been transferred to the occupants in terms of a programme of government called 'The Discount Benefit Scheme Programme', whereby the outstanding capital amount that was owing by the occupant was written off as a once off subsidy. Most of the residents have made improvements to their dwellings and the entire settlement is sustainable and shows signs of a rich social community.

9.2.2 The Waterloo Greenfield Housing Project



Source: Author 2009

Plate 9.4: RDP house in Waterloo



Source: Author 2009

Plate 9.5: View of RDP houses in Waterloo

The Waterloo Housing Project is a settlement that was developed post Apartheid and is located approximately 35km north of the Durban Central Business District and is contiguous to Main Road 27 which is an established transport route. The project was a Greenfield Housing Project that catered for approximately 400 households that were affected and displaced by floods. These families were temporarily accommodated in a shelter for approximately seven years. The total project comprised 800 plots.

The project was developed by the Metro Housing Unit of the Ethekeeni Municipality and the major stakeholders for this project were the Provincial Department of Housing and a Development Committee that was in existence in the area.

The project was deemed an extension of the Verulam suburb although upon closer examination this settlement revealed that it is detached and isolated from any of the nearby-developed areas. There are no basic community facilities in the area such as schools, crèches or health care facilities. The only shop in the area is an informal tuck shop, which is operated by a resident. The level of services comprise 3m wide surfaced roads, water and sewer connections to each plot and access to electricity. The residents have complained



Source: Ethekeeni Municipality

Plate 9.6: Aerial view of Waterloo Settlement

of the lack of telephone and communications infrastructure. The houses comprise of a 30m² structure with one bedroom and a common lounge/kitchen area. The unit also has a wetcore area comprising of a shower area and a toilet. The kitchen is fitted with a sink. Observations have revealed that none of the occupants of these houses have made any attempts to improve their unit. In fact, these houses are in need of urgent maintenance and if not attended to timeously, the many units that have severe cracks along external walls will end up in a state of disrepair.

9.2.3 The Lotus Park Social Housing Project



Source: Author

Plate 9.7 House at Lotus Park



Source: Author

Plate 9.8 House showing Digital Decoder dishes

The Lotus Park Social Housing Project was developed by the apartheid government, to essentially accommodate Indian families that were living in overcrowded conditions at Malagazi, an area that lies adjacent to Lotus Park. The settlement is located 35km south of the Durban Central Business District and is approximately 1km from MR 37, which is an established transport route that links Lotus Park to the Isipingo Central Business District. The settlement has easy access to public transport, which facilitates easy movement of residents to commercial, business and employment nodes. The level of resources comprises 5m wide surfaced roads, adequate stormwater drainage, sewer reticulation, electricity and telephone communication systems. The housing units are comprised of row housing and each unit consists of two bedrooms, a living room, kitchen, and a wetcore comprising wash hand basin, toilet and shower. The size of the unit is 45m². The units have been allocated to



Source: Ethekwini Municipality

Plate 9.9: Aerial view of Lotus Park Settlement

families on a rent-to-buy basis and to date none of the occupants have taken advantage of acquiring ownership of their units. Essentially, the problem arises from non-payment of rentals and service costs and the amount of arrears in some instances are approximately four times the cost of the unit. The occupants take pride with regards to the inside of their units and they are not willing to undertake any maintenance work to the outside of the unit. The responsibility for maintenance of these units is that of the Ethekwini Municipality. Observations have revealed that there is little or no maintenance being undertaken to these units by the Municipality.

9.2.4 The Shallcross Social Housing Project



Source: Author

Plate 9.10: Shallcross Flats



Source: Author

Plate 9.11: Shallcross Flats

The Shallcross Housing Project is an apartheid settlement developed prior to the 1994 democratic elections and was developed exclusively for the Indian race group. The settlement is located 30km west of Durban Central Business District and the Chatsworth suburb to Pinetown. The project site is in close proximity to the M1 which is an established transport route that links developed area and is in close proximity to shops, parks, schools and community facilities.



Source: Ethekewini Municipality

Plate 9.12: Aerial view of Shallcross settlement

The project comprises of 58 flats with each unit consisting of two bedrooms, a kitchen, a lounge and a bathroom comprising a toilet, wash hand basin and bathtub. The three storey blocks of flats are located on a level plot. The site has been paved and is utilised by the residents as parking for their vehicles. The blocks of flats are still being administered by the Provincial Department of Housing and all the occupants are currently paying a monthly rental with a view to eventually take ownership of their unit. The buildings and facilities have been well maintained by the Provincial Department of Housing. One of the concerns that have been raised over the past few years by the Department of Housing is the non-payment of rentals and service charges by the occupants. This has been a contributing factor for the occupants' reluctance to take ownership of these units as most of them were occupying the units 'free of any charges'. It is the intention of the Provincial Department of Housing to transfer ownership of these units to the occupants in line with the Government's Housing Assistance Policy being 'The Discount Benefit Scheme Programme' whereby a once off subsidy will be given to the occupant to settle the capital cost of the unit.

9.2.5 The Shayamoya Social Housing Project



Source: Author 2009

Plate 9.13: Shayamoya flats



Source: Author 2009

Plate 9.14: Shayamoya flats

The Shayamoya Social Housing Project is a post Apartheid settlement and is a well located project, that was built post Apartheid and is located approximately 5km south-west of the Durban Central Business District. The project is situated within the Wiggins Precinct of Cato Manor, at the intersection of the Booth and Bellair activity corridors. Shayamoya has easy access to almost all road and transport networks connecting into the Durban Central Business District. The project comprises 318 medium density-housing units and was conceptualised and developed by the Built Urban Environment Support Group (BESG), a non-governmental organisation that was actively involved in the promotion of built environment projects.



Source: Ethekewini Municipality

BESG also provided support to the Shayamoya Housing Association (SHA), the entity that eventually took over the project. The project site is situated on a hilltop with the central portion

Plate 9.15: Aerial view of the Shayamoya Settlement

being relatively flat and sloping. The housing units have been designed around a single flight of stairs, which provides access to two units per floor. The blocks vary between two and four floors. The design responds well to the topography with the taller buildings located on the lower portions of the site. Provision has been made for public open space, which can be used by children as a play area. However, the public open space appears neglected. An observation of certain public spaces, appear to be poorly lit and insecure, which may lead to problems relating to security and safety of the residents.

Three key issues were neglected in the design of the site, these being space for laundry, refuse and parking. The lack of laundry facilities has meant that tenants without balconies have to erect their own washing lines, which has been done somewhat haphazardly throughout the site. Refuse bins have been provided, but no space has been allocated. This results in them lying around the site, posing a health and safety risk for children who use the streets as a play area. Furthermore, limited provision has been made for car ownership and parking, resulting in tenants making their own arrangements for parking adjacent to their units on banks, landscaping and yard space. In future this may result in unintentional damage to infrastructure. The layout and placement of services namely water and electric meters seems to be poorly considered and prone to damage, either accidentally or intentionally. The design of

Shayamoya takes into consideration some basic 'green' design principles, namely: north orientation; air ventilation through the housing units; covered veranda spaces providing suitable outdoor living spaces; good location, minimising tenants transport costs. Photographs taken during the research for this project shows a large amount of decay in the fabric of the buildings. Examples of this include peeling plaster, broken or missing geysers, and damp in the walls of the units.

9.2.6 The KwaMashu C Slums Relocation Project



Source: Author 2009

Plate 9.16: KwaMashu RDP house



Source: Author 2009

Plate 9.17: KwaMashu RDP house

The KwaMashu C Housing Project was a Slums Relocation Project that was developed post Apartheid and comprises of 408 plots. The project is located approximately 25km north of the Durban Central Business District. The project site is bounded on the north and west by a Main Road, Mandela Road, the Kwamashu Town Centre and a railway station; and to the south and east, Umzumbe Road.



Source: Ethekwini Municipality

Plate 9.18: Aerial view of KwaMashu Settlement

The KwaMashu Town Centre is regarded as an employment node and Mandela Road is an established transport route. The project was identified and developed by the Metro Housing Unit of the Ethekwini Municipality to cater for people who required urgent relocation from existing informal settlements that were regarded as dangerous. These were the Clairwood informal settlement consisting of 100 families who lived adjacent to a railway line transporting toxic chemicals and jet fuel.

A further 156 families were from the KwaMashu HH informal settlement which was located on a floodline and 78 families from the Durban Station informal settlement who needed to be relocated so that upgrading work could take place at the Durban Station. The remaining 74 sites were allocated to families that were living in informal settlements within the KwaMashu area.

The project site was within an existing road network and allowed easy integration into a developed area. All the plots were provided with basic services, such as sewer reticulation, stormwater reticulation, water reticulation and electricity as well. The internal road network is comprised of paved roadways with a surface width of 2.5m. There is a large portion of the resident population that is unemployed and there have been no improvements made to any of the units. This settlement shows evident signs of decay.

9.3 Data analysis of household survey

Following the description of the settlements, this second section presents the social and economic characteristics of the inhabitants, as well as their subjective valuation of aspects regarding the house, community and neighbourhood. All the data presented in this section was collected on site through the survey applied to 394 families inhabiting the six settlements of the sample. That is, they are direct answers given by the beneficiary or spouse of the Housing Subsidy Programme.

The questions to be analysed are subdivided into 9 different sections: demographic aspects, social aspects, typology and housing conditions, location and convenience, economic aspects, infrastructure services, neighbourhood satisfaction, housing improvements and housing policies. The responses of residents in 6 different settlements (i.e. Savannah Park, Waterloo, Lotus Park, Shallcross, Shayamoya and KwaMashu) on each of these issues are presented at a global level and compared among the groups that inhabit the different settlements of the sample.

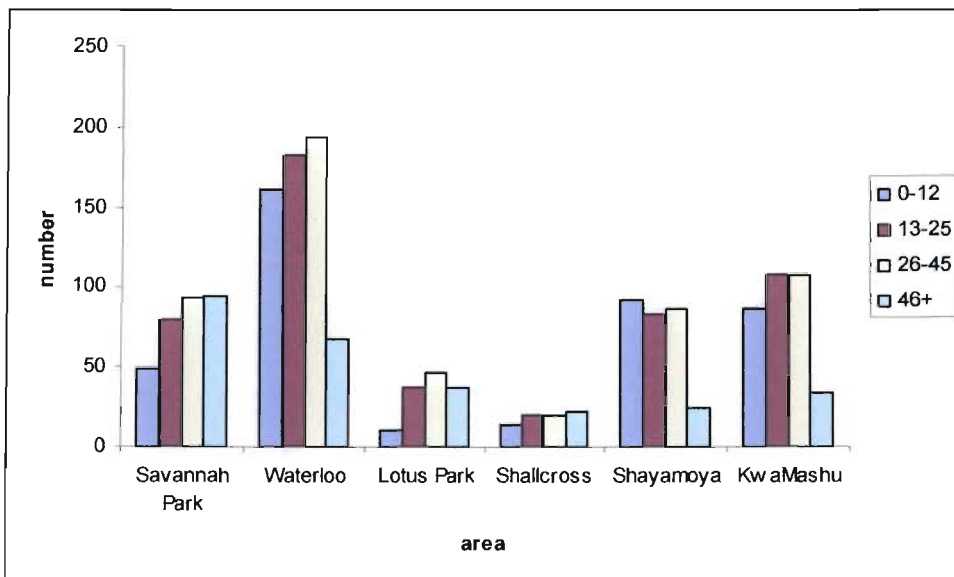
9.3.1 Demographical aspects

The demographic analysis was to profile the occupants in the different settlements and determine whether there were any differences.

Table 9.1 Age at next birthday

Age/Area	Savannah Park	Waterloo	Lotus Park	Shallcross	Shayamoya	KwaMashu
0-12	49	161	11	14	92	86
13-25	80	182	37	20	83	108
26-45	93	194	47	20	86	108
46+	95	68	37	22	24	34
Mean Age	32.8	24.9	34	31.5	22.9	24.7

Source: Author: Field Survey

Figure 9.1 Age at next birthday

Source: Author: Field Survey

It was interesting to note that the average mean age of the occupants for the settlements that were developed after the 1994 democratic elections are relatively young individuals ranging from 22.9 years to 24.9 years. The average mean age for occupants of the Apartheid settlements that were developed prior to the 1994 elections were between 31.5 years to 34 years.

Figure 9.2 Correspondence analysis plot for age and area

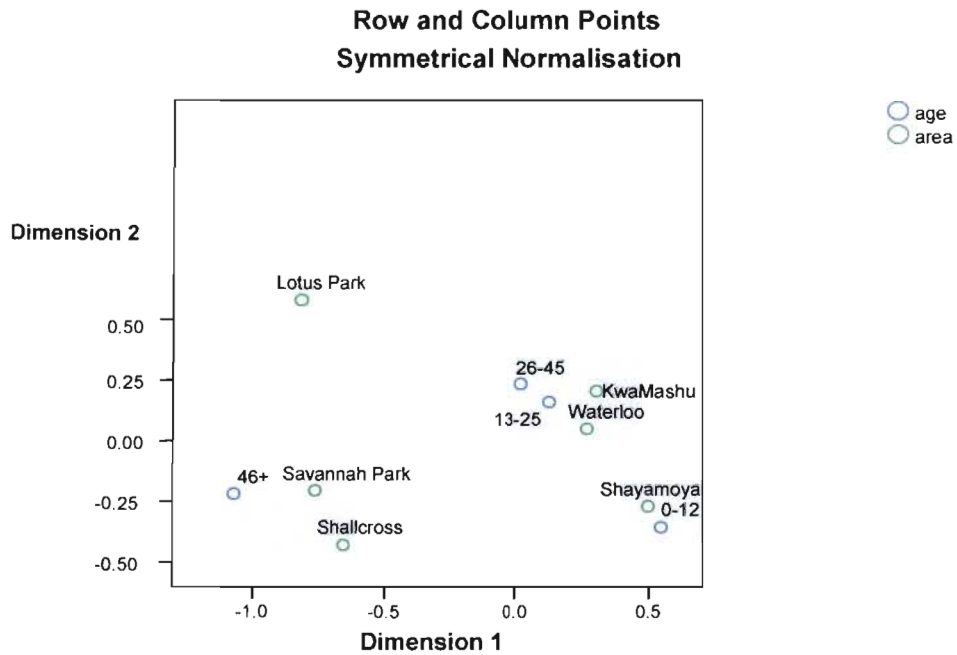
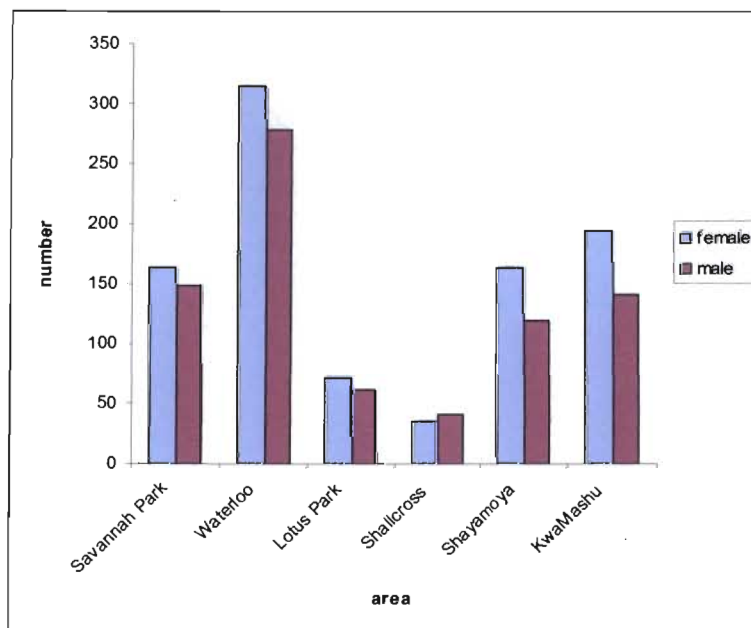
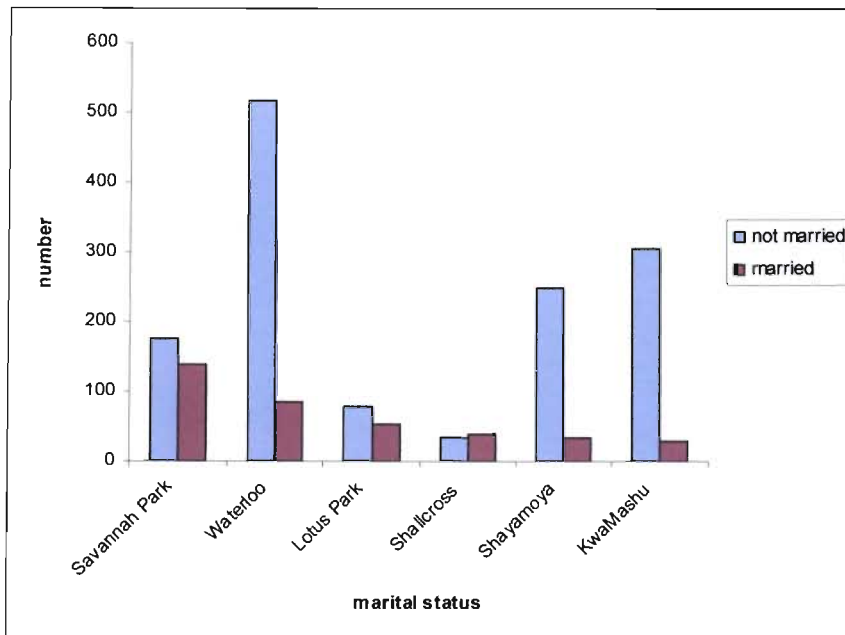


Figure 9.3 Gender showing the male / female split



Source: Author: Field Survey

The male / female split is virtually the same for all areas.

Figure 9.4 Marital status

Source: Author: Field Survey

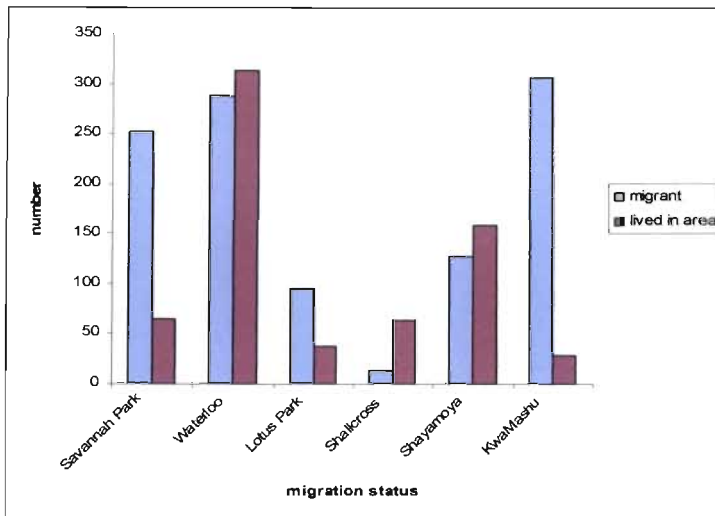
The graph reflects that the proportion of not married people is much higher in Waterloo, Shayamoya and KwaMashu than in the other 3 Apartheid settlements.

Table 9.2 Migration status

Status/Area	Savannah Park	Waterloo	Lotus Park	Shallcross	Shayamoya	KwaMashu
Migrant	79%	48%	71%	17%	45%	91%
Lived in area	21%	52%	29%	83%	55%	9%

Source: Field Survey

Migrants are in the majority in Savannah Park, Lotus Park and KwaMashu. This can be attributed to the fact that the occupants for all three of these settlements were relocated from their previous abode. In the other three areas those who lived in the area are in the majority.

Figure 9.5 Migration status

Source: Author: Field Survey

9.3.2 Social aspects

The description of the social aspect involves an analysis of the family type as well as the education level and occupation type of the beneficiary couple.

9.3.2.1 The Family Type

The family was analysed according to the typologies viz. whole family unit with a spouse in the household and kinship among the members of the household and child headed households. The importance of looking at the family typology is to determine whether the relationship between those within the household is related to strategies of survival among the poor as well as extended family traditions. The following five categories were defined:

1. One person: only one person in the household.
2. Nuclear household: includes both spouses / or descendants (such as married sons or daughters and grandchildren), with no other relatives or non-relatives in the house.
3. Child headed household: includes no parents, only siblings with no other relatives or non-relatives in the house.
4. Extended household: includes other relatives in the household with no non-relatives in the house.
5. Expanded household: includes non-relatives in the household.

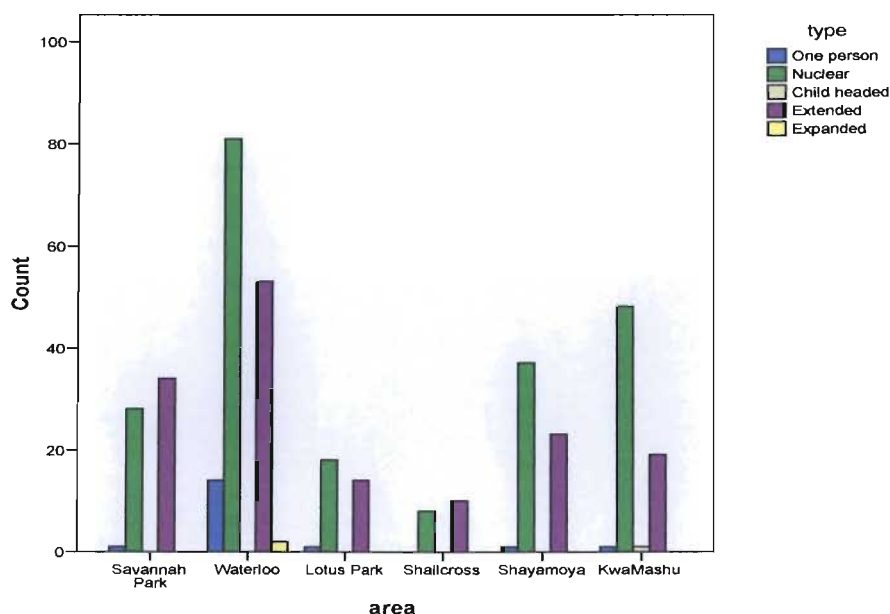
Table 9.3 Family type

		Type				
		One person	Nuclear	Child headed	Extended	Expanded
Area:	Savannah Park	1	28	0	34	0
	Waterloo	14	81	0	53	2
	Lotus Park	1	18	0	14	0
	Shallcross	0	8	0	10	0
	Shayamoya	1	37	0	23	0
	KwaMashu	1	48	1	19	0
Total		18	220	1	153	2

Source: Field Survey

The data in Table 9.3 shows that almost 95% of the family types are either nuclear or extended. The child headed and expanded households are very few in number. Most of the one person households are in Waterloo.

When considering only the two main family types (nuclear or extended), a chi-square test shows a significant relationship between family type and area (chi-square = 11.302 with a p-value of 0.046). The proportion of nuclear families in Waterloo, Shayamoya and KwaMashu is greater than the proportion of extended families. These three settlements seem to be addressing the phenomenon that it is an expression of a lack of housing and of survival strategies of the poor. In the other areas, these two types of families have approximately the same proportion.

Figure 9.6 Family type

Source: Author: Field Survey

The data in Table 9.3 also shows that Waterloo has a 10% one person household, a scenario which may also contribute to the occupant having difficulty in consolidating their houses. The data in Table 10.1 (Age at next birthday) shows that in the Apartheid settlements (i.e. Savannah Park, Shallcross and Lotus Park), almost 28% of the sample are comprised of households in the advanced stage of the family cycle which is 46 years of age and Apartheid, whilst only 10% of the sample in the post Apartheid projects (i.e. Waterloo, Shayamoya and KwaMashu) are comprised of households in the advanced stages of the family cycle.

The analysis also showed that nuclear families increase in the earlier stages of the family cycle. That is, the analysis of the inhabitants in the post Apartheid settlements of Waterloo, KwaMashu and Shayamoya shows a pattern of families who in many cases received their children and grandchildren into their homes.

9.3.2.2 Education and occupational level

The education level and occupational type of the family members were also analysed. In relation to education, seven categories were defined:

1. No formal education;
2. Basic grade (grade 1-4);
3. Senior Primary (grade 5-7);
4. Secondary (grade 8-12);
5. Grade 12 plus 1-3 year certificate;
6. Grade 12 plus 1-3 year Technikon diploma;
7. Grade 12 plus 1-3 year University degree.

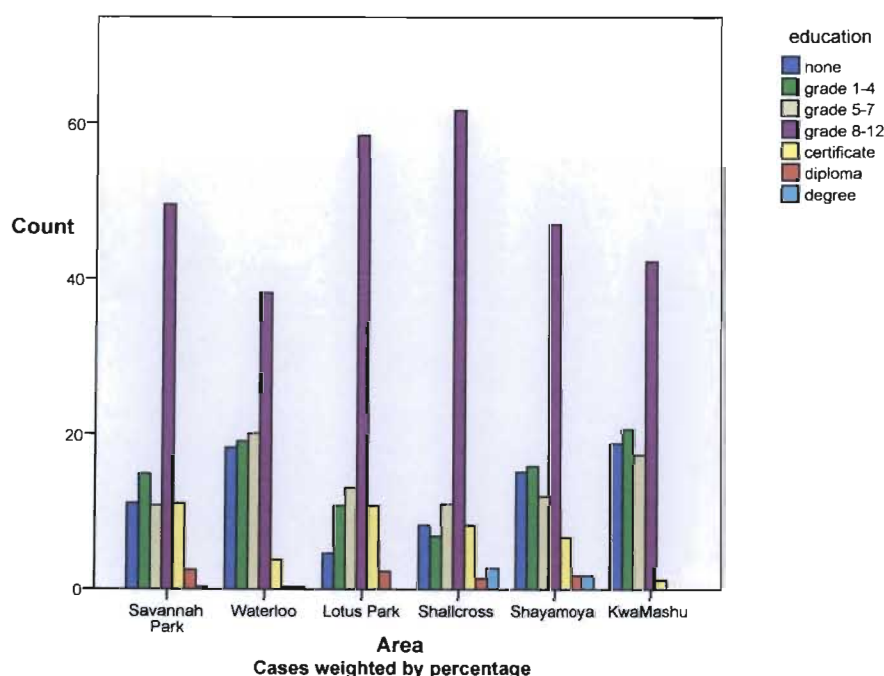
Table 9.4 Education level percentages per area

Education/area	None	Grade 1-4	Grade 5-7	Grades 8-12	Certificate	Diploma	Degree
Savannah Park	11%	15%	11%	50%	11%	3%	0%
Waterloo	18%	19%	20%	38%	4%	0%	0%
Lotus Park	5%	11%	13%	58%	11%	2%	0%
Shallcross	8%	7%	11%	62%	8%	1%	3%
Shayamoya	15%	16%	12%	47%	7%	2%	2%
KwaMashu	19%	21%	17%	42%	1%	0%	0%

Source: Author: Field Survey

There is a significant relationship between education and area, chi-square = 50.404 with a p-value 0.000. The post grade 12 percentages for Waterloo and KwaMashu are lower than that for the other four areas. The low-level education percentages (grade 7 or less) for Waterloo and KwaMashu are higher than that for the other four settlements. The grades 8-12 percentages for Waterloo and KwaMashu Settlements are lower than that for the other four areas. It is evident from Table 9.4 that the settlements in the Apartheid districts of Savannah Park, Shallcross and Lotus Park showed a slightly higher level of education than the post Apartheid settlements of Waterloo, Shayamoya and KwaMashu.

Figure 9.7 Education level percentages per area



Source: Field Survey

Table 9.5 Household size adults

		Area					
		Savannah Park	Waterloo	Lotus Park	Shallcross	Shayamoya	KwaMashu
size	0-2	18	98	9	7	38	40
	3-5	43	50	22	10	22	27
	6-8	2	2	2	1	1	1
Mean		3.2	2.1	3.4	3	2.2	2.3

Source: Field Survey

Table 9.6 Household size children

		Area					
		Savannah Park	Waterloo	Lotus Park	Shallcross	Shayamoya	KwaMashu
Size	0-2	0	3	1	0	0	0
	3-5	48	92	28	14	30	37
	6-8	6	35	3	3	25	28
	>8	2	6	1	0	1	2
Mean		4.5	4.9	4.3	4.5	5.4	5.4

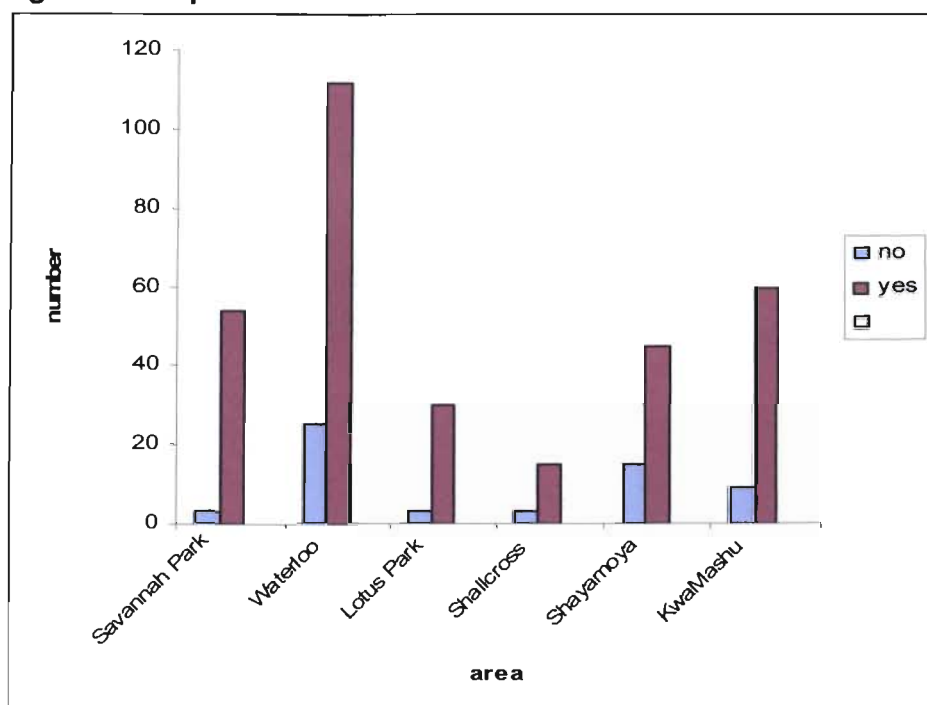
Source: Field Survey

Table 9.7 Dependents live at home

		Area					
		Savannah Park	Waterloo	Lotus Park	Shallcross	Shayamoya	KwaMashu
No		5%	17%	9%	17%	25%	13%
Yes		83%	75%	91%	83%	74%	87%
Total		88%	91%	100%	100%	98%	100%

Source: Field Survey

The proportion of minors not living at their parent's home is less for Savannah Park and Lotus Park than for Waterloo, Shallcross, Shayamoya and KwaMashu. The analysis of the six settlements that were analysed regarding family type, education levels, household size and dependants living at home showed that the three Apartheid settlements of Savannah Park, Shallcross and Lotus Park were similar, whilst the analysis of the three post Apartheid settlements of Waterloo, Shayamoya and KwaMashu were similar. However, the exception was that only Shallcross showed a significant difference in respect of dependants that live at home, with the analysis for Shallcross being similar to that of the post Apartheid settlements.

Figure 9.8 Dependents live at home

Source: Field Survey

9.3.2.3 Typology and housing conditions

The analysis (see table 9.8) has shown that the residents in Lotus Park, Shallcross and Savannah Park have been living in their neighbourhoods for much longer than those in the other three settlements of Waterloo, Shayamoya and KwaMashu. The vast majority of Waterloo residents have been living there for less than five years.

Table 9.8 Time living in neighbourhood

		Time				Mean
		0-5yrs	6-10yrs	11-15yrs	16-20yrs	
Area	Savannah Park	3	4	8	48	15.99
	Waterloo	133	14	2	1	3.26
	Lotus Park	0	0	0	32	18
	Shallcross	0	0	1	17	17.72
	Shayamoya	4	55	1	1	7.89
	KwaMashu	6	63	0	0	7.52
Total		146	136	12	99	

Source: Field Survey

Table 9.9 Housing preference

	Preference				Total
	Flat	Semi detached	Row houses	House	
Area					
Savannah Park	0%	0%	0%	97%	97%
Waterloo	3%	9%	5%	83%	100%
Lotus Park	18%	27%	9%	45%	100%
Shallcross	72%	6%	6%	17%	100%
Shayamoya	21%	7%	0%	72%	100%
KwaMashu	0%	17%	3%	80%	100%
Total	9%	10%	3%	77%	99%

Source: Field Survey

The analysis in Table 9.9 has shown that in all the settlements except for Shallcross, most residents would prefer to live in a house. The respondents from Shallcross have a preference to live in a flat and this can be attributed to the fact that they may be happy and adapted in their current environment.

Table 9.10 How residents came to live here

Area	How			Total
	Choice	Chance	Resettled	
Savannah Park	17%	0%	80%	97%
Waterloo	11%	10%	78%	99%
Lotus Park	15%	6%	79%	100%
Shallcross	72%	0%	28%	100%
Shayamoya	21%	16%	62%	100%
KwaMashu	7%	3%	90%	100%
Total	16%	7%	76%	100%

Source: Field Survey

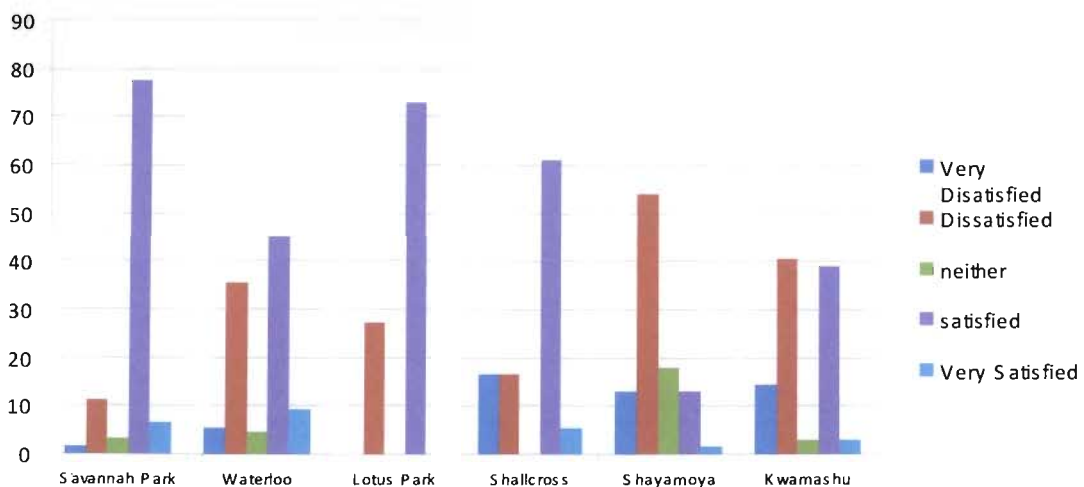
The analysis in Table 9.10 shows that in all the areas except for Shallcross (by choice main reason) the main reason is 'resettled by government'.

Table 9.11 Satisfaction with quality of house

		Area					
		Savannah Park	Waterloo	Lotus Park	Shallcross	Shayamoya	KwaMashu
-2	very dissatisfied	1	8	0	3	8	10
-1	Dissatisfied	7	53	9	3	33	28
0	Neither	2	7	0	0	11	2
1	Satisfied	48	67	24	11	8	27
2	very satisfied	4	14	0	1	1	2
Mean		0.76	0.17	0.45	0.22	-0.64	-0.25

Source: Field Survey

The analysis in figure 9.11 shows that the Savannah Park residents (74%) are most satisfied with the quality of their houses. Lotus Park (72%) and Shallcross (61%) residents are satisfied with the quality of their houses. Waterloo and KwaMashu residents have divided opinions between satisfied and dissatisfied. In Waterloo 45% are satisfied and 35% are dissatisfied whilst in KwaMashu 37% are satisfied and 41% are dissatisfied. Shayamoya (54%) residents are dissatisfied with the quality of their houses.

Figure 9.9 Satisfaction with quality of house

Source: Field Survey

Table 9.12 Adequacy of dwelling size

	Area					
	Savannah Park	Waterloo	Lotus Park	Shallcross	Shayamoya	KwaMashu
Inadequate	29%	65%	21%	22%	82%	93%
Adequate	68%	34%	79%	78%	18%	7%
Total	97%	99%	100%	100%	100%	100%

Source: Field Survey

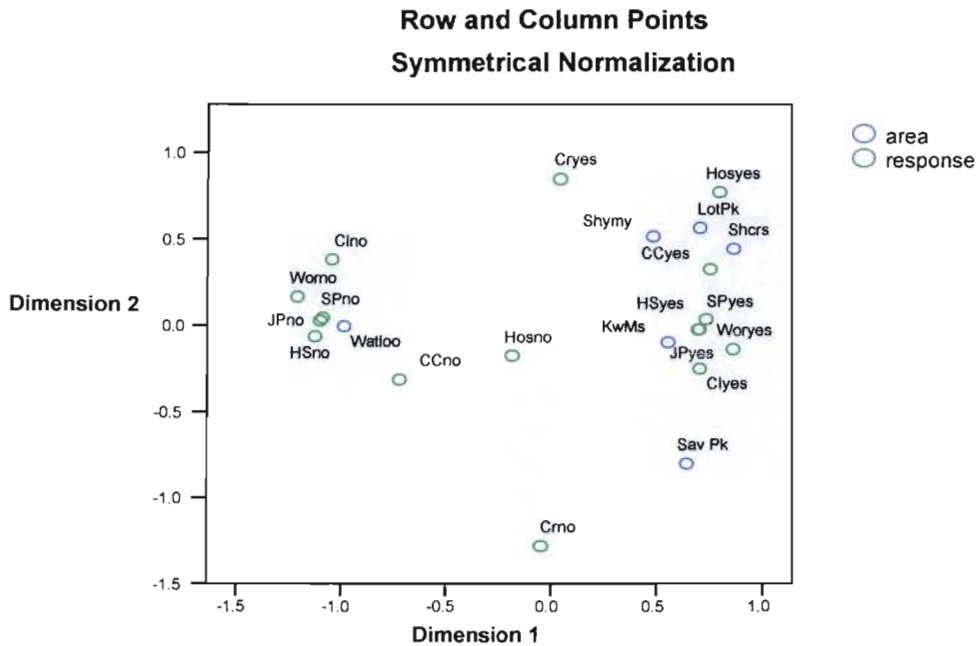
The analysis of *Table 9.12*, shows that the Savannah Park, Lotus Park and Shallcross residents consider the size of their dwelling adequate. Residents of the other three areas consider the size of their dwelling inadequate. It must be mentioned that the previous government that constructed the houses at the Savannah Park, Lotus Park and Shallcross Settlements followed a minimum house type standard whereby the minimum floor area was 45m². The three post Apartheid projects that were developed post Apartheid have a dwelling size ranging from 30m² to 36m². Therefore, the residents of the three Apartheid settlements, Savannah Park, Lotus Park and Shallcross would be more satisfied with their dwelling sizes.

9.3.2.4 Location and convenience

Table 9.13 Availability of public institutions

Institution	Nearby	Savannah Park	Waterloo	Lotus Park	Shallcross	Shayamoya	KwaMashu
Creche	yes	20%	57%	88%	78%	93%	58%
	no	77%	42%	12%	22%	10%	42%
Junior Primary	yes	91%	19%	100%	100%	81%	77%
	no	6%	81%	0%	0%	20%	23%
Senior Primary	yes	91%	19%	100%	94%	83%	77%
	no	6%	81%	0%	6%	20%	23%
High School	yes	88%	17%	100%	100%	85%	78%
	no	9%	83%	0%	0%	17%	22%
Clinics	yes	92%	17%	58%	89%	85%	93%
	no	5%	83%	42%	11%	19%	7%
Hospitals	yes	18%	4%	27%	56%	37%	19%
	no	78%	95%	73%	44%	64%	81%
Worship	yes	91%	9%	91%	94%	76%	93%
	no	6%	91%	9%	6%	24%	7%
Community Centre	yes	51%	12%	85%	78%	69%	83%
	no	46%	88%	15%	17%	34%	17%

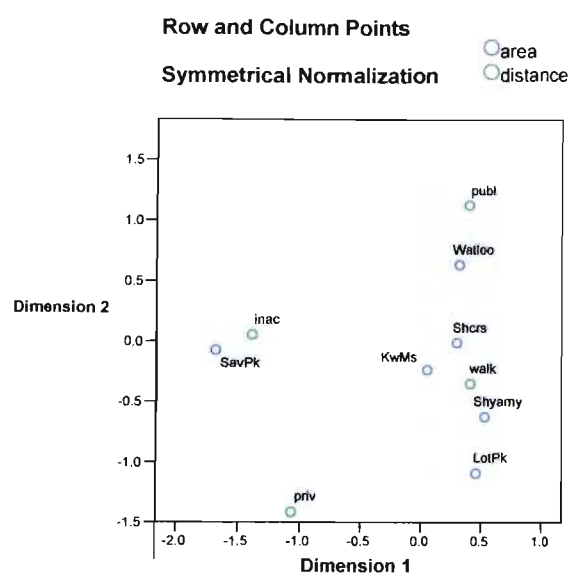
Source: Field Survey

Figure 9.10 Correspondence analysis plot of availability of public institutions

The analysis relating to the availability of public institutions shown in Table 9.13 revealed that the Savannah Park settlement (besides crèches, hospitals or community centres) is close to all other basic public institutions. The Waterloo settlement is only relatively close to crèches and not to any other basic public institutions. The Lotus Park settlement is not close to hospitals. Some residents also responded that clinics were also not close or accessible to them. The Shallcross settlement is close to all public institutions besides a hospital. The Shayamoya settlement is relatively close to all public institutions except for hospitals and community centres. The KwaMashu settlement is relatively close to all public institutions except for hospitals and crèches.

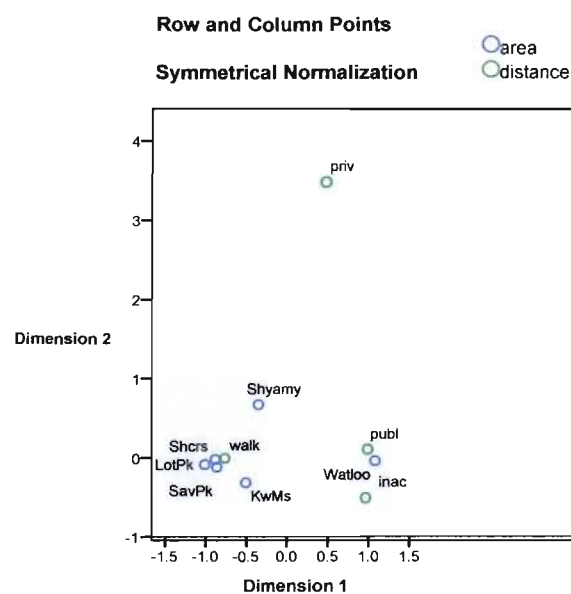
The analysis of access to Crèches revealed that for Savannah Park, crèches are mostly inaccessible. For Lotus Park, Shallcross and Shayamoya crèches are mostly accessible (walk or public transport). For Waterloo and KwaMashu crèches are accessible to the majority of residents, but inaccessible to some.

Figure 9.11 Access crèches



Source: Field Survey

Figure 9.12 Access Junior Primary



Source: Field Survey

Table 9.14 Access Junior Primary

Area/Access	Distance from Settlement to Primary School	inaccessible	private transport	public transport	walk
Savannah Park	1km	2%	0%	5%	91%
Waterloo	10km	19%	1%	69%	9%
Lotus Park	1km	0%	0%	0%	100%
Shallcross	1km	0%	0%	6%	94%
Shayamoya	3km	3%	2%	24%	71%
KwaMashu	3km	7%	0%	14%	78%

Source: Field Survey

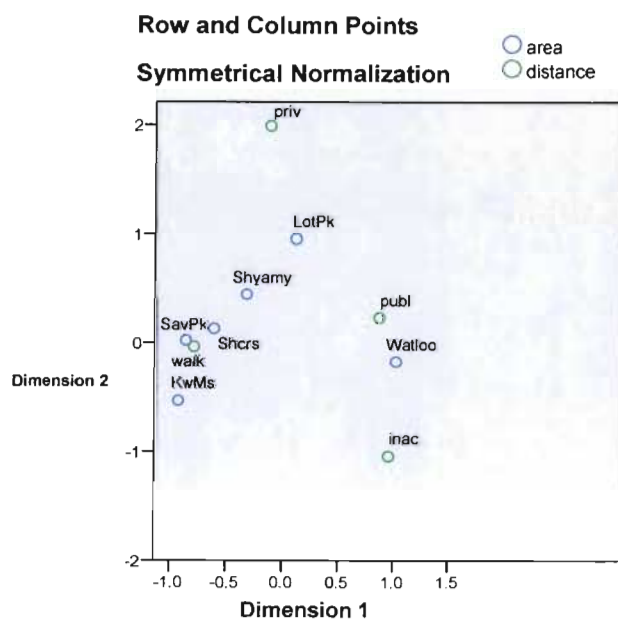
For all areas except for a portion of Waterloo, junior primary schools are fairly easily accessible. The access patterns for senior primary and high schools are virtually identical to that of junior primary schools.

Table 9.15 Access Clinics

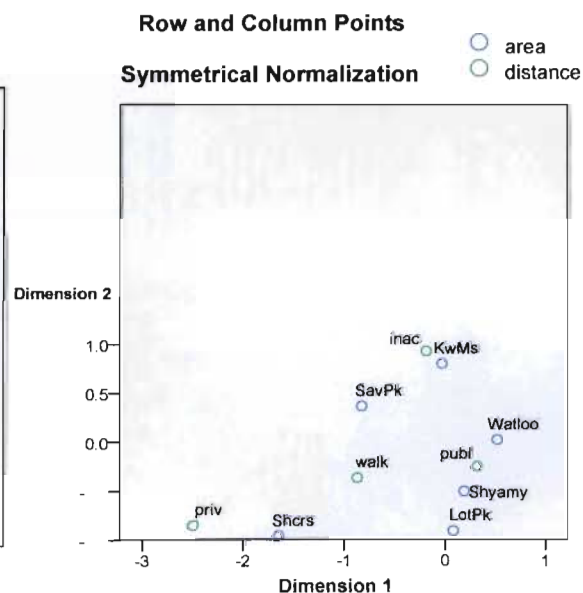
Area/Access	Distance to nearest clinic	Inaccessible	Private transport	Public transport	Walk
Savannah Park	1km	2%	2%	9%	85%
Waterloo	10km	19%	1%	68%	10%
Lotus Park	5km	0%	3%	52%	45%
Shallcross	2km	0%	0%	22%	78%
Shayamoya	5km	3%	3%	31%	66%
KwaMashu	1km	6%	0%	3%	90%

Source: Field Survey

For all areas except for a portion of Waterloo clinics are fairly easily accessible.

Figure 9.13 Access clinics

Source: Field Survey

Figure 9.14 Access hospitals

Source: Field Survey

Table 9.16 Access to hospitals

Area/Access	Inaccessible	Private transport	Public transport	Walk
Savannah Park	35%	9%	42%	11%
Waterloo	22%	1%	75%	0%
Lotus Park	3%	3%	79%	15%
Shallcross	11%	22%	50%	11%
Shayamoya	12%	2%	76%	12%
KwaMashu	41%	0%	48%	9%

Source: Field Survey

Hospitals can be easily accessed by most residents of Waterloo, Lotus Park, Shayamoya and by some residents of KwaMashu. They are more difficult to access for some residents of Savannah Park, Waterloo, Shallcross and KwaMashu because there is no convenient public transport available from the settlement to the hospital.

Table 9.17 Access to places of worship

Area/Access	Inaccessible	Private transport	Public transport	Walk
Savannah Park	0%	5%	9%	82%
Waterloo	32%	1%	63%	2%
Lotus Park	0%	0%	12%	88%
Shallcross	0%	6%	6%	89%
Shayamoya	10%	0%	15%	73%
KwaMashu	0%	1%	4%	91%

Source: Field Survey

Places of worship are easily accessible to residents in all areas except for a third of the Waterloo (32%) residents and a few Shayamoya (10%) residents.

Table 9.18 Access to community centres

Area/Access	Inaccessible	Private transport	Public transport	Walk
Savannah Park	32%	3%	15%	46%
Waterloo	21%	1%	71%	4%
Lotus Park	3%	3%	12%	82%
Shallcross	0%	6%	22%	72%
Shayamoya	8%	3%	27%	63%
KwaMashu	1%	1%	17%	78%

Source: Field Survey

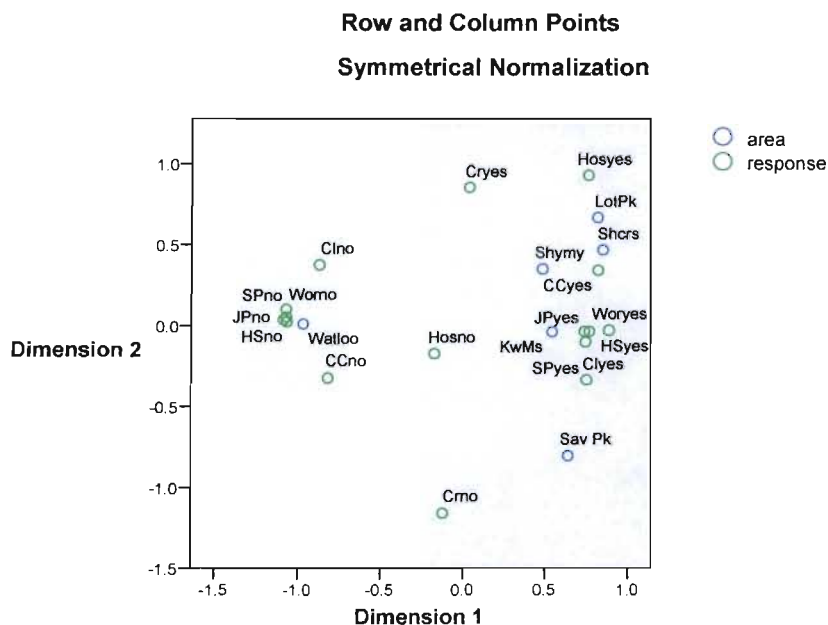
Community centres are easily accessible to residents in all areas except for some Savannah Park (32%) and Waterloo (21%) residents as well as a few Shayamoya (8%) residents.

Table 9.19 Satisfaction with public institutions

Institution	Satisfied	Savannah Park	Waterloo	Lotus Park	Shallcross	Shayamoya	KwaMashu
crèche	yes	18%	55%	91%	72%	78%	54%
	no	72%	44%	9%	17%	22%	30%
Junior Primary	yes	88%	17%	100%	94%	80%	75%
	no	8%	83%	0%	6%	20%	22%
Senior Primary	yes	91%	17%	100%	83%	80%	75%
	no	6%	83%	0%	11%	20%	22%
High School	yes	88%	15%	100%	94%	80%	75%
	no	9%	85%	0%	6%	20%	22%
Clinics	yes	88%	14%	58%	89%	76%	78%
	no	9%	86%	42%	11%	24%	19%
Hospitals	yes	15%	5%	33%	50%	31%	9%
	no	77%	95%	67%	44%	64%	81%
Worship	yes	82%	8%	97%	94%	71%	87%
	no	14%	92%	3%	6%	29%	10%
Community Centre	yes	55%	10%	91%	83%	75%	80%
	no	38%	90%	9%	17%	25%	17%

Source: Field Survey

The pattern is virtually identical to that shown for availability of public institutions. The main reason that the respondents stated yes (Satisfied) for public institutions was that these institutions are easily accessible by walking or by public transport. The main reason that the respondents were not satisfied and indicated no, was because these public institutions were not accessible by walking or public transport.

Figure 9.15 Satisfaction with public institutions

Source: Field Survey

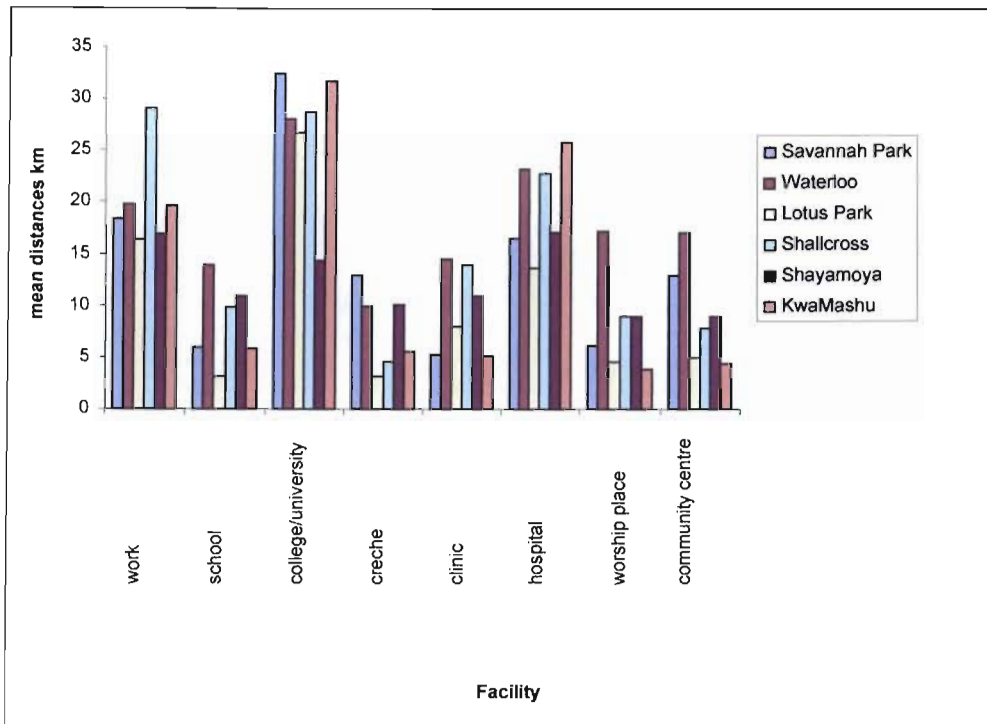
9.3.2.5 Recreational facilities

The analysis of the data shows that all facilities except picnic spots are easily accessible for the residents of Shallcross. However, for Savannah Park none of the facilities are easily accessible. In Waterloo, the majority of the residents reported that the parks were accessible whilst the other facilities are inaccessible to some residents and accessible by walking or public transport for other residents. In Lotus Park the majority of residents reported that recreational facilities, sporting facilities and picnic areas are inaccessible. Sports fields are accessible to the majority of residents. Parks are accessible to some residents but inaccessible to others. In Shayamoya, all facilities are near to some residents (33%), far for others residents (63%). In KwaMashu, parks and picnic spots are inaccessible to the majority (78%) of residents. Sports fields are accessible to the majority (62%) of residents. Recreational and sporting facilities are accessible to some residents (57%) but inaccessible to others (43%).

Table 9.20 Satisfaction with recreational facilities

Facilities	Satisfied	Savannah Park	Waterloo	Lotus Park	Shallcross	Shayamoya	KwaMashu
Parks	No	82%	37%	79%	28%	70%	77%
	Yes	14%	62%	21%	72%	21%	12%
Recreational	No	89%	96%	85%	39%	61%	57%
	Yes	5%	3%	15%	61%	28%	36%
Sporting facilities	No	91%	95%	79%	17%	52%	48%
	Yes	3%	5%	21%	83%	36%	43%
Sports fields	No	89%	93%	48%	11%	51%	29%
	Yes	5%	6%	52%	89%	38%	62%
Picnic Areas	No	91%	96%	82%	56%	57%	65%
	Yes	3%	3%	18%	39%	31%	26%

Source: Field Survey

Figure 9.16 Mean distances (km) from facilities for different areas

Source: Field Survey

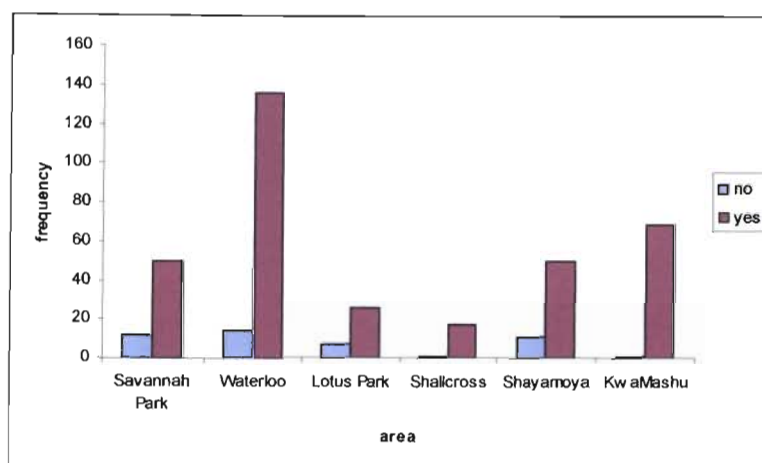
The residents living in the Shallcross settlement are generally further from work than those living in the other settlements. There is not too much difference between the mean distances from work for the other suburbs; they are all in the range of 16-20 kilometres.

The residents living in the Waterloo, Shallcross and the Shayamoya settlements are further away from schools than the other two settlements of Lotus Park and KwaMashu. Also, Shayamoya is about half the distance from college/university when compared to the other areas. The Lotus Park, Shallcross and KwaMashu residents are fairly close to a crèche, while Savannah Park, Waterloo and Shayamoya residents are a little further away. The Savannah Park, Lotus Park and KwaMashu residents are fairly close to clinics. Those in Waterloo, Shallcross and Shayamoya are a little further away. Savannah Park, Lotus Park and Shayamoya residents are closer to a hospital than those in the other three settlements.

All areas except Waterloo are within 10 kilometres of a place of worship. All areas except Waterloo and Savannah Park are within 10 kilometres of a community centre.

On average place of work, college/university and hospitals are much further away for the residences of Waterloo compared to the distances for the other facilities.

Figure 9.17 Dwelling well served by public transport



Source: Field Survey

Waterloo, Shayamoya and KwaMashu appear to be better served by public transport than the other three settlements. The analysis of table 9.21 shows that for almost all Lotus Park (85%), Shallcross (89%) and KwaMashu (95%) residents the commercial facilities are accessible via public transport or within walking distance, whilst for some Savannah Park (7%), Waterloo (2%) and Shayamoya (9%) residents these commercial facilities can be reached via public transport. For all other residents (4%) from these settlements, these facilities are inaccessible. The proportion of residents for which these facilities are inaccessible is the highest for Waterloo (94%) followed by Savannah Park (87%) and Shayamoya (77%).

Table 9.21 Satisfaction with public commercial facilities

Facility	satisfied	Savannah Park	Waterloo	Lotus Park	Shallcross	Shayamoya	KwaMashu
Post Office	yes	6%	3%	97%	89%	11%	94%
	no	88%	93%	3%	11%	75%	6%
Bank	yes	6%	2%	64%	89%	13%	94%
	no	88%	94%	36%	11%	74%	6%
Supermarket	yes	8%	2%	100%	94%	7%	97%
	no	86%	94%	0%	6%	79%	3%
Pharmacy	yes	8%	2%	88%	89%	2%	94%
	no	86%	94%	12%	11%	84%	6%
CBD	yes	8%	2%	76%	83%	10%	94%
	no	86%	94%	24%	11%	75%	6%

Source: Field Survey

Commercial facilities are nearby in Lotus Park, Shallcross and KwaMashu, but not so in the other three settlements. The majority of Lotus Park (85%), Shallcross (89%) and KwaMashu (95%) residents are satisfied that public commercial facilities have been provided. Residents from the other three areas of Waterloo, Shayamoya and Savannah Park are not satisfied that public commercial facilities have been provided.

Table 9.22 Location of area to access job opportunities

Answer	Area					
	Savannah Park	Waterloo	Lotus Park	Shallcross	Shayamoya	KwaMashu
No	83%	95%	79%	72%	93%	88%
Yes	14%	5%	21%	28%	7%	12%
Total	97%	100%	100%	100%	100%	100%

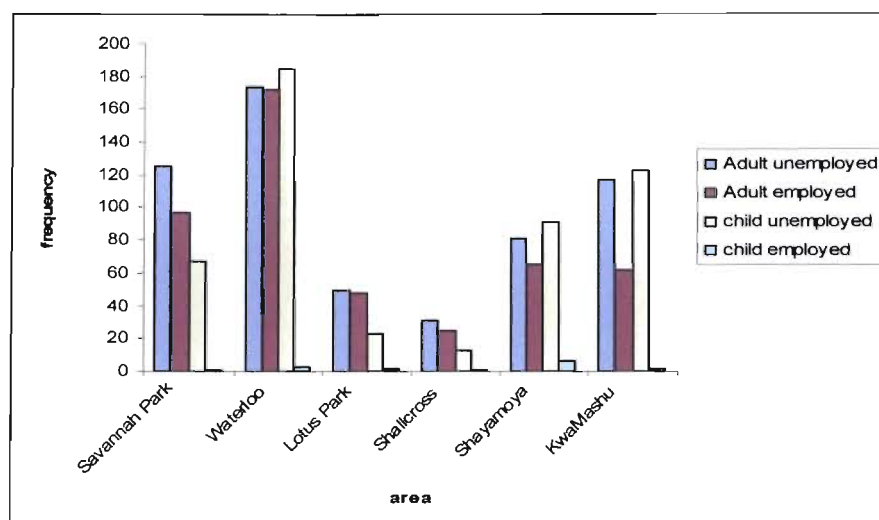
Source: Field Survey

In each of the areas the majority of the residents are of the opinion that there areas are not well located to access job opportunities.

9.3.2.6 Economic aspects

Income is probably one of the most important variables related to housing consolidation. The extent to which income affects the consolidation process is not only limited to the amount of income of the beneficiary but includes the stability of frequency of that income. The first part of this section analyses the sample according to economic indicators that consider the amount of income, the stability and distribution of the income as well as the ownership of consumer goods. In the second part a brief analysis of the income levels associated with the aforementioned social variables is presented. Finally, some correlations between economic indicators that can shed some light on the income and consumption patterns of the household in the sample are presented.

The survey questionnaire included directed questions regarding the total income received by the household. This was completed with questions regarding spending on rent, mortgage, food, transport, water and electricity. The survey also included direct questions relating to savings.

Figure 9.18 Employment

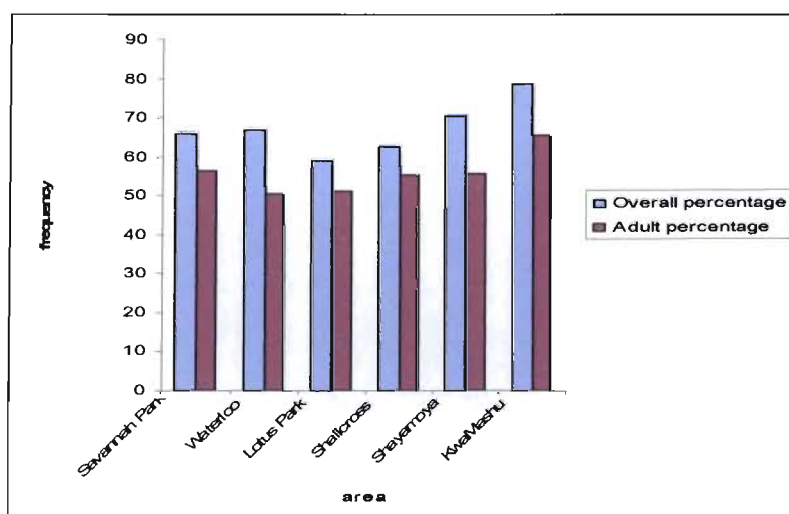
Source: Field Survey

Table 9.23 Unemployed percentage per area

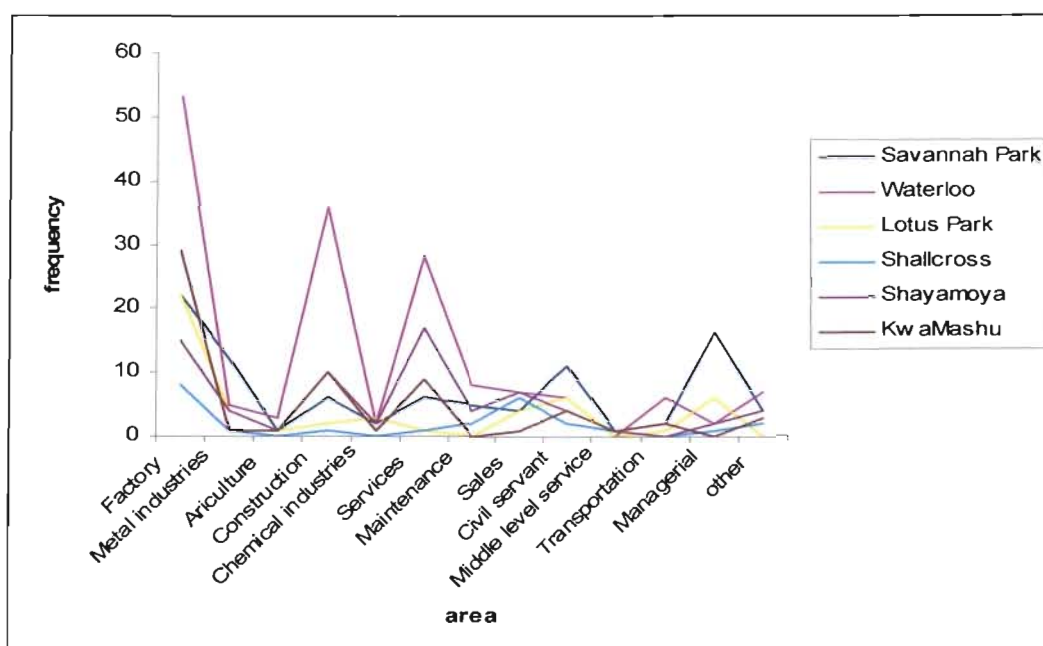
Project Name	Savannah Park	Waterloo	Lotus Park	Shallcross	Shayamoya	KwaMashu
Overall percentage	66.2%	67.2%	59.3%	62.9%	70.8%	78.9%

Source: Field Survey

The analysis (see Figure 9.26 and Table 9.34) shows that unemployment as a percentage of adults are between 59 and 70 percent for all the settlements except for KwaMashu, which has a significantly high unemployment rate of 79%.

Figure 9.19 Unemployed percentage per area

Source: Field Survey

Figure 9.20 Type of occupation

Source: Field Survey

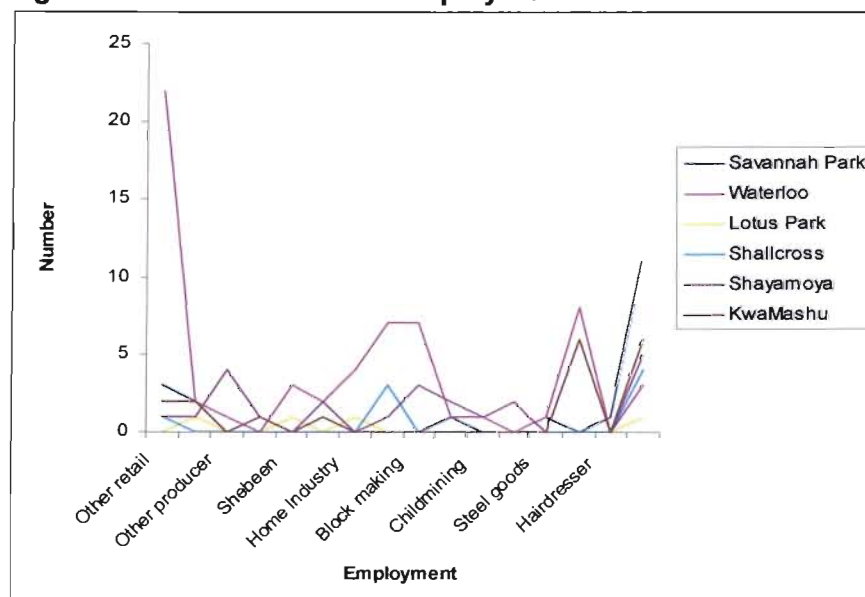
With regards to occupation, this research defined 13 categories: Factory worker, Metal industries worker, Agricultural worker, Construction worker, Chemical industries, Services worker, Miner, Maintenance worker, Sales and Office occupations, Civil servant, Middle level service occupation, Transportation worker, Managerial and administrative. The most frequent type of occupation was that of a factory worker and this was found to be more in the post Apartheid settlements of KwaMashu (47%) and Waterloo (35%) as well as Lotus Park (44%). Some differences were found in the occupational classes in the different settlements. It was found that in the post Apartheid settlements the residents were in an occupational class that was related to the provision of labour or they were employed in a dependant worker category. The post Apartheid settlements however, had a larger portion of residents employed in the civil service, metal industry or in a managerial position.

A degree of diversity was found regarding the type of occupation. In the Apartheid settlements there seems to be a pattern with nearly 16.5% in the construction and 15.7% in the services categories.

Table 9.24 Type of occupation

Occupation/Area	Savannah Park	Waterloo	Lotus Park	Shallcross	Shayamoya	KwaMashu
Factory	24%	33%	44%	32%	21%	47%
Metal industries	13%	3%	8%	4%	6%	2%
Agriculture	1%	2%	2%	0%	1%	2%
Construction	7%	22%	4%	4%	14%	16%
Chemical industries	2%	1%	6%	0%	3%	2%
Services	7%	17%	2%	4%	24%	15%
Maintenance	5%	5%	0%	8%	6%	0%
Sales	4%	4%	8%	24%	10%	2%
Civil servant	12%	4%	12%	8%	6%	6%
Middle level service	1%	0%	0%	4%	1%	2%
Transportation	2%	4%	2%	0%	0%	3%
Managerial	17%	1%	12%	4%	3%	0%
Other	4%	4%	0%	8%	6%	5%

Source: Field Survey

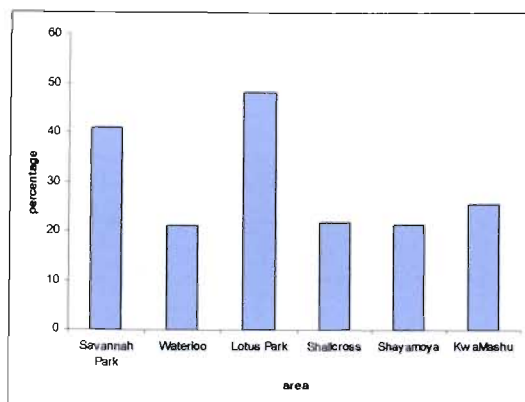
Figure 9.21 Informal sector employment

Source: Field Survey

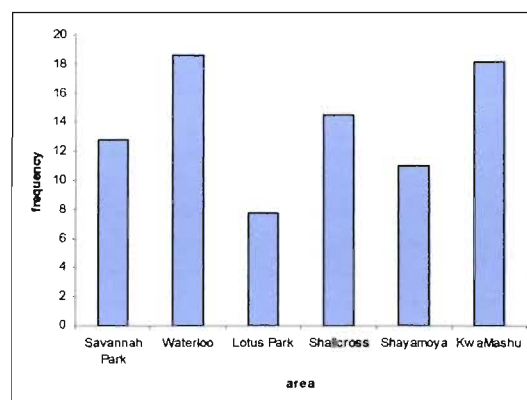
Table 9.25 Employed prior to relocating to neighbourhood

Reply/Area	Savannah Park	Waterloo	Lotus Park	Shallcross	Shayamoya	KwaMashu
no	90	263	55	47	129	82
yes	62	70	51	13	35	28
Percentage yes	40.8%	21%	48.1%	21.7%	21.3%	25.5%

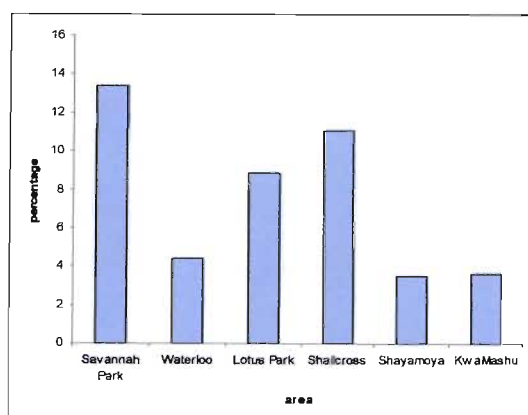
Source: Field Survey

Figure 9.22 Percentage yes employed prior to relocating to neighbourhood

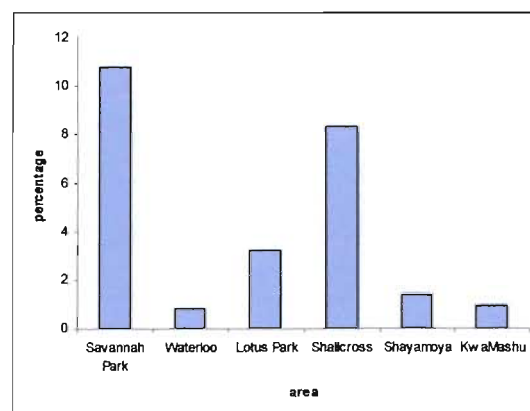
Source: Field Survey

Figure 9.23 Percentage residents that collect state grant

Source: Field Survey

Figure 9.24 Percentage of pensioners

Source: Field Survey

Figure 9.25 Percentage collecting pension

Source: Field Survey

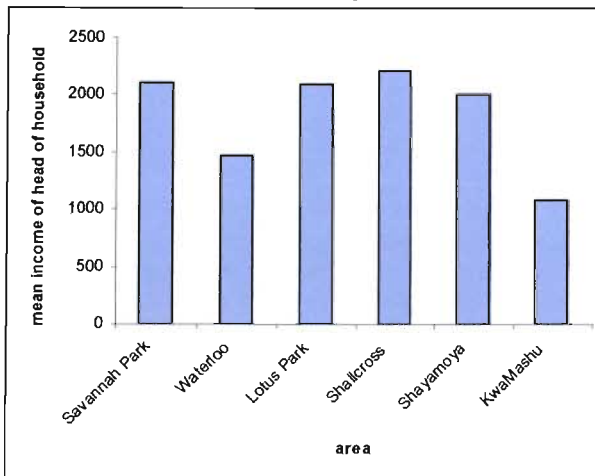
Table 9.26 Mean monthly income of head of household

	Area					
Income	Savannah Park	Waterloo	Lotus Park	Shallcross	Shayamoya	KwaMashu
none	6	26	6	2	6	16
≤500	2	21	1	1	9	10
501-1000	18	28	5	4	9	18
1001-2000	16	40	11	4	16	17
2001-3000	6	18	3	0	8	5
3001-7500	13	17	6	5	11	2
>7500	1	0	1	0	1	1
Mean	R2 112.90	R1 470.00	R2 098.49	R2 218.75	R2 008.33	R1 076.09

Source: Field Survey

The analysis showed that only four of the variables relating to the 'income band' were significantly different between the families inhabiting the Apartheid settlements than the post Apartheid settlements. Nevertheless, the Apartheid settlements of Savannah Park, Shallcross and Lotus Park showed higher gross income levels, whilst the post Apartheid settlements of Waterloo and KwaMashu with the exception of Shayamoya showed very low income levels. Shayamoya would have benefited from being closer to the Durban Central Business District.

Figure 9.26 Mean monthly income of head of household

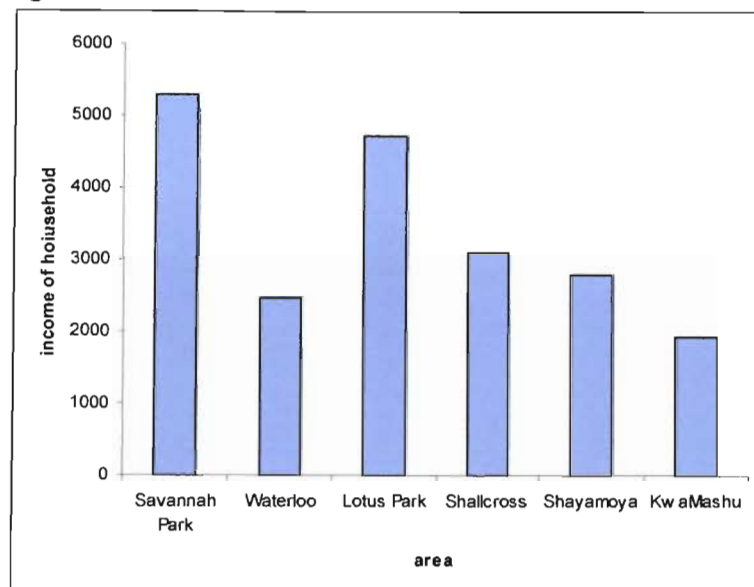


Source: Field Survey

Table 9.27 Mean combined income of household

Combined income	Area					
	Savannah Park	Waterloo	Lotus Park	Shallcross	Shayamoya	KwaMashu
none	1	14	1	1	1	4
≤500	1	18	0	1	7	7
501-1000	7	19	3	3	7	16
1001-2000	3	33	8	4	11	18
2001-3000	11	25	5	0	12	7
3001-7500	21	35	6	6	16	8
>7500	19	6	10	1	2	2
Mean	R5 285.71	R2 486.67	R4 719.70	R3 109.38	R2 803.57	R1 931.45

Source: Field Survey

Figure 9.27 Mean combined income of household

Source: Field Survey

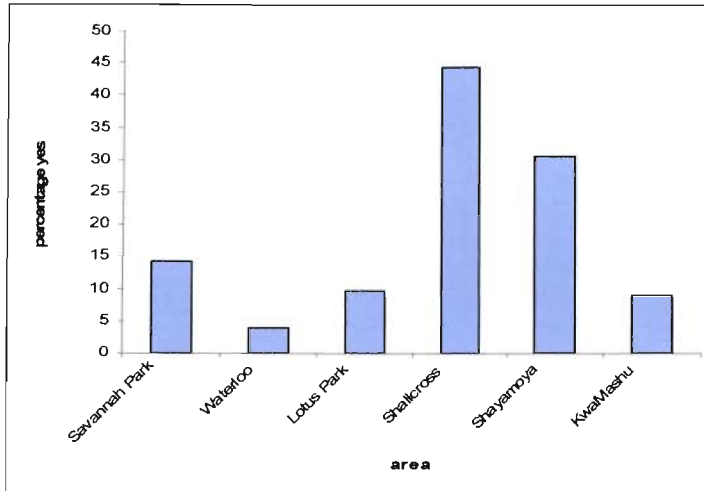
9.3.2.6 Correlations among income indicators

The analysis of the data (see table 10.37) shows that although the post Apartheid settlements have larger families, the level of income is still significantly lower than the Apartheid settlements with smaller family sizes. The low income levels of the Waterloo and KwaMashu settlements would not contribute favourably toward the consolidation of the settlement or improvement of the houses by the occupants. In fact the analysis of savings for improvements to the dwellings (see table 10.38) shows that in Waterloo only 4% of the residents could save whilst in KwaMashu only 9% could save.

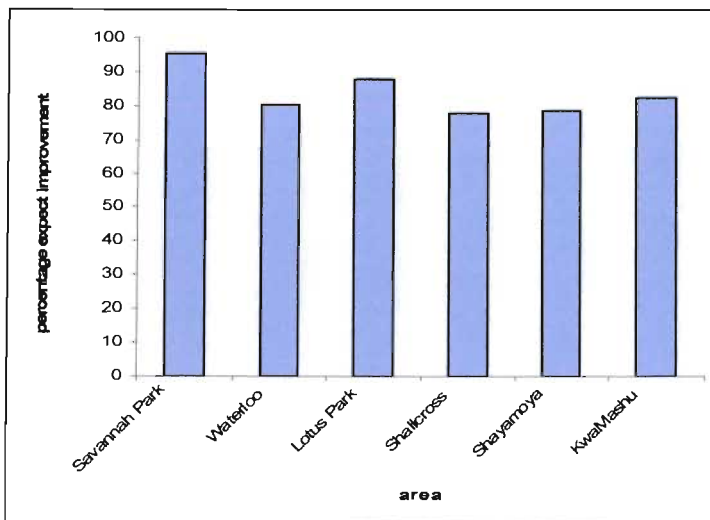
Table 9.28 Saving money for housing improvement

Save/Area	Area					
	Savannah Park	Waterloo	Lotus Park	Shallcross	Shayamoya	KwaMashu
No	54	144	28	10	41	61
Yes	9	6	3	8	18	6
percentage yes	14.2%	4%	9.7%	44.4%	30.5%	9%

Source: Field Survey

Figure 9.28 Percentage yes for saving money for housing improvements

Source: Field Survey

Figure 9.29 Percentage that expect household income to improve

Source: Field Survey

The analysis of the data showed that a large proportion of all residents in all the settlements expected their income to improve and all have attributed the expected increase in their income to 'finding better or post Apartheid employment'.

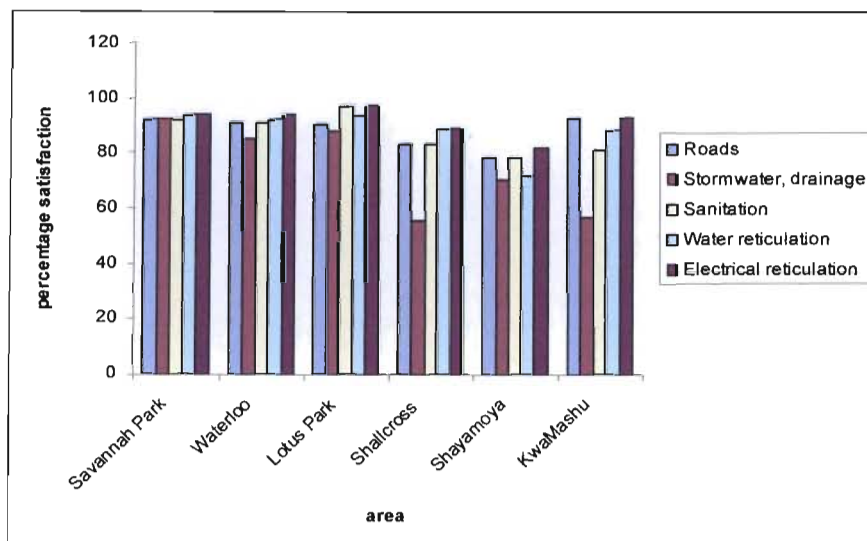
9.3.2.7 Infrastructure services

All areas have access to tap water, sanitation, solid waste removal, roads, stormwater disposal and electricity. There is very little or no access to telephones in Waterloo and KwaMashu. There is limited access (about one third of residents) to telephones in

Shayamoya. The majority of residents in Savannah Park, Lotus Park and Shallcross have access to telephones. The analysis of the data revealed that:

- For tap water, sanitation, solid waste removal and roads Shayamoya residents are less satisfied than those of the other areas. Residents are generally satisfied with these services.
- For telephone services the Waterloo (85%) and KwaMashu (83%) residents are very dissatisfied. A majority of Shayamoya (66%) residents are dissatisfied. A sizeable proportion of Savannah Park (25%) and Lotus Park (36%) residents is dissatisfied. Only Shallcross (95%) residents are generally satisfied. Residents are generally dissatisfied with the service.
- For stormwater disposal satisfaction Shayamoya (30%) and KwaMashu (25%) residents are less satisfied than those of the other areas. Residents are generally satisfied with the service.
- For electricity supply there is no difference between satisfactions for the different areas. Residents are generally satisfied with the service.

Figure 9.30 Infrastructure properly maintained (% yes)



Source: Field Survey

Residents are generally satisfied with maintenance of infrastructure. The satisfied percentage is above 80% except in the following cases; for storm water drainage in Shallcross (55.5%), KwaMashu (56.5%) and Shayamoya (70.5%); for water reticulation in Shayamoya (72.1%); for roads (78.7%) and sanitation (78.7%) in Shayamoya. Shayamoya has the most dissatisfaction with regards to maintenance of property compared to any of the Apartheid settlements. This can be attributed to the fact that in

the Shayamoya settlement the residents are responsible for maintenance. With regards to the Lotus Park and Shallcross Social Housing Projects, the maintenance and repair work to the flats are still be done by the Provincial Department of Housing in Kwazulu Natal.

9.3.2.8 Neighbourhood satisfaction

The vast majority of residents in all areas consider their neighbourhood to be friendly, know their neighbours well and get on easily with their neighbours.

Shallcross, KwaMashu and Lotus Park have the highest crime level. Savannah Park, Shayamoya and Waterloo have the lowest crime level.

Table 9.29 Highest 3 Crimes per area

Rank	Savannah Park	Waterloo	Lotus Park	Shallcross	Shayamoya	KwaMashu
Highest	hijack	vandalism	hijack	hijack	vandalism	hijack
Second	theft	Domestic	Domestic	theft	domestic	vandalism
Third	vandalism	theft	murder/rape	vandalism	hijack/theft	theft

Source: Field Survey

Table 9.30 Cause of crime

Cause/Area	Savannah Park	Waterloo	Lotus Park	Shallcross	Shayamoya	KwaMashu
alcohol	15%	60%	39%	11%	59%	41%
substance	2%	2%	12%	44%	5%	3%
unemployment	78%	9%	36%	72%	21%	22%
poverty	5%	29%	3%	6%	10%	32%
other	0%	0%	10%	11%	5%	2%
Highest cause	unemployment	alcohol	alcohol	unemployment	alcohol	alcohol

Source: Field Survey

Table 9.31 Comparison of present home with previous home

Present home	Area					
	Savannah Park	Waterloo	Lotus Park	Shallcross	Shayamoya	KwaMashu
Worse	7%	19%	3%	11%	15%	15%
Same	2%	11%	9%	0%	10%	4%
Better	91%	70%	88%	89%	75%	81%

Source: Field Survey

9.3.2.9 Home improvements

The vast majority of residents regard housing improvements as important.

Table 9.32 Housing improvement important

	Area					
	Savannah Park	Waterloo	Lotus Park	Shallcross	Shayamoya	KwaMashu
No	0	1	1	0	4	3
Yes	63	149	32	18	57	66
Total	63	150	33	18	61	69

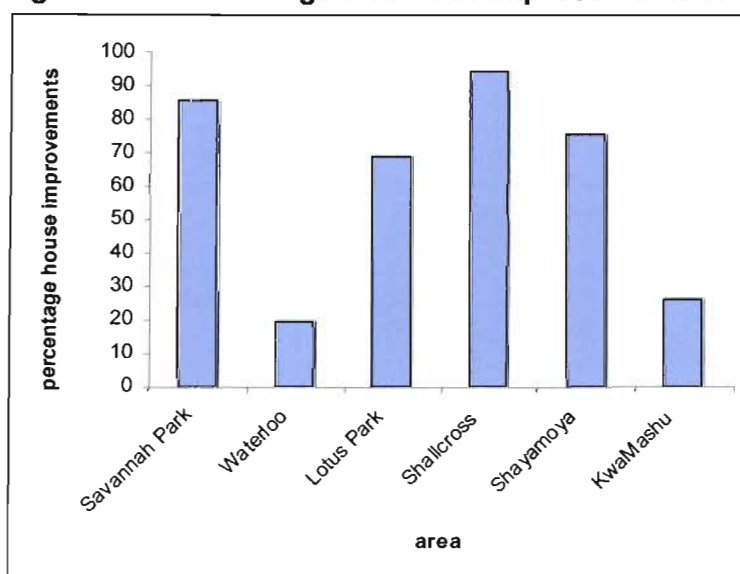
Source: Field Survey

Table 9.33 Made improvements to house

	Area					
	Savannah Park	Waterloo	Lotus Park	Shallcross	Shayamoya	KwaMashu
No	9	121	10	1	15	51
Yes	54	29	22	17	46	18
Percentage yes	85.7%	19.3%	68.8%	94.4%	75.4%	26.1%

Source: Field Survey

Figure 9.31 Percentage that made improvements to house



Source: Field Survey

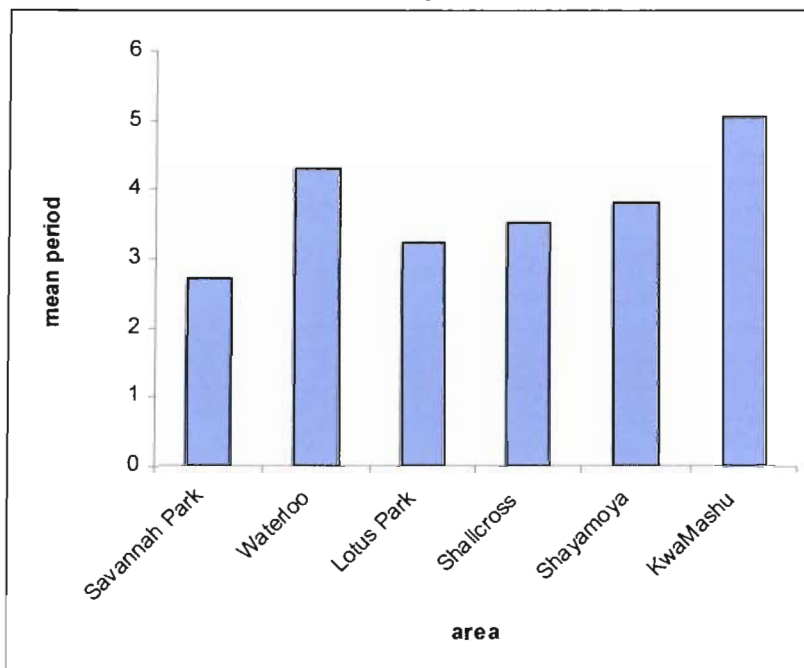
The percentage that made improvements to their houses is much higher in the Apartheid settlements of Savannah Park, Shallcross and Lotus Park than in the other 2 settlements of Waterloo and KwaMashu, except for Shayamoya. However, with regards to Shallcross, Lotus Park and Shayamoya all the improvements were done to the inside of the units i.e. post Apartheid ceilings, doors, ceiling fans, etc. In Savannah Park most residents have extended their dwelling and added additional rooms, as well as paved their yards and constructed boundary walls.

Table 9.34 Period of improvements

	Area					
	Savannah Park	Waterloo	Lotus Park	Shallcross	Shayamoya	KwaMashu
1 year	22	2	9	6	5	1
2 years	9	1	1	2	5	0
3 years	3	3	1	0	8	0
4 years	8	8	2	1	12	3
5 years	7	10	5	2	10	4
6 years or more	5	5	4	6	7	8
Mean	2.7	4.3	3.2	3.5	3.8	5.1

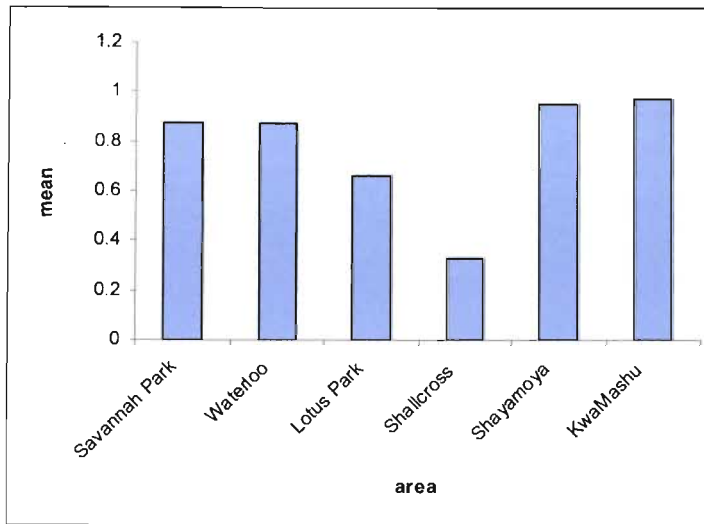
Source: Field Survey

Figure 9.32 Mean period of improvements



Source: Field Survey

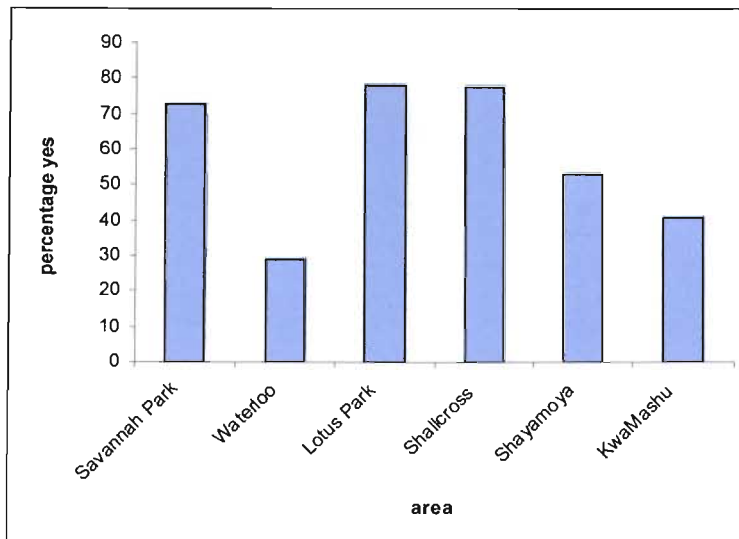
Figure 9.33 People a lot better off than Apartheid-era regarding government housing



Source: Field Survey

All settlements except Shallcross are of the opinion that there has been a positive change in housing conditions since 1994. Residents from all areas except Shallcross, due to a divided opinion, agree that people are a lot better off than Apartheid regarding government housing.

Figure 9.34 Apartheid government built better houses than Post-Apartheid government (percentage yes)

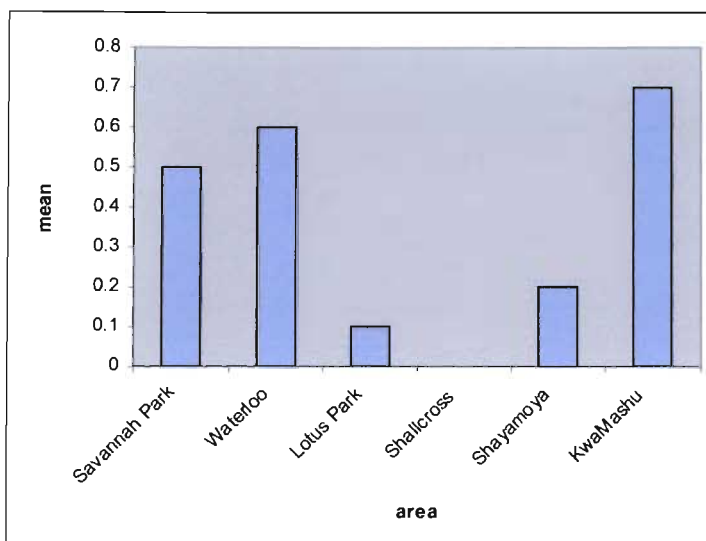


Source: Field Survey

The vast majority of Savannah Park, Lotus Park and Shallcross residents are of the opinion that the Apartheid government built better houses than the post Apartheid government. Shayamoya residents are evenly split on the issue, while KwaMashu and

Waterloo residents are of the opinion that the post Apartheid government built better houses than Apartheid government.

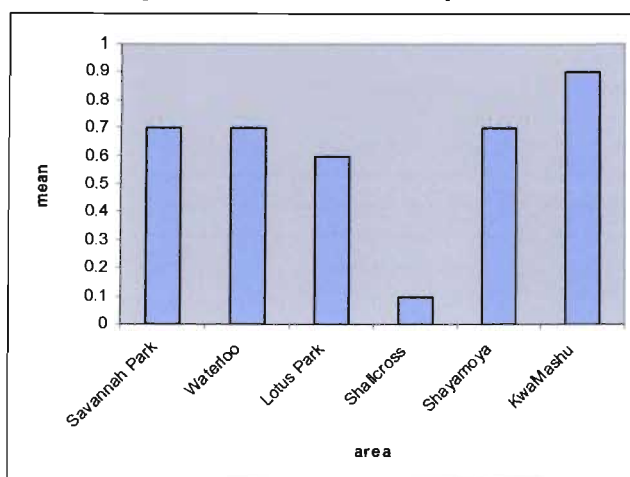
Figure 9.35 Proportion of people happy with government's housing programmes



Source: Field Survey

Shallcross, Lotus Park and Shayamoya residents are less happy with the government's housing programmes than the other three areas.

Figure 9.36 Government's housing subsidy scheme helped in improving availability of houses to urban poor



Source: Field Survey

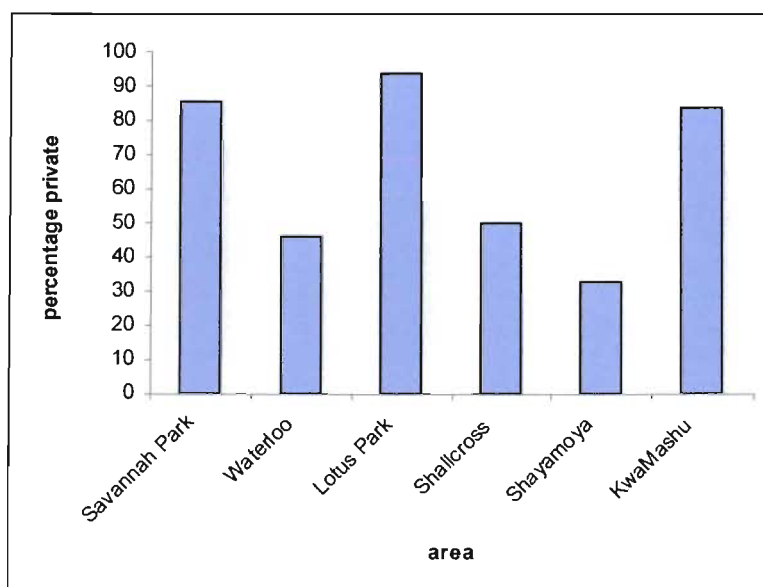
Residents from all areas except Shallcross (divided opinion) are of the opinion that the government's housing subsidy scheme helped in improving availability of houses to urban poor.

Table 9.35 Who is more effective in housing provision, private sector or public sector

	Area					
	Savannah Park	Waterloo	Lotus Park	Shallcross	Shayamoya	KwaMashu
Private sector	54	69	31	9	20	58
Public sector	9	81	2	9	41	11
Percentage private sector	86%	46%	94%	50%	33%	84%

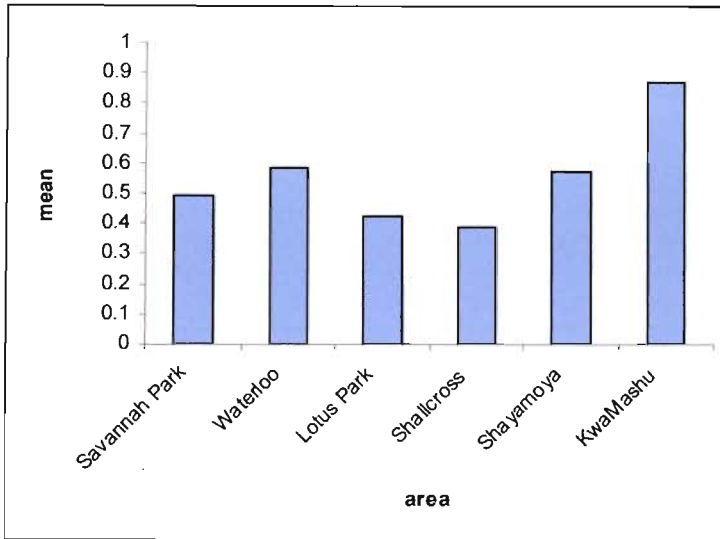
Source: Field Survey

Figure 9.37 Percentage that regards private sector as more effective



Source: Field Survey

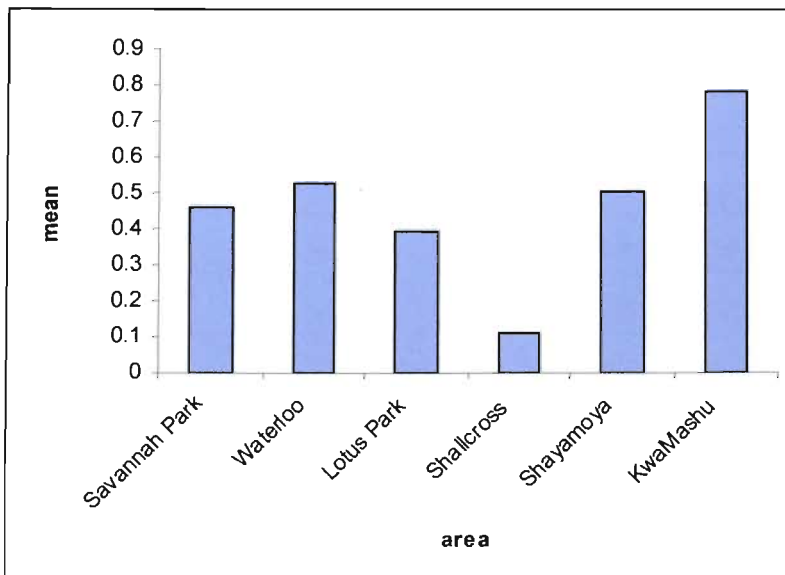
Figure 9.38 Mean benefit from present housing policies and programmes of government



Source: Field Survey

Residents from all the areas appear to have benefited from government policies. KwaMashu residents appeared to benefit most, followed by those from Waterloo and Shayamoya. Residents from Savannah Park, Lotus Park and Shallcross benefited slightly less.

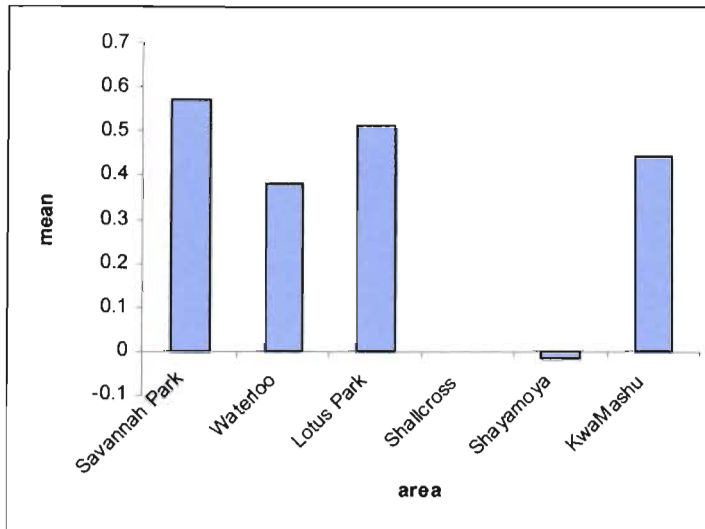
Figure 9.39 Does government understand or is it concerned about housing needs



Source: Field Survey

Residents from all areas agree with this statement, "Does government understand or is it concerned about housing needs" with Shallcross residents least in agreement.

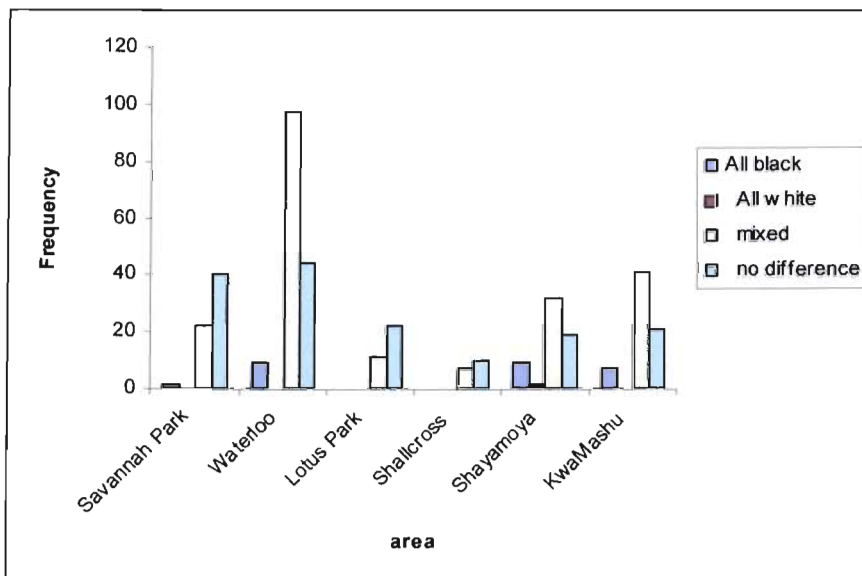
Figure 9.40 Planners understand needs



Source: Field Survey

Residents from Savannah Park, Lotus Park, KwaMashu and Waterloo agree with this statement "Planners understand needs". Residents from Shallcross and Shayamoya have divided opinion on this statement.

Figure 9.41 Neighbourhood preference



Source: Field Survey

Waterloo, KwaMashu and Shayamoya residents prefer a mixed neighbourhood. For Savannah Park, Lotus Park and Shallcross the type of neighbourhood makes no difference.

9.4 The Delphi study

9.4.1. The Consolidation indices

In order to address the objectives set out in this thesis, that is to study the locational, social and economic implications in the differential consolidation process experienced by the different settlements within the eThekweni District, it was necessary to design a system to measure consolidation levels of sustainability in an objective way.

The state subsidised approach to housing offered a theoretical framework that allowed for the decomposition of the complex and multi-variable housing concept into a set of attributes that allowed for a level of consolidation to be measured independently. However, the basic question that needed to be answered is: which are the most relevant housing attributes to consider in the consolidation process and which is the relative weighting value of each one of the different attributes in the overall process? The theoretical and empirical background on the problems set out in this thesis, that is the building of objective tools to measure different levels of residential consolidation, made it clear that although complex, the task set out to do was feasible.

9.4.2 Identification of housing attributes

The identification of the most relevant housing attributes was carried out through the above mentioned Delphi Study which was directed at professionals and practitioners involved either directly or indirectly in the housing field and through six focus groups carried out with inhabitants of the different housing situations such as the Greenfield Housing Projects, Slums Relocation Projects, and Social Housing Projects. This section of the thesis presents the data gathered in these two phases of the study, a comparative summary analysis of the data collected and finished by presenting the minimum acceptable levels of relevant attributes as defined by the experts in the field.

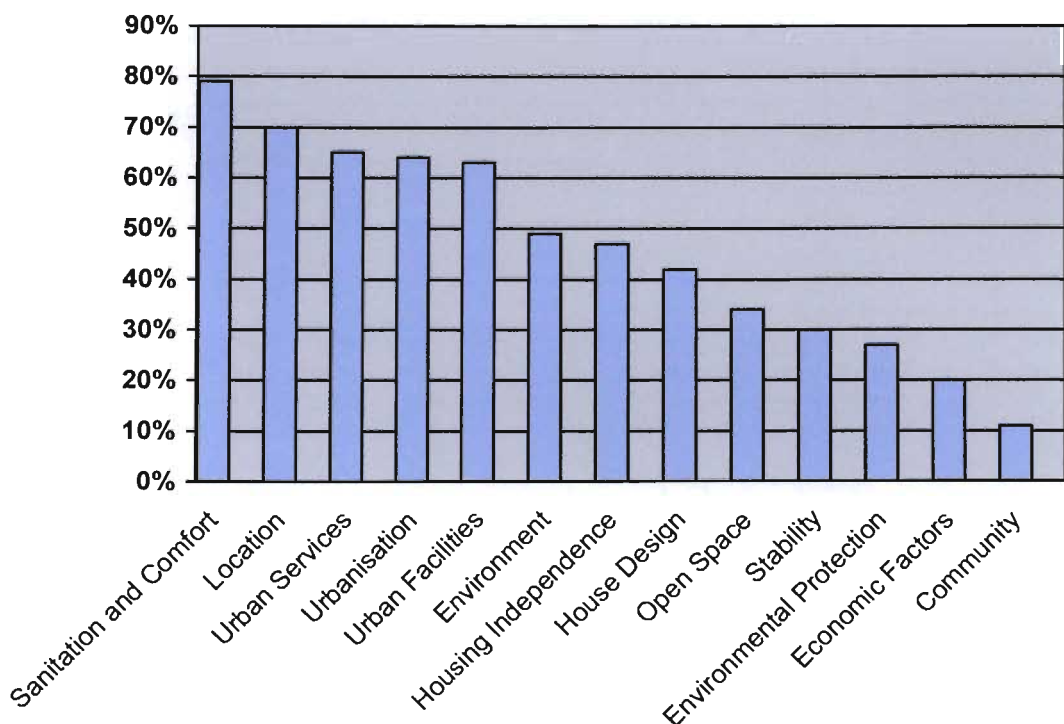
9.4.3. The Experts in the field

The results of the Delphi survey showed that the component 'sanitation and comfort' was the highest ranked by the experts receiving 79% of the total preferences. Furthermore, the three highest evaluated components, 'Sanitation and comfort (79%)',

'location (70%)' and 'urban facilities (65%)' all coincide with the priorities of government. Sanitation is high on the government's priority and the relevant Department of Water Affairs in South Africa drives a national water and sanitation programme as part of one of government's priorities. Location is an aspect, which is considered important due to many of the newly developed human settlements being far away from any commercial activity or close to locations that are within reasonable distance of industry and places of employment. In addition, urban facilities are an important feature within human settlements as they ensure that an element of comfort prevails within settlements. The lack of urban facilities has been a common criticism of many government-funded housing projects.

The graph below provides the results of the study in terms of the ranking of housing components as decided by the experts. It shows which factors the experts believe to be most important and necessary to the least important and necessary, in providing housing settlements to people. This graph is representative of all three housing typologies, namely the Greenfields, Slums Relocation and Social Housing projects.

Figure 9.42 Ranking of housing components by the experts for all typologies



Source: Delphi Study

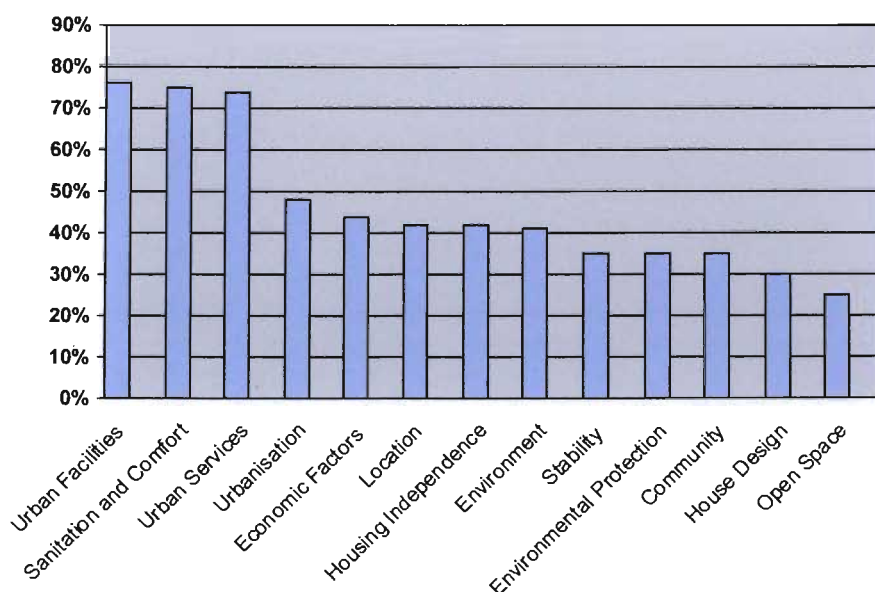
9.4.4 The inhabitants

Five types of inhabitants were interviewed through the methodology of focus groups, these were inhabitants of Greenfield Housing Projects that were developed prior to the 1994 elections, Greenfield Housing Projects that were developed after the 1994 elections, Social Housing Projects that were developed prior to the 1994 elections, Social Housing Projects that were developed after the 1994 elections and a Slums Relocation Project.

The results of the focus group survey showed that the component 'Urban Facilities' was the highest evaluated by the inhabitants securing 76% of the total preferences. The three highest evaluated components were 'Urban Facilities (76%)', 'Sanitation and Comfort (75%)' and 'Urban Services (74%)' for all typologies.

The graph below presents the results of the study in terms of the ranking of housing components as decided by the members of the communities who partook in the focus group questionnaires. It shows which factors the community members believe to be most important and necessary to the least important and necessary, in their housing requirements for sustainability. This graph is representative of all three housing typologies, namely the Greenfields, Slums Relocation and Social Housing projects.

Figure 9.43: Ranking of housing components by the focus groups for all typologies



9.4.5 Comparative and summary analysis

The comparative analysis of the preferences expressed by the experts in the field through the Delphi study, and those expressed by different users of housing solutions through the focus groups, shows that while the first attempt was to express an homogenous distribution among the attributes, the second shows some strong preferences for certain attributes deemed most important.

9.4.6 Analysis of housing component ranks

The Table below provides the results for the housing component ranks for both the experts as well as the community members who partook in the focus group sessions. The Table includes all the designated groups that were investigated.

Table 9.36: Housing component ranks for groups

Component	Experts	Lotus Park	Shaya-moya	Shallcross	Savannah Park	Waterloo	Kwa Mashu
	1	3	6	8	5	7	4
Location	2	6	1	1	13	13	9
Environment	6	2	5	11	11	10	10
Open space	9	13	7	13	6	12	12
Urbanisation	4	8	3	4	5	7	13
Urban service	5	3	2	7	3	1	5
Urban facilities	3	4	4	6	1	3	3
Environmental protection	11	5	12	10	10	8	1
Sanitation, comfort	1	1	6	3	2	2	6
Housing independence	7	9	11	2	4	11	7
House design	8	12	9	5	9	5	11.5
Stability	10	10	13	8	12	6	8
Community	13	7	8	12	8	9	4
Economic factors	12	11	10	9	7	4	2

Source: Delphi Study

The extent of agreement (concordance) of the component rankings of the different groups can be described by calculating the Kendall coefficient of concordance.

$$W = \frac{12s}{k^2 n(n^2 - 1) - kT} ,$$

where s is the sum of the squared deviations of the sum of component ranks from their mean, k is the number of groups ($k=8$),

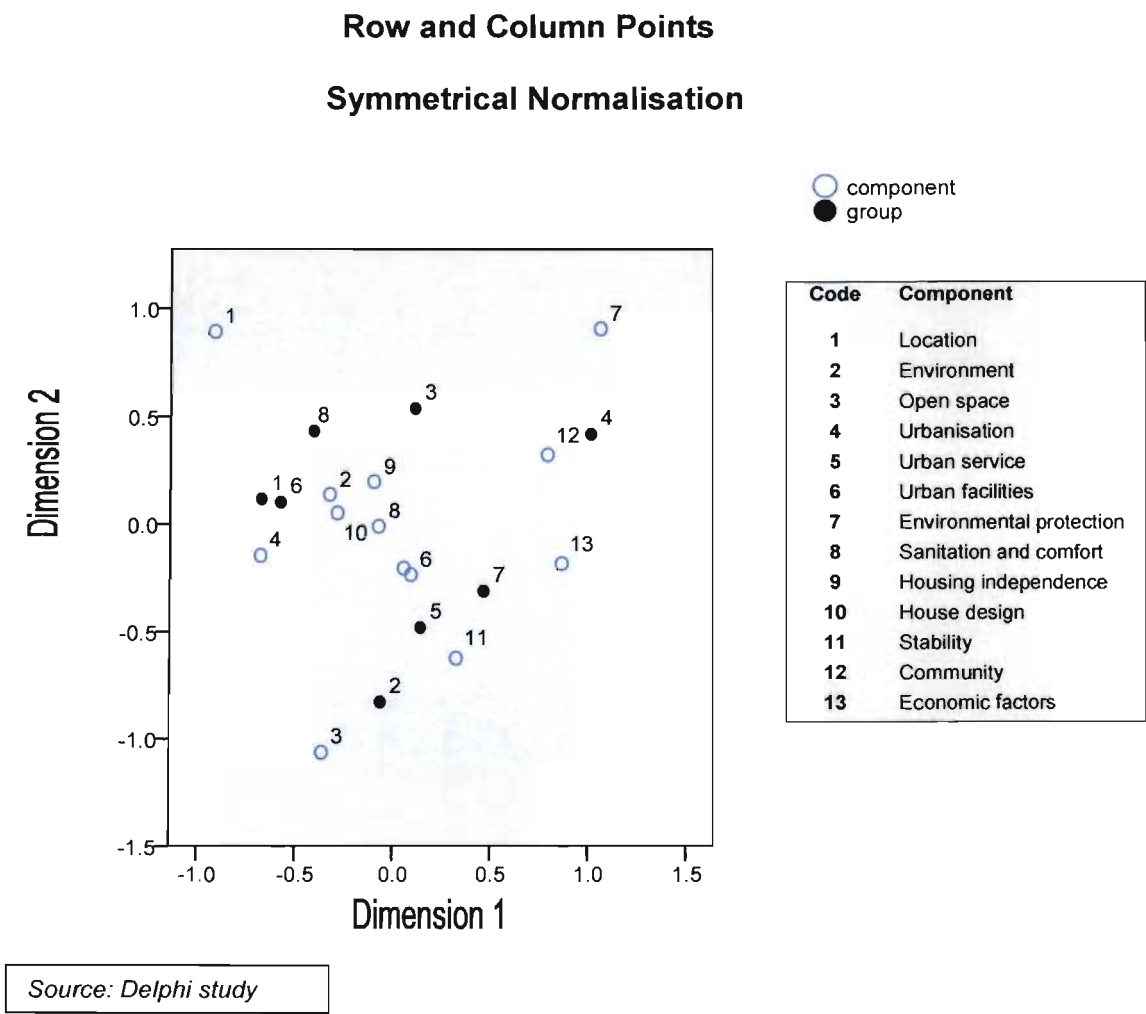
n the number of components (*n*=13) and *T* the correction factor for ties.

Substituting *s* = 4051.5, *k* = 8, *n* = 13 and *T* = 24 in the above equation gives *w* = 0.34831.

The possible values of *W* can range from 0 (complete disagreement among the groups) to 1 (complete agreement among the groups). The observed value of 0.34831 is more towards the disagreement extreme.

The following plot is helpful in identifying clusters of agreement/disagreement among the groups.

Figure 9.44 Correspondence analysis plot of component ranks for groups



From the plot in *Figure 9.44* it can be seen that the ranks for group one (experts), group six (Shayamoya), group eight (Shallcross) and (to a lesser extent) group three (Lotus Park) are fairly similar in terms of the results of the ranking of the housing components in terms of most to least important. Furthermore, all of these projects are Social Housing Projects built both before and after the 1994 democratic elections.

When considering just groups one, six, eight and three the Kendall coefficient of concordance is:

$w = 0.6164$ (from applying the above formula with $s = 1792.5$, $k = 4$, $n = 13$ and $T = 12$)

and when considering groups one, six and eight this coefficient is:

$w = 0.7214$ (from applying the above formula with $s = 1180.5$, $k = 3$, $n = 13$ and $T = 6$).

The collection of these groups (one, six, eight and three) will be referred to as cluster one.

The plot in *Figure 9.44* also shows a similarity in terms of the results of the ranking of the housing components in terms of most to least important for, group five (Savannah Park) and group seven (Waterloo) all of which are incremental housing projects. For these groups:

$w = 0.6590$ (from applying the above formula with $s = 1078.5$, $k = 3$, $n = 13$ and $T = 6$).

The collection of these groups (two, five and seven) will be referred to as cluster two.

The agreements among the subgroups are much stronger than among the group as a whole. The ranks for group four, the Slums Relocation Project in KwaMashu, is different from those of the other two similar groups referred to above. This group will be referred to as belonging to cluster three. By observing the cluster patterns of the housing components in the graph reflected in *Figure 9.44*, a similar response to housing components can be associated with each of the clusters.

Table 9.37 Housing components associated with clustered groups

Cluster	Groups	Similar response components
1	Experts, Shayamoya, Shallcross, Lotus Park (Social Housing Projects)	Location, environment, urbanisation, housing independence, sanitation and comfort, house design
2	Savannah Park, Waterloo (Greenfield Housing Projects)	Open space, urban service, urban facilities, stability, economic factors
3	Kwa Mashu Housing Project (Slums Relocation Project)	Environmental protection, community

Source: Delphi Study

The results show that for all the groups together 'urban facilities' and 'sanitation/comfort' are considered to be the most important housing components and the category of 'open space' the least important housing component.

9.5.7 Analysis of attribute scores within components

The number of attributes that were scored within each housing component varies between one and five. In cases where two or more attributes within a housing component were scored, tests for the equality of median scores for the different attributes were performed. In cases where only one attribute within a housing component was scored, tests for the equality of median scores for different clusters of groups (defined in the previous section) will be performed.

The following non-parametric tests were used to perform these tests:

- Comparison of scores involving three, four or five attributes – *Friedman's test*.
- Comparison of scores involving two attributes – *Mann-Whitney test*.
- Comparison of clusters scores for one attribute – *Kruskal-Wallis test*.

In each of these tests there were a number of tied observations. For this reason corrections for ties were made when performing the tests. The results are shown in the Tables below.

Table 9.38 Results of Friedman tests

Component		No. of attributes	Test statistic ²	p-value ¹
Location	1	3	1.615	0.446
Environment	2	4	6.443	0.092*
Open space	3	3	0.261	0.878
Urbanisation	4	5	6.182	0.186
Urban services	5	4	7.041	0.071*
Urban facilities	6	5	6.147	0.188
Environmental protection	7	3	2.714	0.257
Sanitation, comfort	8	4	6.263	0.099*
Housing independence	9	4	6.8	0.090*
House design	10	4	6.191	0.103

Source: Delphi Study

Table 9.39 Mann-Whitney test for scores on community

Community		N	Mean Rank	Sum of Ranks
Score	Organisations	8	8.06	64.50
	Social	8	8.94	71.50
	Total	16		

$z = -0.385$ with a p -value of 0.35.

Source: Delphi Study

The results of the Mann-Whitney test showed that there is no difference between median scores for organisations and social pathologies.

Table 9.40 Kruskal-Wallis test for difference between cluster groups responses to stability scores for all settlements

	Cluster	N	Mean Rank
Score	1	4	4.25
	2	3	3.83
	3	1	7.50
	Total	8	

Source: Delphi Study

Test Statistics

	score
Chi-Square	1.900
df	2
Asymp. Sig.	.387

(a) *Kruskal Wallis Test*

(b) Grouping Variable: cluster

The results show that there is no difference in the responses of the three clusters.

Table 9.41 Kruskal-Wallis test for difference cluster groups responses to economic factors scores

	Cluster	N	Mean Rank
Score	1	4	3.25
	2	3	5.33
	3	1	7.00
	Total	8	

Source: Delphi Study

Test Statistics

	score
Chi-Square	2.686
df	2
Asymp. Sig.	.261

(a) Kruskal Wallis Test

(b) Grouping Variable: cluster

The results show that there is no difference in the responses of the three clusters.

9.4.8 Comparison of expert and beneficiary component ranks and attribute's scores

The Table below shows the agreement matrix of the two groups from which data was collected, this being the experts in the field versus the beneficiary groups (the members of the respective communities).

Table 9.42 Agreement matrix of experts versus beneficiary groups

Component	Lotus Park 3	Kwa Mashu 4	Savannah Park 5	Shaya-moya 6	Waterloo 7	Shallcross 8
location	0	0	0	1	0	1
environment	0	0	0	1	0	0
open space	0	0	0	1	0	0
urbanisation	0	0	1	1	0	1
urban service	1	1	1	0	0	1
urban facilities	1	1	0	1	1	0
environmental protection	0	0	1	1	0	1
sanitation, comfort	1	0	1	0	1	1
housing independence	1	1	0	0	0	0
house design	0	0	1	1	0	0
stability	1	1	1	0	0	1
community	0	0	0	0	0	1
economic factors	1	0	0	1	0	0
Total	6	4	6	8	2	7

Source: Delphi Study

An explanation of the agreement matrix is as follows. If the rank differs by not more than 2 from the corresponding expert rank a 1 is entered in the Table, otherwise a 0 is entered. The total is the number of components for which the ranks of a group do not differ from the experts by more than 2. The Shayamoya component ranks agree closest with that of the experts. They are in close agreement (ranks differ in absolute value by not more than 2) on 8 components (location, environment, open space, urbanization, urban facilities, environmental protection, house design and economic factors). The Shallcross component ranks agree second closest with that of the experts. They are in close agreement on 7 components (location, urbanisation, urban service, environmental protection, sanitation and comfort, stability community). The Kwa Mashu components agree least with that of experts. They are in close agreement on only 4 components.

The component where there is the closest agreement between the experts and beneficiary groups is urban service (5 out of the 6 beneficiary groups are in close agreement with the experts). The components that are the second closest agreement between the experts and beneficiary groups are urban facilities, environmental protection, sanitation/comfort and stability (4 out of the 6 beneficiary groups are in close agreement with the experts).

9.4.8.1 Attribute's scores within components

There is no difference between the median scores of the attributes for location, open space, urbanisation, urban facilities, environmental protection, house design and community for all typologies. There is some evidence of differences between the median scores of the attributes for environment, urban services, sanitation/comfort and housing independence.

Table 9.43 Significant differences between attribute scores for experts and beneficiary groups

Component	Attribute	Groups	Direction of Difference
Location	Planning regulations	Kwa Mashu, Shayamoya	expert>beneficiary
Urban services	Telephone kiosks	Kwa Mashu	beneficiary> expert
Environmental protection	Finish to external walls	Kwa Mashu, Waterloo, Shallcross	beneficiary> expert
Sanitation and comfort	Piped drinking water	Savannah Park	expert>beneficiary
Housing dependence	Size of house	Shayamoya	expert>beneficiary
House design	Expandability, flexibility	none	expert>beneficiary
community	Social pathologies	Waterloo	expert>beneficiary

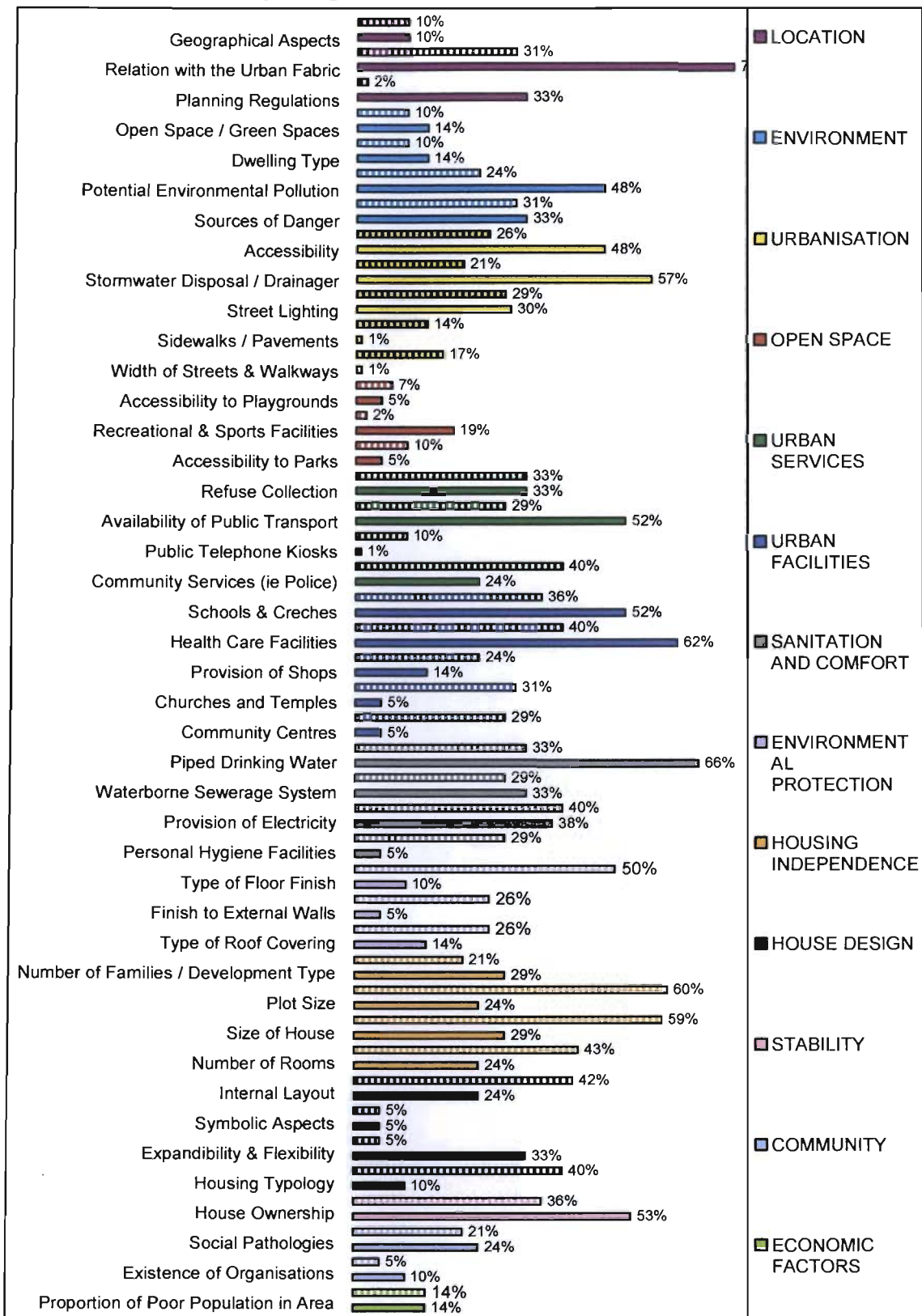
Source: Delphi Study

1. A difference in scores of 3 or more is considered significant. Based on the differences between all the scores, the p-value associated with this difference is 0.04.

When analysing the expert's preferences for all housing settlements at the attribute level, shown in *Figure 9.45*, a tendency to privilege environmental or infrastructure aspects where the inhabitants have little or no influence is observed. The highest ranking attributes, being 'the relation with the urban fabric (73%)', 'drinking water (66%)', 'stormwater disposal / drainage (57)', 'house ownership (53%)', 'public transport (52%)', 'schools & crèches (52%)' and 'accessibility (48%)' correspond to these. On the other hand, aspects referring directly to the provision of shelter, which traditionally have been considered the essence of housing, such as 'external walls' and 'floors' are considered of lesser importance.

The fact that street lighting (30%) is highly prioritised – higher than external walls (5%) for example can be understood because of the urban security problem.

Figure 9.45 Ranking of housing attributes by experts (shaded) and inhabitants (solid) for all housing typologies



Source: Delphi Study

Finally, the importance given to 'relation with the urban fabric' which ranked the highest of all attributes (73%) needs to be underlined, as the expert's opinion seems to be in line with what this thesis aims to prove, that the quality of life in the settlements is strongly influenced by their location in the urban grid of the Ethekekwini Region.

For the respondents of all the settlements at the attribute level, see *Figure 9.45*, the first four attributes that the groups prioritised are 'plot size', 'size of house', 'floor finish' and 'external walls', all related to the consolidation of the house. The next four preferences, with equal prioritisation, are 'health care facilities', 'community services', 'electricity' and 'housing typology'. Once again, both these rankings can be understood as the expression of the lived experience of those surveyed. In fact, the only difference between the Social Housing inhabitants and the other projects at the attribute level have to do with the most problematic aspects of their post Apartheid housing situation, such as the location of the CBD, which tends to be more peripheral or with their newly acquired benefit, such as ownership, which is very much on their minds.

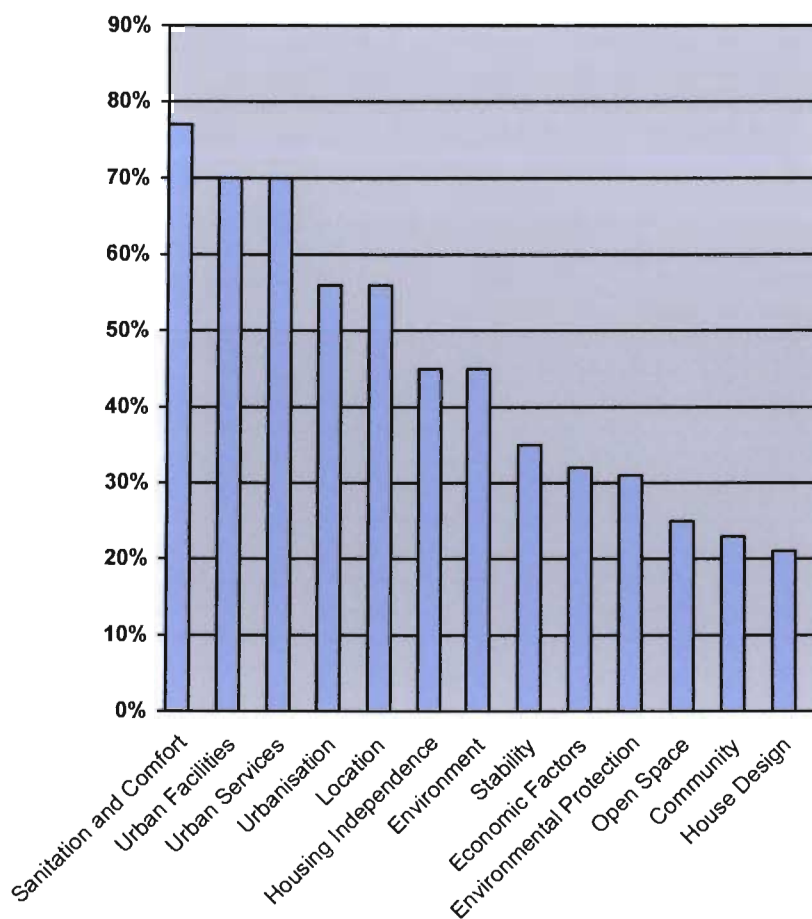
9.4.9 Comparative and summary of analysis

The comparative analysis of the preferences expressed by the experts in the field through the Delphi study, with those expressed by different users of housing strategies through the focus groups, shows that while the first tend to express an homogenous distribution among the attributes, the second presents strong preferences for certain attributes. On the other hand, the subjective ranking of housing attributes by different types of house users is observed to be strongly related to their own close experience, privileging their present needs or recently acquired benefits, while considering of less importance what they have had for a longer period. The ranking of attributes confirms the fact that the experts have an equilibrated opinion that covers all aspects, while each one of the different dwellers confers priorities according to their most urgent need or recent achievement, clearly reflecting their own personal situation. The Social Housing inhabitants have a more distributed ranking of attributes and their preferences are similar to that of the experts.

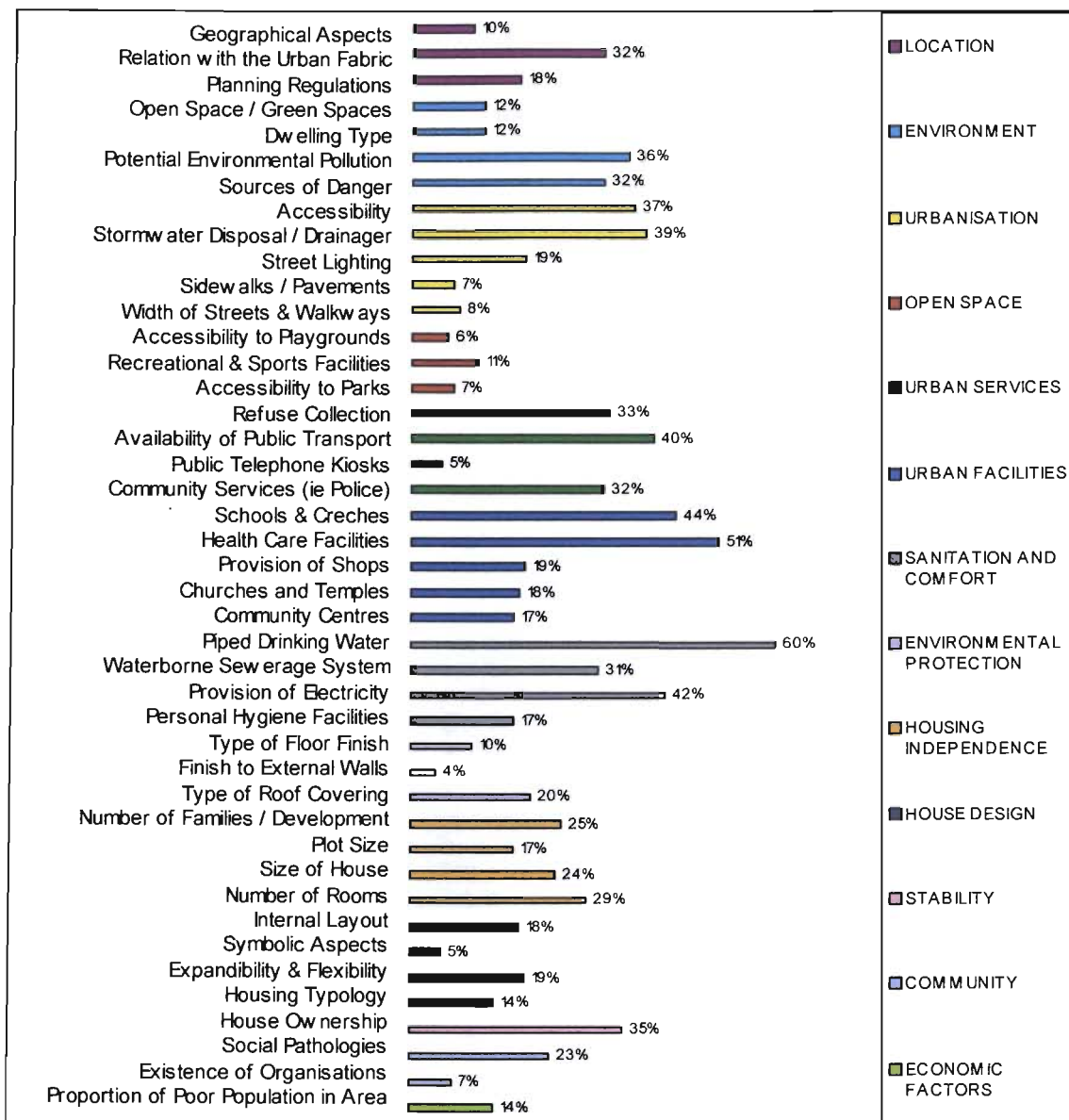
This research intended to determine whether professionals and policy makers have an understanding of the "needs and wants" of beneficiaries for whom they are planning for. Do those involved in the planning and design of human settlements understand the expectations of the end user? This research has proven that there is no correlation in the preferences expressed by both the experts and residents.

Finally, given that the sample included the most relevant housing situations as well as a significant number of experts in the field, it was considered valid to calculate a simple mean of the prioritisation between the seven groups that were studied. In *Figure 9.6* and *Figure 9.7* the mean rank at component and attribute levels is presented graphically. At the component level *Figure 9.6* shows that the five main components are 'Sanitation and comfort', 'Urban facilities', 'Urban services', 'Urbanisation' and 'Location'. At the attribute level, the three highest-ranking characteristics are 'Piped drinking water', 'Health care facilities' and 'Schools and crèches'.

Figure 9.46 Mean ranking of housing components



Source: Delphi Study

Figure 9.47 Mean ranking of housing attributes

Source: Delphi Study

This chapter has brought to the fore the research methodologies that were employed in the study, that being the Delphi study as well as the focus groups sessions that were conducted with the community members within the selected settlements. All the results presented were for all three of the differing housing situations, namely the Greenfields, Slums Relocation and Social Housing projects. In terms of the objectives of this study, to determine the differing consolidation processes of the various housing settlements within the eThekweni district in terms of the locational, social and economic factors, this chapter and the research conducted proves that there is no correlation in the preferences given by both the experts and the residents of the housing settlements.

9.5 Summary of analysis, observations and subjective responses

9.5.1 Physical issues

9.5.1.1 Design and environment

Some of the key issues that were identified by the inhabitants in this research relate to the general environment and amenities such as poor lighting, which contributes to problematic safety and security. 68% of the respondents found the location of the dwelling unsuitable because of the high level of crime in the area. Criminal activity can serve to keep law-abiding residents in fear and undermine almost every measure to promote spatial, social and economic development. While the rate of crime committed by the residents themselves seemed to be quite low, poor security and lack of a sense of community in some cases helped promote an atmosphere in which petty crime committed by external people could flourish.

The responses from the inhabitants in the settlements where there is a higher level of criminal activity attribute the crime mainly to alcoholism and drug related problems, giving rise to a general feeling of insecurity.

The lack of provision of community and social space within the settlements were also highlighted. These include play areas for children that are safe and parks. The omission of these could be due to several reasons. One is purely financial, where any items that are seen to be superfluous to the main fabric of the building and infrastructure services are shed in cost cutting exercise. Policy makers and housing professionals need to have an understanding what the 'social' component of 'housing' or for that matter 'social housing' is all about, and what the impact should be on the building design, layout and provision of amenities. It has been evident in the Delphi Study and subsequent analysis and results that policy makers and housing professionals had little idea of the needs of the people for whom they are planning.

An issue in respect of the Social Housing Projects is the balance between the size of the project in terms of its financial viability and its social viability. Shayamoya in particular, consists of 318 units, which equates to almost 1500 people. For a social housing project, where decision making is left upon the residents, this is a very large project with a large number of people that need to be involved in communal decision making. More research

needs to be undertaken to determine the optimum number of units that would be suitable for a similar settlement.

Residents in all the Social Housing Projects appear to take great pride in the internal quality of their units and many improvements such as new ceilings, installations of ceiling fans; new kitchen units and fittings have been made. This is a very positive indicator. However, residents have been very slow to take ownership of the external environment.

One of the main areas of concern of all the social housing projects relates to general building maintenance. The maintenance with regards to the Shallcross and Lotus Park projects is still being undertaken by the Provincial Department of Housing. However, with regard to the Shayamoya project, the responsibility lies with the residents. High arrear levels in respect of levies and rentals at Shayamoya also mean that there is little to no money available for maintenance. This will become a big problem area, particularly as time goes by and the items to address become bigger and more expensive to resolve.

In all the settlements, no previous studies have been undertaken to determine the impact of the project in terms of increased pressure on existing social amenities such as schools, clinics, etc in the area. The lack of consideration for integrated service delivery such as schools and social services has an impact on the sustainability of the neighbourhood.

This research has provided evidence that the development of the 'RDP settlements' of Kwamashu and Waterloo provide inorganic disordered growths of the city and points to the successful segregation of the settlements. The continued developments of similar settlements go beyond the consequences of economic factors and would continue to permeate the decay of the social and physical forms of these settlements. In the same way that planning was unable to stop urbanisation and the urban sprawl, it will be unable to give shape to any positive transformation of the settlements into healthy living environments.

9.5.1.2 Financial issues

The case studies revealed that, perhaps more than any other single factor, the widespread non-payment or underpayment of rent and levies threatens the long-term sustainability of Social Housing. The root of the problem is a 'culture of non-payment', which may be a factor that requires more research. For all the Social Housing Projects, there has been a

huge problem of non-payment of rentals and levies leading to unacceptably high arrears levels. This has severe consequences in terms of sustainability of the Social Housing model. The level of arrears in all these projects is as high as 80%. There are several reasons cited for non-payment.

One reason is a general attitude of entitlement generated by a misunderstanding of the subsidy allocations. With regards to the Social Housing Projects, an Institutional subsidy is given to the institution although it is based on the pre-qualification of an individual beneficiary. Individual subsidies in the RDP type model are given to the individual – hence the term 'give away house'. Certain beneficiaries of the Social Housing Projects believe that because a subsidy is involved the unit is rightfully theirs, and therefore they should not pay any monthly charges. This attitude may in some cases be a deliberate misunderstanding of the model. Many residents face financial difficulties. These may be a result of genuine hardship or as a result of being burdened with additional payments once they take on the responsibility of 'home ownership'. In Shayamoya and Lotus Park there appears to be a correlation between an inability to pay the charges and the acquisition of furniture or improvements to the units, such as kitchen fittings. It also appears that residents may budget to settle other payments, such as Hire Purchase charges or school fees before their monthly levy charges. The prioritisation of other payments above monthly charges is a clear indication that people are aware of the consequences of non-payment of Hire Purchase Accounts, where there is the repossession of items, and aware that there will be no such immediate action in terms of their accommodation. There appears to be a clear understanding that eviction procedures can take a very long time, and that certain inhabitants are prepared to exploit this. A clear eviction procedure is necessary, because if all the necessary steps have not been taken in terms of legislation (Prevention of Illegal Eviction Act), the eviction will not be able to be carried out. The problem with regard to genuine hardship is a difficult one for any Social Housing Institution to address, particularly when the reason are to due to unemployment.

A second area of concern is the apparent level of "downward raiding" by non qualifying beneficiaries. In the Lotus Park and Shayamoya Projects, many units have DSTV dishes (see plate 9.8) and that there are some luxury cars parked in the scheme. Downward raiding is extremely hard to prove, as some members might have initially qualified but subsequently have moved outside the financial qualifications bracket. If this is the case,

then social housing should be viewed as successfully providing a supportive environment for the betterment of people's lives. This research does not have any information on what the actual issues are, other than the fact that the information initially provided by the beneficiary was in line with the qualification criteria. This could be an issue for further research.

With regards to the newer settlements such as Waterloo and KwaMashu, widespread deep poverty and unemployment among the population would impact on the positive growth of the settlement. Observations have already revealed that these settlements are already showing signs of decay.

9.5.1.3 Choice of housing model

One of the key questions in relation to the research is why do people choose to live there and whether the tenure model plays a role at all in their choice. It seems that most people are desperate to gain access to good quality well located housing, regardless of the tenure option. The tenure model appears not to play any role in their choice, and there are still areas of misunderstanding between the concepts of renting and owning. It will be interesting to track all of the settlements in the longer term, to see whether people actively seek out to improve their lifestyle once the different models are more established. This is an issue therefore for further research.

9.5.1.4 Participation in project

The development process undertaken by different settlements did not involve beneficiaries during the development process. Once the beneficiaries occupied the units, especially the Social Housing Projects, they participated in governance and decision making through the Board of Trustees structure. This is the case in respect of Shayamoya while in the case of Lotus Park and Shallcross, Development Committee's have been established. However, the large size of the Board of Trustees for the Shayamoya project is seen as a negative in terms of the collective decision making and participation. The residents of the other projects do not play an active role within the neighbourhood.

Whilst training of beneficiaries of the Social Housing Project prior to them joining the Board of Trustees was undertaken in Shayamoya, it has become evident that it was not

sufficient. New training structures and benchmarks need to be developed to overcome problems that emerge from beneficiaries not understanding the Social Housing structure.

For all the Social Housing Projects, it is apparent that there needs to be a lot of ongoing support in fostering understanding of responsibilities in terms of legal and financial processes that the Board of Trustees must undertake.

9.5.1.5 Economic and social development

One of the major concerns of the newer settlements of Waterloo and KwaMashu are that there is no regard for family life, social upliftment and local economic development. However, the very location of Waterloo, being far from nodes of employment, poses a direct challenge. The population within these two settlements, by and large, remains poor and unemployment remains high. Shallcross and Waterloo are also located in areas in which transport to employment centres is extremely costly.

Income-generation activities at the settlements themselves are generally scant and residents do not receive much assistance in developing them. But much greater efforts are required to promote commercial and income-generation activity within settlements.

At the Savannah Park, Shallcross and Lotus Park settlements, progress has been made toward improving social, recreational and cultural amenities. This is important from the perspective of building strong communities and the transformation of the social environment. Overall, however, amenities for children such as crèches and playgrounds remain poor. The lack of crèche services impedes on a parent or care-giver's ability to access work, and the lack of playgrounds impacts negatively on the quality of life for children.

The preferences given by the inhabitants of all the settlements reinforce the importance given to the improvement of their houses. The shortcomings however is the lack of funding and in many cases, especially in Waterloo and KwaMashu, many of these families are living below the poverty line.

9.5.1.6 Infrastructure

It would appear that piped drinking water received the highest preference from the inhabitants because of its close relation to the transmission of cholera, which has been endemic in certain portions of South Africa.

The lack of urban facilities is a common criticism to the new housing settlements developed by government, which due to scarce resources and lack of funding do not provide facilities such as schools and health care centres.

9.5.1.7 Support for government

The subjective responses from the respondents of the older and newer projects were extremely interesting. The respondents (75%) from the older settlements believed that the Apartheid government provided better quality housing; whilst 40% of the respondents from the newer settlements believed that the Apartheid government built better quality housing, this notwithstanding the fact that the post Apartheid housing products are of an inferior quality and are incomplete.

9.6 Locational variables

9.6.1 Spatial configuration of settlements

The settlements have been analysed in order to understand the urban connectivity between the settlements and the surrounding urban context, in particular the strength of connections into their industrial and commercial nodes. Shallcross and Savannah Park being relatively close to one another are represented in the same axial map.

The results from the axial mapping of the six settlements are described further on in this section. As the focus of this study is on the relationship between settlements and places of work (which through investigations at the various areas is found to not be locally available) the maps are set to reflect the accessibility of the area on two global levels: 1) average integration for the system, also referred to as the '*radius-radius model*' and 2) global integration which represents connections from each line to all other lines in the system.

A radius-radius axial map is one in which integration analysis has been set at the mean depth of the whole system from the most globally integrated line. It is an analysis that will eliminate 'the edge effect'. The 'edge effect' is a tendency for the edges of spatial systems to be more segregated than they actually are in reality, because they are not connected onwards (Bill Hillier, *Space is a Machine*, Cambridge University Press, p162-163, 1996).

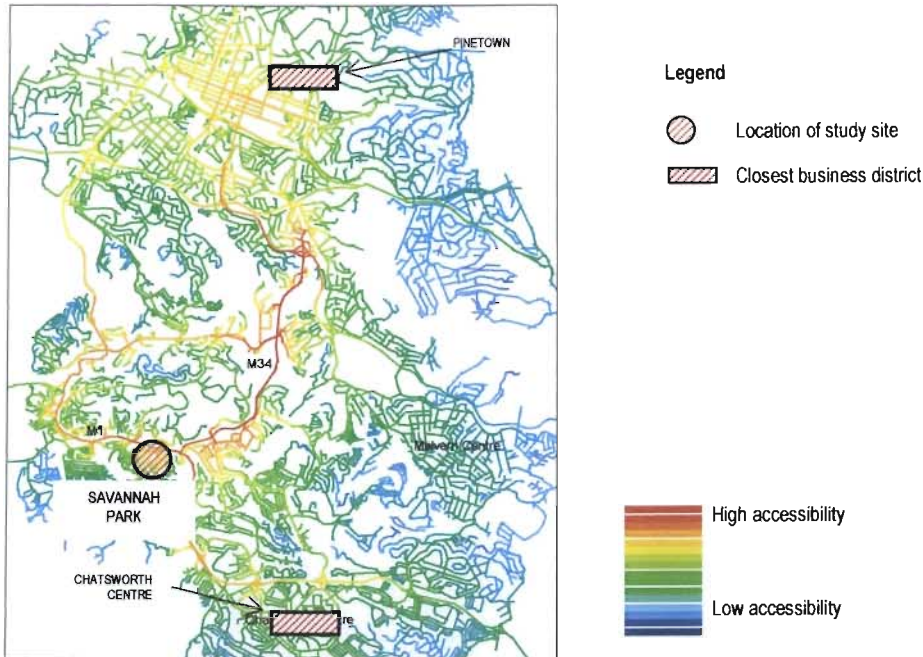
The radius-radius model tends to pinpoint the 'regional' or main city centres, while the global integration model (RN) tends to be more indicative of vehicular movement patterns.

9.6.2 Savannah park Greenfields Housing Project

The industrial nodes of Pinetown/Germany and Westmead and the commercial node of the Chatsworth CBD are two polar northern and southern extremes of the axial map of the Savannah Park settlement. Savannah Park is located just to the south of the M1 and the M34, which are globally well integrated vehicular routes that connect this settlement north into Pinetown and south into Chatsworth CBD (Figure 9.48).

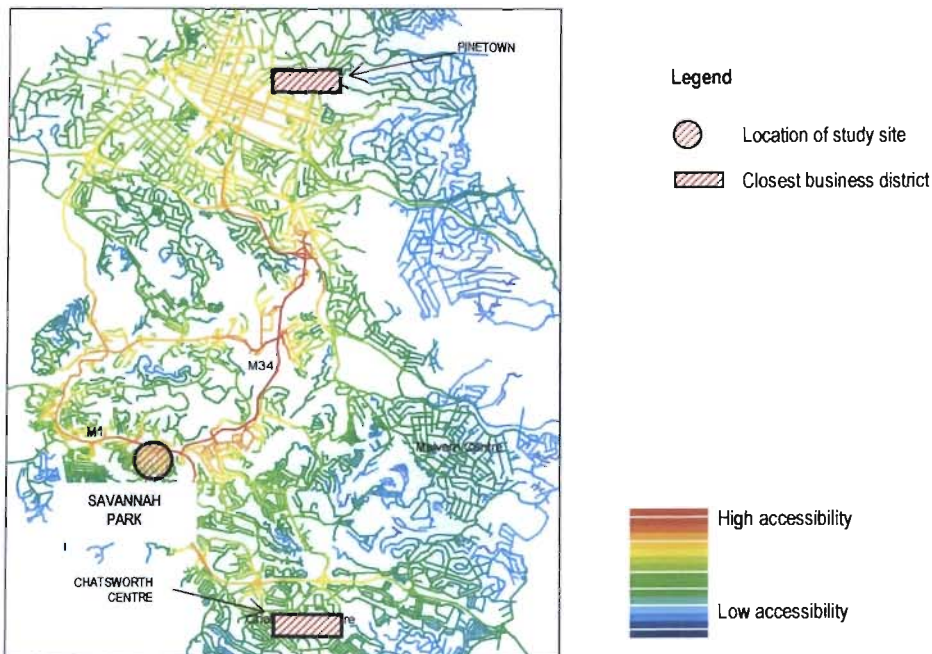
The radius-radius model highlights the strong, well-established city centre of Pinetown and to a lesser extent the Chatsworth and Malvern Centres. The configuration of the network of streets makes the Pinetown node more accessible (easy to reach) than the other two centres. The configuration of the network of streets is then 'favouring' Savannah Park's accessibility to Pinetown than the other two metrically closer centres, but only along major vehicular routes which necessitates access to either public or private transport.

Figure 9.48 Global integration axial map of Savannah Park – Indicating the most accessible routes for large scale trips across the grid (M1 and M34)



Source: Space Syntax study

Figure 9.49 Radius-radius integration of Savannah park indicating centres of high accessibility - Pinetown and less accessible Chatsworth and Malvern Centre



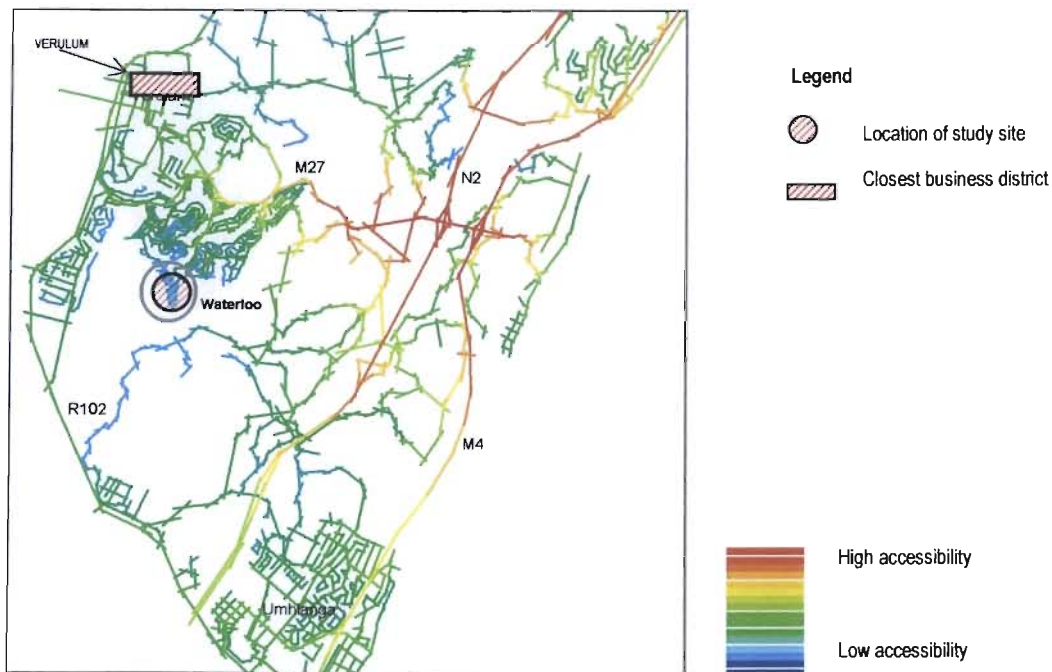
Source: Space Syntax study

9.6.3 Waterloo Greenfield Housing Project

The axial map stretches from Ballito in the north to the M41 in the south and the R102 in the west. The most globally integrated routes are the N2, the M4 and the M27. The M27 being the only global route stitching the entire greater area of Waterloo into the surrounding urban context.

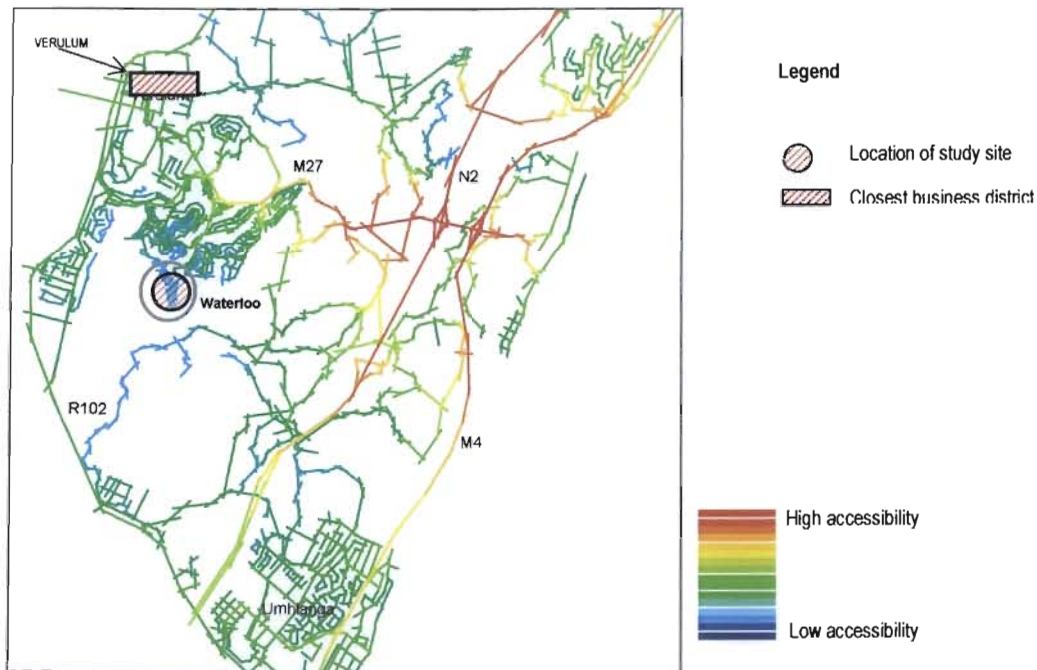
The radius-radius map indicates well integrated internal movement routes within Waterloo, none of which extend into the settlement under investigation. Umhlanga is also highlighted as a strong global centre. The settlement within Waterloo is poorly integrated into the movement structure of both the strong internal route structure of Waterloo as well as the global movement route (M27) on the northern periphery linking the area into commercial and industrial nodes.

Figure 9.50 Global integration of Waterloo – Indicating the most accessible routes for large scale trips across the grid N2, M4 and M27.



Source: Space Syntax study

Figure 9.51 Radius-radius integration of Waterloo indicating centres of high accessibility - Umhlanga and the internal routes within Waterloo



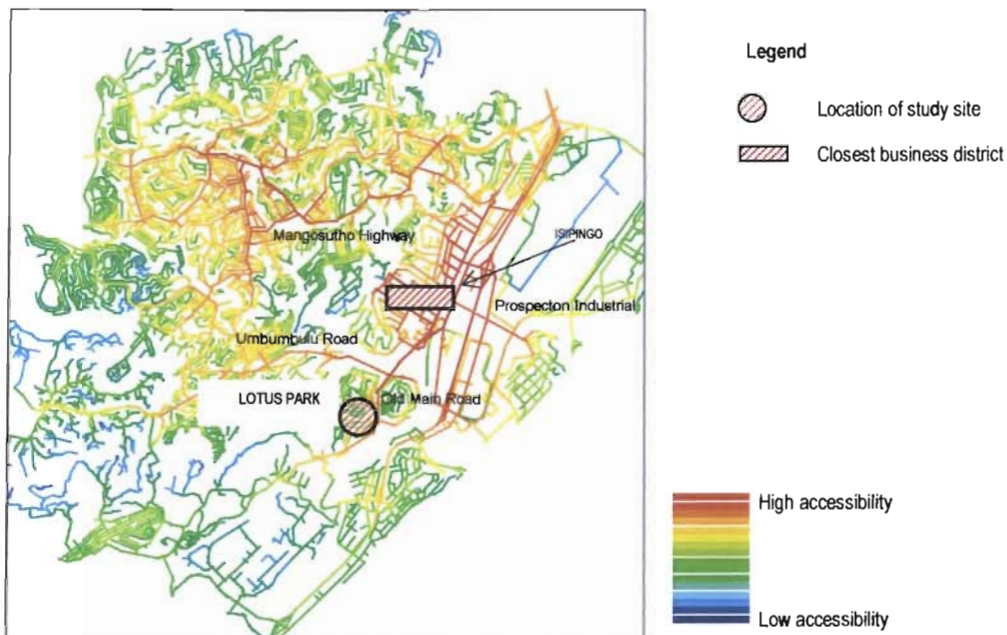
Source: Space Syntax study.

9.6.4 Lotus Park social housing project

The axial map for Lotus Park stretches from the Mbokodweni River in the north to the M37 in the south and Umlazi in the west. The most accessible global routes form a rectangular route to the north and east of Lotus Park, cutting through Umlazi. The most globally integrated roads are: Apartheid Main road, Mangosuthu Highway and a network of linked roads through Umlazi, namely South Spinal Road, Mkhiwane and Mayibuye.

Lotus Park is accessed directly off a very accessible route namely Apartheid Main Road/ M35. This links Lotus Park within a few 'steps' of the Isipingo CBD, a step being a change in direction or movement from one axial line to another. Lotus Park is then through its direct access to Apartheid main road not only metrically but also topologically (few changes of direction so minimum effort exerted) close to the commercial and industrial node of Isipingo and Prospecton.

Figure 9.52 Radius integration Lotus Park - highlighting Isipingo and Prospecton Industrial

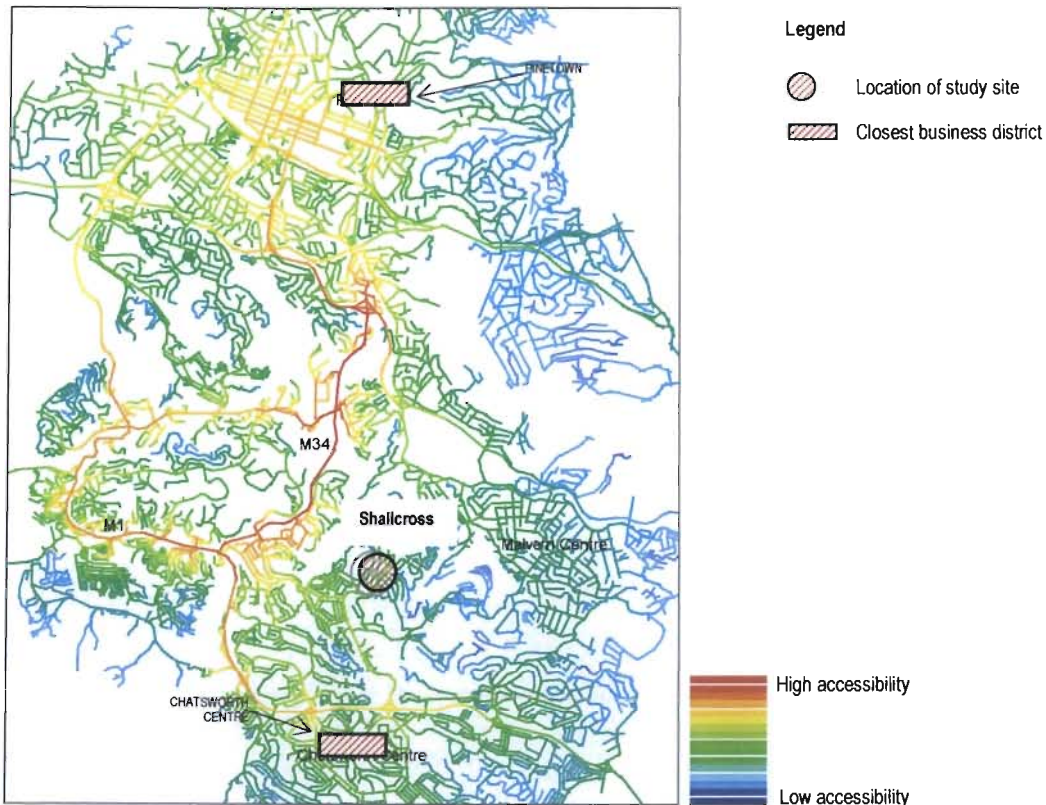


Source: Space Syntax study

9.6.5 Shallcross

Shallcross unlike Savannah Park does not benefit from any major global routes on its periphery. Is it poorly integrated into its local and global context and is therefore not easily accessible at any scale. It is both difficult to access places of work from here and also difficult to find as is not on or near any accessible vehicular movement routes. Shallcross Road is one of the few moderately globally significant routes that directly link this settlement into a commercial node, namely the Chatsworth centre.

Figure 9.53 Global integration of Shallcross – Indicating the most accessible routes for large scale trips across the grid



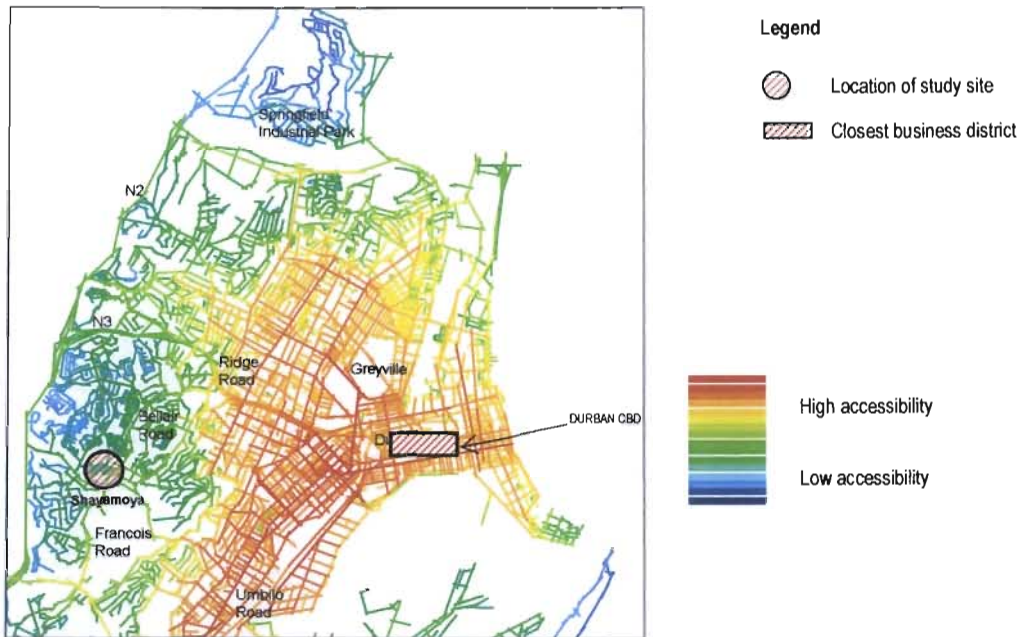
Source: Space Syntax study

9.6.6 Shayamoya social housing project

The axial map for Shayamoya stretches from Springfield industrial park in the north to Durban international airport in the south and the N2 in the west. The most globally integrated routes are within the CBD, Warwick triangle and south west along Umbilo road. In the west towards the N3, beyond Ridge Road, the grid becomes more fragmented and more segregated with lower levels of accessibility.

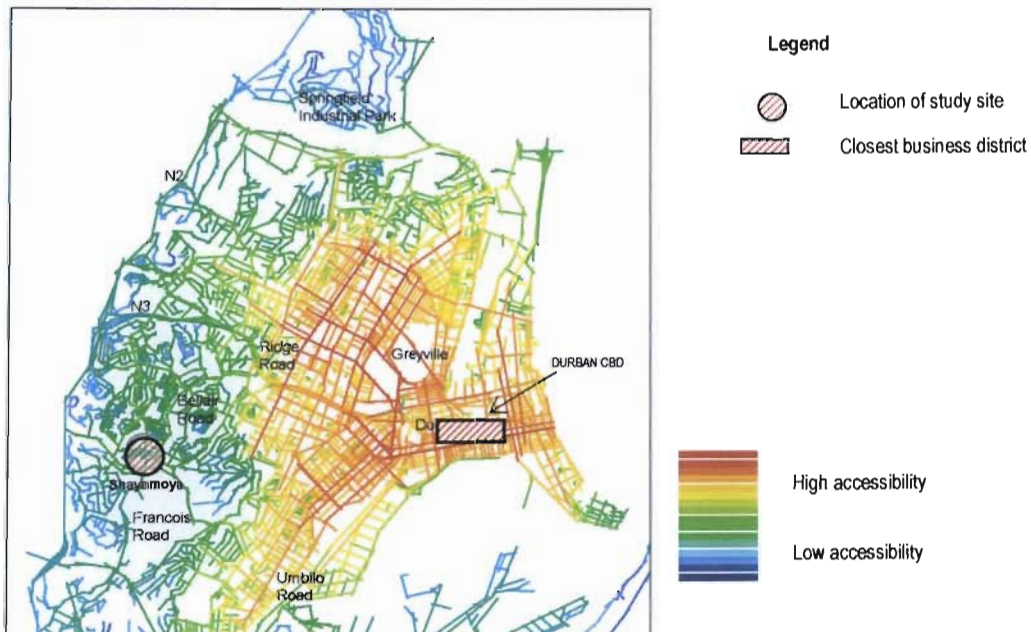
The most globally accessible routes that are within a few 'steps' of the site are Francois and Bellair Road, connecting the settlement into lower Umbilo and Brickfield road and the N3. Access to these locations could, if necessary, be achieved quite comfortably on foot while Springfield Park to the north would require vehicular access owing to its inaccessible location to the people of Shayamoya.

Figure 9.54 Global integration of Shallcross – Indicating the most accessible routes for large scale trips across the grid



Source: Space Syntax study

Figure 9.55 Radius-radius integration of Shayamoya – Indicating the most accessible centres, namely Durban CBD, Warwick/Glenwood and Musgrave/ Essenwood



Source: Space Syntax study

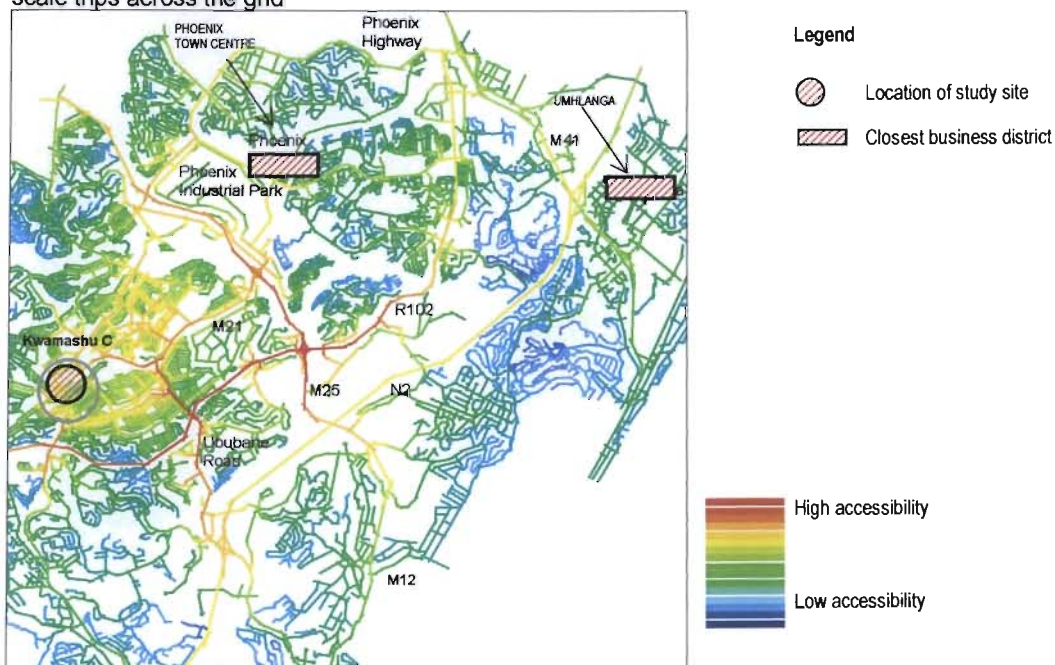
9.6.7 KwaMashu slums resettlement project

The axial map extends northward from the Umgeni river to Umhlanga, it includes the M12 (Umhlanga Rocks Drive) in the east and extends just to the west of Phoenix Industrial Park. The most globally integrated routes are the R102, the M25 and Ububane road. The Kwamashu settlement is accessed off of a fairly well integrated global route, the M21. This route links directly into Phoenix Industrial Park in the north and south into Springfield Industrial Park.

The radius-radius map highlights the accessible areas to the north east and south of the settlement, namely, Emlandweni and Esibubulungu. These two areas have a very dense fine grain interconnected network of streets. Umhlanga to the north is also highlighted as a centre.

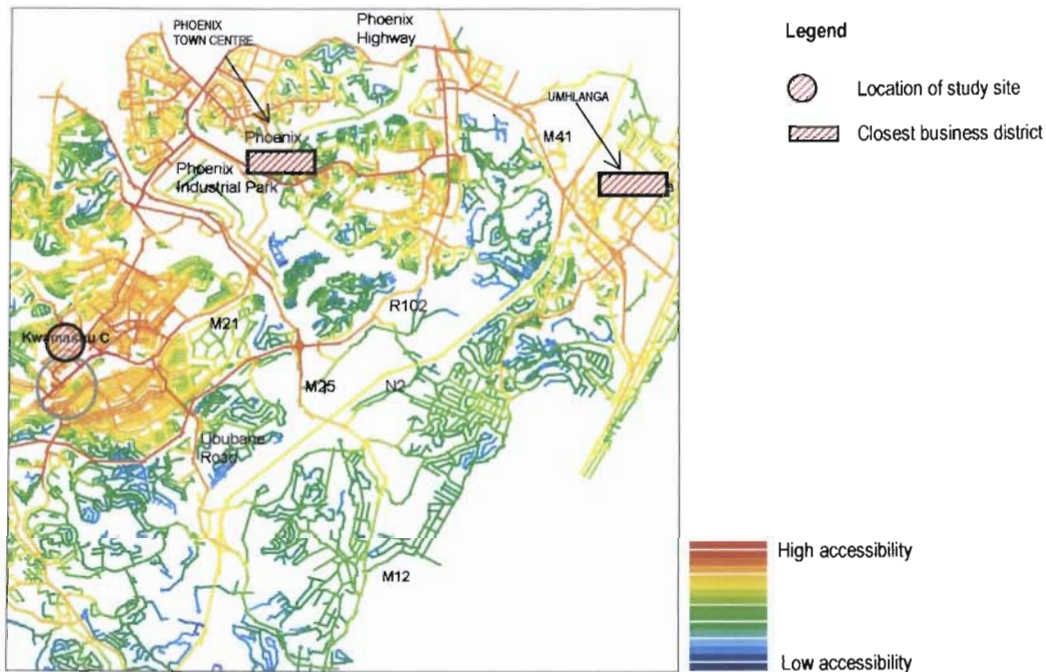
The settlement is surrounded by globally integrated routes that could potentially connect it into industrial nodes, and is metrically close to the local centres of Emlandweni and Esibubulungu however it is not well integrated into the surrounding network of streets (not an interconnected network of streets) limiting its local accessibility to adjacent areas. It therefore requires more effort to get to places as routes are more circuitous.

Figure 9.56 Global integration of Kwamashu C– Indicating the most accessible routes for large scale trips across the grid



Source: Space Syntax study

Figure 9.57 Radius-radius integration of Kwamashu C – Indicating the most accessible centres, Emlandweni, Esibubulungu, and Umhlanga



Source: Space Syntax study

9.6.8 Comparative assessments of settlements

In most of the areas under investigation the radius- radius map with a radius set from the mean depth of the most globally integrated route appears to be the model that best reflects the patterns of space use in all settlements. It highlights the main centres which these settlements would need to access for work, leisure and service needs.

Of the six settlements analysed Lotus Park, Savannah Park and Kwamashu are better located to take advantage of well integrated global routes on their periphery which facilitate access to commercial and industrial nodes. Waterloo and Shallcross are the least optimally located and are in poorly accessible locations making access to places of employment difficult for people that live there.

Shallcross/Savannah Park are the least accessible of all the areas analysed as the infrastructural response to the hilly terrain has created a series of winding roads along the hilltops creating a segregated network of streets that isolates those that live there from access to viable public transport routes. Shallcross has however minimised the impact of

the segregated nature of the area by being located close to a major global route that provides access to public transport, services and employment. Shayamoya, is not on the periphery of any major globally accessible routes. It does however benefit from being metrically close (within a reasonable walking distance) to the city centre and is also near to streets that feed large scale movement from the greater surrounding area into the city centre with a choice of modes of public transport that comes with this, namely bus and taxi.

The findings from the Delphi study have indicated the inhabitant's preference for access to Urban Facilities (shops, churches, community centre, hospitals) and Urban Services (transport, community facilities). Bill Hillier's space syntax theories refer to the theory of 'natural movement' where the urban grid itself is the main generator of patterns of movement. His theories propose that movement seeking land uses such as shops are more likely to be located on accessible streets. Similarly public transport is more likely to be located along well integrated streets as this facilitates access into the urban network. The configuration of the grid has then an impact on both the location of facilities and the potential for public transport. Aspects within the urban facilities and services category that have a spatial context cannot be viewed in isolation from their 'locational' aspects within the urban grid as they are to some extent located and influenced by the pattern of the urban grid itself. Location may be considered to be less preferential to inhabitants however this is embedded in the desire to be near to urban facilities and services (Hillier, B and Penn, A J. and Grajewski, T and Xu, J. (1993) Natural Movement: or configuration and attraction in the urban pedestrian movement, *Environment and Planning B* 20 (1). Pg.29-66).

9.7 Findings

- There is evidence to suggest that the physical consolidation of the individual houses within the settlements bear little or no relation to the social relationships developed by its inhabitants.
- There is evidence to suggest settlements that achieve good quality houses also tend to achieve good and healthy communities and vice versa, the Savannah Park settlement has proven this argument.

- When testing the correlation at family level, the relationships regarding correlation were still not significant. Although the newer settlements that are considered to be "slipping into decay" have strong family support, these settlements do not seem to flourish. The argument then offered is that it is evidently clear that settlements with better houses normally coincide with progress.
- Furthermore, the analysis shows that in most of the settlements there is no significant correlation between the consolidation of the settlements at family level. The consolidation that families achieve shows no relationship to the development within the community. On the contrary, those settlements that have not managed to obtain a high housing consolidation have good relationships with their neighbours. Therefore the argument that families that attain a higher housing consolidation have developed good communal relations is false.
- From the analysis done at this stage, the distinction between those settlements developed prior to 1994 democratic elections, those settlements that were developed after 1994 democratic elections, those settlements that were developed in terms of social housing programme and the RDP housing settlements was kept separate throughout the analysis. The correlation analysis at settlement level shows that the projects that were developed prior to the 1994 democratic elections, whether they were social housing projects or Greenfield projects correlated with one another whilst projects that were developed after 1994 democratic elections and whether they were social housing projects or Greenfield housing projects correlated directly. And this relationship became much stronger considering the older settlements to the newer settlements. This evidence strengthens the two hypothesis that has arisen throughout the analysis: that the consolidation process is different for the settlements that were developed prior to 1994 democratic elections than those that were developed after 1994 democratic elections.
- The task to interrogate the data regarding how the consolidation is a social process required an analysis of the correlations between factors such as level of education and type of occupation. The analysis revealed that the older projects show the inhabitants having a higher level of education as well as better jobs compared to those that were located in the newer settlements that were developed after the

1994 elections. It is also significant that the newer settlements have both members of the family (i.e. mother and father) present than those of the older settlements and this shows no clear pattern for consolidation.

- Housing and community consolidation is also associated with education levels of the family. The newer settlements that have a larger nuclear family show signs of decay. The nuclear phenomenon can be understood as a survival strategy of weaker groups (families with both parents and less education). The trend therefore is that the settlements with the higher level of education tend to have a higher neighbourhood consolidation than those with a lower level of education.
- The economic analysis is based on the income levels, Tablework and occupation. According to the data, economic variables correlate significantly with consolidation at the settlement levels. The Lotus Park Project and the Savannah Park Housing Project that have higher levels of income from Table work show that the occupants have ownership of possessions such as cars, satellite television, and video recorders. The newer settlements of KwaMashu and Waterloo that have lower levels of employment and lower income levels correlate with the decay in these settlements. All the economic variables show that higher levels relate significantly to better housing conditions in both the older projects with the exception of the newer Shayamoya Social Housing Project. The argument earlier on in this research was that the larger number of nuclear families in the Waterloo and KwaMashu projects was an indication of a survival strategy. If this argument is added to the analysis, the data shows that the household income increases drastically compared to only considering the income of the head of the household. This makes the survival strategy hypothesis much stronger. In summary, the only economic variables that relate to the mean housing quality of the settlements are work, income and ownership of consumables and pertain only for settlements in the older projects with the exception of the Shayamoya Social Housing Project. With regards to economic resources and considering that a great part of the settlement infrastructure depends very little on the inhabitants and more on government, the negative relationship could be understood as a public policy of privileging the poorer. The older settlements have better quality infrastructure and community facilities than those of the newer settlements. This could be understood

as a positive effect that promotes some sort of development that in turn gives improvement to the economic conditions of the inhabitants.

- The residents in all the settlements indicated that they preferred to be integrated into the better suburbs. In respect of the 'RDP' houses, the current housing policy offers assistance to individuals whose income is in the range of R0 – R1,500 per month as well as an 80% subsidy for individuals whose income exceeds R1,500 per month but less than R3,500 per month. In both the Waterloo and KwaMashu settlements, all residents are in the R0 – R1500 income band, many of whom are living in abject poverty. However, the policy relating to housing and the Government's strategy of leaving further consolidation of the houses and neighbourhood to the residents is based on the premise that these communities would rise from poverty, maybe through social advancement and individual striving. The goals of the current policy may have been applicable to those settlements developed prior to the 1994 elections, but are unattainable for the inhabitants of the settlements developed post Apartheid elections. Unlike the residents in the older projects, the residents in the post Apartheid settlements are poor and do not and/or cannot help themselves to rise. It would appear from these research findings that education is a major cause of problems associated to the 'run-down' settlements and therefore these settlements can be regarded as 'welfare enclaves' or 'welfare settlements', as their ability to climb the academic ladder is limited. Improvement through education and a willingness to integrate into broader society, which in many instances means a loss of distinct identity, are good ideas for social modelling in all societies. Insofar as the settlements in this sample are concerned, with the exception of Savannah Park, this may be difficult and those residents on the lower rungs of society will inevitably remain there. Therefore, the greater the expenditure by government on primary and secondary schooling, the greater the chance of upward mobility. However, education needs aspiration, and with all of government's assistance, the challenge to take up the opportunity and the willingness to do so, is paramount.
- If the government's policy and planning of human settlements deserves a robust defence, so does the transformation of the settlements in this research. Too many people equate mistakes made by housing professionals with a failure in policy.

Policy and planning are important caveats. Central to the housing policy in South Africa is the creation of sustainable neighbourhoods. There are two main critiques, firstly that policy contributes to the transformation of human settlements and secondly that planning helps the transformation process. However, the study shows that policy does not dictate that settlements should be located away from employment and commercial nodes. It is submitted that housing professionals were not innovative in using policy into creating efficient and sustainable settlements.

- The older projects (Apartheid) were conceptualised and planned by government and the product was then put out to tender. Currently the implementing agents for government are Municipalities, many of whom do not have the skills and capacity to undertake the task of satisfactorily planning and implementing housing projects. So there are caveats aplenty, and the Governments 'absurd' assumption of gauging the success of the NHP on the number of subsidies issued to the beneficiaries must change. It is suggested that the policy framework reflects an uneasy truce between government and implementing agencies of housing projects, that being the municipalities. The government is interested in the number of subsidies that are being registered, which is a reflection of the amount of money spent on housing and implementing agencies.
- The current model that epitomises this synthesis incorporates imperfections aplenty. It must be noted that models that ignored sustainability had little chance of spotting a calamity that stemmed from it. It is argued that a broader change of mindset is needed. Policy makers and housing professionals need to reach out from their 'specialised silos' and work with the 'end users' in order to get an understanding of the real 'wants and needs'. For in the end policy makers and housing professionals are 'social scientists', trying to understand the 'social and human side' of housing. It can be argued that it is convenience and not conviction that often dictates the choice that housing professionals make. This convenience arises out of replicating existing models, without taking into consideration the consequences. It is clear that in both KwaMashu and Waterloo and to an extent the Shayamoya settlement, the housing professionals replicated existing models, which were a poor guide and left the beneficiaries unprepared for the symptoms

and consequences of their actions. However, it is these primitive models, rather than any other innovative descendants, that exert the most influence on the policy and practice of housing delivery.

- It is further suggested that policy makers and legislators should turn to 'empirical spadework', documenting past and present crisis of as many human settlements as possible, in the hope that a fresh theory might emerge. In summary and in regards to housing consolidation the following have emerged:
- In many instances, there are significant correlations with regards to social, economic and locational variables although both the economic and locational variables seem to be playing stronger roles in the consolidations of the settlements.
- The pattern of correlation is relatively similar in the settlements that were developed prior to the 1994 elections than the settlements that were developed after 1994, although some differences can be detected only in the social housing project at Shayamoya and this is due to the fact that the housing project strategy and model is similar to that of the older settlements and that the settlement is closer to the Durban Central Business District. This evidence strengthens the base hypothesis of this research.
- The integration of the settlement within the region as well as its distance to the CBD and nodes of employment correlates directly with the community consolidation.
- Neighbourhood infrastructure and community facilities, acts as a positive element to consolidation in all settlements although the type of infrastructure varies from one group to another.
- Social and economic resources although expressed through different indicators are important factors for the development and progress of settlements.

- Global integration is also an important factor in development.
- In the newer settlements the provision of urban services such as public phones, primary schools and health care facilities are important for progress. In the older settlements the inhabitants stress security as an important factor for their housing consolidation.
- All three Social Housing Projects have difficulty with ongoing viability that threatens the replicability of the models. It must be said that the primary issues that the institutional structures are dealing with, namely non payment and arrears, are issues which are symptomatic of the entire low income target market, not only these three projects but also the incremental housing projects.
- Finally, a distinction that came out clearly in the analysis is the differentiation between the older settlements that were developed prior to the 1994 democratic elections and the newer settlements developed after the 1994 democratic elections. The analysis relating to the social, economic and locational data indicated that the settlements that were developed prior to the 1994 democratic elections have flourished whilst those that were developed after the 1994 democratic elections suffer a different process to the rest of the settlements. Although this research intended to look at the settlements in terms of the development strategies for the social housing projects versus the conventional RDP projects, the analysis of the settlements have split them according to those located in the older settlements and those that were developed recently.
- Finally a summary comparison of the subject evaluation amongst the six settlements was done based on the 144 questions of the survey considering seven aspects, these being; demographics, education, house, community, neighbourhood, location and economic aspects. Several observations can be made out, which is reflected in the Tables and charts of the thesis where the comparison of these evaluations is presented graphically:

- The older settlements tend to have higher valuations than those that were developed after the 1994 elections.
- Settlements with the worst evaluations are located north of the city being Waterloo and KwaMashu.
- The house valuation is more homogenous throughout the sample.
- The community and neighbourhood aspect tend to follow an identical pattern.

The Waterloo and KwaMashu C projects are difficult to evaluate but indicators of extremely low income levels, low savings levels and a pattern of low fixed expenditure amongst potential beneficiaries, may result in beneficiaries not being able to sustain monthly payments towards services. The added factor of services payments and of budgeting for maintenance and other items is also going to be a critical factor in the projects sustainability.

CHAPTER 10: CONCLUSIONS AND RECOMMENDATIONS

10.1 Introduction

In an effort to understand the social, economic and locational factors affecting the consolidation process of human settlements developed for low income communities in the eThekweni region, this thesis has made both a theoretical and empirical assessment of the strategy implemented with this as its end by the South African National Housing Policy (NHP).

The theoretical section, developed across seven chapters, outlines the main principles that characterise this policy, which are contained in the post Apartheid 1994 Housing White Paper, later developed into the 1997 Housing Act, and the 1997 Development Urban Framework (DUF). As well, this section explored the ways rapid urbanisation exacerbated complications arising during the execution of the NHP. Such difficulties are not limited to South Africa but are features of many developing countries where rapid urbanization, rather than boosting sustainable urban development, has reinforced urban poverty and created additional environmental problems.

The main goal of the complementary practical section was developing guidelines for future design of human settlements within the context of an integrated decision support tool so that the process can be conducted in a responsible and efficient manner from a whole life cycle point of view. Achieving this required a multi-pronged approach that included the use of Delphi survey, undertaken with experts in the housing field, policy makers and settlement inhabitants, as well as extensive on site data collection, the development of new tools to measure sustainable housing strategies and finally an assessment of locational aspects of human settlements using already established techniques.

That the analysis incorporated Greenfield housing projects, Slum relocation projects and Social housing projects, half of which were developed *during* the Apartheid regime and half of which were established *post Apartheid* permitted comparisons to be drawn and so contributed to a deeper understanding of the sustainable housing strategy process. The principle subsequent outcome is that spatial planning in South Africa, particularly in the

post Apartheid era, has not facilitated the creation of sustainable human settlements, as defined by the NHP.

This concluding chapter offers a summary of these significant findings, both related directly to the specific aspects characterising human settlement development in the eThekweni region and to the wider realms of theoretical and methodological planning.

Finally, based on these conclusions, recommendations for future human settlement planning are proposed in the last sections. As well as strongly advocating the need to develop multi-tenure, mixed use settlements, this part of the thesis also outlines strategies for achieving this and offers a methodological tool for future housing professionals working towards this new approach.

10.2 Understanding the NHP strategy for the creation of sustainable settlements

The NHP is designed to deliver to the beneficiaries of the government housing delivery programme low-cost housing with at least the minimum standards in terms of site security and shelter. Beneficiaries should, ideally, self motivate to improve their settlement through an incremental housing process. In this light, the physical product delivered by the NHP can be viewed as incomplete or unfinished since the completion and success of the consolidation process lies in the achievement of the incremental housing process. Houses delivered by the NHP may be considered 'a physical product' and the incremental housing development as 'a process'. As product and process are intrinsically linked, a quality product can only emanate from a quality process.

The empirical evidence in this thesis shows that the rate of unemployment in settlements surveyed varies between 59, 3% in Lotus Park and 78, 9% in KwaMashu. As one of the consequences, people in these areas hardly save for their housing improvement. Data reveals that only 9% of the population in KwaMashu, and 9.7% in Lotus Park, save for their housing improvement. In addition, a good education, identified as one of the factors contributing to the consolidation of settlement in increasing the chance for people to get a good job and to improve their income, is also a matter of concern in the settlements surveyed. The data shows that 19% of people surveyed in KwaMashu did not go to school and only 3% of people in Shallcross settlement possess a university degree.

Another issue impeding the consolidation process that this thesis confirms is the quality of the product delivered which is in many instances in a state of disrepair. The infrastructure and urban services in settlements for low-income households in Ethekeini region, especially for those developed after the 1994 democratic elections are inadequate for the consolidation process. Inhabitants cannot transform their subsidy houses into a real asset or taking them as a trigger for consolidation without repairing them first. This requires additional cost for low-income households.

This study supports the conclusion that the Apartheid regime had intentionally developed a type of planning that keeps black settlements non-conducive to human, social and economic development. The post Apartheid planning, which holds the promise for a better life for those disadvantaged by the Apartheid regime, unfortunately did not shift from the Apartheid planning in providing adequate housing and convenient neighbourhoods for the low-income groups. Instead, the post Apartheid housing delivery exacerbates segregation imposed by the Apartheid planning and deepens the vulnerabilities of poor households.

There are groups of passive poor and unemployed inhabitants who tend to be relocated in settlements developed by the post Apartheid government, such as Waterloo and KwaMashu. This movement gives cause for concerns about a physically segregated underclass, or poor class. As the crisis worsens, the fear is that stagnation of these settlements will be exacerbated, especially if there is long term unemployment and a possibility that these inhabitants will be classified as social outcasts for residing in economically unproductive localities. The locality factor emerges in a number of writings on the 'poor' or 'underclass', which has influenced the development of a social policy both in Europe and the USA throughout the 20th century. This was also given academic credibility in the USA through Lewis' (1968) concept of a culture of poverty and in Britain through Sir Keith Joseph's notion of a cycle of deprivation. As settlements, both KwaMashu and Waterloo lead to increased polarisation between those in employment and an increasingly marginalised unemployed and poor majority which occupy these 'welfare enclaves'.

Another issue that should reinforce the consolidation process of the settlements presumed in the NHP is the focus on the 'macroeconomic level'. The success of the South African NHP and, therefore, the consolidation of sustainable human settlements, is dependent on

the performance of the macro economy. With the adoption of neo-liberal policies by the post Apartheid government, it was expected that the beneficiaries of low-cost housing would improve their housing conditions themselves as the South African economy grew in line with early optimistic predictions. The actual lack of any great performance on a macro economic has instead negatively affected the NHP. Besides, it has been shown that instead of alleviating poverty, neo-liberal policies tend to intensify inequality.

The data shows that only a few people surveyed in the selected settlements work in the formal sector for income generation. It is important that a number of people in South Africa, namely the beneficiaries of low-cost housing, do not in fact rely on the macroeconomic level for their survival. Instead, they depend deeply on the microeconomic level and informal activities to generate income. The solution to consolidate human settlements then lies in the promotion and development of the microeconomic level. Many researchers have argued that micro economic levels and informal housing should be integrated in the global solution to deliver adequate housing and to improve the living conditions of the low-cost households in South Africa.

Given that the South African economy post Apartheid has not behaved as predicted and the misunderstandings that exist about the micro-economy and sets of priorities for low income earners, which mean neither cash nor inclination, are available for incremental self generated improvements to housing, it is perhaps unsurprising that the recent NHP has failed to achieve its central role of improving the living conditions of its beneficiaries.

Having acknowledged this state of affairs, however, it is time to pursue new strategies and approaches to the consolidation of human settlements.

10.3. New housing strategies for sustainable human settlements

For any effective housing policy, the central government should set the objectives in the simplest of ways and provide practical means to accomplish them; in the South African case, the principal aim of the NHP is to improve the living conditions of beneficiaries. Furthermore, the implementation of the NHP should seek for its beneficiaries to meet immediate basic needs and to build up assets such as social, physical, financial and human facilities over an extended period of time. In South Africa, however, as demonstrated, there is a chasm between the NHP expectations and the strategies put in

place to achieve and consolidate them. Targets that included using the housing environment to improve the quality of lives of Apartheid's victims, to increase accessibility of the settlements in a local and regional context and to assist with integrating the natural environment with the built environment of the South African Housing Policy did not achieve its central role of improving living conditions of its beneficiaries.

It is necessary, therefore, to develop new strategies for the creation of sustainable neighbourhoods to consolidate human settlements. Some previous works have argued for the need to increase the National Housing Budget in order to deliver a complete housing product. There should be an increase of the National Housing Budget, which represents 1.3% of the National budget to at least 4%. Undoubtedly, the individual subsidy amount of R 38 984 cannot be used to purchase land in a good location and to build a quality house. With the increase of the National Housing Budget and the housing subsidy budget, it is likely to deliver a quality and complete housing unit which will not require beneficiaries to be engaged in incremental processes to improve their housing conditions.

The findings of this research support the argument for the increase of National Housing Budget for a sustainable transformation of the housing sector and for the development of sustainable urban areas. The housing sector represents the largest proportion of the built environment. The ageing housing stock and the declining 'liveability' of certain neighbourhoods researched, particularly KwaMashu and Waterloo, pose serious threats to the socio-economic lifespan of a substantial part of the housing stock.

This thesis goes beyond the increase of the National Housing Budget for the delivery of quality housing, however, and reveals that the delivery of quality housing to low-income households, while necessary, is insufficient on its own to consolidate a human settlement. Beneficiaries need regular income to maintain their houses so that they can be taken as collateral for other advantages. A report of UN-Habitat (2002) that explains the shortcoming in the implementation of the South African Housing Policy based on slum clearance and relocation, points out that the problem for beneficiaries of state subsidised housing is more in relation with income generation in an informal setting than actually having a formal house. The data produced through this thesis reveals that 28% of the inhabitants of the slum relocation project in KwaMashu employed before relocating to the low-cost housing project now have no jobs. One of the weaknesses of the South African

NHP is that the location of settlements developed by the post Apartheid government does not encourage its beneficiaries to generate income. Instead, a bad location reduces chances for low-income groups to improve their living conditions by imposing other additional costs, such as transportation. The development of rental accommodation, including social housing development and the upgrading of informal settlements providing a good location in relation to urban services and facilities should be given greater attention.

The issue of affordability, which is a fundamental obstacle impeding the success of the NHP emanates from the inability of beneficiaries to generate income. A favourable solution for this issue might be found in a good location of settlement that allows low-income communities to either run businesses or to enhance their livelihood strategies in other productive ways.

The argument that this empirical work develops is that the provision of quality housing and the consequences of the increase of the National Housing Budget, should be coupled with the strategy to empower the beneficiaries of low-cost housing. An example of Social Housing projects in Lotus Park, Shallcross and Shayamoya reveals that although the houses are of a better quality, the issue of affordability remains a big challenge for the achievement and sustainability of social housing projects. Inhabitants of these settlements cannot pay their levies. As Fish (2003) points out, social housing is a rental option requiring tenants with a regular and permanent flow of income. Given the rate of unemployment in the three settlements researched, which are respectively 59%, 62.9% and 70.8%, affordability remains a significant barrier of the success of NHP and social housing in these three settlements are unlikely to be viable or sustainable.

Many researchers put the employment issue at the heart of the housing solution for low-income households. This means that in finding a sustainable solution for unemployment and poverty, which characterises the settlements, it may become feasible to create a sustainable neighbourhood and so consolidate human settlements for low-income households. This thesis supports Baumann's (2000) argument about the promotion of the micro-economic sector and shows that not only will the employment issue effectively contribute to the consolidation of human settlements, but also to the strategy for beneficiaries of low-cost housing to generate a stable income.

Despite the affordability issue, which constitutes the biggest challenge that Social Housing faces in South Africa, rental housing has an important role as an affordable housing solution for the poor and may also be well suited for the needs of newly formed households. Evidence from all the social housing projects has shown that inhabitants of these projects have successfully consolidated the inside of their units. Furthermore, they are constantly seeking ways and means to improve their quality of living.

Alongside the issue of increasing the housing budget for the refurbishment of housing stock and the delivery of quality housing, this thesis argues for the development of a 'sense of ownership', as a necessary step for the consolidation of settlements. This issue emerges from the comparison between the settlements established in the Apartheid era and those developed by the post Apartheid government. The strong sense of ownership, which raises a sense of consciousness in the maintenance of the house, is observed in the settlements built during the Apartheid government for the low-income groups. The sense of ownership remains one of the weaknesses of the South African NHP. It is said that a few low-income occupants are not prepared to meet the full cost of utilities and other home ownership costs, rather preferring to sell their new houses, take the capital gains and move back to low-rent township housing.

This may explain the reasons why other interviewees believe that the housing programme developed during the Apartheid period seems better than that of the post Apartheid government, even if they in no way support the debilitating social effects that it engendered. Data shows that the percentage of the housing satisfaction of people living in settlements built during Apartheid (Savannah Park and Lotus Park with respectively 74% and 72%) is higher than in settlements established by the post Apartheid government, such as KwaMashu where only 37% of its inhabitants are satisfied with their houses.

The Apartheid government did not apply a welfare housing policy for the low-income households based on a paternalistic approach. Rather, the Apartheid government's main criterion to build houses was that the monthly incomes earned by the beneficiaries determined the proportionate monthly payment for reimbursement of the capital amount of the home evaluated at R 35,000.00 at that time. As adequate housing or a quality house is not synonymous with the housing size, the findings of this thesis reveal that the government was not required to provide all beneficiaries of low-cost housing with the same

type of house, as is observed with contemporary RDP houses. The advantages of determining potential house size according to monthly income and family size are diversification and of avoiding a genre of stigmatisation observed in Waterloo and KwaMashu where the Greenfield Housing Project and Slums Relocation Project have been undertaken by the post Apartheid government.

Regarding the issue of stigmatisation, which should be avoided, the empirical work of this thesis reveals that the concept of RDP housing has become value-laden and arouses such moral indignation that the inhabitants in these settlements become much stigmatised. It is widely argued that RDP housing or subsidy housing has created a distinctive urban form, which has laid the seeds of urban poverty, which seems certain to mature for the ensuing years. The sheer uniformity of these RDP structures makes it very distinctive. Unlike private housing estates, which comprise many ranges of house types, the different variations required by the different homeowners make it easy for the RDP enclaves to be identified.

The literature on the consolidation of informal settlements in Santiago undertaken identifies income as one of the most important elements for the consolidation of human settlements in general and informal settlements in particular. Nevertheless, it is not only the amount of income that affects the consolidation process but also other related aspects, such as stability. In addition, the length of time that a neighbourhood has been established can be an important factor in social integration and the consolidation of settlements as it confers a sense of stability. More important will be the length of residence of its inhabitants, though there is some debate as to the critical period necessary before a neighbourhood becomes socially integrated. This trend can be seen, however, in the older settlements of Savannah Park and Lotus Park.

Alongside income and time, traditionally considered the two most significant variables for housing consolidation identified the presence of commercial activity in the informal settlements studied in Santiago as the most important variable in the process of the housing consolidation. The success of commercial activities in the settlements is dependent on its location and density.

With regards to Savannah Park, informal employment was by no means the only type of informal activity prevalent in the settlements. The thesis uncovers a variety of work experience ranging from home industry to the supply of goods and services. The supply of goods entailed offering labour for the manufacture of clothing items to small scale retail outlets. These are some of the highly visible survival strategies; nonetheless, the rationale for these strategies comes from the structural transformations in the wider economy of the region rather than from peculiarities of poor residential settlements. The economic strategy pursued by the inhabitants of the Savannah Park settlement indicates the complexity of human behaviour in the face of 'poverty' and constraints and demonstrates that the unemployed people do not only passively react to these setbacks but in some cases are able to use them to their economic advantage. However, it must be noted that the range of informal economic activities pursued by the inhabitants of these settlements did not indicate a commitment to some sort of alternative economy. Rather, involvement in informal economic activities effectively linked people from this settlement to the mainstream economy of the region and enable them to gain access to income

In settlements where there are intense commercial activities such as Savannah Park and Lotus Park, there are signs or indicators of housing consolidation, such as the extension of the house and the presence of second floors. Yet, in settlements where commercial activities are almost non existent, such as KwaMashu and Waterloo, the consolidation indicators are imperceptible and the rate of poverty and unemployment is high. There is no sign of consolidation processes in the settlements developed by the post Apartheid government. Instead, living conditions of the residents of subsidy housing are worsening. The comparison of the combined household income in Savannah Park, which is evaluated at R 5285, 71 and in KwaMashu, evaluated at R 1931, 41 is an important indicator.

10.4 Principle findings of thesis

After elucidating the significant impact that budget, location, affordability, employment opportunity and stigmatisation have on the potential success of housing policies, it is necessary to clarify the main elements necessary for the creation and the consolidation of sustainable human settlements. Table 10.1 summarises these main elements that stimulate the provision of adequate shelter in an environment that fosters social development and eradication of poverty. Hence, it is evident that adequate housing is provided in areas where environmental management is undertaken, local economic

development managed, good governance ensured and international cooperation encouraged.

Table 10.1: List of indicators guiding the creation of sustainable human settlements

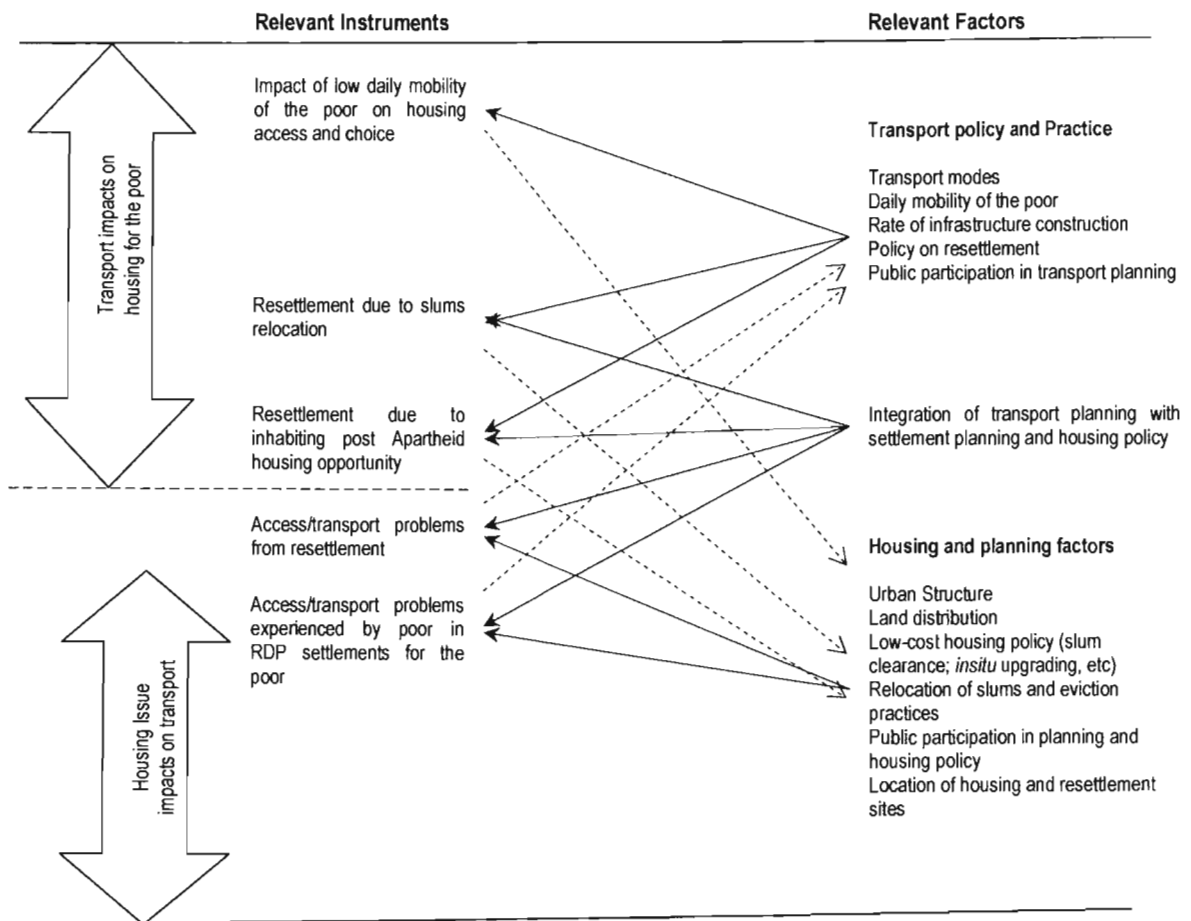
I: Shelter <ol style="list-style-type: none"> 1. Provide security of tenure 2. Promote the right to adequate housing 3. Provide equal access to land 4. Promote equal access to credit 5. Promote access to basic services
II: Social development and eradication of poverty <ol style="list-style-type: none"> 6. Provide equal opportunity for a safe and healthy life 7. Promote social integration and support disadvantage groups 8. Promote gender equality in human settlements development
III: Environment management <ol style="list-style-type: none"> 9. Promote geographically balanced settlement structures 10. Manage supply and demand for water in an effective manner 11. Reduce urban pollution 12. Prevent disasters and rebuild settlements 13. Promote effective and environmentally sound transportation system 14. Support mechanisms to prepare and implement local environmental plans and local agenda 21 initiatives
IV: Economic Development <ol style="list-style-type: none"> 15. Strengthen small and micro-enterprise, particularly those develop by women 16. Encourage public-private sector partnership and stimulate productive employment opportunities
V: Governance <ol style="list-style-type: none"> 17. Promote decentralisation and strengthen local authorities 18. Encourage public private partnership and stimulate productive employment opportunities 19. Ensure transparent, accountable and efficient governance of towns, cities and metropolitan areas
VI: International cooperation <ol style="list-style-type: none"> 20. Enhance international cooperation and partnerships

Source: Re-adapted from *The challenge of slums*, UN-Habitat, 2003

The following elements outline and summarise the main findings of this thesis. It should primarily be noted that a research on the consolidation of human settlements has not been done before in South Africa. Therefore, its findings constitute an important resource for the future planning of sustainable and consolidated human settlements generally in South Africa and in the eThekweni Region in particular. An exhaustive search shows that the only research on the consolidation of human settlements in informal settlements, was in Santiago in the year 2000. The principal outcome of that research, which this thesis fully endorses, is 'the movement theory' developed by the space Syntax Laboratory at UCL which has commented that the spatial and locational factors, especially the layout of the settlements and its relation to the urban form context, have played a major role in the pathway of development of the settlements and the different degrees to which they have become consolidated.

The location of affordable low-income housing should be a major concern for urban policy, and should be explicitly considered in a wide variety of contexts. Greater efforts need to be made to ensure that low-income housing is more accessible to income-generating opportunities. Since location is a key variable to consolidation and the creation of sustainable communities and transport is a primary factor that needs to be included in any planning process, a design tool is reflected hereafter which can guide housing professionals and policy-makers.

Figure 10.1 Linkages between housing and transport



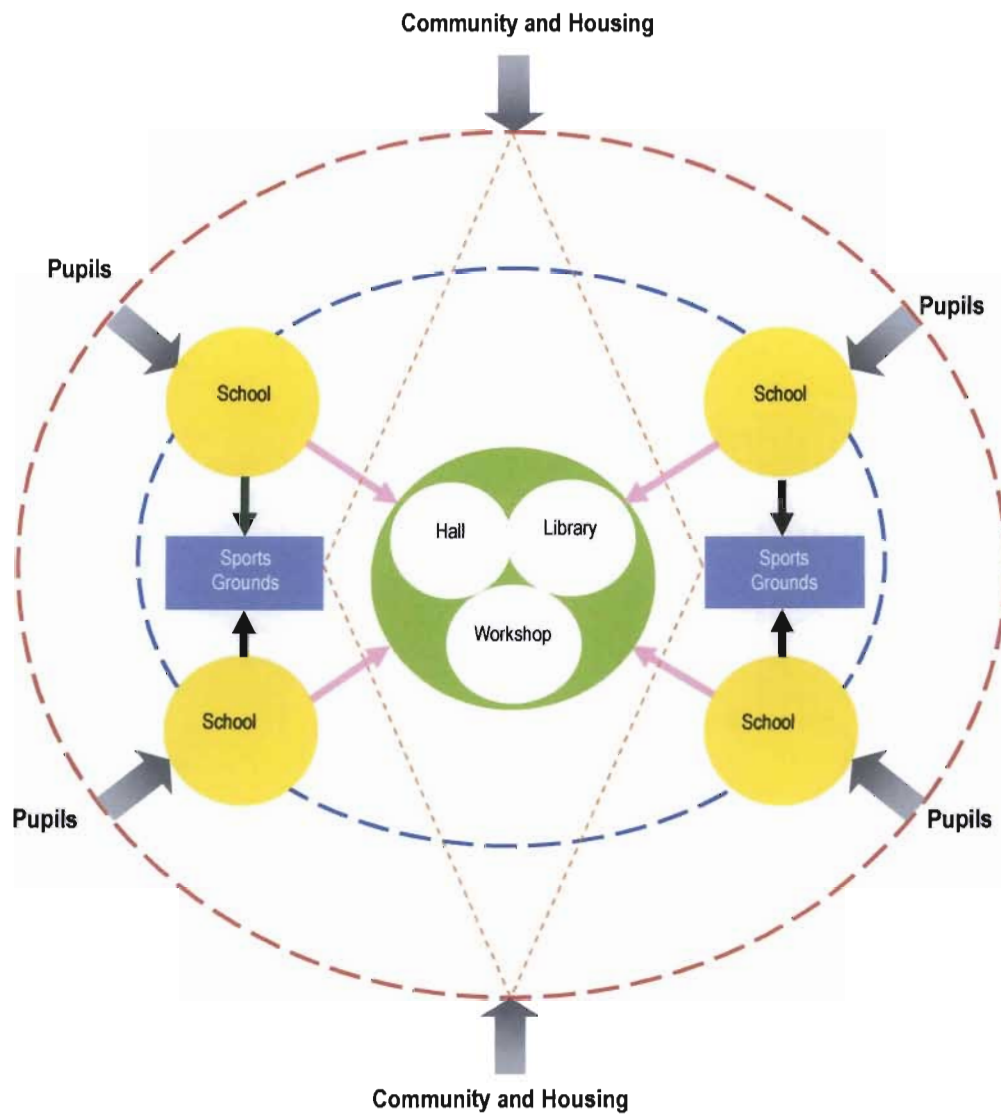
Source: Author

The methodology applied in the study, namely the Delphi study, is both straightforward and can be described as obtaining a consensus of 'want and need', and once established, can provide both an optimisation tool and more importantly a decision making tool for the planning of human settlements. Although the above comparison process is predominantly based upon the preferences of the alternatives, it will also be possible to compare the extent of indifference between the two groups. As an implication for policy, in particular, the Delphi study reveals that the expectation of the beneficiaries of planning and those of designers do not always match. This thesis supports an inclusive approach that will, in practice, take into account views of all stakeholders in the planning of human settlements.

Regarding the inadequacy of public facilities deriving from the Delphi study, particularly in the Greenfield development projects, the following diagrams about relationships between

public facilities as well as a compatibility matrix including elements such as compatibility, neutrality and incompatibility may inspire policy-makers.

Figure 10.2 Relationships between public facilities



Source: Author

Figure 10.3 Compatibility matrix

PUBLIC FACILITY		Administrative Facilities			Cultural Facilities			Recreational Facilities		Health Facilities		Educational Facilities			
		Police Station	Post Office	CBD	Place of Worship	Community Centre	Library	Sports fields	Parks / Playgrounds	Hospitals	Clinics	High School	Senior Primary School	Junior Primary School	Crèche
Educational Facilities	Crèche	○	○	○	●	●	●	○	●	●	○	●	●	●	●
	Junior Primary School	○	○	○	○	●	●	●	●	○	●	●	●	●	
	Senior Primary School	○	○	○	○	●	●	●	●	○	●	●	●		
	High School	○	○	○	○	●	●	●	●	○	●	●			
Health Facilities	Clinics	○	○	○	○	○	○	○	●	●	●				
	Hospitals	○	○	○	○	○	○	○	○	●					
Recreational Facilities	Parks / Playgrounds	○	○	○	●	●	●	●	●						
	Sports Fields	○	○	○	○	●	○	●							
Cultural Facilities	Libraries	○	○	○	○	●	●								
	Community centre	○	○	○	●	●									
	Place of worship	○	○	○	●										
Administrative Facilities	CBD	●	○	●											
	Post office	○	●												
	Police station	●													

Key:

● Compatible

○ Neutral

○ Incompatible

Source: Author

In terms of the empirical research, this thesis made fifteen key discoveries, summarised in Table 10.2 and discussed in greater detail below:

Table 10.2 Fifteen key discoveries

NUMBER	DISCOVERY
1	Greater attention must be given to transformation of settlements
2	Current subsidy system should be overhauled
3	Increased focus on micro-level settlements and polycentric urbanisation required
4	Need to overcome chasm between policy makers' and beneficiaries' expectations
5	Careful use of term 'RDP housing' necessary to avoid further stigmatisation
6	Developing framework for public-private partnerships essential
7	Policy should not be directed purely from a bottom-up approach but must take into consideration all types of criteria and engaged agents.
8	Post Apartheid patterns of socio-spatial polarisation are emerging and must be neutralised
9	Stricter regulations over title deeds and selling rights to RDP houses should be implemented
10	Private sector investment in low income housing must be encouraged to avoid residential segregation along income and education lines
11	Proximity to multi-work locations for multi-income households should be taken into consideration
12	Issues of adequate space and access to basic services deserve greater attention
13	Factors of time and origin remain significant in understanding the consolidation of human settlements
14	Paternalistic approaches to housing are failing
15	Non-payment of rents and levies seriously affect long-term settlement sustainability

Source: Author

Firstly, in the design and planning of new settlements, there is a need to integrate commercial activities into any strategy that might truly enhance livelihood strategies of the low-income people and thereafter consolidate housing settlements. With regard to the existing detached human settlements, far greater attention must be given to the transformation of these areas, which includes findings ways of diversifying local economies in these areas, improving transport, and making life more convenient.

Secondly, the current subsidy system has to be overhauled to a subsidy system that supports higher-density housing and prioritises expenditure on accessible land and services, rather than the current narrow fixation of the model to develop mass RDP housing. The objective is to establish the relative benefit of disadvantage of accepting the proposed alternative within the framework of all the component and attributes that are regarded essential to develop sustainable human settlements.

As well, for many years, the urban context has been studied from the perspective of the macro level with little attention being devoted to either the micro or settlement levels and the linkages between the settlement and the main city. In South Africa, there is an absence of policies directed towards maintaining the cohesion of urban systems. The scientific debate of the past decade has, however, increasingly argued that urbanisation is not primarily the expansion of monocentric cities, but is actually a more complex distribution of urban functions, with old and new centres burgeoning within a larger metropolitan area, to include the growing peri-urban areas. This form of development is now referred to as 'polycentric' or 'network' urbanisation. Employment, housing and recreational functions must be integrated at the inter-city level of scales to produce polycentric urban regions. Since our societies are undergoing structural transformations, it is a reasonable hypothesis to suggest that new spatial forms and processes are constantly emerging.

Also significant is the notion that neighbourhoods, on which social and physical attributes are generally conferred, may be perceived in qualitative terms. In this research some attempts have been made to isolate these attributes and to measure their contribution to the development and quality of the neighbourhood settlements. In the households survey, respondents were asked to compare their home area with their surrounding areas. Most respondents tended to emphasise physical rather than social qualities. The most important

attribute was found to be the size of the house. It is considered difficult for housing professionals to be able to manipulate physical variables for the design of human settlements. There is very little research into this, however, using factor analysis, which this research study obtained through a Delphi study and hence discovered the list of preferences in priority. The study found that what housing professionals and policy makers consider important may be of little significance to the people for whom they are designing and planning the human settlement. Essentially, the Delphi study proved that the experts and policy maker's values and those of the inhabitants did not always coincide and indeed were occasionally, but seriously, at variance. Although this research is inconclusive, enough has been done to make us cautious in the assumptions made about neighbourhoods and in the planning principles that issue from them.

Fifthly, the term 'RDP housing' has become synonymous with stigmatisation associated with poor and disadvantaged housing. The thesis finds that a clever use of the term could serve to highlight increasing polarisation, the entrapment of the poorest and the absence of roots for upward social mobility, and the increasing concentration of the poorest and the most disadvantaged occupying state subsidised housing. This thesis indicates that it is not enough to focus on the characteristics, attitudes, practices and living arrangements of the inhabitants of settlements without examining how their marginality impacts on the region as whole.

Moreover, public-private partnerships can be a promising tool for meeting the housing needs of the urban poor, particularly with respect to the rental housing projects. An important feature of this type of partnership is that while private sector partners may need to accept social responsibility for working in areas involving lower profit margins, public sector agencies involved need to become market-sensitive, with better knowledge of housing markets and the concept of risk sharing. However, in order for public-private partnerships to work effectively, they require a transparent, equitable and flexible regulatory framework, including the provision of some sort of incentives for the private sector.

It would be too simplistic to state that bottom up approaches do not necessarily lead to more sustainable outcomes than top down approaches. In research conducted in Cape Town, entitled 'Unexpected negative outcomes of community participation in low-cost

housing projects in South Africa', Lazarralde et al (2008) argue that the bottom up approach or community participation is not always an effective way to achieve sustainable outcomes. The Savannah Park and Lotus Park cases in this thesis, where a top down approach was applied in their conception and implementation given the necessity for fast track delivery, present an image of acceptable and apparently sustainable settlement types. The findings of this thesis suggest that although the involvement of the beneficiary community is an important key for success, what seems to be more important in dictating whether a project will be sustainable and appropriate, are the types of criteria that the various agents apply to projects. The design for affordability both for the beneficiaries and public sectors, design within a wider strategic planning context and design for acceptability should be taken into consideration for the production of sustainable outcomes

Additionally, with human settlements developed by the government there are patterns of socio-economic differentiation, mostly based on income inequalities; these new patterns of socio-spatial polarisation that have been unleashed perpetuate the 'Apartheid' settlements. Inhabitants are beginning to be concentrated irrespective of their occupants' place of work, while the housing system has been shaped increasingly by a demand-driven need for shelter in 'welfare enclaves'. Also, the pattern of residential segregation based on race and ethnicity is still evident.

Also problematic is the establishment of Greenfield housing settlements, particularly the construction of mass RDP houses that have been developed in an identical way, hence producing the same typology of houses for all beneficiaries. The thesis suggests that instead of providing all beneficiaries of subsidy housing with a top structure presenting the same design, sites can be sold to beneficiaries who can afford to build their own house, and so diversify the design and the quality of these houses. To prevent beneficiaries from selling the sites, the title deeds can be endorsed with a pre-emptive clause, that in the event of the beneficiaries deciding to sell the site, it has to be returned to the State at no additional cost.

With regard to the urban economy changes and spatial restructuring agenda advanced by the post Apartheid government, private sector institutions have been slow in investing in housing for low-income beneficiaries and in affordable housing as a result of the financial risk associated with that sector of the market. In spite of the fact that the Ethekewini region

is faced with slower socio-spatial differentiation due to the slower socio-economic transformation and the graduation emerging re-stratification patterns, the region is facing new residential segregation based on low-income levels and education. While ethnic enclaves might have positive attributes in so far as they promote solidarity and supportive networks, equally they have negative implications because they separate and inhibit social interactions among the multi racial citizens of the same city.

In the past, a household's chosen place of residence was largely determined by its proximity to the work of the 'breadwinner', that is the head of the household who was usually its sole source of income. Shops, schools and other public amenities were sought in the immediate vicinity of the home itself. In recent decades, however, the residential location and the other functions, such as work, amenities and leisure, have been 'uncoupled' in the spatial sense. Because few people can now look forward to a 'job for life', the choice of domicile is no longer so greatly dependent on the work location, while multi income families must usually take multi work location into account.

Another issue is that of adequacy of space, both indoors and outdoors. The incremental housing projects generally have the least amount of space. The size of RDP houses and plots are often smaller than the largest shacks and sites in informal settlements. With regard to the adequacy of services, the incremental housing settlements have the lowest level of services. While some households may have connections to electricity, either legal or illegal, many do not. Generally, however, access to services is better in the social housing projects as water, flush toilets and electricity are available. The success of the consolidation of settlements is intrinsically linked to local economic, social, transport and internal services developments. Though social housing is not a universal housing solution for the urban poor, the lack of any form of ongoing national rental subsidy programmes for indigent tenants does not bode well for the future operational self-sufficiency of social housing projects.

Equally, as might be expected in any case of rapid growth and urban sprawl, the different origins and time factors proved vitally important in the economic and social consolidation of each area of the eThekweni region. Thus, the settlements located in the older districts of Lotus Park, Savannah Park and Shallcross, which were adjoined to the eThekweni region in the growth of the city in the 1990s, follow a different consolidation process to those

located in the districts that developed out of nothing, such as Waterloo. The analysis shows that it was not merely a question of time but that the inhabitants themselves had different social characteristics, used space in a different ways and had a different subjective valuation of their habitat.

Furthermore, the paternalistic approach adopted by the government in relation to the housing policy did not foster a strong sense of ownership among the beneficiaries of low-cost housing programmes in empowering them economically and socially and in helping them to fight poverty, vulnerability and social exclusion. And finally, the widespread non-payment or under-payment of rent and levies threatens the long-term sustainability of social housing.

10.5 Recommendations

The author's bias, based on the findings of this thesis, is, as stated, towards developing mixed use and multi tenure settlements if a housing development that truly benefits the lives of its beneficiaries and South Africa as a whole is to be developed. In line with this, several additional issues related to the consolidation of human settlements are raised and subsequently deserve greater attention. Firstly the shift from monocentric urban spacing to polycentric network structures requires a less fragmented analysis than has been achieved previously. This requires a thorough investigation into and testing of the individual spatial and activity-based behaviour of households, business and institutions. The problem definition will then centre on the extent to which the emergence of polycentric development and network urbanisation can be observed, and how this development can be explained, and the effects it is likely to have. This gives rise to the following research questions:

1. What physical-spatial dynamic can be observed?
2. What functional dynamics, such as relocations, business relations and mobility can be observed in urban regions and what new patterns are emerging?

Secondly, the literature identifies the generation of income, the time inhabitants spend in the settlement and commercial activities as variables for the consolidation of a settlement. Concentration of unemployment both in KwaMashu and Waterloo means that the inhabitants of these areas were likely to interact with other members who were also unemployed. The inhabitants of both KwaMashu and Waterloo settlements display a high

degree of homogeneity and there was a marked absence of social and geographical mobility. It is suggested that examining patterns of social association as well as the place of residence is essential in determining whether these variables affect the consolidation of settlements.

Thirdly the empirical work reveals that the expectation of experts and policy makers in the design of sustainable human settlements can differ from those of beneficiaries. The report of UN Habitat (2002) explaining the shortcoming of the implementation of the South African housing policy points out that some beneficiaries sold their housing units because low-income households give higher priority to those other needs discussed; the housing need is not the sole priority need for all low-income households. Rather, the Delphi study has determined the most important priority of low-income households and has ranked them according to the degree of preference as viewed by the low-income households in South Africa.

As a final recommendation, this thesis supports the Social Housing Foundation (2008) view that from a policy perspective more insight is needed to assess the extent to which the market can sustainably provide rental accommodation to low income households. This relates both to the current environment, constrained as it is by inefficiencies at various levels as well as in an 'ideal' scenario where key legal and local government institutions function efficiently. This will provide a more robust fact base to determine where 'supra-market' interventions, such as subsidies and additional tax allowances, are required to stimulate private sector participation and how these relate to innate market limitations, as opposed to non-market factors, arguably better addressed through other mechanisms, such as improving the capacity of municipalities and legal institutions. Such an analysis would help to inform a broader rental market strategy and prioritise required interventions.

On a more immediate practical level, however, governments already have at their disposal a number of policy instruments to address demand-side and supply-side constraints that limit access to decent housing and constrain housing improvement. Yet, the post Apartheid governments have had a profound effect on the demand for housing and basic infrastructure and services whereby in some low-income residential areas, the provision of basic services is meagre or non-existent and the rapid urban growth has resulted in negative impacts such as sprawling squatter and unauthorised settlements.

What is clear is that without a major restructuring of the mechanisms of land assembly, development and delivery, and the strengthening of housing finance, it is unlikely that sufficient housing of adequate standard can be made available in cities to absorb the new population growth. Therefore, there is an urgent need to find ways of devising improved approaches to the supply of housing in the formal sector in the rapidly growing urban areas.

The key words here are 'improved approach', and the focus of this research is to formulate a delivery model that would not only address the housing crisis but would ensure continued sustainability. The aim is not, therefore, to 'solve' the housing problem, but rather to see if it might be possible to 'improve' the present system. Although income and ability to pay underlie the failure of formal housing markets to house the urban poor, the issue of poverty and income constitutes a different question, linked to the structure of society itself, to uneven development, and other broader matters.

It is reasonably clear that housing delivery schemes are deficient in almost all new settlements. The deficiencies are not all the same, but generally relate to land assembly, development and disposal of developed land, provision of infrastructure, and tenure options.

The method developed in the research, was to break down the housing delivery system into its various stages: planning, land assembly, implementation; and final disposal of the finished houses and based on these findings. It can be ascertained that on the demand side, government's policy instruments include: tenure security provisions; laws and regulations protecting property and inheritance rights, in particular for women; well-targeted and transparent subsidy schemes; and the establishment or strengthening of innovative arrangements that include: introduction of construction standards and building codes; promoting the production and use of local construction technologies and building materials; creating a competitive environment in the housing construction sector and the establishment of consumer protection agencies such as the National Home Builders Registration Council.

Evidence also suggests that policy instruments work best if supported by an institutional framework that guides and oversees the performance of the housing sector as a whole,

provides a platform for an effective interaction of public and private sector actors and community-based organisations that are active in meeting housing needs and ensures that housing policies and programmes benefit the urban and elicit their participation.

A proactive policy of acquiring low-cost land on the urban periphery to set aside for future development of affordable housing for low-income households is an option governments may wish to consider. If low-income housing is built on the urban periphery, it is essential to ensure that residents of such peri-urban communities are connected to water, sanitation and energy infrastructures, have access to adequate system of solid waste collection and safe and sanitary disposal and are provided with adequate public transport links facilitating access to employment and social interaction. The development of basic infrastructure and the provision of basic urban services for such areas can be financed through the sale of some plots, which can be purchased by the consumer on the open market.

Self-help shelter improvement is an important option in slum communities, enabling them to fulfill the housing needs and preferences of their residents within the limitations of their budgets. Community housing initiatives, often organised through associations of slum-dwellers, were most successful in Chile, Argentina and Brazil. Government should recognise these slum upgrading programmes and poverty reduction schemes and supported by investment in infrastructure and the provision of basic services, including water and sanitation, in combination with measures to secure land and housing and housing tenure for slum-dwellers and create employment opportunities. Experience also suggests that governments may consider a lenient approach to informal land subdivisions, standards and requirements for infrastructure installation and may accept the principle of gradual housing and community improvement.

Rental housing subsequently has an important role as a form of affordable housing for the poor and may be especially well-suited to the needs of newly formed households with small children whose accumulated savings and current savings capacity may be limited. Expanding the supply of affordable rental housing may require large investments, suggesting the need for the mobilisation of private sector investment. This in turn, requires an appreciation of the basic financial principles that motivate private sector investment in rental housing and of the barriers that must be overcome to increase that investment. The essential policy challenge is to reconcile two core objectives: a reasonable rate of return

for investors and an affordable rental level for low-income households. If, for example, private investors are to assume market risks relating to changes in the capital value of the dwellings and subsequent changes in the rental yields, they will demand to be compensated for them through a risk-adjusted rate of return. This in turn, may necessitate government rental subsidies to low-income renters to maintain the affordability of rented dwellings.

10.5.1 Towards a new approach

Given these recommendations, borne out of the major findings of the thesis, it can be seen that the way forward in terms of establishing sustainable human settlements lies in formulating a new approach. The loss of close collaboration between housing professionals, built environment specialists and potential beneficiaries of state assisted housing has limited the implementation model for effective interventions and policies that might translate into sustainable human settlements for urban populations. While the theory behind the policy on Housing in South Africa that connects the built environment to provision of shelter is intuitively plausible, this research provides convincing empirical data to make sufficient appeals for planning and policy changes by the weight of the evidence to advocate for the development of settlements that are sustainable.

In reviving strategic collaborations between policy makers, public administrators, housing professionals and built environment specialists, a conceptual model, developed out of this research is presented. Unlike other approaches in which the built environment is considered as background or context, this conceptual model specifically focuses on strategy that is needed for the development of sustainable human settlements.

South Africa has more urban dwellers than ever before, and nearly 60% of the approximately 49 million people counted in South Africa live in metropolitan areas or, more correctly, *metropolitan statistical areas*, defined as urban agglomerations of 50,000 people or more (Source: Department of Housing, 1997).

The importance of this observation rests upon its implications for an appropriate strategy, as well as the "level" for intervention to improve the quality of human settlements. An urban planning framework should centrally be concerned with the social, political, economic and historical processes that generate the urban built environment, which is that

part of the physical environment made by people for people, including buildings, transportation systems and open spaces. None of the natural environment per se remains in cities, since even parks etc have been created – or at least significantly modified – by people, and are therefore part of the built environment. Nonetheless, the natural environment is essential to all life, including urban dwellers. Thus, while considering the natural environment as a fundamental determinant of sustainable planning in the context of an urban planning framework, it remains in the background in this context.

The framework suggested by the author attempts to outline the various mechanisms and pathways through which social, political, and economic processes interface with the physical make-up of the settlement. The final conceptual model is presented in Figure 10.4.

The model posits that three main domains – the natural environment (including topography, climate and water supply), macrosocial factors (including historical conditions, political and economic orders and human rights doctrines), and inequalities (including those related to the distribution of wealth, employment and educational opportunities, and political influence) – contain fundamental factors that underlie and influence the sustainability of human settlements and is the foundation upon which human settlements have to be developed.

Fundamental factors, in turn, influence two domains of intermediate factors: the built environment (including land use, transportation systems, and buildings) and the social contact (including community investment, public and fiscal policies and civic participation).

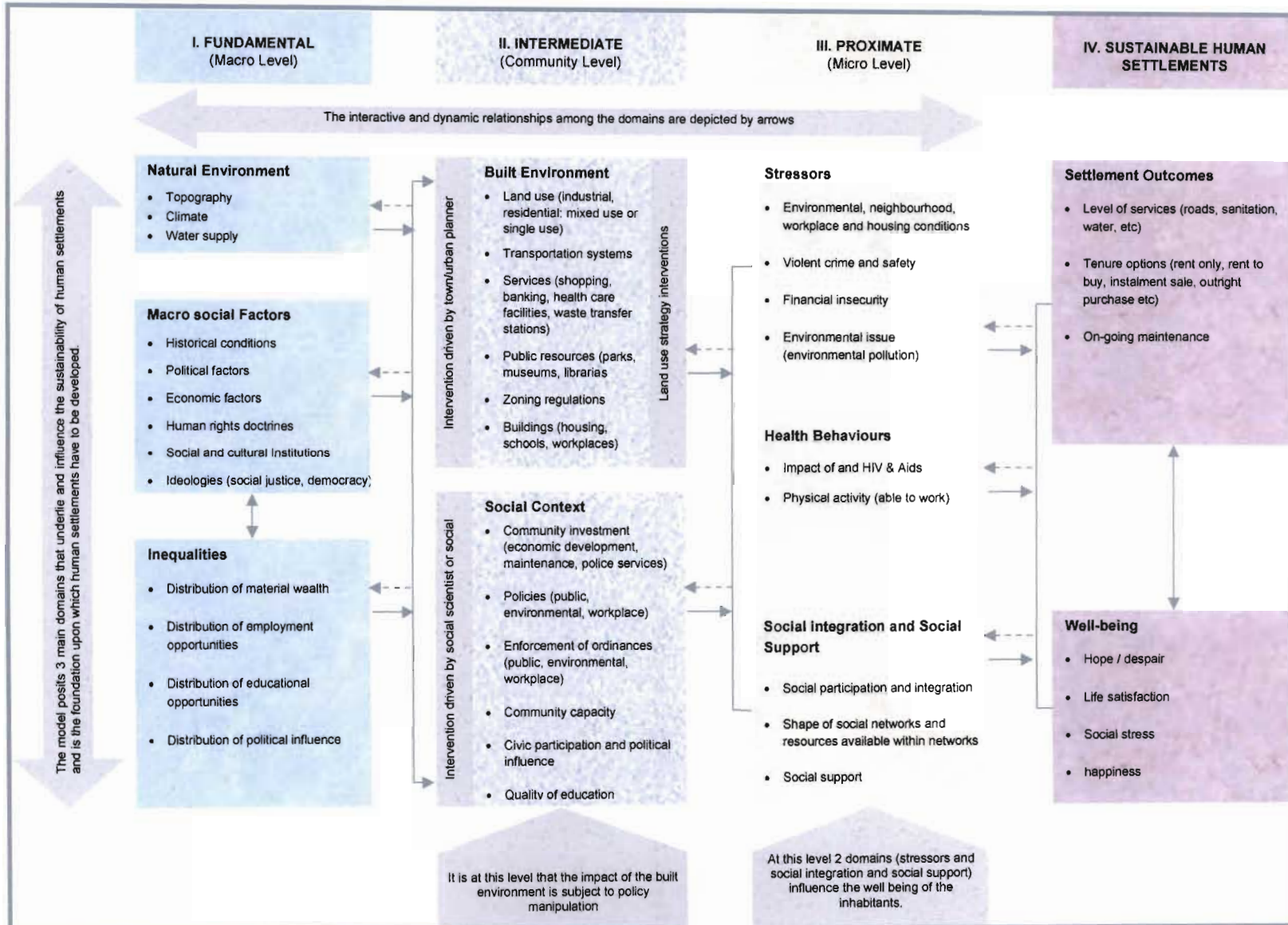
In terms of the synergy between built environment and population, it is the intermediate factors that are of importance and need to be emphasised. Whether it is purposefully or inadvertently, it is here that the impact of the built environment is especially subject to policy manipulation. It is these types of interventions which would have the greatest potential benefit for creating sustainable human settlements. Intermediated factor interventions include the development of land use strategies based upon densification, land use mixing, and microscale design considerations. The Delphi studies supports that argument that because urban housing professionals work at the interface between the built environment and social context applying the knowledge of social science and urban design

to generate the physical configurations of cities, stronger collaborations between urban housing professionals and all other stakeholders would prove to be effective in designing and planning for sustainable settlements.

Moving from the intermediate factors to the proximate factors in Figure 10.4, the shift is from the familiar territory of the urban planner to the familiar territory of the social scientist or social facilitator. The proximate factors influencing the well-being of the inhabitants are dominated by two domains: stressors (including violent crime, financial insecurity and environmental pollution) and social integration and social support (including the shape of social networks and the resources available within networks). The interactive and dynamic relationships among the various domains, between the fundamental and intermediate factors as well as between the intermediate and proximate factors, are depicted by the arrows in Figure 10.4.

Finally, the last column in Figure 10.4, contains two domains: Settlement outcomes and well-being. As these in turn clearly influence civic life, Figure 10.4 illustrates the interactive and dynamic nature of the proximate factors and well-being domains through the use of arrows between these levels.

Figure 10.4: Determinants for the promotion of sustainable human settlements



Source: Author

Arising out of the findings of this research thesis and finding a way forward for the establishment of sustainable human settlements by formulating a post Apartheid approach, the author suggests that a spatial plan for a mixed use human settlement that will facilitate integration and sustainability have to be conceived. Fundamentally, human settlements need to be spatially defined by a through street network that connects a recognisable centre with the peripheries. As in the case of the Savannah Park and Shallcross settlements, retail and commercial use spaces should be located along this street network as key features within the community, rather than adjacent to settlements, as is often the case in current RDP planning such as Waterloo settlement and KwaMashu settlement. Concurrently, day-to-day amenities, including places for community members to congregate and socialise, incubators for small businesses, and office spaces for small business owners within walking distance of their homes are essential if mixed-use human settlements are to develop and flourish both socially and economically. The street network must not only focus on accessing retail, commercial and day to day centres by automobile, but must also incorporate pedestrian walkways and public transport routes, which are either absent or distant in most of the RDP settlements.

Figure 10.5 demonstrates how the "sustainable neighbourhood" has greater potential to achieve a wider range of uses than the "traditional RDP settlement" because of its efforts to integrate the through street network and the primary public transport routes at the centre of the neighbourhood. In Figure 10.5, Blue is commercial (and includes residential if desired), Yellow is community, Orange is mixed use incorporating higher density housing with Dark Pink medium-density housing and Lighter Pink typical detached housing. Emanating out of such a spatial plan is a high quality urban centre that acts as a visible axis around which diverse housing type and densities develop to support and sustain it as beneficiaries vie for proximity to the thriving commercial, retail and day to day amenities.

Figure 10.5 Guideline for mixed use neighbourhoods



Source: Author

Good urban environments are, by definition, convenient. They allow inhabitants to conduct daily activities quickly and easily. Access lies at the heart of convenience. For millions of South Africans, who cannot afford a motor car, public transport is crucial to facilitate movement. Although this does not deny the need to accommodate motor vehicle settlements, the structuring of settlements, particularly for those who cannot afford private transport, should encourage and facilitate pedestrian movement and public transport systems.

While networks (inconjunction with mixed-use land-uses) improve levels of accessibility to local destinations, reduce total vehicle kilometers travelled and increase the walking and public-transport share of the modal split; they can also result in numerous problems associated with the intrusion of fast-moving through-traffic (e.g. safety and noise), whilst closed networks manage through-traffic effectively, they can also isolate neighbourhoods and reduce the viability of smaller neighbourhood commercial activities, as well as increase trip lengths for non-motorised modes and necessitate road-based service vehicles to either back-track or frequently accord priority to other vehicles. The author has formulated guidelines for the location of public facilities which are shown in Table 10.2 for ease of planning. These guidelines are also presented in an easy to use diagram – see Figure 10.6.

Table 10.2 Guidelines for location of public facilities

FACILITY	LOCATION	ACCESS
Crèche	<p>These are community-specific facilities which should be within walking distance of residential units.</p> <p>Facilities can be clustered with pre-primary schools, primary schools, community centres, etc. (This does, however, result in the externalization of facilities beyond individual residential settlements).</p>	<p>Should be accessible by pedestrian pathways without having to cross major streets. Where streets are crossed these should be minor streets.</p> <p>Maximum travel time: 10 minutes (whether by foot or vehicle) A maximum walking distance of 750m.</p>
Junior Primary and Senior Primary School	<p>Should be located within easy reach of the local areas which it is intended to serve. As a result it needs to be located close to, but not necessarily along, a public transport route.</p> <p>Primary schools can be combined with a number of other facilities to form a cluster (i.e. a high school, community hall, playground, park, etc)</p>	<p>Should ideally be accessible by foot, bicycle and vehicle.</p> <p>Maximum travel time: 20 minutes (whether by foot, bicycle or by vehicle) Maximum walking distance: 1.5km</p>
High School	School should be situated on a major transport route with public transport stops.	<p>Maximum travel time: 30 minutes Maximum walking distance: 2.0 km</p>

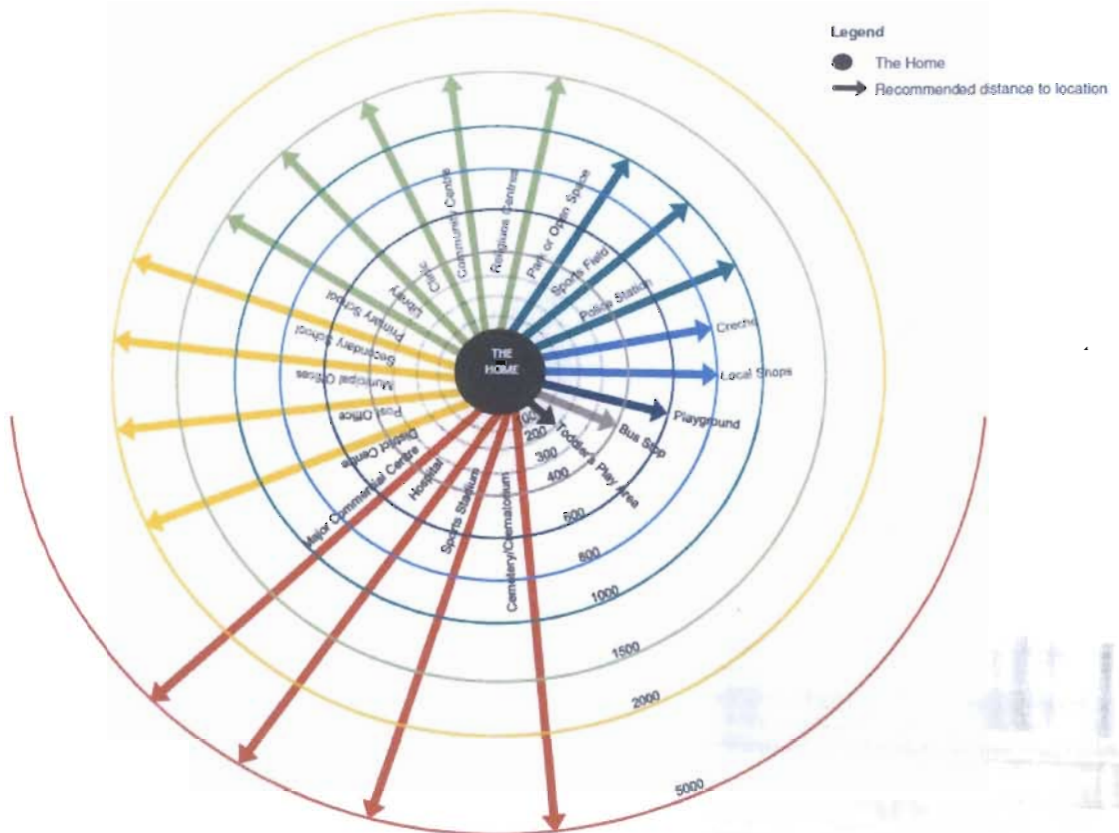
Table 10.2 continued

Table 10.2 Guidelines for location of public facilities (continued)

FACILITY	LOCATION	ACCESS
Clinic	<p>Clinics should be accessible to the greatest number of people and as such should be located close to public transport stops.</p> <p>The facility need not be located along a major route and can be located a block or two back, in quieter surroundings</p>	<p>Maximum walking distance: 2km. Where it is not possible for the facility to be placed within walking distance, it must be easily reached via public transport, with a maximum walk of 5 minutes from the public transport stop to the facility.</p> <p>Maximum travel time of 30 minutes to reach the facility.</p>
Hospitals	<p>These are regional facilities, which must be located along major transport routes in close proximity to public transport stops.</p>	<p>Regional scale of facility means that they would be planned for in terms of a development framework and not when designing specific living environments.</p>
Parks / Playgrounds / Sportsfields	<p>Should be located within easy reach of the local areas which it is intended to serve. As a result it needs to be located close to, but not necessarily along, a public transport route.</p>	
Libraries	<p>Should be easily accessible, preferably on main thoroughfare convenient to main traffic and transportation routes.</p> <p>Libraries can be combined with a number of other facilities to form a convenient cluster i.e. schools, community centres, etc.</p>	<p>Libraries should be within walking distance of the communities they are to serve. Walking distance: 1.5 to 2.25km.</p> <p>Where it is not possible to provide a facility within walking distance, it should be within 5 minutes walking distance of a public transport stop. Maximum travel time: 20 – 30 minutes.</p>
Community Centres	<p>A community centre provides a variety of services to a number of residential communities and, as such, it should be easily accessible to these communities, preferably on a main thoroughfare in close proximity to public transport stops.</p>	<p>Where possible, community centres should be within walking distance. The suggested distance should be within 5 minutes walking distance of a public transport stop.</p> <p>A maximum travel time of 20 to 30 minutes is recommended.</p>
Place of Worship (Church, temple, mosque, etc.)	<p>The location will generally depend on the community being served and the existing facilities in the area surrounding the site.</p> <p>Churches can be clustered with other public facilities such as playgrounds, community centres, halls, etc, in order to promote multi-functionality.</p>	<p>Churches are generally community facilities and should be located within walking distance for members.</p> <p>Maximum walking distance: 1.5km Maximum travel time by foot or public transport or vehicle: 20 minutes</p>
Post Office	<p>Post offices generally serve a number of communities and, as a result, need to be visible and accessible to the surrounding population. As such, they should be located along activity routes within easy walking distance of public transport stops.</p>	<p>Where possible, communities should be able to access the post office on foot – the maximum walking distance is 2km.</p> <p>The maximum travel time per foot/vehicle: 30 – 40 minutes</p>
Police Station	<p>Community police stations should be located central to all the communities which they are required to serve and should be on a main thoroughfare – so that emergency vehicles can be easily dispatched to adjoining communities.</p>	<p>Where possible, people should be able to access their community police station on foot – a walking distance of 1.5km is recommended.</p> <p>Maximum travel time: 20 minutes</p>

Source: Readapted from *Human Settlement Planning*, CSIR, 2003

Figure 10.6 Location guidelines for planning sustainable settlements



Source: Author

10.5.2 Housing tenure options – towards a simple model

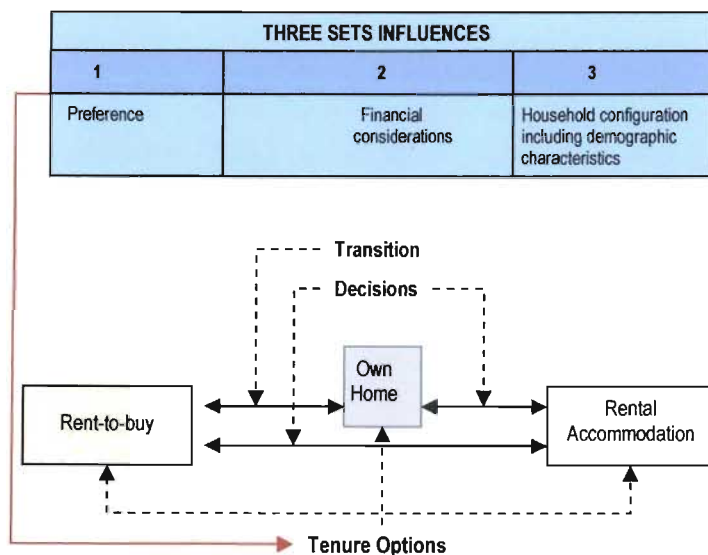
Since the ultimate recommendation of this thesis is the development of mixed use, mixed tenure human settlements spatially organised around a socially and economically vibrant centre as outlined above, it is necessary to delve deeper into the complex issue of housing alternatives. This section initially isolates the various aspects of this issue and examines them individually so that subsequently they can be incorporated into a workable post Apartheid approach to housing policy that acts as a tool for future policy makers.

Figure 10.7 presents a simplified model of tenure choices. Although basic, this diagram clearly illustrates the complexity of this issue. Grouping the many influences that enter into the housing nexus into three broad categories, including financial and/or affordability factors, demographic aspects and beneficiary preferences, does, however,

provide a starting point in terms of understanding the relationships between influences, options and transitions in housing policy.

Within this context, financial and/or affordability factors broadly cover current and expected income, savings, current indebtedness, access to finance/credit, employment and security thereof, housing assistance schemes and investment. Demographic aspects take in account changing household and family formation size, as well as the changing composition of households, while beneficiary preferences include changing lifestyle, aspirations and the existence of a greater range of consumption choices.

Figure 10.7 Tenure options



Source: Author

These sets of influences can be viewed as combining (in varying degrees of relative importance) to impact on decisions to transition from one tenure form to another. At this simplified, high-level structure, this thesis proposes three tenure options: renting, rent-to-buy and outright purchase.

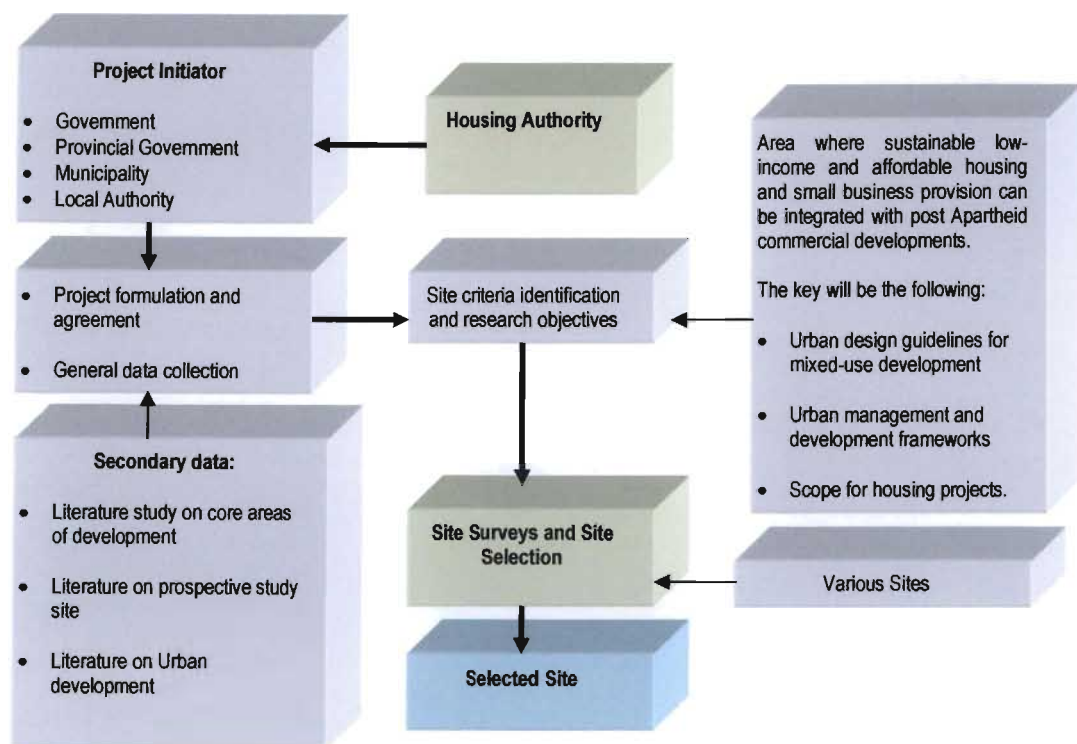
For those beneficiaries aged between 18 and 40, it is critical to note that the transition decisions between these three options are possible in all directions. As well, the three sets of influences also impact, again, with varying degrees of relative importance, on the actual housing options available to the individual or household.

The dynamics that underlie the pivotal points of tenure choice in Figure 10.7 is personal and differs from one beneficiary to the other. In particular, information on the

relative importance of each of the three sets of influences at various stages, or pivotal points, dictates the tenure option. It is however, sufficient to ascertain whether a household would prefer to rent as opposed to own, without determining the other options they may also prefer, such as food, transportation and holidays. Thus, what may well be thought to be a financial constraint on a rent versus ownership decision might well reflect a tighter constraint on other items in the household's consumption basket.

Figure 10.8, shown below, draws attention and is a guideline to the process by which an appropriate site for future mixed use human settlements then selected. On the one side, the housing authority, be it at a national or local level, and secondary literature feed into the project formulation, which influences identification of the site criteria and objectives. On the other side, existing locational realities, such as proximity to current and emerging commercial developments affect these same criteria. Both sides influence which sites are surveyed and, ultimately, which site is deemed most appropriate.

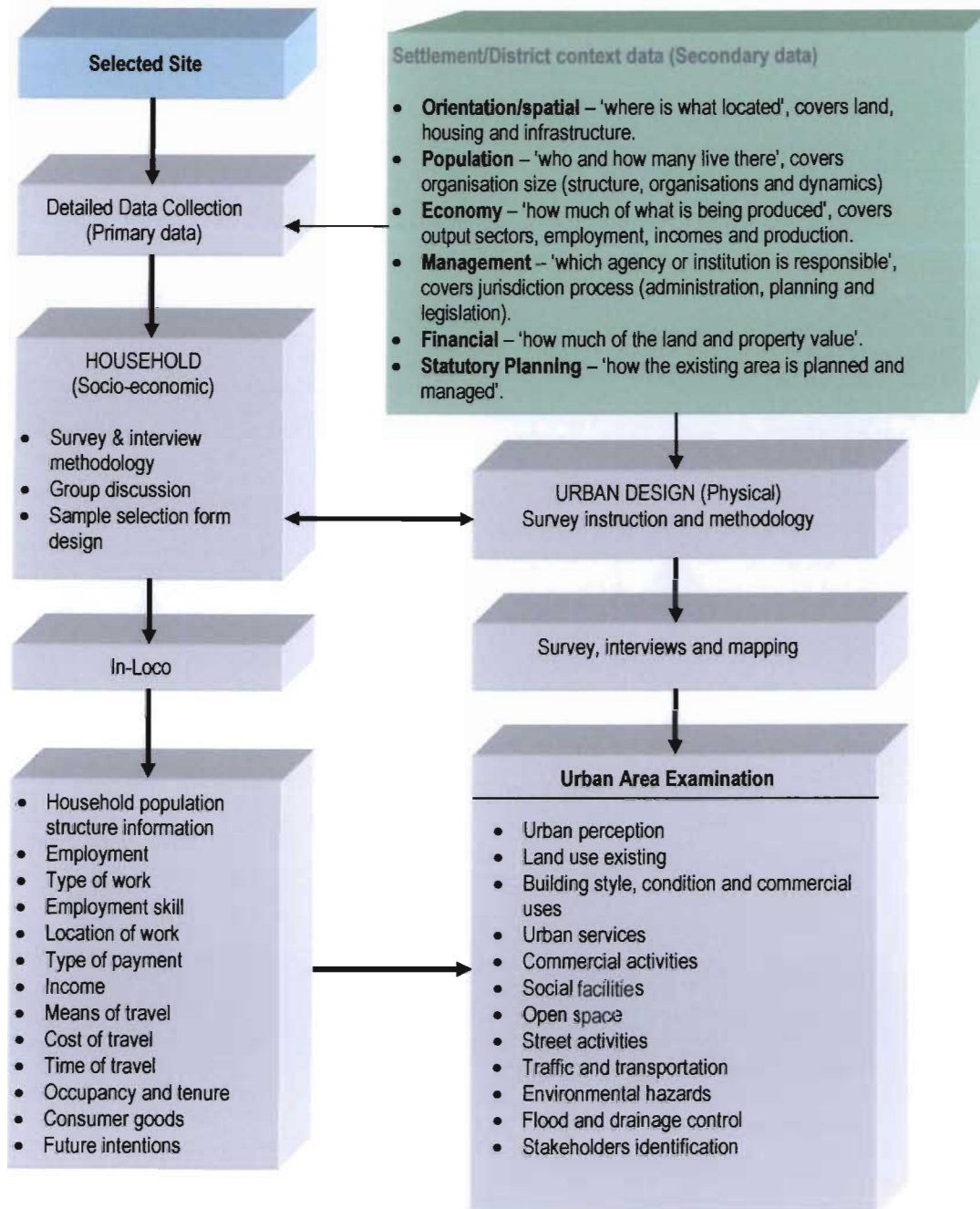
Figure 10.8 Guideline: Project Formulation and site identification



Source: Author

Once a site has been selected, there are many other factors that must then be considered in terms of the spatial layout of the settlement, if it is to be truly mixed use and multi tenure, as illustrated in Figure 10.7. These include both socio-economic and geographical concerns. Figure 10.8 expands further on the urban area examination that emerges out of the project survey and data collection and so offers realistic development options.

Figure 10.9 Guideline: Project Survey and Data Collection



Source: Author

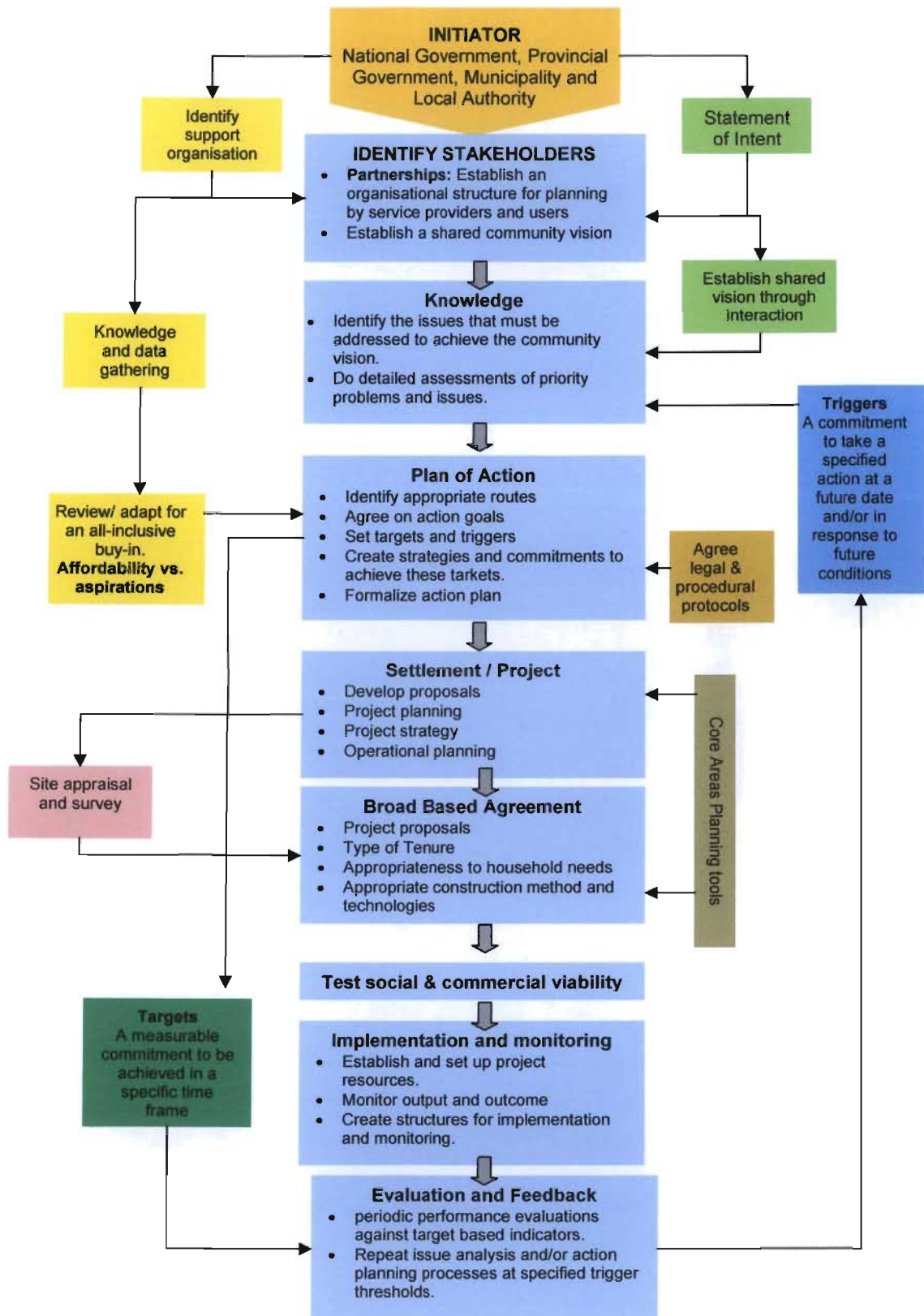
Table 10.10 Guideline: project analysis and development options

A N A L Y S I S	SUBJECT	EXPECTED OUTCOME
	Survey of the site and its context	Producing the basic site data and a photo survey of the surroundings showing typical development; collecting existing map based and local authority survey data on city scale.
	Analysis of city context	Looking at arrangement of physical and social factors at a range of scales. Analysing, uses map of urban areas information, covering study site in city context.
	Urban area examination analysis	Developing data collected on urban area examination and producing recommendations.
	Stakeholder analysis	Identifying the stakeholders and establish what their interests and interrelationships are. Producing summary report of the social surveys and its implication for development.
	Opportunities and Constraints (SWOT)	Analysing strength, weakness, opportunities and threats of the area, divided into its specific character (segments).
	Developing scenarios	Establishing the range of development scenarios that the design options will be addressing; setting out the design objectives for the development options being explored.
	Site development options	Producing plans showing the layout of built form on the site by building type.
	Development appraisal and recommendation	Identifying the cost and other key parameter of the different site options with spreadsheets using data on property values, site values, rentals, building costs and planning standards.
	Implementation and management	Producing an output to replicate the development scenario.
	Assessment of the different design and management options	Producing assessment of the whole process and conclusion.

Source: Author

Out of these step processes it is possible to develop a process for creating mixed use, mixed tenure settlements, which, if continually evaluated and re-developed in line with the findings of such an assessment, will thrive as sustainable communities. This process is outlined in Figure 10.10 in such a way that it can now be used as a workable tool for achieving this.

Figure 10.10 Housing development model for the creation of sustainable human settlements



Source: Author

10.5.3 Summary of recommendations

Mixed use and multi tenure option human settlements are the principle recommendation of this thesis in terms of developing sustainable human settlements, which, as unequivocally demonstrated, the current governments have failed to ensure. This chapter, by outlining the main findings of the Delphi study and the households survey for the settlements established during the Apartheid era and in those developed by the post Apartheid government, as well as the comparison of these two different settlements, shows that despite poverty and unemployment, which characterise all the settlements, in the Apartheid settlements, established in the Apartheid era, inhabitants develop their location asset to enhance strategies to generate income. While it is reiterated that this in no way diminishes the damage Apartheid inflicted on South Africa, it is recognised that in terms of housing policy, these facts are necessary variables for the consolidation of human settlement.

Moreover, the factor of time that residents spend in the settlements is an important variable for the consolidation of these settlements, which strengthen social ties. It is arguable that the more time a person stays in an area; the more likely the person becomes familiar with the area and is satisfied with the area. With regard to the factor of time, this research study data shows that in the Apartheid settlements people are more satisfied with their housing conditions and neighbourhood than inhabitants in the post Apartheid settlements. This study also shows that, in the Apartheid settlements people are more educated than in the post Apartheid settlements which can also be attributed to the variable length of time.

Of course, the Apartheid settlements were not developed for the purpose of relocating low-income households who were previously living in informal settlements and slums. The post Apartheid settlements, however, are mostly created with exactly this purpose in mind. This thesis has highlighted one of the negative effects of relocation, 'social disruption'. In KwaMashu for instance, the data reveals that 28% of the population lost their job as consequence of relocation.

Alongside the two variables of income and the length of time spent in the neighbourhood, the generation of income also favours the Apartheid settlements. Commercial activity, which is the third variable for the consolidation of income, is more visible in the Apartheid settlements than in the post Apartheid settlements. In comparing the Apartheid settlements and the post Apartheid settlements in terms of the

consolidation of settlements, the thesis draws the conclusion that in the Apartheid settlements inhabitants are using their housing units as an invaluable asset to improve their living conditions and to create a sustainable environment. However, in the settlements developed by the post Apartheid regime, inhabitants are struggling to use their home as an asset to improve their living conditions and to create a convenient and sustainable environment. Consequently, poverty, social exclusion and vulnerability of the beneficiaries of low-cost housing are deepening.

Another issue explored in this chapter is the strategy put in place by the post Apartheid government to create sustainable neighbourhoods. The incremental housing process and the performance of the macro-economy were considered as a cornerstone for the consolidation of human settlements. The findings of this research thesis reveal that the consolidation of the post Apartheid human settlements, which formed part of this study, could not be successful as the original product delivered on which beneficiaries could build on to improve their houses was incomplete and could not be considered as adequate housing. Thus, the government should increase its National Housing expenditure to provide a more complete and sustainable unit.

Moreover, unemployment and poverty characterise the beneficiaries of low-cost housing settlements with the consequence that the saving for housing improving is not a priority. The expectation of South African NHP for its beneficiaries to improve their housing conditions through the incremental housing process is unrealistic, as they cannot secure permanent income due to the high rate of unemployment and inconvenient environment and location to enhance their livelihood strategies.

The neo-liberal policy through GEAR adopted by the post Apartheid government to foster economic growth, a necessary condition for the consolidation of human settlements, did not work as expected. Instead, it deeply reinforces issues of poverty and deepens inequality levels within South Africa.

Subsequently, the conclusion that this thesis draws is that South Africa needs a post Apartheid approach to create sustainable human settlements. The Delphi Study reveals that the strategy to be adopted should be inclusive in representing the expectation of policy-makers and beneficiaries. Besides, welfare and the paternalistic approach in the implementation of housing have shown its limits in the consolidation of human settlements. Consequently, this thesis supports an approach that will create and reinforce the 'sense of ownership' among the beneficiaries of low-cost housing by

developing settlements around socially, economically and commercially thriving centres that are connected to residential areas by a networks of public transport and pedestrian routes. The models developed in this chapter that take into consideration social determinants, factors affecting tenure options and the process by which development options emerge, are all designed to produce the workable tool offered in Figure 10.10 so that mixed use, multi tenure sustainable human settlements become a reality.

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DELPHI STUDY**Task 1:**

The following list of thirteen housing components have been identified in the planning process. Please rank the components between 1 and 13 with the score of 1 next to the component that is MOST important to you when planning a sustainable housing settlement and the score 13 next to the component that is LEAST important. For this task, use the box on the left hand side of the component.

Please use each score only ONCE.

Task 2:

The following represent a list of housing components and their corresponding attributes.

The scale below serves as a guide.

Within each component, e.g. **Location**, please indicate how important you believe the corresponding attributes are by assigning a score out of 5 to each one.

Within each component, please use a number ONCE only.

1	2	3	4	5
not important	fairly important	important	fairly essential	essential

QUESTIONNAIRE DELPHI STUDY

HOUSING COMPONENTS	TASK 1	ATTRIBUTES	TASK 2				
	RANKING 1 - 13		SCORE				
LOCATION		Geographical aspects (topography, views)	1	2	3	4	5
		Relation with the urban fabric (e.g. industry, commerce, CBD)	1	2	3	4	5
		Planning regulations (mixed land use, min-plot size, max. building height)	1	2	3	4	5
ENVIRONMENT		Provision of open space / green spaces	1	2	3	4	5
		Dwelling type (high rise, semi-detached, row houses etc.)	1	2	3	4	5
		Potential of environmental pollution (atmospheric, industry)	1	2	3	4	5
		Sources of danger (canals, derelict land, railway tracks)	1	2	3	4	5
OPEN SPACE		Accessibility to playgrounds	1	2	3	4	5
		Recreational and sports facilities (playing fields, sport centres)	1	2	3	4	5
		Accessibility to parks	1	2	3	4	5
URBANISATION		Accessibility (permeability, roads)	1	2	3	4	5
		Adequate stormwater disposal/drainage	1	2	3	4	5
		Availability of street lighting	1	2	3	4	5
		Provision for sidewalk / pavement	1	2	3	4	5
		Width of streets and walkways	1	2	3	4	5
URBAN SERVICES		Refuse collection	1	2	3	4	5
		Availability of public transport	1	2	3	4	5
		Availability of public telephone kiosks	1	2	3	4	5
		Community service facilities (police, local authority offices, post office, social welfare office etc.)	1	2	3	4	5
URBAN FACILITIES		Provision of schools, crèches, day care centres	1	2	3	4	5
		Provision of health care facilities (clinic, hospital)	1	2	3	4	5
		Provision of shops (supermarket, butchery, greengrocer)	1	2	3	4	5
		Accessibility to churches and temples	1	2	3	4	5
		Provision of community centres (halls, libraries)	1	2	3	4	5
ENVIRONMENTAL PROTECTION		Type of floor finish (solid concrete)	1	2	3	4	5
		Finish to external walls (plaster and painted walls)	1	2	3	4	5
		Type of roof covering (roof tiles / roof sheets)	1	2	3	4	5
SANITATION AND COMFORT		Provision of piped drinking water	1	2	3	4	5
		Provision of waterborne sewerage system	1	2	3	4	5
		Provision of electricity	1	2	3	4	5
		Provision of personal hygiene facilities (provision of bath, shower, hot water)	1	2	3	4	5
HOUSING INDEPENDENCE		Number of families in site/type of development (low/medium/high density development)	1	2	3	4	5
		Plot size	1	2	3	4	5
		Size of the house	1	2	3	4	5
		Number of rooms (bedroom, lounge, kitchen)	1	2	3	4	5
HOUSE DESIGN		Internal layout (relation between rooms)	1	2	3	4	5
		Symbolic aspects (façade and aesthetics)	1	2	3	4	5
		Expandability and flexibility (extension or growth potential)	1	2	3	4	5
		Housing typology (single/double storey, detached, semi, high rise)	1	2	3	4	5
STABILITY		House ownership (type of tenure: rental/freehold)	1	2	3	4	5
COMMUNITY		Existence of organisations, civic associations	1	2	3	4	5
		Social pathologies (crime, drug addiction, alcoholism)	1	2	3	4	5
ECONOMIC FACTORS		Proportion of poor population in the area	1	2	3	4	5

HOUSEHOLD SURVEY**AN EVALUATION OF HOUSING STRATEGY IN SOUTH AFRICA AND ITS
ROLE IN THE CREATION OF SUSTAINABLE NEIGHBOURHOODS**

Date of Survey:/...../.....

Interviewer Name:.....

Interviewer ID Number:.....

Supervisor Name:

Supervisor ID Number:

HOUSEHOLD SURVEY

SECTION 1: DEMOGRAPHICAL ASPECTS

Name of study area:

1.1 Race of respondent

a)	<input type="checkbox"/>	White	1
b)	<input type="checkbox"/>	Asian/Indian	2
c)	<input type="checkbox"/>	Coloured	3
d)	<input type="checkbox"/>	Black/African	4

1.2 Number of people who regularly live in household i.e. (in this case people who live for over 6 months of the year in the household)

a)	<input type="checkbox"/>	1-3 people	1
b)	<input type="checkbox"/>	4-6 people	2
c)	<input type="checkbox"/>	7-9 people	3
d)	<input type="checkbox"/>	>9 people	4

1.3 Write down the details of all occupants in the household, giving their sex (M for Male, F for Female) and relationship to the head of the household

Description of Household occupant	1.3.1 Age at next birthday	1.3.2 Sex	1.3.3 Marital Status	1.3.4 Relationship to head of household	1.3.5 Highest education level passed	1.3.6 Has the person always lived in this neighbourhood or has the person migrated from another area	1.3.7 Occupant's home language
	a) 0-10 0 b) 11-12 1 c) 13-20 2 d) 21-25 3 e) 26-35 4 f) 36-45 5 g) 46-45 6 h) 55+ 7	a) Female 0 b) Male 1	a) Never married 1 b) Divorced 2 c) Co-habiting 3 d) Married 4 e) Separated 5	a) Head 1 b) Spouse of Head 2 c) Child of Head 3 d) Sibling of Head 4 e) Parent of Head 5 f) Other relative 6 g) Lodger tenant relative 7 h) Lodger tenant non-relative 8	a) None 0 b) Basic (grade 1-5) 1 c) Senior primary (grade 5-7) 2 d) Secondary (grade 8-12) 3 e) Grade 12 + 1-3 years certificate 4 f) Grade 12 + 1-3 years Technikon Diploma 5 g) Grade 12 + 1-3 years University degree 6	M = migrate 0 L = lived in this area 1	a) English 1 b) isiZulu 2 c) Setswane 3 d) Sotho 4 e) isiXhosa 5 f) Afrikaans 6 g) isiNdebele 7 h) Sepedi 8 i) Siswati 9 j) tshiVenda 10 k) Xitsonga 11
Head of Household							
Household Occupant 1							
Household Occupant 2							
Household Occupant 3							
Household Occupant 4							
Household Occupant 5							
Household Occupant 6							
Household Occupant 7							
Household Occupant 8							
Household Occupant 9							
Household Occupant 10							
Household Occupant 11							
Household Occupant 12							
Household Occupant 13							
Household Occupant 14							
Household Occupant 15							
Household Occupant 16							
Household Occupant 17							

1.4 Who is the registered owner of the house/flat?

1.5 Household size: No. of adults

a)	<input type="checkbox"/>	0-2 adults	1
b)	<input type="checkbox"/>	3-5 adults	2
c)	<input type="checkbox"/>	6-8 adults	3
d)	<input type="checkbox"/>	>8 adults	4

No. of children

a)	<input type="checkbox"/>	0-2 children	1
b)	<input type="checkbox"/>	3-5 children	2
c)	<input type="checkbox"/>	6-8 children	3
d)	<input type="checkbox"/>	>8 children	4

1.6 Do all your minor dependents live with you?

a)	<input type="checkbox"/>	Yes	1
b)	<input type="checkbox"/>	No	0

1.6.1 If no, why?

a)	<input type="checkbox"/>	Inadequate space in house	1
b)	<input type="checkbox"/>	Inadequate money to care for them	2
c)	<input type="checkbox"/>	Better care elsewhere	3
d)	<input type="checkbox"/>	Schools and other facilities only found elsewhere	4
e)	<input type="checkbox"/>	Area unsafe	5
e)	<input type="checkbox"/>	work commitments	6
f)	<input type="checkbox"/>	Other, please specify	7

SECTION 2: TYPOLOGY AND HOUSING CONDITIONS

2.1 How long have you and your family been living in this neighbourhood?

No of years							
0-5yrs	1	6-10yrs	2	11-15yrs	3	16-20yrs	4

2.2 What type of house do you currently live in?

a)	<input type="checkbox"/>	government subsidised house (built before April 1994)	1
b)	<input type="checkbox"/>	government subsidised house (built after April 1994)	2
c)	<input type="checkbox"/>	government subsidised flat (built before April 1994)	3
d)	<input type="checkbox"/>	government subsidised flat (built after April 1994)	4

2.3 Would you prefer to live in a flat or a house?

a)	<input type="checkbox"/>	flat	1
b)	<input type="checkbox"/>	semi detached house	2
c)	<input type="checkbox"/>	row houses	3
d)	<input type="checkbox"/>	single house (detached)	4

2.4 How did you come to live here?

a)	<input type="checkbox"/>	by choice	1
b)	<input type="checkbox"/>	by chance	2
c)	<input type="checkbox"/>	resettled by government	3

2.5 Do you rent or own your house/flat?

a)	<input type="checkbox"/>	Rent	1
b)	<input type="checkbox"/>	Own	2

2.6 If you own your house/flat, how much did you pay for it?

a)	<input type="checkbox"/>	R 10 000 – R 25 000	1
b)	<input type="checkbox"/>	R 25 000 – R 40 000	2
c)	<input type="checkbox"/>	R 40 000 – R 55 000	3
d)	<input type="checkbox"/>	>R 55 000	4

2.7 If you own your house/flat, do have a bond or owe any money for it?

a)	<input type="checkbox"/>	Yes	1
b)	<input type="checkbox"/>	No	2

2.7.1 If yes, how much do you owe? R.....

2.7.2 What is your monthly instalment? R.....

2.7.3 Are you in arrears with your monthly instalment?
R.....

2.7.4 If you are in arrears with your instalment, is it because of any of the following:

a)	<input type="checkbox"/>	not satisfied with the dwelling	0
b)	<input type="checkbox"/>	unemployed	1
c)	<input type="checkbox"/>	experiencing financial difficulties	2
d)	<input type="checkbox"/>	other , specify	3

2.8 If you rent your house/flat, how much is your monthly rental?

a) <input type="checkbox"/> R0 – R500	1
b) <input type="checkbox"/> R500-R1000	2
c) <input type="checkbox"/> R1000 – R 1500	3
d) <input type="checkbox"/> >R1500	4

2.8.1 If you rent your house/flat, do you pay your rent on time?

c) <input type="checkbox"/> Yes	1
d) <input type="checkbox"/> No	0

2.8.2 Are you in arrears with your rental?

a) <input type="checkbox"/> Yes	0
b) <input type="checkbox"/> No	1

2.8.3 If you are in arrears with your rental, is it because of any of the following:

a) <input type="checkbox"/> not satisfied with the dwelling	0
b) <input type="checkbox"/> unemployed	1
c) <input type="checkbox"/> experiencing financial difficulties	2
d) <input type="checkbox"/> other, specify	3

2.9 If you live in a flat, do you pay any levies?

a) <input type="checkbox"/> Yes	1
b) <input type="checkbox"/> No	2

2.9.1 If yes, what is the monthly levy amount? R.....

2.9.2 Are you in arrears with your levy payment?

a) <input type="checkbox"/> Yes	1
b) <input type="checkbox"/> No	2

2.9.3 What amount do you owe? R.....

2.9.4 If you are in arrears with your levy, is it because of any of the following:

a) <input type="checkbox"/>	not satisfied with the dwelling	0
b) <input type="checkbox"/>	unemployed	1
c) <input type="checkbox"/>	experiencing financial difficulties	2
d) <input type="checkbox"/>	other , specify	3

2.10 If you own your own home, did you buy it from:

a) <input type="checkbox"/>	Previous owner (i.e. private sale)	1
b) <input type="checkbox"/>	Local authority/government	2

2.11 Indicate the level of satisfaction with the quality of the house you are currently living in?

a) <input type="checkbox"/>	very satisfied	4
b) <input type="checkbox"/>	satisfied	3
c) <input type="checkbox"/>	neither satisfied nor dissatisfied	2
d) <input type="checkbox"/>	dissatisfied	1
e) <input type="checkbox"/>	very dissatisfied	0

2.12 Is the size of your dwelling:

a) <input type="checkbox"/>	Adequate (i.e. Sufficient for your current needs)	1
b) <input type="checkbox"/>	Inadequate (ie. Not sufficient for your current needs, not enough space, overcrowded, etc)	0

SECTION 3: LOCATIONAL ASPECTS AND CONVENIENCE

3.1 Do you find the location of your dwelling:

a) <input type="checkbox"/>	SuiTable - Why ?	1
b) <input type="checkbox"/>	UnsuiTable – Why?	0

3.2 Provide details regarding availability of Public Institutions, access to Public Institutions and quality of Public Institutions in your area.

PUBLIC INSTITUTIONS	3.2.1 Availability:		3.2.2 Access:				3.2.3 Quality:	
	Are there any of the following public institutions nearby?		Does your household have access to services through?				Are you satisfied with the public institutions that have been provided?	
	Yes 1 No 2		A - Walking 3 B - Public transport 2 C - Private transport 1 D - Inaccessible 0				Yes 1 No 2	
	Yes	No	A	B	C	D	Yes	No
a) Crèche								
b) Junior Primary								
c) Senior Primary								
d) High School								
e) Clinics								
f) Hospitals								
g) Places of worship								
h) Community centres								

3.3 Provide details regarding the availability, access and quality of the Recreational Facilities in your area.

RECREATIONAL FACILITIES	3.3.1 Availability		3.3.2 Access				3.3.3 Quality		
	Are there any of the following facilities nearby?		Does your household have access to the facility through?				Are you satisfied with the facilities that have been provided?		
	Yes 1 No 0		A – Walking 3 B – Public Transport 2 C – Private transport 1 D – Inaccessible 0				Yes 1 No 0		
	Yes	No	A	B	C	D	Yes	No	Why?
	a) Parks								
	b) Recreational facilities								
	c) Sporting facilities								
d) Sports fields									
e) Picnic spots									

3.4 What is the distance you have to travel to access the places reflected in Table 3.4 hereunder?

1	Walking distance - (0-5km)	4
2	Nearby – (5 – 10 km)	3
3	Not so near – (10km and 20km)	2
4	Far - (20km and 40km)	1
5	Very far - over 40km	0

Table 3.4

Description of Household Occupant	Denote Adult (A) Child (C)	Work	School	College/ Universities	Crèche	Clinics	hospitals	Places of Worship	Community centres
Head of Household									
Household Occupant No 2									
Household Occupant No 3									
Household Occupant No 4									
Household Occupant No 5									
Household Occupant No 6									
Household Occupant No 7									
Household Occupant No 8									
Household Occupant No 9									
Household Occupant No 10									
Household Occupant No 11									
Household Occupant No 12									
Household Occupant No 13									
Household Occupant No 14									
Household Occupant No 15									
Household Occupant No 16									
Household Occupant No 17									

3.5 Is the location of your dwelling close to commercial centres CBD?

a)	<input type="checkbox"/>	Yes	1
b)	<input type="checkbox"/>	No	0

3.6 Is the location of your dwelling well served by public transport?

a)	<input type="checkbox"/>	Yes	1
b)	<input type="checkbox"/>	No	0

- 3.7 Provide details of the availability, access and quality of Commercial Facilities in your area.

DESCRIPTION OF COMMERCIAL FACILITY	3.7.1 Availability:		3.7.2 Access:				3.7.3 Quality:	
	Are there any of the following commercial facilities nearby? Yes 1 No 2		Does your household have access to commercial facilities through? A – Walking 3 B - Public transport 2 C - Private transport 1 D – Inaccessible 0				Are you satisfied with the commercial facilities that have been provided? Yes 1 No 2	
	Yes	No	A	B	C	D	Yes	No
a) Post Office								
b) Banking								
c) Supermarkets								
d) Pharmacy								
e) CBD – Central Business District								

- 3.8 Does the design of your neighbourhood allow easy access for walking and/or cycling to frequently visited places e.g. schools, shops etc

a) <input type="checkbox"/> Yes	1
b) <input type="checkbox"/> No	0

- 3.9 Is the area in which you live well located to access job opportunities?

a) <input type="checkbox"/> Yes	1
b) <input type="checkbox"/> No	0

- 3.10 Are the streets safe in respect of traffic movement?

a) <input type="checkbox"/> Yes	1
b) <input type="checkbox"/> No	0

SECTION 4 : ECONOMIC ASPECTS

Description of Household occupant	4.1 Are you employed? a) Yes 1 b) No 0	4.2 If Yes, type of employment? a) Permanent Employment 4 b) Self-employed 3 c) Temporary employment 2 d) Casual employment 1	4.3 If employed, What kind of work do you do? a) Unskilled 0 b) Semi-skilled 1 c) Skilled 2 d) Self-employed 3	4.4 If employed, what is your occupational category? a) Factory worker 1 b) Metal industries worker 2 c) Agricultural worker 3 d) Construction Worker 4 e) Chemical industries 5 f) Services worker (domestic worker, cleaner, cook, janitor, waiter) 6 g) Miner 7 h) maintenance worker eg Technician outside of factory 8 i) sales and office occupations 9 j) civil servant eg Nurse, teacher, social worker, policeman/women 10 k) Middle level service occupation (plumber, hairdresser) 11 l) transportation worker e.g. Driver 12 m) Managerial and administrative (admin, office manager) 13 n) other specify 14	4.5 If employed in the informal sector, please state main activity? a) Other retail 1 b) Spaza Shop 2 c) Other producer 3 d) Herbalist healer 4 e) Shebeen 5 f) Street Hawker 6 g) Home industry Baking, Sewing of Knitting 7 h) Professional services 8 i) Block making or construction 9 j) Taxi Operator 10 k) Childmining 11 l) Agriculture producer 12 m) Producing steel goods 13 n) Washing, ironing and other domestic work 14 o) Hairdresser 15 p) Other specify 16	4.6 If currently employed, were you employed prior to you relocating to this neighbourhood? a) Yes 2 b) No 1
Head of Household						
Household Occupant 1						
Household Occupant 2						
Household Occupant 3						
Household Occupant 4						
Household Occupant 5						
Household Occupant 6						
Household Occupant 7						
Household Occupant 8						
Household Occupant 9						
Household Occupant 10						
Household Occupant 11						
Household Occupant 12						
Household Occupant 13						
Household Occupant 14						
Household Occupant 15						
Household Occupant 16						
Household Occupant 17						
Household Occupant 18						
Household Occupant 19						
Household Occupant 20						

SECTION 4 : ECONOMIC ASPECTS (continued)

Description of Household occupant	4.7 Do you collect a state grant?	4.8 Are you a pensioner?	4.9 Do you collect a pension?	4.10 What is your average monthly income?	4.11 What is the average combined income of your household?
	a) Yes 0 b) No 1	a) Yes 0 b) No 1	a) Yes 2 b) No 1	a) Unemployed, with no income 0 b) up to R500.00 1 c) R501.00 – R1000.00 2 d) R1001.00 – R2000.00 3 e) R2001.00 – R3000.00 4 f) R3001.00-R7500.00 5 g) Above R7500 6	a) No income 0 b) up to R500.00 1 c) R501.00 – R1000.00 2 d) R1001.00 – R2000.00 3 e) R2001.00 – R3000.00 4 f) R3001.00-R7500.00 5 g) Above R7500 6
Head of Household					
Household Occupant 1					
Household Occupant 2					
Household Occupant 3					
Household Occupant 4					
Household Occupant 5					
Household Occupant 6					
Household Occupant 7					
Household Occupant 8					
Household Occupant 9					
Household Occupant 10					
Household Occupant 11					
Household Occupant 12					
Household Occupant 13					
Household Occupant 14					
Household Occupant 15					
Household Occupant 16					
Household Occupant 17					
Household Occupant 18					
Household Occupant 19					
Household Occupant 20					

4.12 What are the three most important basic needs that you save for and why?

a)	<input type="checkbox"/>	food	7
b)	<input type="checkbox"/>	education	6
c)	<input type="checkbox"/>	clothing	5
d)	<input type="checkbox"/>	transport	4
e)	<input type="checkbox"/>	housing improvements/housing	3
f)	<input type="checkbox"/>	health care	2
g)	<input type="checkbox"/>	don't save	1
h)	<input type="checkbox"/>	other , specify	0

4.13 Do you save money for housing improvements?

a)	<input type="checkbox"/>	Yes	1
b)	<input type="checkbox"/>	No	0

4.13.1 If yes, how much do you save per month?

a)	<input type="checkbox"/>	R0 – R500	1
b)	<input type="checkbox"/>	R500-R1000	2
c)	<input type="checkbox"/>	R1000 – R 1500	3
d)	<input type="checkbox"/>	>R1500	4

4.14 Does anybody rent any of the rooms in your house or pay to stay with you?

a)	<input type="checkbox"/>	Yes	1
b)	<input type="checkbox"/>	No	0

4.14.1 If yes, how much do you receive in rental per month?

a)	<input type="checkbox"/>	R0 – R500	1
b)	<input type="checkbox"/>	R500-R1000	2
c)	<input type="checkbox"/>	R1000 – R 1500	3
d)	<input type="checkbox"/>	>R1500	4

4.15 Do you expect your household income to improve?

a)	<input type="checkbox"/>	Yes, give reasons	2
b)	<input type="checkbox"/>	No, give reason	0
c)	<input type="checkbox"/>	Don't know, give reason	1

SECTION 5: INFRASTRUCTURE SERVICES

5.1 Do you have access to the services reflected in the Table hereunder?

DESCRIPTION OF SERVICES	5.1.1 Availability: Do you have access to these services? Yes 1 No 0		5.1.2 Quality: Are you satisfied with the level of service? Yes 1 No 0		5.1.3 Cost Do you pay for any of the services? If so, how much? No 1 Yes 0		
	Yes	No	Yes	No	Yes	No	How Much
a) Tap water							
b) Sanitation							
c) Solid waste removal							
d) Roads							
e) Telephone services (landline)							
f) Stormwater disposal							
g) Electricity supply							

5.2 Is the infrastructure (e.g. roads, stormwater drainage, sanitation etc) in your neighbourhood properly maintained etc.?

	Yes (1)	No (0)
a) Roads		
b) Stormwater, Drainage		
c) Sanitation		
d) Water Reticulation		
e) Electrical Reticulation		

5.3 How has the standard of infrastructure services changed since you have lived here?

a) <input type="checkbox"/> improved	1
b) <input type="checkbox"/> no change	0
c) <input type="checkbox"/> deteriorated	-1

5.4 Do you or anyone in your household own a motor vehicle?

a) <input type="checkbox"/> Yes	2
b) <input type="checkbox"/> No	1

5.5 What is the general mode of travel for members of the household?

a)	<input type="checkbox"/>	Walking	1
b)	<input type="checkbox"/>	Bicycle	2
c)	<input type="checkbox"/>	Public transport	3
d)	<input type="checkbox"/>	Own vehicle	4

5.6 Are you satisfied with the amount of pedestrian walkways/footpaths that have been provided?

a)	<input type="checkbox"/>	Yes – Why?	1
b)	<input type="checkbox"/>	No – Why?	0

SECTION 6: NEIGHBOURHOOD SATISFACTION ASPECTS

6.1 Do you regard the area you live in as a neighbourhood (i.e. a place with all essential services and within reasonable distance to all amenities)

a)	<input type="checkbox"/>	Yes	2
b)	<input type="checkbox"/>	No - Why?	1
c)	<input type="checkbox"/>	Not sure	0

6.2 How would you describe your neighbourhood?

a)	<input type="checkbox"/>	friendly	1
b)	<input type="checkbox"/>	unfriendly, why?	0

6.3 How well do you know your neighbours?

a)	<input type="checkbox"/>	fairly well	1
b)	<input type="checkbox"/>	don't know neighbours	0

6.4 Do you find it difficult or easy to get along with other members of the neighbourhood?

a)	<input type="checkbox"/>	easy	1
b)	<input type="checkbox"/>	difficult, why?	0

6.5 How would you describe the level of crime in your area?

a)	<input type="checkbox"/>	No crime	2
b)	<input type="checkbox"/>	Minor crime incidents	1
c)	<input type="checkbox"/>	Fair amount of crime	0
d)	<input type="checkbox"/>	High crime rate	-1

6.6 What is the nature of the crime?

a)	<input type="checkbox"/>	domestic violence	1
b)	<input type="checkbox"/>	rape	2
c)	<input type="checkbox"/>	hijacking	3
d)	<input type="checkbox"/>	murder	4
e)	<input type="checkbox"/>	physical violence	5
f)	<input type="checkbox"/>	vandalism of private property	6
g)	<input type="checkbox"/>	theft of public property (e.g. electric cables, telephone lines)	7
h)	<input type="checkbox"/>	other , specify	8

6.7 If there is crime, what is the main cause of the crime?

a)	<input type="checkbox"/>	alcohol abuse	1
b)	<input type="checkbox"/>	substance abuse	2
c)	<input type="checkbox"/>	unemployment	3
d)	<input type="checkbox"/>	poverty	4
e)	<input type="checkbox"/>	other, specify	5

6.8 How can you make your neighbourhood safer?

a)	<input type="checkbox"/>	being friendly	1
b)	<input type="checkbox"/>	working together	2
c)	<input type="checkbox"/>	other, specify	3

6.8.1 If your answer to the above is (c), explain.

.....

6.9 What motivates you to stay in this neighbourhood?

a)	<input type="checkbox"/>	living environment	4
b)	<input type="checkbox"/>	facilities	3
c)	<input type="checkbox"/>	location	2
d)	<input type="checkbox"/>	community	1
e)	<input type="checkbox"/>	other , specify	0

6.10 How can you contribute in improving your neighbourhood?

.....

.....

- 6.11 What do you think most people would say about the way your neighbourhood looks in general?

a)	<input type="checkbox"/>	Appealing	2
b)	<input type="checkbox"/>	Ordinary	1
c)	<input type="checkbox"/>	Unappealing	0

- 6.12 What do you think most people would say about the way **this building** looks on the outside?

a)	<input type="checkbox"/>	Appealing	2
b)	<input type="checkbox"/>	Ordinary	1
c)	<input type="checkbox"/>	Unappealing	0

- 6.13 Indicate your degree of satisfaction with your neighbourhood and the buildings

a)	<input type="checkbox"/>	dissatisfied	1
b)	<input type="checkbox"/>	indicate satisfied or dissatisfied	2
c)	<input type="checkbox"/>	satisfied	3

- 6.14 Do you expect to be living in this dwelling 5 years from now?

a)	<input type="checkbox"/>	Yes – Why?	2
b)	<input type="checkbox"/>	No – Why?	0
c)	<input type="checkbox"/>	Uncertain	1

SECTION 7: MIGRATION

- 7.1 Did you migrate to your existing dwelling?

a)	<input type="checkbox"/>	Yes	0
b)	<input type="checkbox"/>	No	1

7.2 If yes, where from?

a)	<input type="checkbox"/>	rural village	1
b)	<input type="checkbox"/>	farm	2
c)	<input type="checkbox"/>	some other town	3
d)	<input type="checkbox"/>	other location in the town	4
e)	<input type="checkbox"/>	same area but different locality	5
f)	<input type="checkbox"/>	other country	6

7.3 How often do you go back to the place chosen in 7.2 above?

a)	<input type="checkbox"/>	every fortnight	1
b)	<input type="checkbox"/>	once a month	2
c)	<input type="checkbox"/>	every 2 months	3
d)	<input type="checkbox"/>	every quarter	4
e)	<input type="checkbox"/>	every six months	5
f)	<input type="checkbox"/>	once a year	6
g)	<input type="checkbox"/>	other _____	7

7.4 Is this house your only residence? (if answer is yes, go straight to question 7.8)

a)	<input type="checkbox"/>	Yes	0
b)	<input type="checkbox"/>	No	1

7.4.1 If no, where is your other residence?

b)	<input type="checkbox"/>	Rural area	1
b)	<input type="checkbox"/>	Another area of eThekweni Municipality	2
c)	<input type="checkbox"/>	Another town or city	3
d)	<input type="checkbox"/>	Another house in this project	4
e)	<input type="checkbox"/>	Other, please specify	5

7.5 Why do you keep another residence?

a)	<input type="checkbox"/>	Polygamous relationship	1
b)	<input type="checkbox"/>	Had that house before I got allocated this one	2
c)	<input type="checkbox"/>	All household members can't fit in this house	3
d)	<input type="checkbox"/>	Believe rural house is important	4
e)	<input type="checkbox"/>	Other, please specify	5

7.6 How often do you visit that other residence?

a)	<input type="checkbox"/>	Weekly	1
b)	<input type="checkbox"/>	Monthly	2
c)	<input type="checkbox"/>	Bi-monthly	3
d)	<input type="checkbox"/>	Twice a year	4
e)	<input type="checkbox"/>	Once a year	5
f)	<input type="checkbox"/>	Other, please specify	6

7.7 Which of your two residences do you consider your permanent one?

a)	<input type="checkbox"/>	this one	0
b)	<input type="checkbox"/>	the other one	1

7.8 In your present dwelling, how long will it be before you would look to move to another area?

a)	<input type="checkbox"/>	in less than 6 months	1
b)	<input type="checkbox"/>	6 months to less than one year	2
c)	<input type="checkbox"/>	1 year to less than 2 years	3
d)	<input type="checkbox"/>	2 years to less than 3 years	4
e)	<input type="checkbox"/>	3 years to less than 4 years	5
f)	<input type="checkbox"/>	4 years to less than 5 years	6
g)	<input type="checkbox"/>	5 years or more	7
h)	<input type="checkbox"/>	will not consider moving	8

7.8.1 Why?

.....

7.9 Do you plan to go back to live and work in your home village?

a)	<input type="checkbox"/>	Yes – Why?	0
b)	<input type="checkbox"/>	No – Why?	1

7.10 If No, then does it mean you intend to live in town for the rest of your life?

a)	<input type="checkbox"/>	Yes – Why?	1
b)	<input type="checkbox"/>	No – Why?	0

7.11 Why do you think rural population are moving towards cities?

a)	<input type="checkbox"/>	more facilities	1
b)	<input type="checkbox"/>	more job opportunities	2
c)	<input type="checkbox"/>	no idea	3
d)	<input type="checkbox"/>	other, specify	4

7.12 Now I'm going to read a list of things people sometimes think about when they move, and I'd like you to tell me whether you like this place better than the last place you lived, or don't like it as much, or think that there's not much difference, on each item. (PUT A TICK IN THE PROPER SPACE).

Compared to the last place you lived, do you like better, worse or the same:		Like it better 2	Not much difference 1	Don't like it as much 0
a)	the size of your home/flat			
b)	the outside of the building			
c)	the amount of rent you pay			
d)	amount of space you have to invite your friends or family over			
e)	amount of space you have to be by yourself when you want			
f)	as a place to bring up children			
g)	grocery stores			
h)	nearness to public transportation			
i)	nearness to your place of worship			
j)	places to go for entertainment			
k)	schools			
l)	the safety of the street			
m)	the quietness of the street			

7.13 When you moved into this area, how difficult did you find it to get settled? Indicate degree of ease with which you relocated.

a)	<input type="checkbox"/>	Very easy, Explain why 5
b)	<input type="checkbox"/>	Easy, Explain why 4
c)	<input type="checkbox"/>	Just like any other place, explain why? 3
d)	<input type="checkbox"/>	Difficult, Explain why? 2
e)	<input type="checkbox"/>	Very Difficult, Explain why? 1

SECTION 8: HOUSING IMPROVEMENTS

8.1 Do you think housing improvements are important? (i.e. To plaster the walls, to put in built in cupboards, to repaint the walls, etc)

a)	<input type="checkbox"/>	Yes – Why?	1
b)	<input type="checkbox"/>	No – Why?	0

8.2 Did you make any improvements to your house?

a)	<input type="checkbox"/>	Yes.	1
b)	<input type="checkbox"/>	No	0

8.2.1 If no, why?

a)	<input type="checkbox"/>	didn't need to	4
b)	<input type="checkbox"/>	not necessary	3
c)	<input type="checkbox"/>	no money	2
d)	<input type="checkbox"/>	Other, provide details	1

8.3 What type of improvement did you make?

a)	<input type="checkbox"/>	added additional room/rooms	1
b)	<input type="checkbox"/>	erected fence	2
c)	<input type="checkbox"/>	re-painted	3
d)	<input type="checkbox"/>	improved the garden	4
e)	<input type="checkbox"/>	redecorated the bathrooms	5
f)	<input type="checkbox"/>	post Apartheid floor coverings	6
g)	<input type="checkbox"/>	post Apartheid built-in cupboards	7
h)	<input type="checkbox"/>	other:	8
		
		

8.4 Over what period did you make the improvements?

a)	<input type="checkbox"/>	1 year	6
b)	<input type="checkbox"/>	2 years	5
c)	<input type="checkbox"/>	3 years	4
d)	<input type="checkbox"/>	4 years	3
e)	<input type="checkbox"/>	5 years	2
f)	<input type="checkbox"/>	6 years and above	1

8.5 How did you fund the improvements?

a)	<input type="checkbox"/> savings	4
b)	<input type="checkbox"/> borrowed from friend/family	3
c)	<input type="checkbox"/> loan from bank	2
d)	<input type="checkbox"/> other, specify	1

SECTION 9: HOUSING POLICY

9.1 Do you think that there has been any improvement or positive change in housing conditions since post Apartheid (i.e. post Apartheid)?

a)	<input type="checkbox"/> Yes	2
b)	<input type="checkbox"/> No	1
c)	<input type="checkbox"/> No idea	0

9.2 People are a lot better off today with regards to government assisted housing than they were prior to the 1994 democratic elections. Indicate your degree of agreement

a)	<input type="checkbox"/> Strongly agree, explain why?	4
b)	<input type="checkbox"/> Agree	3
c)	<input type="checkbox"/> Uncertain	2
c)	<input type="checkbox"/> Disagree – Why?	1
d)	<input type="checkbox"/> Strongly disagree – Why?	0

9.3 Do you think that the Apartheid Government (Apartheid government) built better (quality, size, etc.) houses than the houses that the post Apartheid Government (democratically elected government) provides

a)	<input type="checkbox"/> Yes.	1
b)	<input type="checkbox"/> No	0

9.4 Integration of low income housing settlements into mixed housing settlements (i.e. low income, middle income) is moving too fast in this country.

a)	<input type="checkbox"/> Strongly agree	0
b)	<input type="checkbox"/> Tend to agree	1
c)	<input type="checkbox"/> Uncertain	2
c)	<input type="checkbox"/> Tend to disagree	3
d)	<input type="checkbox"/> Strongly disagree	4

9.5 Are you happy with the Government's housing programmes?

a)	<input type="checkbox"/>	Yes, Why?	2
b)	<input type="checkbox"/>	No	1
c)	<input type="checkbox"/>	No idea	0

9.5.1 If No, what personal expectations have not been fulfilled?

.....

9.6 Do you think that the Government's Housing Subsidy Scheme has helped in improving the availability of the houses for the urban poor in South Africa?

a)	<input type="checkbox"/>	Yes	2
b)	<input type="checkbox"/>	No	1
c)	<input type="checkbox"/>	No idea	0

9.7 Who do you think is more effective in housing provision, the private sector or public sector?

a)	<input type="checkbox"/>	Private sector, reason?	1
b)	<input type="checkbox"/>	Public sector, reason?	2

9.8 Do you think you have benefited from the present housing policies and programmes of Government?

a)	<input type="checkbox"/>	Yes, give reason	2
b)	<input type="checkbox"/>	No, give reason	1
c)	<input type="checkbox"/>	No idea	0

9.9 Do you think government understands or is concerned about your housing needs?

a)	<input type="checkbox"/>	Yes, give reason	2
b)	<input type="checkbox"/>	No, give reason	1
c)	<input type="checkbox"/>	No idea	0

9.10 Do you think that the planners that plan the housing projects and houses understand your needs?

a)	<input type="checkbox"/>	Yes	2
b)	<input type="checkbox"/>	No	1
c)	<input type="checkbox"/>	No idea	0

9.11 Would you prefer to live in a neighbourhood where almost everyone is:

a)	<input type="checkbox"/>	All Black	0
b)	<input type="checkbox"/>	All White	1
c)	<input type="checkbox"/>	Mixed	2
d)	<input type="checkbox"/>	It makes no difference	3

SECTION 10: HOUSING FINANCE

10.1 Did you apply for any housing financial assistance besides the Government subsidy?

a)	<input type="checkbox"/>	Yes	1
b)	<input type="checkbox"/>	No	0

10.1.1 If yes, for what purpose did you apply for financial assistance?

.....

10.1.2 If Not, why?

a)	<input type="checkbox"/>	not necessary	2
b)	<input type="checkbox"/>	cannot afford the debt	1
c)	<input type="checkbox"/>	unemployed	0

10.1.3 If yes, from whom did you apply?

a)	<input type="checkbox"/>	bank	4
b)	<input type="checkbox"/>	micro lenders	3
c)	<input type="checkbox"/>	relatives	2
d)	<input type="checkbox"/>	friends	1

10.1.4 How much did you apply for?

a)	<input type="checkbox"/>	R0 – R1 500	1
b)	<input type="checkbox"/>	R1500-R3000	2
c)	<input type="checkbox"/>	R3000 – R 4500	3
d)	<input type="checkbox"/>	>R4500	4

10.2 Did you get the amount you applied for?

a)	<input type="checkbox"/>	Yes	1
b)	<input type="checkbox"/>	No	0

10.3 Was it enough for the purpose for which you borrowed it for?

a)	<input type="checkbox"/>	Yes	1
b)	<input type="checkbox"/>	No	0

10.4 Did the lack of access to housing loans impact on your ability to undertake housing improvements?

a)	<input type="checkbox"/>	Yes	0
b)	<input type="checkbox"/>	No	1

SECTION 11: TECHNICAL SKILLS TRAINING

11.1 Did you get any form of skills training during the project construction?

a)	<input type="checkbox"/>	Yes	1
b)	<input type="checkbox"/>	No	0

11.2 If yes, what skills did you get?

a)	<input type="checkbox"/>	technical	3
b)	<input type="checkbox"/>	social	2
c)	<input type="checkbox"/>	financial	1

11.3 Have these skills helped you get a job?

a)	<input type="checkbox"/>	Yes- Explain and how?	1
b)	<input type="checkbox"/>	No – Explain	0

11.4 Have these skills helped you become self-employed?

a)	<input type="checkbox"/>	Yes	1
b)	<input type="checkbox"/>	No	0

11.5 If so, are you able to earn an income?

a)	<input type="checkbox"/>	Yes	1
b)	<input type="checkbox"/>	No	0

11.6 If yes, for question 11.5 above, how much did you earn?

a)	<input type="checkbox"/>	R0 – R1 500	1
b)	<input type="checkbox"/>	R1500-R3000	2
c)	<input type="checkbox"/>	R3000 – R 4500	3
d)	<input type="checkbox"/>	>R4500	4

SECTION 12: OBSERVER NOTES

12.1 House is made of:

a)	<input type="checkbox"/>	Brick	2
b)	<input type="checkbox"/>	Concrete block	1
c)	<input type="checkbox"/>	other	0

12.2 House is:

a)	<input type="checkbox"/>	Dwelling	1
b)	<input type="checkbox"/>	Dwelling with improvements	2
c)	<input type="checkbox"/>	Flat	3

12.3 House has:

a)	<input type="checkbox"/>	1 room	1
b)	<input type="checkbox"/>	2 rooms	2
c)	<input type="checkbox"/>	3 rooms	3
d)	<input type="checkbox"/>	4 rooms	4
e)	<input type="checkbox"/>	More than 4 rooms	5

12.4 House has:

a)	<input type="checkbox"/>	Internal waterborne toilet	3
b)	<input type="checkbox"/>	External waterborne toilet	2
c)	<input type="checkbox"/>	VIP	1

12.5 Condition of the outer walls:

a)	<input type="checkbox"/>	majority of the walls painted	2
b)	<input type="checkbox"/>	some of the walls painted	1
c)	<input type="checkbox"/>	all the walls without painting	0

12.6 The condition of the house was:

a)	<input type="checkbox"/>	Better than most	2
b)	<input type="checkbox"/>	Typical or average	1
c)	<input type="checkbox"/>	Worse than most	0

12.7 General overview of dwelling:

a)	<input type="checkbox"/>	no major or minor repairs needed	2
b)	<input type="checkbox"/>	some minor repairs needed otherwise all right	1
c)	<input type="checkbox"/>	major repairs needed	0

12.8 Was the design of the house adaptable in that it can be easily extended?

a)	<input type="checkbox"/>	Yes	1
b)	<input type="checkbox"/>	No	0

12.8.1 If No, why?

.....

12.9 Does the house have adequate rainwater disposal and drainage facility?

a)	<input type="checkbox"/>	Yes	1
b)	<input type="checkbox"/>	No	0