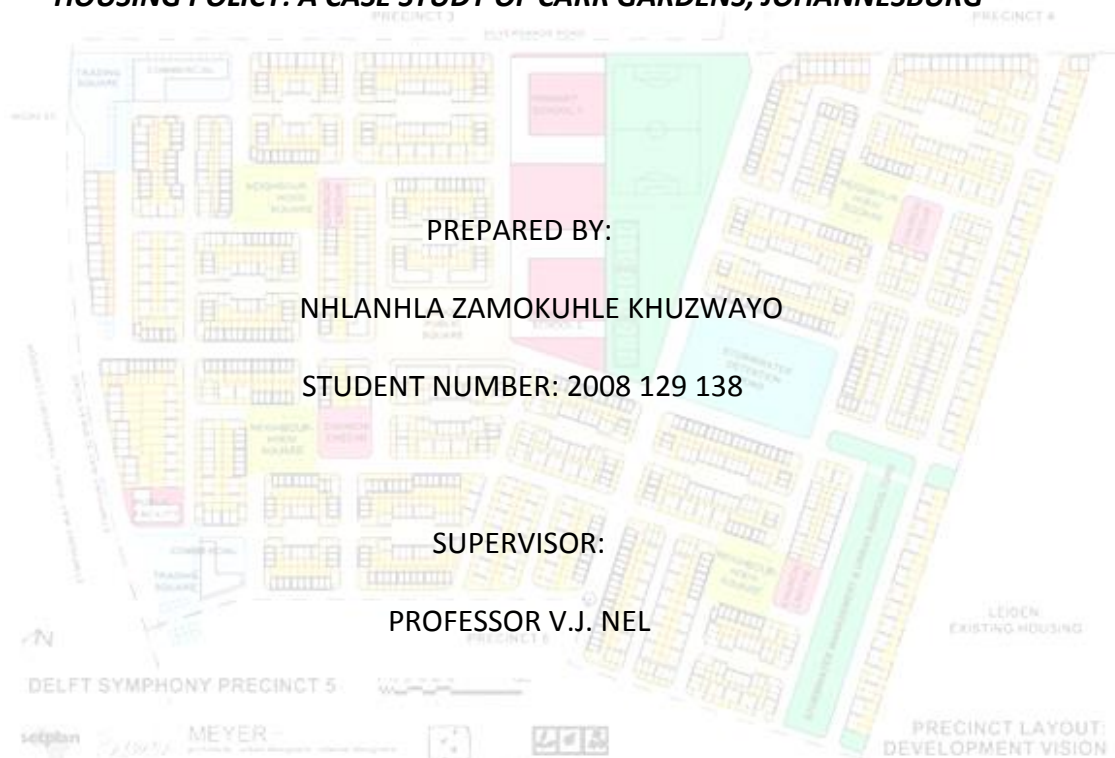




MASTERS IN LAND AND PROPERTY DEVELOPMENT MANAGEMENT

***THE SUSTAINABILITY OF HOUSING BUILT UNDER THE “BREAKING NEW GROUNDS”***

***HOUSING POLICY: A CASE STUDY OF CARR GARDENS, JOHANNESBURG***



This submission is in accordance with the requirements for the master’s degree in the Faculty of Natural and Agricultural Sciences, department of Urban and Regional Planning (Housing) at the University of the Free State

## DECLARATION

“I **Nhlanhla Zamokuhle Khuzwayo**, student number **2008 129 138** hereby declare that this dissertation hereby submitted by me for the Master’s degree in Land and Property Development Management at the University of the Free State is my own independent work and has not been previously submitted by me at another university/faculty. I furthermore cede copyright of the dissertation in favour of the University of the Free State”.



.....  
Nhlanhla Zamokuhle Khuzwayo

## **ACKNOWLEDGEMENTS**

At this point, I may not be in the position to thank all individuals who made a significant contribution to the realization of this research project. Nevertheless, I would like to convey my humblest appreciation to Professor Verna Nelmy my supervisor who provided me with guidance, support and understanding. Her love, experience and knowledge provided an immense contribution to this research process. I also want to thank Professor W.F.S. Senekal for co-supervising this research project.

I would also like to extend my gratitude to Mr Sabelo Mnguni for providing me with an understanding of research and human settlements debates. In addition, I would like to extend a special appreciation to all research respondents from the Carr Gardens. I would like to specifically thank Mr Mohammad Shona (the Carr Gardens care-taker) for providing access for this research to be conducted.

## **ABSTRACT**

The housing challenge in South Africa is complex and often political. The post-apartheid government has to efficiently use scarce resources to provide housing for poor South Africans. On the one hand, the state has done exceptionally well in quantitatively providing housing opportunities but, on the other hand, there has been increasing concern about the quality of houses provided by the post-apartheid government.

In response to these concerns, the then National Department of Housing adopted Breaking New Grounds (BNG) policy which attempts to address fundamental issues such as integration, sustainability, security of tenure, and providing wider housing options. As a result, this research endeavour seeks to assess the level to which the notion of sustainability has been incorporated to the BNG policy. It does this by exploring the Carr Gardens human settlements which is considered to be one of the BNG pilot projects.

This study used both quantitative and qualitative research paradigms which were deemed appropriate to sufficiently answer the main research question. Self-administered questionnaires were strategically (random sampling) distributed in Carr Gardens to identify respondents with peculiar responses; which were then followed by semi-structured interviews. Semi-structured Interviews provided the research with the “thick description” or in-depth understanding of the research phenomenon.

During this research process, it was discovered that the concept of sustainability is complex and multi-dimensional which considers issues of tenure, affordability of housing,

integration, etc. It was also discovered that policy-makers involved in the housing process often have a limited understanding of sustainable housing process in South Africa.

**KEYWORDS:** Sustainability, sustainable housing, sustainable human settlements, South Africa, Carr Gardens, National Department of Human Settlements, Provincial Department of Human Settlements, Breaking New Ground policy.

## UITTREKSEL

Die behuising uitdaging in Suid-Afrika is kompleks en dikwels politiese georiënteerd. Die na-apartheid regering het nodig om skaars hulpbronne doeltreffend te gebruik om behuising te voorsien aan arm Suid-Afrikaners. Aan die een kant het die staat besonders goed gevaar in die voorsiening van kwantitatiewe behuisings geleenthede, maar aan die ander kant is daar toenemende kommer oor die gehalte van die behuising wat voorsien word.

In reaksie op bogenoemde bekommernisse het die Nasionale Departement van Behuising 'n Breek Nuwe Grond (BNG) beleid aangeneem wat poog om fundamentele kwessies soos integrasie, volhoubaarheid, sekerheid van verblyfreg, en die verskaffing van 'n wyer keuse in behuising opsies aan te spreek. Hierdie navorsing beoog om te bepaal tot watter mate die idee van volhoubaarheid in die BNG beleid opgeneem is. Die navorser beoog om laasgenoemde te bepaal deur die Carr Gardens menslike nedersetting te ondersoek, aangesien dit beskou word as een van die BNG loodsprojekte.

Die studie sal beide kwantitatiewe en kwalitatiewe navorsingsmetodes gebruik om die bogenoemde navorsingsvraag voldoende te beantwoord. Self-gedadministreerde vraelyste is strategies (deur die proses van steekproefneming) in Carr Gardens versprei om respondente te identifiseer wat kon bydrae tot die studie, hierdie is dan opgevolg met semi-gestruktureerde onderhoude. Hierdie informele, maar gestruktureerde onderhoude het die navorser voorsien van die 'dik beskrywing' of in-diepte verstaan van die navorsing verskynsel.

Tydens die navorsings proses is gevind dat die konsep van volhoubaarheid 'n komplekse en multi-dimensionele konsep is wat kwessies van verblyfreg, bekostigbaarheid van behuising, integrasie, ens. in ag neem. Daar is ook bevind dat beleidmakers betrokke in die behuising proses en beleid dikwels 'n beperkte begrip van volhoubare behuising in Suid-Afrika het.

**Sleutelwoorde:** Volhoubaarheid, volhoubare behuising, volhoubare menslike nedersettings, Suid-Afrika, Carr Gardens, Nasionale Departement van Menslike Nedersettings, Provinsiale Departement van Menslike Nedersettings, Nuwe Grond Breek beleid.

# CONTENTS

<b>Chapter one: Introduction to research</b> .....	12
<b>1. Introduction</b> .....	12
<b>1.1. Housing Challenges in South Africa</b> .....	14
<b>1.2. Defining the research problem</b> .....	18
<b>1.2.1. Statement of the problem</b> .....	18
<b>1.3. Background and contextualisation of the study</b> .....	19
<b>1.3.1. An overview of the Carr Gardens case study area</b> .....	20
<b>1.3.2. Johannesburg Housing Company</b> .....	21
<b>1.3.3. Research Aims</b> .....	22
<b>1.3.4. Research Questions:</b> .....	22
<b>1.4. Research Methodology</b> .....	22
<b>1.4.1. Quantitative Research Design</b> .....	23
<b>1.4.1.1. Sample Frame</b> .....	23
<b>1.4.2. Qualitative Research Design</b> .....	24
<b>1.4.3. Case Study</b> .....	24
<b>1.4.4. Semi-structured interviews</b> .....	25
<b>Table 1: Data gathering process</b> .....	25
<b>1.4.5. Observation</b> .....	25
<b>1.4.6. Secondary Analysis</b> .....	25
<b>1.5. Research constraints</b> .....	26
<b>1.6. Ethical aspects</b> .....	26
<b>1.7. Chapter overview</b> .....	27
<b>1.8. Conclusion</b> .....	27
<b>Chapter 2: Literature review and theoretical framework</b> .....	29
<b>2. Introduction</b> .....	29
<b>2.1. Conceptualisation of housing</b> .....	29
<b>2.1.1. Housing as a human right</b> .....	30
<b>2.1.2. The significance of housing</b> .....	30
<b>2.1.3. The role of housing</b> .....	31
<b>2.1.4. Theoretical perspectives on housing</b> .....	31
<b>2.1.5. Self-help housing</b> .....	31
<b>2.1.6. Marxist approach to housing</b> .....	34
<b>2.1.7. Neo-liberalism approach to housing</b> .....	34



2.2.	Conceptualisation of sustainable development .....	36
2.3.	Sustainable housing indicators .....	36
2.4.	International literature on housing .....	39
2.5.	Housing in developing countries .....	40
2.5.1.	Housing in Costa Rica .....	43
2.5.2.	Housing in Brazil .....	46
2.5.2.1.	Housing finance .....	49
2.5.3.	Housing in China .....	50
2.5.4.	Housing in South Africa .....	54
2.6.	Grey Literature .....	57
2.7.	Cross-cutting issues .....	59
2.7.1.	The importance of Cities and Towns .....	59
2.7.2.	Compact City approach .....	60
2.7.3.	Housing finance .....	61
2.7.4.	Home ownership and sustainable housing .....	60
2.7.5.	Do- it- yourself approach .....	61
2.7.6.	Affordable housing approach .....	67
2.7.7.	Community participation in housing process .....	68
2.8.	Conclusion .....	69
<b>Chapter 3: Policy review of housing in South Africa .....</b>		<b>71</b>
3.1.	Introduction Setting the Scene .....	71
3.2.	Evolution of Housing policy .....	72
3.2.1.	Pre 1994 approaches and policy .....	73
3.2.2.	Post- 1994 housing policy .....	76
3.2.2.1.	The Right to Housing.....	73
3.2.2.2.	The South Africa Constitution.....	76
3.2.2.3.	Housing White Paper, 1994.....	76
3.2.2.4.	Housing Act, 1997.....	77
3.2.3.	Towards a sustainable solution to housing problem.....	79
3.2.3.1.	Breaking New Grounds (BNG), 2004.....	79
3.2.3.2.	The National Housing Code (2000, revised in 2009) .....	82
3.2.3.3.	National Environmental Management Act (NEMA).....	83
3.3.	Developmental Local Government.....	88
3.3.1.	Integrated Development Plans .....	89
3.3.2.	Housing Chapters of the IDP .....	90

3.3.3.	Problems with IDPs and housing chapters .....	90
3.3.4.	Outcomes 8 approach .....	91
3.3.5.	The National Development Plan.....	92
3.4.	Conclusion .....	93
Chapter 4:	Data collection and Presentation.....	91
4.1.	Introduction.....	94
4.2.	Definition of sustainable housing.....	95
4.2.1.	Main objectives of the BNG Policy .....	96
4.2.1.1.	Supporting urban renewal and inner city regeneration .....	96
4.2.1.2.	Promotion of integration and densification .....	97
4.2.1.3.	Enhancing the location of new housing projects .....	97
4.2.1.4.	Developing social and economic infrastructure.....	98
4.2.1.5.	Enhancing the housing product .....	98
4.3.	Indicators for sustainable housing .....	99
4.4.	To what extent does Carr Gardens meet the criteria? .....	100
4.4.1	Quantitative presentation .....	101
4.4.2.	Qualitative issues .....	104
4.4.2.1.	Affordable housing option .....	107
4.4.2.2.	Ownership issues.....	108
4.4.2.3.	Densification issues.....	109
4.4.2.4.	Lack of maintenance .....	110
4.4.2.5.	Political promises .....	111
4.4.2.6.	Housing Design.....	108
4.4.2.7.	Access to infrastructure and social amenities.....	112
4.4.2.8.	Lack of community involvement .....	112
4.4.2.9.	Lack of Monitoring and Evaluation instruments.....	113
4.4.3	Reflection on Government Structures.....	110
4.4.3.1.	Apartheid housing policy .....	111
4.4.3.2.	Shortage of well- located land .....	114
4.4.3.3.	Rapid urbanisation to Gauteng.....	115
4.4.3.4.	Financial constraints .....	116
4.4.3.5.	Lack of project management competencies .....	116
4.4.3.6.	Political interference .....	117
4.4.4.	General reflection on Carr Gardens.....	117
4.4.5.	Reflection on other human settlements project .....	118

4.5.	Conclusion .....	119
	<b>Chapter 5: Conclusions.....</b>	<b>120</b>
5.1.	Recommendations and conclusions .....	120
5.2.1.	Lessons Learnt from Carr Gardens.....	120
5.2.2.	Theoretical reflections .....	121
5.2.2.1.	Neo-liberalism .....	121
5.2.2.2.	Marxist approach .....	122
5.2.3.	Limitations of the study .....	123
5.2.4.	Recommendations .....	123
5.2.5.	Further Research .....	124
5.3.	Conclusion .....	125
6.	Reference List: .....	126
7.	Annexures.....	143
7.1.	Annexure one: Research Questionnaire for Carr Residents.....	143
7.2.	Annexure two: interview schedule: for Government Officials.....	146
7.3.	Annexure three: Questionnaire data matrix.....	149
7.4.	Annexure four: Consent letter .....	153

## **CHAPTER ONE: INTRODUCTION TO RESEARCH**

### **1. INTRODUCTION**

Internationally and countrywide housing scholars recognize the significance of sustainable housing. The importance of sustainable housing development is entrenched in South African policy documents and legislation. The benefits of considering sustainability in housing development include, amongst others, environmental protection; using scarce resources efficiently; and creating a sense of citizenry. This study investigates the degree to which South African housing projects take into consideration the concept of sustainable housing. Furthermore, this research identifies specific elements that are important for sustainability in housing using the Carr Gardens housing project as a case study.

The geographical pattern of human settlements in South African reflects the legacy of apartheid which was systematically used in housing for separation, segregation and socio-economic deprivation of certain racial groups. As a result, the current settlement pattern is characterised by lack of racial and class integration and severe inequalities. Furthermore, the post-apartheid housing policy and programmes have proven ineffective in addressing the issue of sustainable housing partly because government built housing on scale in order to provide housing for the destitute rather than focussing on sustainability. As a result, the implementation of housing projects appears to undermine the quality of housing. It can be assumed that a well-planned and integrated housing is critical for the socio-economic development and environmental preservation in South Africa.

This research focuses on the Carr Gardens housing project and gives an analysis of the lives of housing beneficiaries of the project. The project was implemented in a three step approach. Phase one adjacent to Carr Street which consisted of a total 145 units of which 109 received subsidies commenced in 2000 and was completed 2001. Phase two was based on the conversion of the old police station and cell block dating back to 1922 into a crèche and rental rooms with shared facilities. Subsidies for 45 units were approved during phase two. Phase three was the final stage of the project on High Road and consisted of 72 units; it started in November 2002, was completed in July 2003 and (Tonkin, 2008: 219).

It explores the South African housing and delivery debates with the central question of quality housing delivery. After reflection on literature, this study proposes important elements of sustainable housing in South Africa. As Assistant Director (Planning, Performance Management System, and LED) for Uthukela District Municipality, the researcher has been handling research agendas relating to sustainable development for a several years and has developed a keen interest in the challenges facing human settlements in South Africa. Due to the nature of my profession, I have access to a range of housing documents that relate particularly to this study and also have networks in the National Department of Human Settlements, Gauteng Department of Human Settlements and other critical role players in the housing sector. This is instrumental in accessing information that was required to effectively answer the research problem.

## **1.1. HOUSING CHALLENGES IN SOUTH AFRICA**

South Africa is characterised by lingering spatial inequalities and a pronounced rural-urban divide which is rooted in the apartheid regime (Tissington, 2011: 25; Tonkin, 2008: 36) which present a major impediment to sustainable human settlements. The biggest concern with the patterns of segregated communities is that historical race and class inequalities in the quality of services, housing and urban environment persist. For example, while policy documents do acknowledge the importance of densification in urban planning for new housing, both to address radicalised geography and environmental concerns, most new development of low-cost housing continues on the periphery. Inner city land is expensive and often controlled by powerful business interests; and expropriation by the state is long and tedious.

The housing crisis means that rapidly growing numbers of people are unable to access adequate housing. They are forced to live in poor conditions, with inadequate access to basic services, protection from the elements, living space and protection from arbitrary evictions. It is difficult to quantify the large housing backlog due to a lack of reliable statistics and lack of agreement on a suitable definition of inadequate housing. At the time the South Africa's first democratic elections in 1994, it was estimated that approximately 1.5 million families lived in inadequate housing conditions in urban areas (Tonkin, 2008: 36). Zanetta (2001) maintains that more than 50 percent of the population in developing countries, including South Africa, will be residing in urban areas. As a result, housing and infrastructure demands will be concentrated in the cities and town, particularly those which

absorb the labour force. Consequently, Groves (2004: 26) suggest that housing policy should be done considering the urbanization phenomenon and urban development.

Like other developing countries, affordable housing in South African represents a formidable problem (Groves 2004: 26). It is estimated that only 20% of new households can afford mortgage loans to buy housing through the market, and only 22% of households have access to non-mortgage finance (typically loans of less than 10, 000 dollars). Up to 80% of new households are therefore unable to gain access to adequate housing on their own, and this proportion has continued to increase. Inadequate housing conditions have enormous implications for health and the quality of life. Inadequate access to water and sanitation are strongly linked to a variety of illnesses, especially diarrhoea, which is the leading cause of death in most areas for children aged one to five (Tonkin, 2008: 36). There are also strong linkages between the prevalence of damp and respiratory diseases. Women are specially affected by inadequate housing as they are usually the homemakers and housing is the base for children and family life. Children are also affected, as overcrowding and inadequate access to services can negate the effects of health and education programmes (Tonkin, 2008: 36-37).

Reasons given for the inadequate levels of housing delivery and the growing backlog are, among others, inadequate resources devoted to the housing problem, poor capacity in government departments and skills shortages. This is partially because of the government's macro-economic policy, which has cut state expenditure in order to reduce the budget deficit. The housing budget is particularly vulnerable to cuts as over 90% of it typically comprises capital expenditure, whereas other budget lines, e.g. health and education, are

over 95% operational expenditure (mainly salaries) and the consequently considerably more difficult to cut (Tonkin, 2008: 37). Under President Jacob Zuma, the National Development Plan makes very bold and ambitious promises relating to human settlements in South Africa. It states that in 2050, South Africa will have “sustainable” human settlements which will be free from crime, peripheral development and lack of integration.

There have also been problems with the quality of housing delivered. Evaluations of the impact of the Housing Subsidy Schemes have found that though it has contributed towards an overall general improvement in people’s lives (e.g. with regards to access to secure tenure and basic services), in general, the real needs of people have not been adequately met and beneficiaries are highly dissatisfied Charlton (2009). The location of new housing projects, typically on the periphery of towns and cities where large amounts of cheap land are usually available, was also found to be a major problem due to inaccessibility of employment and urban opportunities. Equally troubling has been the lack of people-centred development with low levels of community participation in most aspects of housing projects (Bradlow, Bolnick and Shearing, 2011: 267).

When it comes to people-centred development, particularly in terms of water, sanitation and housing in South African cities, there has been so much knowledge, so much policy, so much agreement on what needs to be done, however so little to show for it (Bradlow, *et al.*, 2011: 268). People-centred development is simply not the way the state does business. It is not the way things are typically done within the institutions dealing land tenure, basic services and housing. This is the typically true in the implementation of People Housing Process (PHP) programme. Government officials seem to be reluctant encourage



participation and bottom-up housing development. Furthermore, there are limited or non-existent resources dedicated to supporting the facilitation of people-driven housing processes (Bradlow, *et al.* 2011: 268).

Housing quality has been the main concern, together with the location and value of subsidised housing. New township developments have perpetuated rather than overcome apartheid spatial patterns and have been little more than expensive shelter, failing to provide beneficiaries with the financial asset that higher-income households realise in their housing. Charlton (2004: 11) notes that housing delivery in the post-1994 is not in well-located land for the poor to access urban opportunities. Despite policy intentions set out in the White Paper to develop more compact towns and cities, the delivery of medium-density housing for low-income households on well-located land has been limited since 1996, despite the introduction of the institutional housing subsidy (Department of Housing, 1994). The chapter eight of the National Development Plan states that fundamental challenges to attaining sustainable human settlements are an untransformed South African economy, differences and inequalities with rural areas, urban inefficiencies, the accommodation conundrum- choices between delivering on scale and/or delivering quality housing, and lack of spatial governance (National Planning Commission, 2011: 260).

## **1.2. DEFINING THE RESEARCH PROBLEM**

### **1.2.1. STATEMENT OF THE PROBLEM**

Both housing research and policy documents emphasise the importance of sustainable and quality housing in South Africa. The concept of sustainability in housing is also highlighted in South African policy documents and legislation. Sustainability is important because it ensure the effective use of resources without compromising the environment.

Currently South African cities are tremendously inefficient and spatially distorted, with low density urban sprawl, mono-functional areas and trapping the poor dysfunctional locations (Ross, *at al*, 2010). Tomlinson (2006: 95) states that the South African government delivered 1.6 million housing ten years after 1994 but most beneficiaries still remain in unsustainable housing. Charlton (2004: 3) notes that “it is widely acknowledged that South African’s housing program has led to the delivery of more houses in a shorter period than any other country in the world”. In spite of this progress, the quality of housing structure remains a challenge. In addition, housing beneficiaries have lamented around the issue of location; arguing that houses are located in urban peripheries far from economic opportunities. In some instances, housing beneficiaries say that their household expense are greater than when they were living informal settlements and backyards shacks (Tomlinson, 2006: 96). Between 1994 and 2004, the South African government invested 27.6 billion in housing. More than 1,3 million houses were delivered, affecting the lives of 6.5 million people (Tomlinson, 2006: 96). It can therefore be concluded that the housing policies of South Africa has a single minded focus which was on quantity at the expense of quality.

### **1.3. BACKGROUND AND CONTEXTUALISATION OF THE STUDY**

Housing, as in many developing countries, is regarded as one of the most pressing infrastructure deficiencies in South Africa (Ross, Bowen and Lincoln, 2010: 433). This is partly because the post-1994 South Africa inherited a huge housing backlog, as a result of discriminatory housing policies. The researcher concurs with Mackey (199: 135) that it is impossible to make an analysis of the South African housing policy without reference to separate development and the geographical separation which were entrenched in the apartheid policy. The origins of the legislative structure of apartheid can be traced back to 1948 when the Afrikaner dominated Nationalist Party won national elections. Soon after the victory of the National Party, the Group Areas Acts of 1950 and 1966 were legislated and are considered the cornerstone of apartheid objectives re-organizing society for the purposes of segregation (Mackey, 1996: 133). Because of the National Party social engineering, most of the Black population still does not enjoy access to adequate housing.

The post-apartheid African National Congress (ANC) government endeavoured to address this problem through the Reconstruction and Development Programme's (RDP) housing subsidy scheme which provided many houses at the expense of quality. It can be argued that housing programmes were to a large extent successful. The National Department of Housing has delivered around two million subsidised houses since 1994, providing secure tenure for over six million South Africans (Tonkin, 2008: 36). However, Cross (2008: 2) points out that the need to deliver on scale has been done at the expense of quality and sustainability.

The government acknowledged the failures of RDP type housing (Ndaba, 2008: 12); which resulted in the adoption of, the Breaking New Ground (BNG). The BNG policy document introduced new options allowing for a range of delivery modes and housing configurations, including greater emphases on the rental market and acknowledging significant variations in local approaches. In addition, BNG policy provided a new emphasis on sustainable human settlements with a precise policy perception of housing delivery (Cross, 2008: 2-3).

### ***1.3.1. AN OVERVIEW OF THE CARR GARDENS CASE STUDY AREA***

The rationale for selecting Carr Gardens project as a case study is because it is one of the first fully integrated housing developments in South Africa, containing all types of housing, access to transportation and economic opportunities. In 2000, the Provincial Department of Housing, in collaboration with the National Department of Human Settlements, embarked on a multi-billion rand initiative which was aimed at contributing to the regeneration and transformation of the inner city in Johannesburg. The initiative was also seen as an opportunity to encourage sustainable housing development. Carr Gardens and the Newtown Urban Village project were projects which sought to realize inner city housing development (Tonkin, 2008, 218). These developments are strategically located adjacent to each other and near Johannesburg CBD area, both well located in terms of employment and economic opportunities in Fordsburg (one of Johannesburg's first working class and socially and racially mixed suburbs). Carr Gardens is opposite the Oriental Plaza, which is close to the active trading area of Bree Street, and near to the Market complex. Both the Newtown Urban Village project and Carr Gardens were developed on government land to benefit informal settlers occupying the area (Tonkin, 2008, 218). Newtown's history as the hub of

exchange and the original centre of Johannesburg contributed to it being identified as a mixed use key focus area. It is ideally positioned to take advantage of public rail and taxi transport nodes, public and social facilities, as well as employment opportunities (Tonkin, 2008, 218).

### **1.3.2. JOHANNESBURG HOUSING COMPANY**

The Carr Garden housing project was implemented by the Johannesburg Housing Company (JHC). JHC is non-profit company which was established in 1995 with a sole mandate of meeting housing needs for poor South Africans (JHC, 2013). As a result, the company has been seeking innovative ways to accommodate people needing housing in the Johannesburg. Through various projects such as slum clean-ups, building upgrades, refurbishments and conversions, as well as new-build projects, JHC has developed 3 476 homes mainly in the inner city of Johannesburg. JHC claims to have provided sustainable housing in the inner city of Johannesburg through converting decaying buildings to homes suitable for family environment.

The company seeks to conform to Breaking New Grounds (BNG) policy principles of creating affordable, sustainable, accessible and integrated human settlements (JHC, 2013). JHC is currently managing 29 buildings which provide housing opportunities for approximately 10 000 households in Gauteng. JHC maintains that they ensure long-term sustainability of their housing projects through skills transfer, efficiencies and discipline of sound business practice and good governance. JHC has multiple public and private stakeholders who fund housing projects. The company claims to have been recognised internationally and nationally for

their sustainable housing solutions and its contribution to regeneration of the City of Johannesburg (JHC, 2013).

### **1.3.3. RESEARCH AIMS**

It is against this background that this research endeavours to:

- To unpack the concept of sustainable housing in South Africa;
- Determine what are the important elements within the housing context that need to be addressed to achieve sustainability;
- Draw general conclusions on how sustainable housing can be achieved in South Africa.

### **1.3.4. RESEARCH QUESTIONS:**

This research will seek answer the following questions:

- What is sustainable housing in South Africa?
- What are the generally accepted indicators for sustainable housing?
- To what extent does Carr Gardens meet the criteria (i.e. measure up to the indicators) for sustainable housing?
- What lessons can be learnt from this development regarding sustainable housing?

## **1.4. RESEARCH METHODOLOGY**

This study employs both quantitative and qualitative methodological tools as the researcher believes they are most appropriate to gather relevant information to answer the research

question. This study employs mixed research methods but leaning more towards qualitative research paradigm. Babbie and Mouton (2001: 269), Williams (2003), and Neuman (2000: 157) state that qualitative methods can be useful in obtaining sensitive and socially dynamic information, such as the feelings and perceptions of people. Qualitative methods are useful because they involve face-to-face interaction without removing the natural setting; meaning that data is collected in uninterrupted real life settings. This methodology is particularly appropriate to this study and is used to understand the level to which Carr Gardens residents understand the concept of sustainable housing.

The data is then be processed and placed into various themes and categories, analysed and presented using a combination of quantitative and qualitative methods. The quantitative data analysis is presented in table and graphs. These research designs are unpacked below.

#### ***1.4.1. QUANTITATIVE RESEARCH DESIGN***

The researcher used the quantitative research design in order to gather perception and opinions about sustainable housing in the Carr Gardens settlements. The researcher used self-administered questionnaires to gather this data. In addition, the questionnaire was strategically used to determine which responded require further engagements using semi-structured interviews. The sample frame is discussed below:

##### ***1.4.1.1. SAMPLE FRAME***

The Carr Gardens population consists of 211 rental house units. This research used a random sampling strategy (Babbie and Mouton, 2001: 166) because of choosing 60 respondents randomly from 1 to 211. The sample frame of 60 is justified on the bases of feasibility and considerations of limited resources at the researcher's disposal. The

questionnaires were useful to understand the community's perception on what sustainable housing is. The researcher followed up with specific questions to those respondents that provided interesting answers.

#### ***1.4.2. QUALITATIVE RESEARCH DESIGN***

In order to gather more in-depth dynamic data (Sandelowski, 2000: 334), this study makes use of semi-structured and informal interviews and observation. The researcher used semi-structured interviews to gather information from government officials at the National Department of Human Settlements, the Provincial Department of Human Settlements and the City of Johannesburg to acquire information in relation to the concept of sustainable housing.

#### ***1.4.3. CASE STUDY***

The researcher uses a comparative case study method (Tellis, 1997:1). The Carr Gardens housing project is the main case study which is compared to other housing projects such as Cosmo City (Johannesburg), N2 Gateway (Cape Town). This is done as a triangulation strategy (Tellis, 1997: 2). According to Tellis (1997: 1) a "case study is an ideal when a holistic, in-depth investigation is needed". There are several types of case studies such as exploratory, explanatory and descriptive. The researcher adopts the descriptive approach because time and financial constraints.



#### **1.4.4. SEMI-STRUCTURED INTERVIEWS**

To gather in-depth understanding of the research problem, the researcher conducted 64 semi-structured interviews with housing stakeholders such as the National Department of Human Settlements, Gauteng Provincial Department of Human Settlements and Carr Gardens housing beneficiaries. In addition, document analysis of projects such as the Cosmo City and the N2 Gateway project was used to compare successes and challenges.

**TABLE 1: DATA GATHERING PROCESS**

	<b>TARGETED POPULATION</b>	<b>NUMBER OF INTERVIEWS</b>
1	National Department of Human Settlements	2 interviews
2	Provincial Department of Human Settlements	2 interviews
3	Carr Gardens population	60 interviews

#### **1.4.5. OBSERVATION**

The researcher randomly observed the Carr Gardens to determine the general happiness of the community. The researcher also had access to attend community meetings in order to determine the extent to which community members are involved in decision-making processes.

#### **1.4.6. SECONDARY ANALYSIS**

Secondary data was acquired from government documents, newspaper articles, official correspondences and minutes of meetings to inform the study and gather information relating to the housing process and community participation.

### **1.5. RESEARCH CONSTRAINTS**

The researcher lives in KwaZulu Natal province which is far from Carr Gardens housing project (located in Gauteng); this posed a distance challenge for the researcher. This could have had implications towards data verification. To mitigate this constraint, the researcher got a research assistant to verify data where it was required.

### **1.6. ETHICAL ASPECTS**

The researcher acknowledges that all societies have rule, ethical considerations, and rules on how people within a particular society conduct themselves. Some people are very sensitive to giving their opinions about certain issues. The issue of getting formal permission to conduct a study is fundamentally ethical. Williams (2003: 155) argues that Deontological Ethics are predominant in conducting an ethical research. Kant (the advocate for Deontology Ethics) argues that researchers should treat the respondents as a “means in themselves” meaning that the research done should benefit the respondents.

Getting formal permission is about giving the researched population all information about the study. Williams (2003: 166-167) says that informed consent is based on letting the researched population understand that they are being researched and they must have an understanding of the reasons of the study. Informed consent assisted to prevent deception and empowered the respondents to exercise their rights to privacy or not to continue with research if they uncomfortable. When researchers are conducting research with children or insane people, there is a need for parents or relatives to give consent.

Williams (2003: 158) argues that a researcher should be interested in the wellbeing of the participants. Some participants may engage in research not knowing the emotional strains associated with research. It is therefore crucial to avoid harming research participants. Getting formal permission can assist to avoid deception; the researcher should properly introduce all aspects of research.

### **1.7. CHAPTER OVERVIEW**

Chapter one presents an introduction to research process by outlining the background and contextualisation of the study and outlines the research design and the sampling strategy used to collect data. Furthermore, ethical issues in this research are taken into consideration. Chapter two provides the theoretical framework which is used to analyse research findings. In addition, sustainable development in both the international context and developing countries is unpacked to synthesis concepts which are important for analysing the South African experiences. Chapter three seeks to provide an overview of the South African housing policy. It does this by exploring both the apartheid and post-apartheid housing policy. Chapter four discusses the research finding and theoretical reflection. Chapter five provides research conclusions and recommendations.

### **1.8. CONCLUSION**

This chapter gives a general introduction to housing problem in South Africa. In addition, it gives an overview of the Carr Garden housing project which is used in this research report to understand sustainable housing. The paper gives a basic research methodology that the

researcher employs. The next chapter discusses the important emerging perspectives from literature.

## **CHAPTER 2: LITERATURE REVIEW AND THEORETICAL FRAMEWORK**

### **2. INTRODUCTION**

The following section provides an overview of the relevant literature on the topic and highlights pertinent concepts, major theoretical debates and perspectives on low income housing. This will provide a background to the study and a conceptual platform from which to launch the empirical fieldwork.

#### **2.1. CONCEPTUALISATION OF HOUSING**

The concept of sustainable housing is not yet a familiar one especially in South Africa. Choguill (2007: 143) defines sustainable housing policy as one that meets the housing needs of the poor and is economically viable, socially suitable, and technically realistic and protects the environmental considerations. On the one hand, sustainable housing can be seen as housing that reduces negative impact on the environment. On the other hand, government documents refer to sustainable housing as housing that is affordable or that creates social cohesion (Pickvance, 2009). Both these definitions are important and can provide a useful insight for the study. Bhatti (2000: 65) suggests that in relation to the idea of sustainability of housing a framework made up of four key principles is more useful than precise definitions. These principles include futurity, environmental protection, ensuring equity, and enhancing participation in South Africa (Bhatti, 2000: 65)

### **2.1.1. HOUSING AS A HUMAN RIGHT**

A study of international literature on housing suggests that there are several instruments and constitutions that recognize the right to adequate housing for all people (Tonkin, 2008: 34). Such instruments include the Universal Declaration of Human Rights (1948), the International Covenant on Economic, Social and Cultural Rights (ICESCR) (1966), Agenda 21 (1992) and Habitat Agenda (1996). Consequently, the South African Constitution (Act no. 108 of 1996) declares that everyone has a right to have access to adequate housing and the state must create favourable conditions for accomplishment of this housing right. In addition, the constitution emphasises that no one should be evicted from their home or have their home demolished without an order of court (Republic of South Africa, 1996: 108). However, many South Africans still live in rural communities or informal settlements that lack basic shelter and other services (Ross, *et al.* 2010: 434); this phenomenon poses a critical question to this right to housing.

### **2.1.2. THE SIGNIFICANCE OF HOUSING**

The UN-Habitat (2012:3) sees housing as a social requirement that determines the quality of life and welfare of people. According to Zhang (2010: 97) housing is the most basic and essential resource for human survival and advancement. Somerville (1992) states that a house is not just a structure, but an ideological construct created from people emotionally charged experiences. For Odum and Ibem (2011: 62) housing in the African society has deep spiritual significance; that home-ownership connotes the attainment of manhood and prosperity. Home is also viewed as a place of cognition and intellectual construction; people associate home with memories. Housing is a multi-dimensional and cross-cutting concept

that has numerous meanings and goals for different sectors of society. Milligan and Tiernan (2011: 396) declare “that housing has multi-sectoral and multi-disciplinary dimensions that have deep, wide and complex implications for economic and social wellbeing and the structure and function of cities and regions”. The nature of a house has serious implications employment opportunities, investments and educational outcomes in any society (Milligan and Tiernan, 2011: 396).

On the other hand, poor housing conditions expose inhabitants to a range of unpleasant conditions such as general discontent, cold, disease, infestation, air pollution, overcrowding and an increased incidence of ill health (Somerville, 1992: 530). On the other hand, sanitary housing is essential to prevent and reduce diseases such as tuberculosis, diarrhoea and malaria and can assist immune system to cope with several infections. Whether poor housing conditions are derived from inadequate regulation of housing standards, poor construction or poor maintenance, they have an extremely negative effect on the poorer sectors of society throughout the world. Housing affects health in many different ways. Deficient housing can compromise the most basic needs to water, sanitation, and safe food preparation and storage allowing the spread of commutable and food borne diseases (Brown, 2003: 94).

### **2.1.3. THE ROLE OF HOUSING**

Kissick, Leibson, Kogul, Bachmann, Anderson and Eckert (2006: 10) agree with Abdullahi, *et al* (2011: 170) that housing is at centre of civic and socio-economic development. The condition of housing has strong positive impact on the growth and development of society.

Activities related to housing contribute to achieving socio-economic development objectives. Housing construction, especially in developing countries, creates employment opportunities for different kinds of skills and indirectly reduces crime. With regards to social aspects, housing is one of the fundamental needs for vulnerable people. It is noted by numerous scholars that good housing should be viewed as an integral part of the economy. It firstly presents an economic value as incremental investment in housing allows poor families to improve their asset base over time, it creates employment, can regenerate the economy as it has an impact on consumers, developers, housing institutions and the government (Urban Foundation, 1994). Kissick, *et al* (2006:10) states that housing is useful in ensuring and promoting good governance. South Africans who have a keen interest in housing provision can ensure good governance by electing capable leaders.

#### **2.1.4. THEORETICAL PERSPECTIVES ON HOUSING**

There is a need for balanced roles and activities within the function of the state, market and society in order to provide an effective and equitable housing delivery system. These systems need to interact and complement each other. According to Jenkins and Smith (2001: 487) an important theme in housing theory for developing countries considers the role of the state, the market and society in housing systems. The different theoretical viewpoints and approaches to housing will be discussed below.

#### **2.1.5. SELF-HELP HOUSING**

In the context of this study, self- help housing is regarded as the most important theoretical reflection. This is because on the one hand, there is a huge demand for housing in South



Africa. On the other hand, there are limited resources to address this housing backlog. It is therefore imperative that South Africans get involved in their housing development. Self-help housing which is mostly called 'self-manage' or 'self-build' (Jenkins and Smith, 2001: 487) was largely promoted by Turner (Pugh, 2001: 402). The theories were influenced by several intellectuals who lived and wrote in the late 19<sup>th</sup> and 20<sup>th</sup> century. Patrick Geddes (1854-1932), Peter Kropotkin (1842-1921), and Martin Buber (1878-1965) were some of intellectuals who influenced Turner's thinking (Pugh, 2001:402). Turner's housing experience in Peru and other Latin American countries had an influence on his perception. During his expedition, he recorded the intricacies of squatter settlements and formulating theories aimed at improving housing policy. Turner viewed self-help housing in terms of deep human aspirations, articulated in phraseology such as "freedom to build", "housing by people" and "housing is a verb" that is a process of active self-fulfillment (Pugh, 2001: 402). In relational contracting, Turner found that households improved their housing incrementally. According to self-help housing theory, individual households and communities are capable of providing a more efficient and relevant use values in housing than those embodied in housing provided by the state (Jenkins and Smith, 2001). Turner sees self-help incrementalism far more superior to centralized public housing in terms of affordability, flexibility, and essentially human creativity is seeking value in life (Pugh, 2001: 402).

Self-help approach did not go uncontested by Neo-Marxists scholars such Burgess. According to Marxist thinking, self-help housing became commercialized which lead to exploitative class relations in capitalist development (Pugh, 2001, Kauko, 2001: 404: 169-171, Burgess, 1984). Capitalism is closely associated with structural inequalities in the

distribution of housing because of profit maximization. Marxism argues that self-help housing could work effectively under socialism which would eliminate class exploitation (Pugh, 2001:403, Clapham, 2002).

#### **2.1.6. MARXIST APPROACH TO HOUSING**

Engels is one Marxist scholar who developed an interest in housing. He maintains that the industrial revolution resulted in a class struggle with regards to accessing housing. The working class were generally migrants who lived in the unacceptable, crowded and unsanitary houses, while the capitalist class lived in the spacious, graceful and comfortable buildings and mansions. Engels analysed this phenomenon from ownership of the means of production and class interests and argued that housing shortage is a result of exploitative capitalist society (Zhang, 2010: 98). A number of succeeding scholars of Marxian School further scrutinized the city and housing problem of capitalism through analyzing the characteristics of the capitalist society (Zhang, 2010: 98). Even though Marxism does not implicitly discuss sustainable housing; this school of thought would maintain that principle of capitalism should not be used to understand sustainable housing.

#### **2.1.7. NEO-LIBERALISM APPROACH TO HOUSING**

Neo-liberalism is an approach that assumes that housing provision can be best provided through market interactions (Beland 2007: 92; Clapham, 2002: 299). This approach assumes that human beings are profit maximizing agents. As a result, people would only participate in housing provision if there is an incentive for them. This approach subscribes to the concept of fair competition in the housing provision. The rationale behind fair competition is

that market interactions would lead to decreased price for housing supply and consequently, benefits poor people. The state should have minimal role in housing provision. The World Bank maintains that housing provision must be done by the private sector for the purposes of profit maximization, efficiency and reconfigurations of state roles; including sector shifts from public production to households and private sector production (Zanetta, 2003) . Nevertheless, this approach makes the wrong assumption that market mechanisms would lead to fair and efficient housing provision (Jenkins and Smith, 2001: 503). Furthermore, the World Bank's self-help housing approach is ineffective and must move towards the neo-liberal, market enabling, perspective linked to structural adjustment and reconfiguration of state roles has failed many developing countries (Jenkins and Smith, 2001:503)

The shortfall of the neo-liberal approach in the South African context is that it is excessively technical in seeking to address the housing problem, the emphasis on ownership, once off subsidy programme and the acceptance of conservative macroeconomic imperatives (Ntema and Marais, 2013: 392). In South Africa, less commonly acknowledged is the fact that there were also some deviations from neo-liberal tendencies such as the subsidisation of the structures, some which was opposed by the World Bank. However, it should be granted that in the development of South African policy, the neo-liberal principles probably dominated proceedings at the expense of the more state or community-oriented approaches. Consequently, a contractor-driven private sector approach towards housing delivery has been adopted in South Africa (Ntema and Marais, 2013: 392).

## **2.2. CONCEPTUALISATION OF SUSTAINABLE DEVELOPMENT**

The notion of sustainable development was first advocated by the Brundtland Commission in a form of a report called the World Commission on Environment and Development which took place 1987 (Abdullahi, Aziz, Abdullah, Beksin, Alawal and Deraman, 2011: 173). The Brundtland Commission defined the concept of sustainability as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (Choguill, 2007: 143). This means that policy-makers should ensure that current development is done in the most cost-effective approach. For Folaranmi (2012:725) “sustainability covers broad range of issues affecting social, economic, cultural and even judicial aspects of life”. By implication, sustainable development tenets can be used for building more environmental friendly cities. Urban sustainability is not simply about environmental protection but also concerned about the issue of social equity and job creation (Poitras, 2009: 515). UN-Habitat (2012: 66) suggests a general approach to achieving sustainable affordable housing policy. In order for the housing policy to be sustainable, it must harmonise four sustainability dimensions; social, economic, environmental and cultural.

## **2.3. SUSTAINABLE HOUSING INDICATORS**

Sustainable housing indicators are important because housing is one of the critical public policies that have direct implication on development and can significantly contribute towards sustainable development (Winston and Eastaway, 2008: 213). Ciegies, Ramanauskiene and Startiene (2009: 35) define sustainability indicators as “multi-dimensional, multidisciplinary indices with sub-themes developed with care to evaluate and

measure the status of an area in terms of progress towards sustainability". This means that indicators can be useful in helping practitioners understand if they are making progress in a particular project. According Ciegis, et al (2009) there are no perfect indicators but Tate (2002:38) adds that "indicators should stand the Test of time and be flexible to take into account new issues as they emerge".

Winston and Eastaway (2008: 214) also contend that there is no one indicator that succinctly measures sustainability. There is, therefore, a need to have several indicators to measure sustainable housing. Ciegis, et al (2009: 33) advise that the following principles must be taken to consideration when evaluating sustainability; social justice, local government involvement, public participation, democracy sustainable balance between local and imported resources consumption, use of local and economic potential, environmental protection, protection of cultural heritage, protection and regeneration of a new environmental quality, increase in functionality and attraction of area and building maintenance. Winston and Eastaway (2008: 214) add that sustainability indicators should be integrating, forward looking, distributional, and developed with inputs from multiple stakeholders. These indicators can be effectively used in South Africa because they are also reflected in the National Development Plan 2030 (National Development Commission, 2011: 260).

Winston (2009: 1783) captures economic, social and environmental components and critical sustainable housing indicators. Winston (2009: 1783) also adds that location, construction design, dwelling uses and regeneration of a house are important indicators of sustainable housing indicators. Following from international benchmarks set out by the World

Commission on Environment and Development, the Ireland government adopted its own sustainable development indicators.

According to Winston (2007: 60-61) the Irish government describe its sustainable housing indicators as development in areas of employment; constructing mixed-use, well-designed, high-density development near to town and public transport; consolidating existing developments; ensuring highest quality designs; socially integrated communities. The United Kingdom government has grouped its sustainable development measures into four main types; which are, domestic energy-saving measures, sustainable rating schemes, building regulations and planning policy (Pickvance, 2009: 207).

In the South African context, Council for Scientific and Industrial Research (CSIR) has done extensive work to provide indicator framework for the sustainability of human settlements. CSIR (2003: 5) maintains that sustainable development should be understood as an integrative and holistic process of maintaining a dynamic balance between the needs and demands of the people for equity, prosperity and quality of life.

CSIR (2003: 5) argues that a determinant of an acceptable quality of life is a complex and difficult concept to define. To a large degree the notion depend on the context, prevailing culture and synergies between different determinants. It is therefore critical that indicators be sensitive to local dynamics. Furthermore, some important quality of life determents specifically linked to human settlements have been identified by the Habitat Agenda, United Nations Commission on Human Settlements (UNHS) to assist developing countries. In the South African context, Indicators Programme, as well as other indicator programmes such as

the National Core Set of Environmental Indicators has been adopted (CSIR, 2003: 5, Du Plessis and Landman, 2002). For Du Plessis (2003: 5) indicators in the context of human settlements are identified under the headings of health, safety, the ability to live a productive life, self-determination and the quality of built environment.

#### **2.4. INTERNATIONAL LITERATURE ON HOUSING**

International literature reveals that right to housing was documented for the first time as a human right in article 25(1) of the Universal Declaration of Human Rights in 1948. This was preceded by several international declarations such as the Vancouver Declaration on Human Settlements in 1976 (Marais and Wessels, 2005: 17-18). To realise these rights, the World Bank became involved in low-income housing in the early 1970s and systematically influenced housing policy in developing countries. Their involvement was due to failures of public sector housing in developing countries. The World Bank adopted site and service approach to achieve greater affordability in developing countries. According to this approach the actual building would be done by the owner or the private sector while the state provides serviced stands. Different perspectives about sites and services emerged in the early 1990s (Marais and Krige, 2000: 605). The World Bank lost sight of the fact that many households, especially in the sub-Saharan Africa, cannot afford expensive building materials and lack technical skills associated with building.

The challenge of housing shortage is considered to have reached crisis levels in the global context. According to the United Nations Human Settlements Programme (UN-Habitat) there are approximately 600 million urban residents and one billion rural dwellers in

developing countries living in overcrowded housing with poor water quality, lack of sanitation, and no garbage collection. People live in old buses, shipping containers, cardboard boxes, and aluminium shacks and under staircases and plastic sheeting and other forms of inadequate housing (Brown, 2003: 94). This lack of appropriate housing has resulted in a number of problems such as stress disorders, depression and diseases. In both the developed and developing worlds, poor people seeking access to social and economic opportunities settle in highly dangerous settlements. For instance, industrial sites are becoming attractive settlements for poor households, partly because settlers can sometimes appropriate materials and tap into water and electricity systems (Brown, 2003: 94).

The World Bank and International Monetary Fund (IMF) approach to housing problems has been confronted with strong criticism, especially from Latin American and Sub-Saharan countries. According to this thinking, housing provision must be determined by market principles of demand and supply. The role of states would be to create 'enabling' markets to work by providing legislative, institutional and financial frameworks that support free markets. This includes opening up of trade barriers. According to Zanetta (2001: 527) structural adjustment programs being implemented were not sufficient for improving the welfare of people. Contrary to the expectations of policy makers in the World Bank, the added growth and the savings from more efficient spending has not been sufficient to generate the investments needed for poverty alleviation, particularly in the context of raising employment (Zanetta, 2001:527)



The issue of sustainability in housing became prominent in the international agenda during the early 1970s. Following the Brundtland definition of sustainable development which suggest the use of current resources effectively without compromising the future generation, there were critical responses to ensure sustainable development (Bhatti, 2000: 64). For instance, the United Kingdom government made to law the Environment White Paper which is commonly known as “This Common Inheritance” (Bhatti, 2000: 64). This paper emphasised the efficient use of energy in housing. In addition, in 1992, the United Nations Conference on Environment and Development proposed a different perspective on sustainable development. The Conference recognised that environmental sustainability could be achieved through ensuring social justice, encouraging economic growth and involvement of local people (Bhatti, 2000). The United States of America proposed a shift of focus towards “environmental justice” (Bhatti and Dixon, 2003: 502). This concept it closely linked to “environmental poverty” (Bhatti and Dixon, 2003: 502) which recognises the need to socially, economically and politically include the disadvantaged people. This can be done through ensuring decent education, employment, and appropriate housing. The notion of environmental justice moves from the premise that people will only engage on sustainability once they acquired a certain “quality of life” (Bhatti and Dixon, 2003: 502).

## **2.5. HOUSING IN DEVELOPING COUNTRIES**

Housing represents an escalating and formidable problem in the developing countries and the magnitude and frequency is not the same in all countries. The problem of housing is more evident in developing that in developed countries. The housing challenge in rural areas is mainly quality while quantity seems to be the central concern for urban areas. This

is due the limited nature of land urban areas. The majority of the developing countries have inadequately developed housing institutions and markets, poor housing workmanship, increasing backlog and insufficient policy responses (Groves, 2004: 26). According to Ibimilua (2011: 169), Ibem, Anosike and Azuh (2011: 422) housing problem is further compounded by rapid rate of urbanisation, mismanagement of funds, politicization of housing programme and poor implementation.

The urbanization process is not a recent phenomenon in developing countries but housing problems in developing countries have increased due to rapid urbanization. In the global context, urbanization is result of industrial revolution during the 18<sup>th</sup> century. The Industrial revolution presented a change in production modes from relying mainly on agriculture, human/animal power and handicraft industry to largely using machines to produce the great industry. Mechanization was associated with towns and cities which encouraged labour to migrate. Cities and towns with large-scale production gradually appeared, gathering various kinds of cooperation and bringing great facility for human living and production. Zhang (2010) states that there are three housing problems associated linked to urbanisation, namely; the shortage of houses(quantity); the quality of the house does not fulfil requirements; and the polarization of the housing distribution (Zhang, 2010).

In developing countries, urbanization is a major problem which is results in slum formation in urban centres. Population increase in urban areas leads to social problems, sub-urban sprawl, traffic congestion, indiscriminate waste disposal, urban decay, as well as aesthetic pollution of the living environment. The major effects of slums include environmental deterioration and overcrowding (Ibimilua, 2011: 173). There is an increasing need to

provide sustainable housing solutions for poor people living in urban areas. As a result, there is a tremendous increase in the demand for decent and affordable housing in urban areas for low income groups (Abdullahi, *et al.*, 2011). As a result of urbanization; governments in developing countries need to think about new and innovative ways to providing shelter. Some housing scholars such as Cross (2008: 4) have proposed integration and densification. Cross (2008: 4) has indicated that post-apartheid planning around housing delivery has to be viewed as two pervading principles, those of integration and compaction, implying bringing together diverse class and race groupings at increased rates of occupation density in the core city areas with location advantage for the poor. Densification is still a critical policy imperative which suggests using limited urban land effectively to accommodate a large number of people (Cross, 2008: 4).

The following section explores housing issues in Costa Rica, Brazil and China and South Africa. The countries are strategically chosen because they offer diverse and rich housing policy problem and solutions.

### **2.5.1. HOUSING IN COSTA RICA**

The rationale for choosing Costa Rica is because it is considered to have one the best housing policy in Latin America (Delgadillo, 2006: 95). South Africa and Costa Rica are different in terms of physical size, geographical context and typology, social and economic and political history. However, both are middle income developing countries in transition, and the role of states in the housing system are important (Jenkins and Smith, 2001: 486) A

major theme in housing theory in the developing world has been the various role of the state, the market and society in housing systems.

In Latin America Chile, Costa Rica and Colombia are considered to have the best housing policies. While Chile introduced subsidies to demand in 1978, Costa Rica and Colombia started implementing new instruments around the early 1990. It is increasingly recognised that these roles are different but equally important (Jenkins and Smith, 2001: 486). While Chile introduced subsidies to address the housing demand in 1978, Costa Rica and Colombia started first to implement housing subsidies (Delgadillo, 2006: 95). Costa Rica is one of the well-established democracies in Latin America. Although Costa Rica survived the external debt crisis in 1980s, the debt crisis gave rise to a housing shortage, that galvanised social movements around this concern organised them into country-wide housing fronts, which heavily influenced the politics of the period. The democratically elected government of 1986 considered housing provision to be high priority (Jenkins and Smith, 2010: 491). One of the main vehicles that government used was the once-off capital subsidy linked to household income, similar to the system in South Africa. The state also encouraged the involvement of the private sector in the provision of housing (Jenkins and Smith, 2010: 491).

In different levels of commitments, the Costa Rican government has played a critical role in providing housing opportunities for the country. From the viewpoint of a social safety net, the main justification for providing housing assistance is that adequate shelter is viewed as a basic human need and it is the responsibility of government to provide, especially during times of hardship. In Costa Rica, access to suitable and appropriate housing has been seen as a sacrosanct right in the Political Constitution. In order to realise this entrenched right,

the national government continues to develop extensive and innovative interventions in the housing market (Delgadillo, 2006: 95).

During the 1990s, Costa Rica adopted the demand-side approach moving away from traditional supply-side policies. The traditional housing policy was managed by government who provided housing assistance in a form public housing, subsidised financing, creating access to land for housing, tax credits and reductions. In order to assist housing beneficiaries, government encouraged developers to charge households rental that is below-market prices. This was problematic on the grounds that housing beneficiaries lacked consumer choice. This meant that beneficiaries were compelled to accept whatever product was produced by developers. Contrary to the supply model, the demand-side was developed to ensure that consumers had choice; this was done through providing households with flexible cash allowances which placed fewer restrictions on housing choices (Delgadillo, 2006: 95).

The current political administration in Costa Rica views housing shortage as a major challenge which requires immediate intervention. The housing shortage is predominantly a challenge for low income groups. As a result, the government provide subsidies that the low income groups can use to buy building materials, building new homes, buying existing homes and making home improvements. The upper market groups were exempted from these subsidies but could access loans. The loans targeted to upper market categories were provided by accredited financial institutions and banks which provide credit using domestic currency and United States dollars (Delgadillo, 2006: 95-96).

Through the National Housing Finance System Act (NHFS) of 1986, most people, regardless of class, have access to housing finance. The fundamental objective of the NHFS is to encourage saving in both the international and domestic context. The return on investment is directed at reducing the housing backlog by providing a variety of financial interventions such as Family Housing Grants and opening housing markets. Before the adoption of NHFS, the performance assessment for housing institutions was based on direct construction houses and access to loans. (Delgadillo, 2006: 97).

In Costa Rica, the public sector has had a pervasive presence in the housing finance system. The three state-owned commercial banks and a special charter bank together account for 60% of the total banking deposits. There are only 17 private banks, 10 of which have foreign ownership. These institutions, along with mutual funds, pension funds and the government are primary sources of capital in the nation (Delgadillo, 2006: 97). In 1986, the NHFS established the Real Estate Mortgage Bank of Housing as the technical and financial body administering the funds allocated in housing.

### **2.5.2. HOUSING IN BRAZIL**

The rationale for choosing Brazil is that like South Africa, it has a challenge of inequalities along racial and gender perimeters. Similar to the South African experience, about seven million Brazilians live in conditions of poverty. Furthermore, the problem is compounded by a large number of street children who are at risk of violence, abuse, drugs, crime and murder. (Cardoso and Leal, 2010: 192). Like South Africa, informal settlements provided housing for a large population in Brazil (Macedo, 2010:611). According to Malta (2006:18)

the three reasons for housing shortage in Brazil are; unstable building conditions or bad infrastructure; limited government resources and poor planning; and lack of tenure regulations. In the context of Brazil, the country is urbanizing at an increasing rate. According to Morris (2012: 8) in the 1960, the majority of Brazilians lived in rural communities. By 2010, the number of urban dwellers swelled from 40% to 85% of the population.

Housing and subsidy policy started in Brazil in 1964, during the military government. The period from 1964 to 1986 presented two important economic phases which had direct implication towards the housing policy (Eloy, Costa and Rossetto, 2012: 39). The first phase was a steep expansion of the economy called “the Brazilian miracle” with a Gross Domestic Product (GDP) average growth annual rate of 11,1% between 1968 and 1973. This second phase of the Brazilian economy was characterized by debt crises and escalating inflation (Eloy, *et al.*, 2012: 39). This economic misfortune had direct implications for housing provision in Brazil. The government could not provide housing thus encouraged banks to provide mortgage loans. Valenca and Bonates (2009:1) are of the opinion that this measure was regressive and unfair to the poor and unemployed. The period of 2003 to 2012 represented another important shift in the Brazilian housing policy due to the creation of the Ministry of Cities. The Ministry of Cities was mandated to develop a comprehensive housing policy that considers people in different class and the issue of sustainable housing.

Sustainability was about insuring affordability and continuity of the subsidy policy (Eloyet *al*, 2012:43). The Ministry was created to ensure institutionalisation of the housing policy and was organized as four Secretariats- Housing, Sanitation, Transport and Mobility, and Urban Programmes, the latter responsible for the area of planning of the territory and tenure regularisation. The technical team appointed to occupy posts in the Ministry had strong links with the National Urban Reform Forum and already participated in some local administrative experiments in Workers' Party governments (Cardoso and Leal, 2010: 199).

In 2003, the Ministry convoked the First National Conference of the Cities, which received 2,500 delegates chosen through municipal, regional and state conferences that had come to mobilize over 3 thousand municipalities. The Conference approved the creation and composition of the National Board of the Cities established in 2004. Throughout 2003, the National Housing Secretariat began to develop the normative and institutional bases of housing policy structuring the National Housing System. However, the implementation of the housing policy came up against strong resistance from the government's economic team, which maintained, unaltered, the same neoliberal rules for expenditure restriction that were in force in the previous government (Cardoso and Leal, 2010: 199).

The Brazilian Constitution recognises that land ownership as a fundamental right that is prerequisite for sustainable housing development. As a result the Constitution mandate redistributive land reform program which would seek to empower disempowered Brazilians. In the urban context, the City Statute – which is the Brazilian urban land governance



framework - has played an important role insuring access to urban land by Brazilians. The fundamental purpose is to ensure “Right to the City” (Fernandes, 2007: 211). The decentralised nature of this land management framework places land administration to municipalities to ensure urban reform, integrated urban planning and democratization of local decision-making (Fernandes, 2007: 212).

In 2005, with the considerable mobilisation of the social housing movement pressing the president of the Republic, a bill of law was passed for the creation of a housing fund, denominated the National Social Housing Fund. The law that instituted the National Social Housing Fund also established the basic institutional elements for the creation of the National Housing System, based on a distribution of the functions among the three levels of government, in which fundamental roles were established for the municipalities in the implementation of housing policy. In order to adhere to the system, the states and municipalities were required to be committed to the creation of a local housing fund, to be managed by a board with public participation, and also to devising a local plan for social housing that would establish the guidelines and priorities of the policy at local level (Cardoso and Leal, 2010: 199).

#### **2.5.2.1. HOUSING FINANCE**

The model of finance adopted in Brazil as of 1966 was based on two systems which is compulsory savings (through the Assurance Fund for Period of Work) and voluntary savings

systems (Cardoso and Leal, 2010: 194). The Assurance Fund for Period of Work is collected via compulsory contributions from salary earners (8 percent of the corporate payroll), the revenue being at the formation of savings fund in order to act as insurance against unemployment.

Similar to Costa Rica, the Brazilian Housing Finance System (SFH) was established in 1964, with the creation of the National Housing Bank and two types of funding, both from deposits voluntary savings and loans scheme, named SBPE (but generally known as “poupanca”) and a provident fund that comprises compulsory deposits equivalent to 8% of a worker’s monthly salary (Eloy, 2010: 19). Both pay interest on deposits and offer housing finance loans at below market rates. Loans are provided for any family that qualifies, regardless of being savers with any of the schemes (Eloy and Paiva, 2011: 35).

In 1997 the country passed regulation that allowed the insurance of Mortgage Backed Security, normalized Real Estate Investment Trusts (FII), and regulated the trade of mortgage bond. Nevertheless, up to today, housing finance in Brazil still depends almost entirely on funds raised by deposits from the original SFH funds, SBPE and FGTS (Eloy and Paiva, 2011: 35). From 1964 to 1986- the first period, when the National Housing Bank (NBH) existed- SFH encompassed the financing of approximately 4.8 million units, with its peak on 1980 and again on the 1982, when it reached over 550 thousand housing loans each year. However, although the system was meant to prioritize lower and moderate income groups, at least over 60% of mortgages were taken by upper middle income families. This indicated that subsidies were regressive- meaning when loan amount

increased, so did the family income. After 1986, when BNH was extinguished, housing policy wandered from one ministry to another and SFH loans severely dropped (Eloy, 2010: 19).

According to Eloy and Paiva (2011) the affordability issue is tough to handle. Families with income below two times the Minimum Wage will hardly qualify for a loan or, even if they do, it is unlikely that they can handle a significant instalment commitment for long terms. Some families above two times the Minimum Wage, and certainly those above three times the Minimum Wage can afford a moderate housing loan commitment and that ability should not be wasted. Yet, interest rates are still high- starting at 7.16% plus indexation (adjusting of housing prices). Housing prices, especially in metropolitan areas, keep going up as urban land becomes scarcer and municipalities fail to use the land control instruments provided by the Cities Statute. Thus, their access still definitely depends on subsidy policy. Hence, all reasonable instruments that can increase, in a sound and coherent manner, the chances of those families to participate in the mortgage market must be put in place (Eloy and Paiva, 2011: 37).

### **2.5.3. HOUSING IN CHINA**

The reason for choosing China is that it while it has the largest population in the world, it one of the best benchmarks of sustainable development (Kejia, 2008:4). In the 21<sup>st</sup> Century, China's industrialisation and urbanisation have proceeded apace. China now has the world's second biggest economy after the United States, overtaking Japan in 2010. It is thought that "China will overtake the USA to become the largest world economy in 2017" (Kejia, 2008: 4).

Mega-cities such as Beijing, Shanghai, Guangzhou and Chongqing are considered to be very important for the Chinese economy (Cook, Gu and Halsall, 2013:9). Furthermore, China like several countries in Africa is experiencing large-scale urbanization. It is predicated that 70% of China's population will be living in urban areas in 2050 (Kejia, 2008:5).

The 21<sup>st</sup> housing theory in China, following a western-style housing policy and development mode, uses standardised and regulated real estate development in providing residential units, which causes a huge amount of demolition of former un-standardised, self-built and informal settlements. These actions of the "relocation" or "slum-clearance" raise three key issues in the process. Firstly, relocation is not cost-effective because government has to pay compensation to buy-out old residents. Secondly, relocation is inconvenient on the grounds that residents have to find new employment and schools for children. Thirdly, relocation or "slum clearance" has a damaging effect on social fabric. Furthermore, the Chinese urbanisation phenomenon has resulted in a new housing challenge. This challenge is an urban housing shortage due to a massive rural to urban migration in China. This has resulted in an increased demand for affordable housing for urban poor, and this has received full support from government (Cook, *et al.*, 2013: 10).

As a result of the persisting need for affordable housing, the Chinese government has adopted to strategies to meet this housing demand. These strategies are legalizing and upgrading of informal communities and identification of serviced sites for relocation purposes. This strategy is operating in the context of self-help housing process; where

beneficiaries are encouraged to take full ownership of their housing development. In the 192 largest cities of China there was an “inability or unwillingness to invest heavily in housing construction before 1979 led to serious urban overcrowding” (Cook, *et al.*, 2013: 10). This unwillingness to accept the nature of the housing demand in cities resulted in overcrowding and pressure on urban infrastructure. In order to avert this saturation, the role of the private sector was enhanced. This was evident in the decentralisation of housing provision and the privatisation of public housing. The privatisation of housing provision did not go without its’ shortfalls. After privatisation, the Chinese government experienced increasing levels of housing inequality and residential segregation in transitional Chinese cities (Cook, *et al.*, 2013:10).

According to Keja (2008: 11) there is no literal term for sustainable housing, but numerous housing initiatives are often called “green building”, “eco-friendly residential project” or “environmental- friendly residential projects”. According to Chui (2007: 70) Hong Kong can be used as best case study for sustainable housing development in China. Government in Hong Kong focus on social or equability aspect of sustainability by producing subsidized housing for both lower and middle class households (Chiu, 2007: 70).The public housing policy also includes both rental and owner-occupier housing to provide wider choose for housing demand (Chiu, 2010: 305).

In Hong Kong, sustainability has been evident in the creation of multi-functional spaces that accommodate social, environmental and economic aspects of sustainable development.

Sustainability approach has been adopted in the design of government housing since 1999 (Chiu, 2010: 308). This approach ensures comprehensive city-wide planning and guidelines based on population sizes, covering retail services, open space, community facilities such as schools and medical facilities. Furthermore, sustainability is ensured by focusing on human elements such as comfort, convenience, and good connectivity (Chiu, 2010: 308).

#### **2.5.4. HOUSING IN SOUTH AFRICA**

In order to understand the South African housing problem, it is important to understand the historical context of housing. According to Khaki (2009: 5) planned marginalization, exclusion and eviction of people by the 1913 Natives Land Act, the Natives Administration Act of 1927, the Natives Trust and Land Act of 1936, the 1950 and 1966 Group Areas Acts, is considered to be the one critical greatest cause that has contributed to the widespread poverty that is currently manifesting in South Africa. As a result of this legislation an estimated 3.5 million people lost land rights due to forced removals since 1913 (Khaki, 2009: 5).

The apartheid designers effectively drafted legislation which dictated where different races could live. The black population which includes Africans, Indians and Coloureds were located different areas from white residential areas (Khaki, 2009: 6). Consequently, black families were compelled to live in rural homelands or satellite townships, while creating a system of economic migrants and the black population could only inter cities for work purposes. On the one hand, Whites were allocated in areas characterized by general tranquillity; low density neighbourhoods close to work, close to city centres and amenities. The apartheid

system created buffer zones which range from 15 to 40km, with low density land use, provide a barrier of separation between the various races (Khaki, 2009: 6). On the other hand, the black population lived overcrowded areas with very limited access to socio-economic amenities. Moreover, the large majority received limited services of poor quality services. Some people rented houses from authorities.

Due to international and domestic pressure, South Africa government was replaced by a more democratic government of the ANC in 1994. According to Mackay (1996) there were documents such as the De Loor Report which was aimed at preparing the 1994 government for housing challenges. This report was seen as a bridge from apartheid government to democratic government of 1994. It was also used as a platform for the National Housing Forum to negotiate housing policy (Mackay, 1996). Prior to democratic elections, there were negotiations around a wide range of policy issues including housing. The latter was addressed by a National Housing Forum, which was established in the early 1990s (Laloo, 1999: 37), with participation of corporate representatives from opposition political parties, trade unions, business, non-governmental organisations and organisation within civil society (Jenkins and Smith, 2010: 491).

The National Housing Forum negotiations resulted in development of the White Paper on Housing (Marais and Krige, 2000: 605) which was centrally used by the state to subsidise majority access to housing through once-off capital subsidy (Jenkins and Smith, 2010: 491). The subsidy did not go without criticism; the main anxiety was that the subsidy amount was inadequate to provide the end-beneficiary with a decent house (Marais and Krige, 2000: 605). Critics of NHF's policy formulation process, such as Jones and Datta (2000: 396),

have long been of the view that business interests represented in the Urban Foundation pushed the neo-liberal agenda at the expense of social transformation. Tomlinson (2006: 86) highlights that there was a minimal representation of civil society groups; only the South African National Civic Organization and South African Homeless Federation were included. The representation of women, tenants, rural sector and informal settlements was also not considered (Tomlinson, 2006: 86).

The NHF housing policy proved itself inadequate to address the housing challenge in South Africa. As a result, the South African government resolved to adopt a new policy approach in 2002. This policy shift was in a form of various housing programmes captured in the National Housing Code. The Housing Code sets the underlying policy principles, guidelines, norms and standards which apply to government various housing assistance programmes updated from 1994 housing policy (Department of Human Settlements, 2009). The aims of the Housing Code were to address several of the inadequacies in sustainability and integration of housing provision. The chief shift in policy and programme focus were, firstly, a shift from the provision purely of shelter to building habitable and sustainable settlements and communities, and secondly, a shift in emphasis on the number of units delivered towards the quality of the new housing stock and environment (Ramoshamole, 2007).

In 2001, the National Department of Housing commissioned the CSIR to conduct an analysis of the sustainability of human settlements in South Africa as part of the Department's preparations for the development of human settlements policy framework (Du Plessis, 2003:1). The CSIR was tasked to provide insights on the international debates on the meaning of housing sustainability in the context of South Africa. Furthermore, CSIR was



mandated to unpack the critical factors that influence the human settlements development and conduct an evaluation of existing housing programme. An understanding of these elements of research was going to be used to develop a South African approach to sustainable human settlements (Du Plessis, 2003: 1).

The CSIR study was not adequate to understand the development of human settlement. This is because it fundamentally used secondary research due to time and budget constraints. It emerged from the study that sustainability analysis of human settlements is a complex and daunting exercise (Du Plessis, 2003; 1). This was further complicated by the fact that sustainable human settlements indicators require engagement with several other discipline relating to housing. Compounding the problem is the lack of comparable, reliable data and benchmark values for the different indicators, and the fact that these benchmarks would differ between settlements types (Du Plessis, 2003; 1).

## **2.6. GREY LITERATURE**

There are several unpublished theses and dissertations that provide useful insight on sustainability in housing. Genevieve (2009: 7- 12) in the study called, *Housing Policy and project implementation: the case study of Cosmo City integrated housing project*, investigates the extent to which the implementation of Cosmo City Housing project has accomplished the intentions of national housing policy of South Africa. She draws conclusions that Cosmo City was a well-managed project, but there were unintended consequences. She acknowledges that issues of partnerships, spatial integration and environment were addressed. While the achievements of Cosmo city can be celebrate, she

concludes that economic and social integration seemed to have been overlooked. She suggests that City of Johannesburg extend its Local Economic Development initiatives into Cosmo City to accommodate business initiatives of low income populations (Genevieve, 2009: 67-74).

Ramashamole (2007:7) argues in her study, *Sustainable housing development in the post-Apartheid South Africa*, that human settlements policy in the post-apartheid South Africa must incorporate issues of sustainable development. She examines the impact of housing on sustainable development using the Breaking New Grounds (BNG) policy. Like Genevieve (2009), she uncovers that BNG policy provides a useful guide for sustainable human settlements in South Africa but there is weak implementation (Ramashamole, 2007: 48). She maintains that BNG policy has very high standards which are not in tune with the South African housing reality. As a result, these high standards make it difficult to implement the policy which leads to housing projects failing. She recommends a well thought out human settlements policy that considers the socio-economic realities in South Africa (Ramashamole, 2007: 106-110).

## **2.7. CROSS-CUTTING ISSUES**

This section unpacks some crosscutting issues that emerged from the literature of countries reviewed.

### **2.7.1. THE IMPORTANCE OF CITIES AND TOWNS**

The importance of urban issues in relation to national and global issues of sustainable development has been restated recently as part of the World Banks' emerging strategy (Zanetta, 2001: 528). Cities and towns are identified as the frontline in the strategy to ensuring sustainable development and poverty alleviation. The World Bank is proposing that cities and towns be used strategically to address the plight of urban poor (Zanetta, 2001: 528). Over the past five years, the world has seen 2.5% growth in urbanisation, but that varies between the more developed regions (0,7%) and the less developed regions where growth has been 3,3%. In 1999, 47% or 2,8 billion, of the world's population lived in cities, and this is set to increase by around 60 million people each year. The expectation is that by 2030, nearly 5 billion of the world's 8.1 billion people will live in cities (Jenks, 2000: 2). Of the urban population, for everyone person now living in cities in developed countries, there are two in the cities of the developing world. Within 30 years this proportion is rise to 1:4, indicating that 90% of the growth in urbanisation will be in developing countries (Jenks, 2000:2).

In developing countries, the expansion of urbanisation is occurring on an unimaginable scale resulting in the number of urban inhabitants who live in sub-standard and overcrowded conditions (Cheserak and Opata, 2011: 320). Towns represent an average of thirty to sixty

percent of the urban population (Cheserek and Opata, 2011: 320). At present, it is estimated that over fifty percent of the urban population live in extreme poverty, with this figure rising to as high as 79 percent in some cities (Cheserek and Opara, 2011: 320), which present cities as problematic. Yet it is cities that drive economics and it is within them that innovation occurs and an increasing part of global output is produced (Jenks, 2000:2). The limited land problem has also resulted in explosive growth of peripheral development in characterised for poor by local disempowerment, reduced quality of life and environmental pollution.

### **2.7.2. COMPACT CITY APPROACH**

Moving from the understanding that urbanisation is happening at an increasing rate while there is limited land in urban settings, several scholars such as Burgess (2000: 9) have suggested compaction of city as a global perspective. In the current period the desirability- or in some views the necessity – compaction is rooted in the sustainability imperatives of cost-effective use of resources and reducing waste. Thinkers have proposed several approaches to compact city which are justified on the grounds of politics, economics, social and cultural dimensions. The most prominent of these approaches is densification. According to Burgess (2000: 14) the rate of urbanisation and land shortage in developing countries negates densification. Policy makers should therefore develop housing policies that addresses high density realities of most developing countries.

### **2.7.3. HOUSING FINANCE**

Developing countries have a challenge of high rates of urbanisation which result in an increase housing demand in urban areas. Intertwined with that, developing countries spend very minimal on housing finance. According to Kajimo-Shakantu and Evans (2006: 24) housing represents 2% - 10% of the Gross Domestic Product (GDP). Access to formal housing finance such as loans and languages used in financial sector is geared towards the rich population (Kajimo-Shakantu and Evans, 2006: 24). The need for finance is evident in informal financing which is used to maintain informal settlements. Informal finance provides incremental finance of between 50% to 70% to people living in urban areas (Kajimo-Shakantu and Evans, 2006: 23). It can therefore be deduced that housing finance is critical to ensure sustainable housing development in developing countries.

In South Africa, access to housing finance is unfair on the grounds that pricing is determined by the risk of lending to different income categories. By implication, housing provision for lower income categories is hampered because they represent a high risk for financial institutions. Consequently, housing provision for low-income groups becomes the sole responsibility of the state (Kajimo-Shakantu and Evans, 2006: 25). At the same time, the state has to respond to the increasing housing backlog. In a situation where there is lack of access to finance, the large numbers of new entrants, estimated at about 200 000 a year (Kajimo-Shakantu and Evans, 2006: 25).

Bradlow, Bolnick and Shearing, (2011: 272) argue that housing finance is not enough; a comprehensive housing policy should have three fundamental principles. Firstly, housing policy should ensure community involvement. Secondly, there is a need to reshape the

institutional environment within the human settlements sector. Thirdly, change the flow of finance to enhance community involvement. There should be investment in the growth and capacitation of communities living in informal settlements (Bradlow, *et al.*, 2011: 273-274).

#### **2.7.4. HOME OWNERSHIP AND SUSTAINABLE HOUSING**

The study of low-income homeownership opportunities has had the attention of researchers and policy makers since the 1990s when programs were initiated with the express purpose of increasing the minority and low-income homeownership rate (Bentzinger and Cook, 2012: 77). According Bentzinger and Cook (2012:79) homeownership has been the dominant form of housing tenure in developed countries; which has an economic importance resulting in sustainable housing development. The economic benefits of homeownership include accumulated wealth and assets, tax reductions and other incentives from governments. The accumulation of wealth, however, is probably the most beneficial economic imperative. Ownership is not only associated with asset accumulation, but owners of homes are thought to have higher satisfaction with their homes and life in general than their counterparts. Owning increases psychological health by leading to higher self-esteem and social status (Bentzinger and Cook, 2012: 79). One reason that homeownership is thought to lead to a higher sense of self-esteem is because the owner has accomplished a “significant life goal. The benefits of ownership have important implications not only for adult family members but for their children as well. The home environment is the main place where children are reared and has important implications for their physical, social and emotional development (Bentzinger and Cook, 2012: 80). It is therefore critical that this form tenure option be transferred to poor people.

Well located land is a pre-condition for sustainable housing ownership. An adequate supply of land is generally recognized as a prerequisite for sustainable housing delivery, especially in developing countries (Odum and Ibem, 2011: 61). Nonetheless access to well-located land, especially in developing countries, is a tedious and problematic exercise. This is because of land commoditisation and selling to the highest bidder. Consequently, the poor will remain without land because they lack economic and political powers to access land. As a result of this, majority of urban residents are forced to live in slums and squatter settlements characterized by lack of secure tenure, basic services and general poor housing conditions and general lack of homeownership (Odum and Ibem, 2011: 61).

It should be noted though that housing ownership in some cases does not necessarily result in sustainable housing. Countries should find a right mix of housing ownership and temporary accommodation. In the context of China, cities such as Guangzhou are experiencing high levels of urbanisation. (Cook, *et al.*, 2013:12). Most of people who seek accommodation in the cities are temporary. Housing temporary populations has proven to be problematic. As a result, Cook, *et al.*, (2013: 13) propose the self-assembly small apartments structures that include kitchen, bathroom, water heaters, washing machines, microwave ovens. This must be a mobile and easy to assemble structure.

#### **2.7.5. DO- IT- YOURSELF APPROACH**

In order to encourage housing ownership in developing countries, the perspective of self-construction has emerged. This moves from the premise that housing contraction in

developing countries takes place in the informal sector, mostly through self-help or unpaid labour action (Santos, Da Rocha and Lepre, 2010: 29). Santos, *et al.*, (2010: 29) acknowledge that in Brazil, construction of low-income housing is largely realised through the do-it-yourself approach. There increasing participation of households in the housing provision process can be viewed as a trend in the Brazilian context. As a result, changes have occurred in the Brazilian housing policy concerning the government's role in the provision of housing-related goods and services. There has been a trend toward reducing direct government intervention in the housing provision process and increasing the participation of non-public agents such as the private and community-based organisations (Santos, *et al.*, 2010: 29).

The do-it-yourself approach did not go without criticism. This approach can result in hazardous situations, especially with regards to user safety while designing, producing, maintaining and/or recycling a product, resulting in high environmental damage and poor habitability conditions (Santos, *et al.*, 2010: 30). In general, issues such as product ergonomics, information design, sustainability, modular design, safety and other key aspects are ignored in design of construction components or products. This creates a critical situation given that the effectiveness of do-it-yourself approach relies on the embedded knowledge of the tools and materials themselves as well as the competence of those that undertake do-it-yourself productions (Santos, *et al.*, 2010). The do-it-yourself approach in most developing countries has also been hampered lack of tenure security (Macedo, 2010: 611).



Another approach to sustainable housing is upgrading of informal settlements. According to Macedo (2010:611) in most developing countries, informal settlements have made a significant contribution in housing the poor. Informal settlements sometimes represent the only opportunity for poor families to access housing. Bypassing the costs of parcel acquisition makes shelter an attainable goal for families that could otherwise be homeless (Macedo, 2010: 611). Kiddle (2010: 882) states that informal settlements emerge when formal markets and governments fail to provide housing in the urban environment. This means that informal settlements are a consequence of governments' failures.

Furthermore, there is a continuous failure by governments to recognise informal settlements as the first step towards sustainable housing (Ntema and Marais, 2013: 393). As a result, the researcher agrees with Meth (2013: 7) that the language or narrative associated with informal settlements is "deeply scarring", "fiercely humiliating", and "externally threatening". This language is also evident in the South African ministers using words such as "eradication" (Meth, 2013: 7). Meth (2013) highlights that aspiration towards eradication also undermines the economic value that slums offer within cities. Slums contribute to the urban economy as small-time traders, employers, landlords and renters and employees.

Kiddle (2010: 884) offers two methods of exploring the possibility of informal settlements to providing sustainable housing. Firstly, *in situ* settlement upgrading which involve the improvement of existing communities by providing services, rationalizing housing and street layout (Kiddle, 2010: 884). This approach is based on the sustainable housing principle of affordability of housing. Secondly, the site-and-services approach which involves the provision of vacant land in urban and peri-urban settings. This approach became popular for

policy-makers in 1983 and the World Bank funded more than 70 site and service projects (Kiddle: 2010: 884).

Kiddle (2010: 885) maintains even though all housing interventions have a role to play, policy-makers must pay close attention to the concept of “security of tenure”. Kiddle (2010: 885) moves from De Soto’s (2000: 6) argument that formal land right encourages poor people to further invest in their houses which could be otherwise a “dead asset”. A literature review also suggests three important advantages of titling, which include, the ability to trade ones’ land, the ability to use property as collateral (Mooya and Cloete, 2007: 156) and the protection against eviction (Ward, 2003: 4). Musembi (2007) has reflected on land titling in Sub-Saharan Africa especially in Kenya. His point of departure is in the context of customary land tenure. Musembi (2007:1457) views De Soto’s approach as rigid which ignores the informal nature of housing in African countries. Charlton (2004: 16) would agree with Musembi (2007) that informal housing options such as backyards shacks informal settlements and rooming approaches have provided housing for most South Africans.

Therefore, when considering housing for, and of, the poor, it is important to consider what is happening in both within and outside of the state’s housing programme. Typically these living arrangements are not acknowledged by the state, and the housing sector tends to focus formal government housing. Kiddle (2008: 889) suggests that security of tenure is not itself adequate to ensure sustainable housing development. Kiddle (2008: 889) proposes that policy makers should consider integrated policy options that recognise the important contribution the poor can make.

### **2.7.6. AFFORDABLE HOUSING APPROACH**

Home-ownership in developing has been seen as a pre-condition for economic sustainability of housing. This is due to the assumption that people are encouraged to invest in a house if they own it. One of the approaches of ensuring home-ownership is the provision of affordable housing. Affordable housing should be designed to ensure that low-income groups are able to afford and maintain ownership. According to Kropczynski and Dyk (2012: 126) housing affordability is realised when households spend no more than 30 percent of their gross income on housing costs. Azerbaijan (2012: 75) adds that “affordable house determines an affordability of people to own a house”. There are many factors to determine affordable house including household income, household expenditures, and housing prices.

There are two types of affordable housing in China. The first one is low-rent housing targeting the lowest income families. For low-rent housing, the residents just pay very low rents. The second one is economically affordable housing targeting low and lower-middle-income families before 2006, and low-income families after 2006, for which the residents can buy the house and property right by lower price than market price (Zhang, Yuan and Skibneiowski, 2011: 233). This Chinese approach is similar to the South African institutional housing programme; where beneficiaries buy rental accommodation after four years of occupation. This programme is also targeted low-income households earning less than R3, 500 per month (National Department of Housing, 2004).

### 2.7.7. COMMUNITY PARTICIPATION IN HOUSING PROCESS

The literature reveals that people-centred development is important for sustainable human settlements. According to Slum Dwellers International (SDI) – which is a collaboration of community based organisation consisting of 33 countries that seeks to provide alternative solutions to slum dwellers - a people-centred development is when local people are involved in decision making, their needs are taken to consideration, and local knowledge is used in housing development (<http://www.sdinet.org/>). The challenge is that most governments have failed to support housing policies to provide the right type of housing delivery system. This has allowed the community movement to grow and flourish representing a good development (Nascimento, 2003:48). In the human settlements terrain, real community participation has not been realised (Bradlow, Bolnick and Shearing, 2011: 268). Bradlow, *et al.*, (2011: 268) accuses South African institutions dealing with land tenure, basic services and housing of practicing “lip-service” participation. This is because housing policy is predominantly focuses on formal housing delivery. The formal nature of housing policy only allows market actors to implement at the expense of the poor (Bradlow, *et al.*, 2011: 268).

The housing initiatives by community activities to create alternative means of producing shelter should continue to develop all over the world. The worldwide community movement must be supported in its struggle to gain access to housing resources. The partnership concept increases the right of both the state and community to control and influence the environment. The concept of requires the state and professionals to support community work and enables the community to take an active role in housing programme (Nascimento, 2003: 48).

Whatever the type or extent of community participation, it productively depends on agreed channels of communication between the state and the participants. It is also necessary to review the existing codes and regulations that govern the provision of land, finance, and services, in order to reflect the needs and means of local communities. There is a need for structural change; this means the decentralisation of authority and with it access to resources at local levels through local policies and programmes (Nascimento, 2003: 48).

To ensure community participation, housing policy must give space for poor people to be involved in both planning and implementation of housing programmes (Bradlow, *et al.*, 2011:268). Nascimento (2003: 48) also suggests that architects must also assume responsibility for the needs of the poor as they are in a position to transform theories into reality. The system of construction is also under his control and it will be continuously changed and improved by him. In addition, the process of construction itself is the responsibility of the architect.

## **2.8. CONCLUSION**

This chapter has explored the housing literature in developing countries using countries such as Brazil, Costa Rico, and South Africa. This was done to find converging issues in relation to sustainable human settlements delivery. Furthermore, this chapter explored the theoretical framework which will be used to analyses research finding and draw some parallels between theory and practice. Literature reveals that understanding sustainable housing is not a simple process. Nonetheless, in countries explored there are agreements that security of tenure, affordable housing, city compaction, community involvements and

self-help housing processes are important to ensure sustainable housing. The next chapter explores the South African housing policy.

## CHAPTER 3: POLICY REVIEW OF HOUSING IN SOUTH AFRICA

### 3.1. INTRODUCTION SETTING THE SCENE

The world is urbanising at an increasing rate which has serious implications to the environment. The high rates of urbanisation in developing countries results in higher demand for housing in cities and towns. Today, about three quarters of Sub-Saharan Africa lives in cities. This new phenomenon has implications in relation to urban sustainability. One common challenge of growing cities is the ability of existing infrastructure to cope with the increased demand as people flock to cities. As a result, many people resort to formation of informal settlements which lack access to safe drinking water or sanitation services; and exposes people to several diseases (Jackson, 2013: 2).

As a result, an ideal sustainable housing policy should offer a great spectrum of opportunities to promote economic development, environmental stewardship, quality of life and social equality. While the problems related to population growth, urbanisation, slums, poverty, climate change, lack to access to sustainable energy, and economic uncertainty (UN-Habitat, 2012: 7). It is unusual for developing countries to include social, cultural, environmental and economic facets of housing in their planning processes. To illustrate, affordable housing is commonly considered on the basis of costs while environmental and social issues, economic impacts are addressed separately or totally ignored (UN- Habitat, 2012: 7). However, ignoring one or another dimension of sustainability only leads to accumulation of vulnerabilities and precarious housing situations.

The housing policy has a close relationship to the concept of sustainable development in South Africa. According to the National Framework for Sustainable Development in South Africa (DEAT, 2008: 7), sustainable development is about enhancing human well-being and quality of life for all, in particular those most affected by poverty and inequality. Resource use efficiency and intergenerational equity are the core principles. Human welfare, equity and sustainable living are the core principles of the Millennium Development Goals. There is a need for a sustainable housing policy that is comprehensive, multifaceted and suggests ways to harmonise the interdependence of people, economic prosperity and protection of the environment.

This chapter unpacks some of the challenges hampering the delivery of sustainable human settlements in South Africa. Furthermore, it discusses the evolution of housing policy from the apartheid dispensation to the democratic South African government. This evolution is critical to unearth because it provides policy-makers with contextual understanding of the housing problem in South Africa.

### **3.2. EVOLUTION OF HOUSING POLICY**

The evolution of housing policy in South Africa has direct implications towards the current practice. Three important stages that affect the current housing delivery in South Africa have been identified, namely; the pre-1994 housing policy; post-apartheid housing policy emanating from the 1994 Housing White Paper; and Breaking New Grounds (sustainable human settlements policy).



### **3.2.1. PRE 1994 APPROACHES AND POLICY**

The introduction and institutionalisation of separate development (apartheid) was not the beginning of geographic, institutional and social separation. Segregation was already a policy of by the time apartheid was introduced at a national level 1948. Since colonial times many different forces had shaped human settlements in South Africa increasingly along racial and class lines (Du Plessis and Landman, 2002: 2). This resulted in the exclusion of large sections of the population from economic, social and environmental benefits of vibrant, sustainable urban development. These patterns are established the foundation of grand apartheid that formally emerged in second half of the twentieth century, in which was essentially a geographical attempt at partition, with dire spatial consequences (Du Plessis and Landman, 2002: 2). Parnell (1993: 471-488) and Davies (1981: 65) identify two events that lead to separate development during the colonial era.

Firstly, the 1918 flu epidemic (Davies, 1981: 65); population pressure, poverty housing and deteriorating health conditions, exacerbated the 1918 flu epidemic, raised fears that the spread of disease and led to legislation to separate and control haphazard African residential development. Dr Mitchell made a convincing argument, from a health perspective, that African culture was not hygienic and thus not compatible with urban environment. He suggested that sick Africans should be relocated to rural areas on the grounds that treatment for Africans in urban areas would be expensive and that Africans would infect the White population. As a result, sick Africans were relocated to rural areas through the Public Health of 1919 and the Native Act of 1923. The 1923 Native (Urban Areas) Act thus called for segregation Africans and their housing in municipal, locations and

villages, and licenced hostels and quarters provided by employers. Under the 1937 Native Laws Amendment Act, furthermore, African urban land purchases were halted. The amendment of Native Act in 1945 was a result of rapid urbanisation of Africans who wanted to benefit from industrialization (Davies, 1981:65). There was therefore a need to control access to urban areas.

Secondly was the emergence of the White Labour Party, which was concerned with employment of Black cheap labour at the expense of White population. On the one hand, the poor- White organisation was of the opinion that urban wages was the only source of income for them. On the other hand, Africans could sustain their lives in rural areas. This argument was also influenced by Dr Mitchell's position, that African lifestyle was better suited for rural areas (Parnell, 1993: 488). The White Labour Party, which was politically influential, maintained that there should be job reservation for poor-Whites. As a result, the British town planning model- which was used to separate the working class from upper market settlements- was adopted in to remove Africans from urban environment (Parnell, 1993: 488). The results were wide ranging, leaving South Africa with cities that entrenched inequality, that were difficult to manage well, and that functioned poorly. In addition, it left distinctive spatial characteristics. South African cities are now characterized by low-density sprawl, fragmentation and separation (Du Plessis and Landman, 2002:3).

The institutionalization of apartheid was further entrenched by the Group Areas Act of 1957. This Act was predominantly established to control urban access; where Africans were allowed to enter urban areas only for work purposes. Furthermore, the National Party used

this legislation to perpetuate migrant labor. Through this legislation, Africans living in urban areas were required to carry passbooks at all times - which allowed them access to White areas. A number of “reserves” or “black spots” were created for Black people who work in cities. These places were created far away from White areas to ensure segregation (Cox, 2004). Due to rapid industrialization in Johannesburg, the National Party realized there was a need to relax labour laws. As a result of increase urbanization, housing demand was also increased this also brought about informal settlements formation. The overcrowded conditions had a severe impact on housing provision for Africans. This phenomenon gave way to bitterness and strains - specifically in Soweto ([http://www.soweto.co.za/htm/i\\_research\\_doc1.htm](http://www.soweto.co.za/htm/i_research_doc1.htm) ).

At this state (1990), housing policy development was influenced by three main groups. Firstly, the Mass Democratic Movement which was made of the African National Congress (ANC), Congress of South African Trade Union and civil society movements (Huchzermeyer, 2001: 307). The Mass Democratic Movement believed that private land ownership was exploitative and there was a need to abolish rental accommodation in residential areas (Huchzermeyer, 2001: 307). Secondly, there was the business sector which was concerned about protests and unrests due to National Party policies. Thirdly, the Homeless People’s Federation was supported by the international community because of poverty in urban areas. Their argument was that housing provision was biased towards white people (Huchzermeyer, 2001: 308).

The pressure mounted up and gave way to Soweto housing riot due to homelessness. This resulted in land invasion some areas of Orlando West. The council met the challenge by

erecting temporary shelters (made out of ash, sand and cement) in order to provide basic services to the local population. In some cases, the council was forced to remove some people who invaded land pockets. The forced removals of Africans in these areas such as Sophie Town, Meadowlands, and Diepkloop were seen as the manifestation of the central Nationalist government further entrench apartheid ideology- of oppression and separate development ([http://www.soweto.co.za/html/i\\_research\\_doc1.htm](http://www.soweto.co.za/html/i_research_doc1.htm)). The unrest in townships resulted in the establishment of the Urban Foundation- this was a humanitarian business think-tank concerned with social issues in the urban environment (Huchzermeyer, 2001: 308).

### ***3.2.2. POST- 1994 HOUSING POLICY***

Housing policy in this dispensation seemed to be reactive; with a particular emphasis on reversing the apartheid spatial planning. The post- 1994 government used legislation to provide many houses for poor South Africans. Scholars such as Charlton (2009, 301) have raised concerns about the issue of housing quality.

#### **3.2.2.1. The right to housing**

Following the international Declarations, such as the Universal Declaration of Human Rights, the South African Constitution acknowledges housing as a human right issue (Marais and Wessels, 2005). The South African Constitution, 1996, states that “everyone has the right to access to adequate housing and make it incumbent upon the State to take reasonable legislative and other measures within the available resources to achieve the progressive realization of this right” (Republic of South Africa, 1996). The problem is that it not clear

what is meant by right to access housing in South Africa. Furthermore, the South African legal system is not contextualized but seems to be copied from the international arena which creates numerous problems during implementation. Victor (2009: 44) states that international human rights norms and the South African legal system has revealed that execution of international human rights into national legal procedures is problematic. It is also argued that international legal systems are largely laws of nations, 'concerned only with the rights and duties of states, not individuals' while national policies are free to control the lives of their citizens. In other words, the compliance of these laws is usually at the discretion of the member states instead of any international obligation. Victor (2009: 44) is of opinion that South Africa has failed to cater for the urban poor households waiting in queue for low-income housing. Even though the South African Constitution has been seen as the best in the world, there are consistent gaps between theory and practice.

Marais and Wessels (2005: 18) highlight that 'an adequate house' is a complicated concept that needs further unpacking. The definition of housing right in the Constitution simply implies that the state is only obligated to create a conducive for housing development. The actual construction of housing should be the responsibility of individuals or the private sector. Tonkin (2008: 34) suggests that the right to housing, social economic and cultural are much more complex chain of commitments. Government needs to ensure education around the meaning of access to housing; it should be clear that legislation does not compel government to provide housing. The best approach to address this misunderstanding is through consumer education.

Despite this, and notwithstanding the provision of 2.3 million housing units to nearly 11 million people, South Africa still has a housing crisis after 19 years of democracy, with 2.1 million households lacking adequate housing. The Minister of Human Settlements stated that despite the housing backlog the, government does not want to create a “culture of beggars” who solely depend on the state for housing provision (Tissington, 2011: 8). The housing policy in South Africa is intended to encourage the safety net for the poorest. It should be noted the magnitude of poverty in South Africa has forced government to produce housing at scale without considering the issues of quality and sustainability.

Tissington (2011:11) notes that the right to housing is intrinsically bound up with a number of other cross-cutting rights- including the rights to public participation, equality, human dignity, just administrative action, access to information and access to justice – as well as socio-economic amenities. These rights include access to land, water, sanitation, electricity, livelihoods, transport, clinics, and hospitals, schools, universities and cultural and recreational amenities such as libraries, public spaces, swimming pools, sport fields and religious centres. Taken together, access to these rights and socio-economic goods alleviates poverty, reduces inequality and improves the quality of people’s lives (Tissington, 2011: 11). However, as yet, government has not taken the kind of holistic approach to such development issues that would fundamentally redress the lingering spatial and socio-economic divide across South African cities and towns, despite its promotion of “sustainable human settlements” in policy. To this end, the revised national housing programme includes in the 2009 National Housing Code, along with recent in undertakings by the Department of Human Settlements in relation to informal settlement upgrading and social/rental housing, are encouraging. However, there is a continued rigorous research,

lobbying and engagement at all levels around policy, programme and housing targets (Tissington, 2011:11).

### **3.2.2.2. The South Africa Constitution**

Following the international Declarations, such as the Universal Declaration of Human Rights, the South African Constitution acknowledges housing as a human right issue (Marais and Wessels, 2005). The South African Constitution, 1996, states that “everyone to have access to adequate housing and make it incumbent upon the State to take reasonable legislative and other measures within the available resources to achieve the progressive realization of this right” (Republic of South Africa, 1996). The problem is that it not clear what is meant by right to access housing in South Africa. Marais and Wessels (2005: 18) highlight the argument that ‘an adequate house’ is a complicated concept that needs further unpacking. The definition of housing right in the Constitution simply implies that the state is only obligated to create a conducive for housing development. The actual construction of housing should be the responsibility of individuals or the private sector. Tonkin (2008: 34) suggests that the right to housing, social economic and cultural are much more complex chain of commitments. Government needs to educate on the meaning of access to housing; it should be clear, legislation does not compel government to provide housing. The best approach to address this misunderstanding is through consumer education.

### **3.2.2.3. Housing White Paper, 1994**

In the early 1990s, the National Housing Forum (NHF) developed the foundations of the South African post-apartheid housing policy; this process resulted in the acceptance of the basic guidelines in the Housing White Paper (Marais and Krige, 2000: 603). The White Paper on Housing provided the framework for the country's ambitious housing development target on building one billion state-funded houses in the first years of office, as set out in the now abandoned ANC Reconstruction and Development Programme (RDP). A cornerstone of this early policy was the National Housing Subsidy Scheme (NHSS), which, among other subsidy systems, provided capital subsidies for housing to qualifying beneficiary households to take full ownership. Later referred to as RDP housing, this was a developer-driven process, meaning projects were initiated, planned and built by private construction companies for the national and provincial government. The fundamental policy and development principles introduced by the White Paper on Housing continue to guide all developments in respect to housing policy and implementation (Tissington, 2011: 21).

The White Paper is based on seven main strategies which are; stabilizing the housing environment; mobilizing the private sector to invest in housing; providing subsidies to qualifying beneficiaries; supporting People Housing Process (PHP); rationalizing institutional capacities; fast tracking the release of serviced land; and co-ordinating state investment in development (Harrison, Huchzermeyer and Mayekiso, 2003: 45). On the one hand, Marais and Krige (2000: 606) note that the South African White Paper is quite clear on who the beneficiaries should be and how the subsidy should help those beneficiaries. On the other hand, there are important challenges in aligning the White Paper's objectives and funding models or streams.



#### **3.2.2.4. Housing Act, 1997**

Housing law comprises of a set of multifaceted laws in the Housing Act of 1997. This Act is the primary piece of housing legislation in South Africa. It legally entrenched the policy principles outlined in the 1994 White Paper on Housing. The Act provides for a sustainable housing development process, laying down general principles of housing development in all spheres of government; and it lays the basis of financing national housing programmes. Furthermore, the Housing Act describes the roles and responsibilities of national, provincial and local governments; revokes all racially based housing legislation, expands on the Constitutional and prescribe the general principles for housing development (Department of Housing, 1997). According to the Housing Act, national and provincial government is responsible for policy development, monitoring and evaluation. Local government is assumed to be closest state organ to citizen. As a result, it is tasked with implementation of the housing policy (Department of Housing, 1997).

According to section 2(1) of the Housing Act, all spheres of government must give priority to the needs of the poor in respect to housing development, and consult meaningfully with individuals and communities affected by housing development (Republic of South Africa, 1996). They must ensure that housing development provides a wide choice of housing and tenure options as is reasonably possible; is economically, fiscally, socially and financially affordable and sustainable; is based on integrated development planning; is administered in a transparent, accountable and equitable manner; and upholds the practice of good governance (Republic of South Africa, 1996; Tissington, 2011:11).

These principles demonstrate that government has taken on an enabling role, rather than being the provider of housing or, at the other extreme, leaving provision solely to the market, thus strengthening its market-centred approach to housing delivery as stated in the Housing White Paper. In the process of performing this enabling role towards ensuring adequate housing for all, government commits itself to establishing and maintaining socially and economically viable communities and safe healthy living conditions which there can be the expression of cultural identity and diversity. Attaining higher densities of housing and the provision of community and recreational facilities would also be priorities (Du Plessis and Landman, 2002:113). However, it remains to be seen whether a role of enablement will be enough to ensure the establishment of sustainable human settlements. Du Plessis and Landman (2002:113) caution that it difficult to argue that the enabling principle of the Housing White Paper would result in sustainable human settlements. The Housing Act seems to support this notion of upgrading and improvement of the quality of life while at the same time emphasising to enabling role of government and thus stepping back to let others take control of the situation in many cases.

### **3.2.3. TOWARDS A SUSTAINABLE SOLUTION TO HOUSING PROBLEM**

The policy shift towards sustainable human settlements was informed by a ten year review of the housing policy, conducted by Fin Mark Trust. The review revealed that the post-apartheid housing policy delivered housing on scale. It was also revealed that there was poor quality of housing, corruption, maladministration and lack of planning in the housing sector (Du Plessis and Landman, 2002). This led to a new housing approach which is known as “Breaking New Grounds”.

### **3.2.3.1. Breaking New Grounds (BNG), 2004**

From 2002 to 2003, the National Department of Human Settlements undertook a comprehensive review of its housing programme after recognising a number of unintended consequences of the existing programme –which partly led to need BNG policy. These unanticipated problems include peripheral residential development, poor quality products and settlements, lack of community participation, the limited secondary low income housing market, corruption and maladministration, a slowdown in delivery, under spent budget and continued growth of informal settlements. The review process aimed at providing a new policy direction and establishing a research agenda to inform and support policy decision-making with the housing programme, particularly to counter the dispersal of knowledge and intellectual capacity that had occurred over the previous decade. The review aimed to use the National Department of Human Settlements as a hub to focus and address complex questions of space and economy (Tissington, 2011: 65).

BNG policy was approved in 2004 by Ministers and Members of the Executive Council (MinMEC). Tonkin (2008) is of the opinion that the approval of the BNG plan marked a “turnaround in housing delivery countrywide”. The policy is intended to refocus attention into the development of sustainable human settlements. The Habitat Agenda and Global Plan Action as well as the MDG inform this document (National Department of Housing, 2004). The key objectives of BNG policy is to promote densification and integration; enhance the location of new housing projects; support urban renewal and inner city regeneration; develop social and economic infrastructure; and enhance the housing product (National Department of Housing, 2004).

In September 2004 BNG was adopted by the Minister and Members of Executive Council (MinMEC) as a revised framework for the development of sustainable human settlements. BNG is based on the principles contained in the White Paper of Housing and outlines the strategies to be taken to achieve the government's overall housing aim. While not clearly introducing a new policy direction, the document outlines a comprehensive plan for the development of sustainable human settlements in the next five years after 2004. BNG will be used (Tissington, 2011: 21).

BNG intends to shift away from the focus of quantity of houses delivered to quality (size and workmanship of housing product, settlement design, alternative technology, etc) and choice (tenure type, location, etc). It aims to increase the rate of delivery of well-located housing of acceptable quality through a variety of innovative and demand-driven housing programmes and projects. These programmes include the upgrading of informal settlements, extending subsidy to assist people in "gap market"- these are households earning from R3500 to R7000, and acquiring well-located land for poor income groups (Charlton, 2009: 308). BNG was built on the principles of the White Paper on Housing but also supplements existing mechanisms and instruments to ensure more responsive, flexible and effective delivery. In addition, the purpose of BNG was to emphasis on the process of housing delivery, i.e. the planning, engagement and the long-term sustainability of the housing environment (Tissington, 2011: 65).

According Charlton (2009: 308) there are mixed feelings about the extent of policy shift BNG represents. On the one hand, some maintain that it as a radical departure from previous policy which is problematic; as a result it is not adequate to address sustainable human settlements. In addition, performance indicators of sustainable human settlements – as articulated by BNG – are quantitative. On the other hand, there are those that argue that BNG is a continuation of the housing policy which seeks to address critical policy weaknesses (Charlton, 2009:308).

### **3.2.3.2. The National Housing Code (2000, revised in 2009)**

The National Housing Code was first published on 21 October 2000 in line with section 4 of the Housing Act. It set out the national housing policy of South Africa, together with procedural guidelines for its effective implementation through the inclusion of the National Housing Programmes. The Code's vision for housing in South Africa echoes the definition of housing development as outlined in the housing Act. According to the 2000 Code, government's housing goal is subject to fiscal affordability; to increase housing delivery on a sustainable basis to a peak level of 350 000 units per annum until the housing backlog is overcome (Tissington, 2011:11).

With the establishment of the BNG in 2004, there was a need to review the Housing Code to ensure it is implemented. In addition, the Housing Code of 2000 was considered to be rigid which resulted in the addition of flexible guidelines being included in the 2009 Housing Code. Consequently, the revised Housing Code was published and provided a set the underlying policy principles, guidelines and norms and standards which apply to

government's various housing assistance programmes, some which have been newly introduced and others updated. Programmes such as the Project Linked Subsidy, Relocation Assistance Programme, Blocked Projects Programme and Rectification of RDP Stock of 1994-2002 were removed because they were considered irrelevant. (Tissington, 2011: 72).

The Housing Code should be revised yearly to ensure that social and economic changes are taken to consideration. The housing programme has a focus on the poor and previously disadvantaged, and advocates a participative process which people-centred and which promotes skills transfer and economic empowerment. Beneficiaries should have a choice of housing solutions which offer quality and affordability (Department of Human Settlements, 2009: 15).

Charlton (2004: 4) recognises that housing programmes have made notable quantitative contribution to reducing the backlog— in 2003, there were 1.4 million houses built or under contraction. In the light of this progress, one must show appreciation towards decision-makers in South African. At the same time quality should not be compromised in order to delivery many houses. Groves (2004: 28) recognises the magnitude of housing provision but argues that it has failed to contribute to spatial integration and further perpetuates apartheid spatial planning. Furthermore, contribution of the housing programmes in creating sustainable human settlements is not clear. Having a house could be closely associated with pride, dignity and privacy. However Zack and Charlton (2003:38) note that the after-care of government housing is non-existent, especially with regards to infrastructure. As a result beneficiaries are forced to live in undervalued housing developments. Charlton (2009:305) also notes that housing programmes have not

considered issues around market value of a government house. The concept of poverty alleviation through housing has not been properly understood by policy-makers at the national arena.

### **3.2.3.3. National Environmental Management Act (NEMA)**

The NEMA Act is a result of the South African Constitution that guarantees the right to an environment that is not harmful to health and well-being of everyone living in South Africa. “NEMA defines environment as the natural environment and the physical chemical, aesthetic and cultural properties of it that influence human health and well-being. NEMA is based on the fundamental human right principles of democratic governance; justice and fairness; human dignity and social equity. The definition of sustainable development: that everyone has a right safe environment without compromising the health future generations” (Republic of South Africa, 1998). The South African Constitution gives NEMA the powers to overrule any housing related activity that poses harm to the environment. Even though the NEMA Act requires that the provision of an environmental impact assessment before any housing project, it does not indicate the sphere of government that will be responsible for reporting (Department of Human Settlements, 2009: 12-60). As a result, some housing projects in South Africa are done without environmental considerations.

### 3.3. DEVELOPMENTAL LOCAL GOVERNMENT

The notion of Developmental Local Government (DLG) was developed to balance the attainment of social goals and economic imperatives of the Growth Employment and Redistribution policy (GEAR) (Smith and Vawda, 2003: 28-29). The ANC-led government argues that infrastructural programmes such as the provision of electricity, water, telecommunications, transport, health, housing, education and training are key ingredients for economic development and reconstruction (Ndinda, 2006: 403). The concept of DLG emerged during the transition period in the post-apartheid South Africa (1993- 1997). Local government had been a major focus for anti-apartheid struggles during the 1980s and early 1990s as it was the principle instrument of racial supremacy.

In the post-apartheid South African, the restructuring of local government was a major priority for the ANC government. This ANC government acknowledged that local spheres of government are the closest to communities. As a result, local governments are better positioned to provide sustainable housing solutions in consultation with the communities. Consequently, the White Paper on Local Government (1998) provides for the role and responsibilities of local governments. The White paper stresses the importance of collaboration between local government and communities in funding sustainable ways to meet community needs. The four critical elements on executing the principle of the White Paper are participation in service delivery, ensuring good governance, democratizing development and fostering economic growth (Smith and Vawda, 2003: 29-30). The housing chapter of the IDP is an important instrument to ensure community participation, integrated planning and sustainable development imperatives.



### **3.3.1. INTEGRATED DEVELOPMENT PLANS**

Scholars such Smith and Vawda (2003: 31), Lyons, Smuts and Stephens (2001: 1233) converge that concept of public participation should be incorporated to housing delivery. The challenge is that the definition and parameters of public participation is complex. Ndinda (2004: 58) thinking is influenced by the international feminist discourse (Ndinda, 2006: 401) and sees public participation in the context of “self-help” housing where communities, especially women, are involved in decision making relating to issues of mobilisation of finance, labour, and other resources required to access housing. For the purposes of this research, the researcher agrees with Ndinda (2006: 408) conceptualisation of community participation. She maintains that community participation is understood as the role of targeted group and local organisation play in project design, implementation, maintenance, and evaluation.

The 1996 Local Government Transition Amendment Act was established to assist Local Government to ensure integrated planning, budgeting, and management (Republic of South Africa, 1996). The Act also provides for the need of the IDPs; which is a framework used to prioritise development in the local level context. In addition, IDPs are participatory process that ensures that local communities have a voice in development. (Smith and Vawda, 2003: 32). In the development of IDP plans, sectors such as housing, transport, education and economic development should be taken to consideration to ensure integrated planning process. The shortcoming of the Local government Transition Amendment Act is that it did not emphasises the importance of environmental protection in relation to housing delivery.

### ***3.3.2. HOUSING CHAPTERS OF THE IDP***

According to Tissington (2011: 78-79) housing chapters have been part of the IDP process to ensure that housing issues are considered. The new Housing Code provides funding for municipalities who lack in-house capacity to develop feasible housing chapters. This funding can be only be used for temporal assistance; it is not intended for employment. In addition, the Housing Code provides guidance on how to develop housing chapters and establishes the provision of grants to municipalities (Tissington, 2011: 78-79). Municipalities must identify a “housing voice – this is a person or people who will represent housing interest during the IDP process. The agent to understand issues such as in-migration, out-migration and the backlog, etc (Tissington, 2011: 79).

### ***3.3.3. PROBLEMS WITH IDPs AND HOUSING CHAPTERS***

Since the adoption of the IDP process; it has been flowing from two levels. The first group is officials who participates in the city council committee. These are officials who are specialists in areas such as municipal services, finance, and planning. The second group is politicians who make allocation decision. According to Smith and Vawda (2003: 33) these levels have failed due to the lack of community engagement during planning stages. Both politicians and officials do not consider public participation to be an important element of the IDP process (Smith and Vawda, 2003: 33). In addition, there is certain level of conflict between politicians and officials. While politicians view the IDP process as political process, officials are often concerned with issues of compliance. (Smith and Vawda, 2003: 33).

The above-mentioned conflict of interest can sometimes be a complicated and difficult process. Often times human settlements projects get blocked because of lack of consensus. This mistrust is often escalated to other sector departments. As result, essential services as such as water, electricity are not provided in integrated fashion. This poses a paramount predicament for sustainable housing in South Africa (Smith and Vawda, 2003: 33-34).

#### **3.3.4. OUTCOMES 8 APPROACH**

The outcomes based approach is part of the government's programme of action which emanates from the ANC's election manifesto. The outcomes approach is designed to focus on improving the life of South Africans. To ensure sustainable development, the approach emphasizes improved coordination of government activities across the spheres for common objectives, thereby discouraging fragmentation in service delivery (Department of Monitoring and Evaluation, 2009). The approach has direct implications towards development of sustainable housing because it seeks to adopt a common approach to service delivery. This approach seeks to improve accountability of different role players in the service delivery chain through the efficient and effective use of human and financial resources (Department of Monitoring and Evaluation, 2009).

There are 12 outcomes which are posed as an implementation plan for strategic priorities towards 2014. This implementation plan outlines measureable outputs, activities, indicators and clear targets that can be used to assess progress. The 12 outcomes are interrelated and involve several stakeholders in government and outside of government (Department of

Monitoring and Evaluation, 2009). The then Minister for Human Settlements (Tokyo Sexwale) has entered into a Performance Agreement with the President in order to execute outcome 8 targets; which are to upgrade 400 000 households in informal settlements; to provision of services such as water, sanitation, refuse removal and electricity; financing of 600 000 housing opportunities for people who fall outside the housing subsidy; and the release of 6250 hectares of state owned land for development of sustainable human settlements. Involved stakeholders are required to report on outcomes 8 progress on the quarterly bases until 2014 (Department of Monitoring and Evaluation, 2009).

### ***3.3.5. THE NATIONAL DEVELOPMENT PLAN***

The National Development Plan recognises that the apartheid social engineering has resulted in inefficiencies and inequalities in South Africa. In order to address this spatial problem, the National Planning Commission (2011: 233) makes bold statements that in 2050; South Africa will no longer have poverty traps in both rural and urban areas, the working class will be accommodated closer to their work, eradication of informal settlements, ensuring access to service delivery, and ensure the provision of infrastructure. The National Planning Commission (2011: 234) also proposes a mixed housing option to address different housing needs. Amongst several recommendations, spatial sustainability is the main principle that could lead to sustainable housing development. Proper spatial planning has the potential to ensure access to socio-economic amenities, work opportunities and better transport systems. Terreblanche (2012: 116) agrees with the principles of the National Development Plan but he is concerned about the implementation aspect. Terreblanche (2012: 116-117) maintains that the National Development Plan has

valueless targets unless there is clear institutional change that encourage would encourage good governance.

### **3.4. CONCLUSION**

This chapter unpacked some challenges relating to the delivery of sustainable human settlements in South Africa. It was found that the South African housing challenge may be similar to other developing countries; there are some specific problems that are particular to South Africa. This is because of the unique history (apartheid regime) which systematically discriminated the Black South Africans. As a result, the post-apartheid housing delivery focuses on quantity at the expense of quality. The next chapter explores the research design and methodology.

## CHAPTER FOUR: DATA COLLECTION AND PRESENTATION

### 4.1. INTRODUCTION

The fundamental purpose for this chapter is to present the research findings. In order to do this, it is divided into three sections. The first section unpacks the concept of sustainable housing in South Africa; which comprises of the definition of sustainable housing; the main objectives of Breaking New Grounds policy; and indicators of sustainable housing. The second section explores the view of Carr Gardens residents on the concept of sustainable housing. The last section provides an evaluation of the definition from residents and government officials.

This chapter presents empirical data collection and analysis gathered using semi-structured interviews and questionnaires. The semi-structured interviews were conducted with officials from the National Department of Human Settlements, Gauteng Provincial Department of using interviews. Questionnaires targeted at Carr Gardens housing beneficiaries were sent to respondents and collected after a week. In this chapter data is presented in terms of various categories and emerging themes. Adhering to Creswell's (2009: 125) advice, both quantitative and qualitative data was analyzed using qualitative methods.

In order to effectively answer the main research question, it is imperative to remember the purpose of this research. The purpose of this research is to:

- To unpack the concept of sustainable housing in South Africa;
- Determine what are the important elements within the housing context that need to be addressed to achieve sustainability;

- Draw general conclusions on how sustainable housing can be achieved in South Africa.

Against these objectives, this study formulated sub-research questions in both the questionnaire and the interview schedule which seen to be appropriate to answer the main research question.

#### **4.2. DEFINITION OF SUSTAINABLE HOUSING**

According to the respondents (officials) interviewed, sustainable housing in South Africa is captured in the Breaking New Ground (BNG) policy. In order to hasten the delivery of sustainable housing, the Department of Housing introduced the BNG policy which focused quality rather than quantity of housing (Chenwi, 2007: 12). Sustainable housing development in South Africa is defined in as “well managed entities where economic growth and social development are in balance with the carrying capacity of natural systems on which they depend for their existence and result in sustainable development, wealth creation, poverty alleviation and equity”( Department of Housing, 2004).

This means that sustainable housing should be established and maintained in habitable, stable and sustainable public and private residential environments to ensure viable households and communities (Department of Housing, 2004). Human settlement must be built in areas that allow convenient access to economic opportunities, to health, education, and social amenities (Department of Housing, 2004). As a result, the BNG policy promotes access to permanent residential structures with secure tenure with services. For residence

of Carr Gardens, the term of “sustainable housing” means having affordable housing that is close to their work and schools. In addition, the cultural aspect of housing is important to ordinary people.

In addition, government officials derive the definition of sustainable housing from the National Development Plan (NDP). According to NDP (2011: 259) planning in South Africa should be guided by important principle of creating liveable, equitable, sustainable, resilient and efficient, and support economic opportunities and social considerations. As a result, sustainable housing should be implemented in a collaborative manner using the Integrated Development Plans (IDP). The IDP process ensures community participation and the amalgamation of several sectors to one comprehensive planning instrument.

#### **4.2.1. MAIN OBJECTIVES OF THE BNG POLICY**

##### **4.2.1.1. SUPPORTING URBAN RENEWAL AND INNER CITY REGENERATION**

Government officials are of the view that housing demand can be strategically used to revitalize the inner cities of South African cities and town through providing affordable housing through city regeneration. The refurbishment includes the conversion of hostel to family units which is targeted at people earning less than R3, 500 per month. Identified government buildings will also be converted. The refurbishment of government buildings is important space which can be used to provide for already existing tenants, and provided employment (Department of Housing, 2004: 14). Social housing interventions such the Carr Gardens housing project is a critical example of urban renewal. Social housing is a housing option provided by institutions for low and medium income categories (Chenwi, 2007: 11).



Social housing institutions such the Johannesburg Housing Company assist with the preparations of development plans business plans for housing development in well- located land (Chenwi, 2007: 11-12).

#### **4.2.1.2. PROMOTION OF INTEGRATION AND DENSIFICATION**

According to the City of Johannesburg and the National Department of Human Settlements officials, integration emanates from IDP process to ensure that planning is co-ordinated with several stakeholders involved in human settlements development. By implication, sectors such as water, energy, education, infrastructure, economic development and land management should be involved in the development of human settlements. In addition, densification can ensure that people are integrated to urban infrastructure and economic activities. Furthermore, densification ensures optimal use of limited land resource. The National Department has therefore working on the densification framework applicable to all provincial and local department of human settlements. According the official from the National and Provincial Department, densification should be planned in well-located; higher-densities to save the land; and promote densification development in the inner cities.

#### **4.2.1.3. ENHANCING THE LOCATION OF NEW HOUSING PROJECTS**

The South African government faces several constraints from achieving sustainable housing. The post- apartheid housing initiatives have been accused of conforming to the apartheid spatial planning. This is because human settlements development still takes place in peripheries of major town and cities. Part of the problem is that well-located land is limited and expensive. The administrative process of land acquisition for the poor is long and

tedious process (Department of Housing, 2004: 14). To achieve this, government has made a commitment to unlock well-located state-owned land for affordable housing. In 2009, the Housing Development Agency has been established with sole responsibility to identify state and privately owned land for the purposes of the creation of sustainable human settlements (Republic of South Africa, 2013).

#### **4.2.1.4. DEVELOPING SOCIAL AND ECONOMIC INFRASTRUCTURE**

The BNG plan recognizes the need to move away from a housing-only approach towards the more holistic development of human settlement. This is ensured by the construction of social and economic infrastructure (Department of Housing, 2004: 15).

#### **4.2.1.5. ENHANCING THE HOUSING PRODUCT**

For the National Department of Human Settlements, planning relating to housing development should take place at local level. This is partly because local knowledge is critical for sustainable housing. There is a need to develop more appropriate settlement designs and housing products and to ensure appropriate housing quality (Department of Housing, 2004: 15). With regards to rural housing, there is a need to ensure that traditional technologies and indigenous knowledge are taken into consideration when government is providing housing (Department of Housing, 2004: 47). According to government officials, using local knowledge is advantageous because it is not costly and often indigenous practices are environmentally friendly. Local people provide alternatives to housing problems which is often overlooked by policy.

### 4.3. INDICATORS FOR SUSTAINABLE HOUSING

In the international context, the United Nations Habitat has agreed on some sustainable housing indicators. It stresses that these indicators are global in nature and therefore countries must develop their locally specific indicators. Research respondents in Carr Gardens agree with the internationally accepted indicators identified by the United Nations. Even though these indicators are generally accepted, there is still a need to have content specific indicators. The United Nations Habitat (2004) indicators are summarized in the following table:

**List of Habitat Agenda Indicators (UNHSP, 2004)**

<b>Habitat –aligned indicators</b>	
<b>Habitat agenda goals</b>	<b>Indicators</b>
<b>1. Shelter</b>	
Promote right to adequate housing.	<ul style="list-style-type: none"> <li>• Key indicator 1: durable structures</li> <li>• Key indicator 2: overcrowding</li> <li>• Extensive indicator 1: housing price and rent to income</li> </ul> <p><b>Checklist 1: right to adequate housing</b></p>
	<ul style="list-style-type: none"> <li>• Indicator 3: secure tenure</li> </ul>

Provide security of tenure ( provision equal access to credit and land)	<ul style="list-style-type: none"> <li>• Extensive indicator 2: authorized housing</li> <li>• Extensive indicator 3: Evictions</li> <li>• Extensive indicator 4: land price to income</li> </ul> <p><b>Checklist 2: Housing finance</b></p>
Promote access to basic services	<ul style="list-style-type: none"> <li>• Key indicator 4: access to safe water</li> <li>• Key indicator 5: access to improved sanitation</li> <li>• Key indicator 6: connection to services</li> </ul>
<b>2. Social development and eradication of poverty</b>	
Provide equal opportunities for safe and healthy life	<ul style="list-style-type: none"> <li>• Key indicator 7: under-five mortality</li> <li>• Key indicator 8: homicides</li> <li>• Extensive indicator 5: HIV-prevalence</li> </ul> <p><b>Checklist 3: Urban violence</b></p>
Promote social integration and support disadvantaged groups	<ul style="list-style-type: none"> <li>• Key indicator 9: poor households</li> </ul>
	<ul style="list-style-type: none"> <li>• Key indicator 10: illiteracy rates</li> </ul>

<p>Promote gender equality in human settlement development</p>	<ul style="list-style-type: none"> <li>• Extensive indicator 6: school enrolment</li> <li>• Extensive indicator 7: Women councilors</li> </ul> <p><b>Checklist: gender inclusion</b></p>
<p><b>3. Environmental management</b></p>	
<p>Promotion of geographically balanced settlement structures</p> <p>Manage supply and demand for water in an effective manner and reduce pollution</p>	<p>Key indicator 11: urban population growth</p> <p>Key indicator 12: planned settlements</p> <p>Key indicator 13: price of water</p> <p>Key indicator 14: wastewater treated</p> <p>Key indicator 15: solid waste disposal</p> <p><b>Extensive indicator 8: water consumption</b></p> <p><b>Extensive indicator 9: regular solid waste collection</b></p>
<p>Prevent disasters and rebuild settlements</p>	<p>Check list 5: disaster prevention and mitigation instruments</p> <p><b>Extensive indicator 10: houses in hazardous locations</b></p>
<p>Promote effective and environmentally sound transportation systems</p>	<p>Key indicator 16: Travel time</p> <p>Check list 6: local environmental plans</p>

Support mechanisms to prepare and implement local environmental plans and local Agenda 21 initiatives	<b>Extensive indicator: Transport modes</b>
<b>4. Economic development</b>	
Strengthen small and micro-enterprise, particularly those developed by women  Encourage public- private sector partnership and stimulate productive employment opportunities	Key indicator 17: informal employment  Key indicator 18: city product  Key indicator 19: unemployment
<b>5. Governance</b>	
Promote decentralization and strengthen local authorities  Encourage and support participation and civic engagement  Ensure transparent, accountable and efficient governance of towns, cities and metropolitan areas.	Key indicator 20: local government revenue  Check list 7: decentralization  Check list 8: citizens' participation  Check list 9: transparency and accountability  <b>Extensive indicator 12: voter's participation</b>  <b>Extensive indicator 13: civic associations</b>

Adopted from the UN Habitat Agenda (2004).

In the South African context, the BNG policy requires the development of monitoring and evaluation system for housing projects. The reporting in this system is based on agreed sustainable housing indicators. The Monitoring and Evaluation Directorate (National Department of Human Settlements) maintain that improved quality of life is the fundamental indicator for suitable housing. The improved quality of life is measured the quality of housing products; access to transport; safety of a settlements; the economic opportunities around a settlement; the degree of affordability of a house; and the environmental impact of a housing product.

#### **4.4. TO WHAT EXTENT DOES CARR GARDENS MEET THE CRITERIA?**

This section explores the level to which the Carr Gardens housing project meets sustainable housing indicators set out by the National Department of Human Settlements. It does this by providing a quantitative presentation of the respondents. Thereafter the level to which Carr Gardens conforms to sustainable housing indicators in assessed.

##### **4.4.1 QUANTITATIVE PRESENTATION**

The researcher sent 60 questionnaires to Carr Gardens housing beneficiaries, of which 46 were returned and 41 were considered valid.

##### **Gender of respondents:**

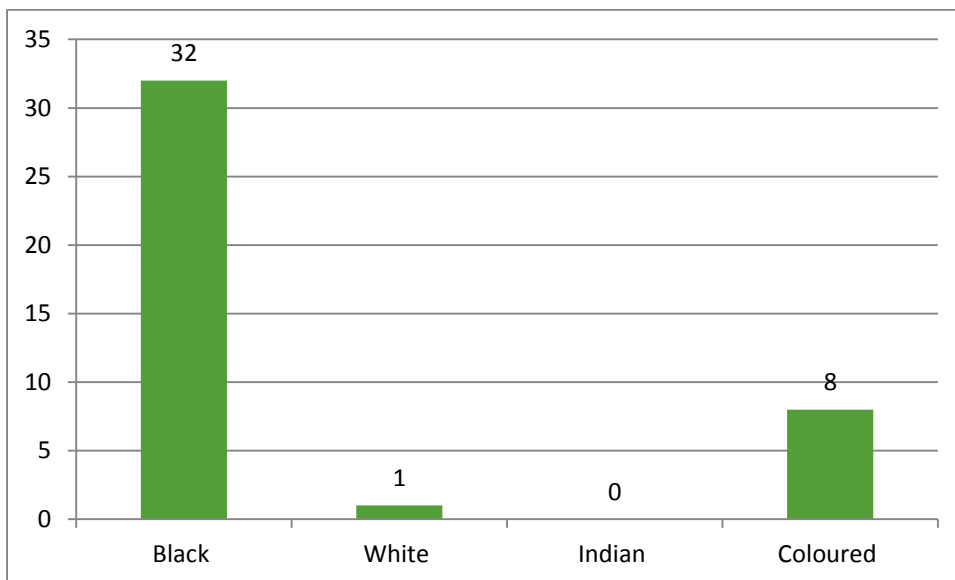
**Table 4.1:** This table shows the gender of Carr Gardens respondents.

Gender of respondents	Number
Male	12
Female	29

The above table shows the gender of respondents. It shows that there were 29 females and 12 males who responded to the questionnaire.

### Race of Respondents

**Figure 4.2:** Shows the race of respondents

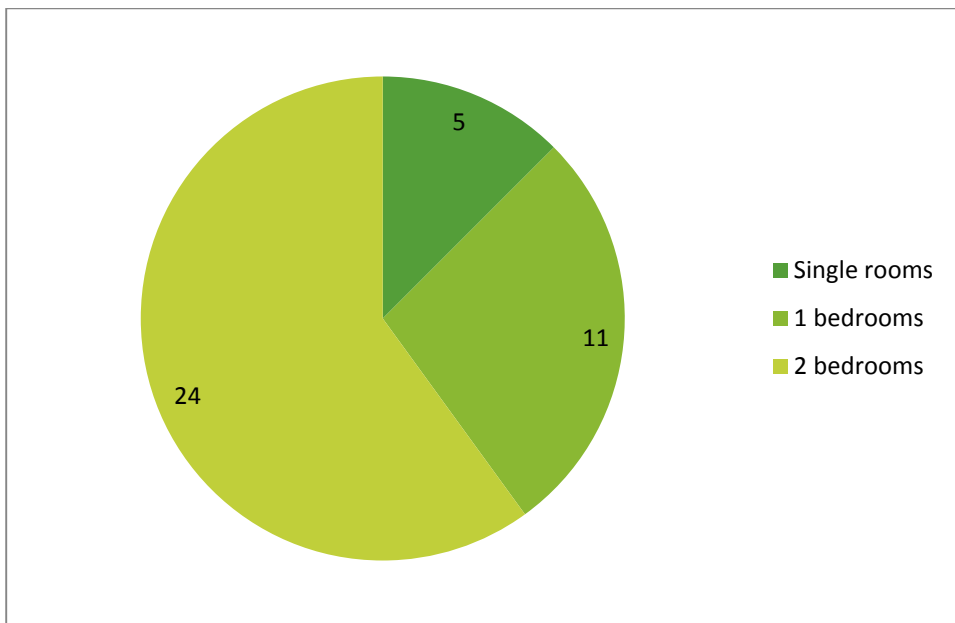


The above graph shows the race of respondents. It shows that there were 32 Blacks, 8 Coloured, 1 White and there were no Indian respondents.



### Type of housing unit

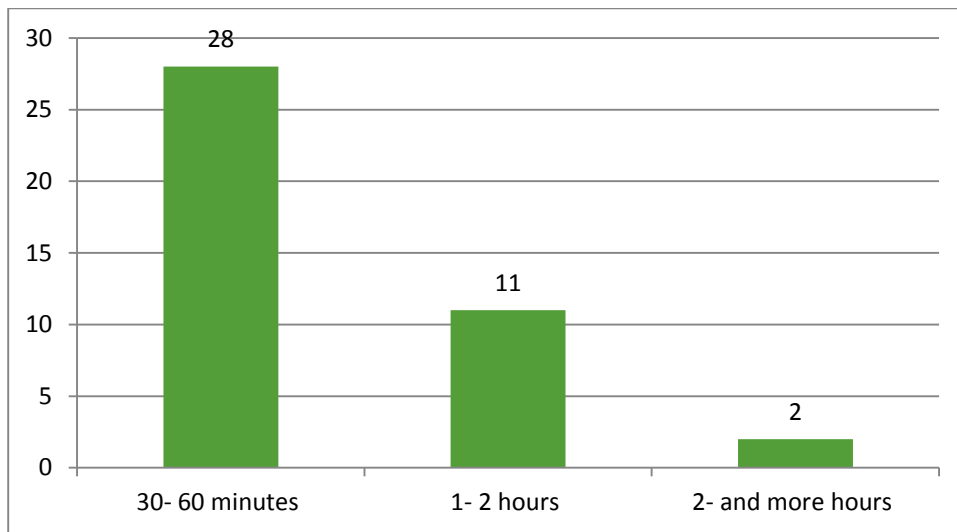
**Figure 4.3:** This pie chart shows the different housing type research respondents live in.



The above figure shows that Carr Gardens housing project is pre-dominantly rental. It shows that most respondent of 24 live in two bedrooms, 11 respondents live in one bedrooms, and 5 respondents live in single room which have shared facilities.

## Travel times to work

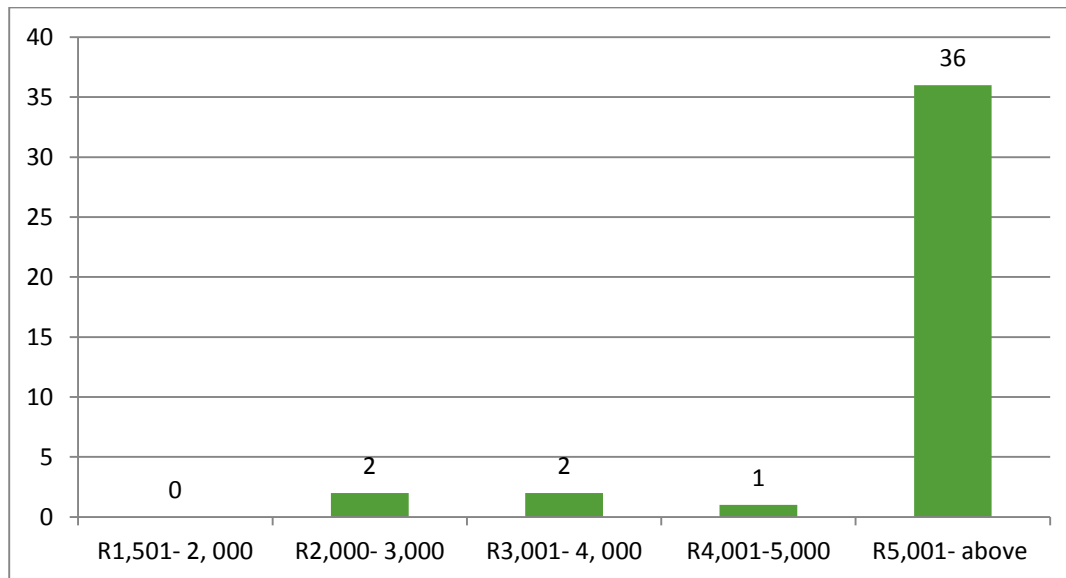
**Figure 4.4:** This graph shows the time travelled by respondent to work every day.



The Above graph shows the travelling times for respondents. It shows that 28 respondents travel for 30-60 minutes to work, while 11 respondents travel 1-2 hours, 2 respondents travel for 2 or more hours to work. This graph indicates that most people in Carr Gardens residents have access to reliable transportation system.

## The income categories of respondents

**Figure 4.5:** This graph shows the different income categories of respondents.



The above graph shows the income categories of the respondents. It shows that 36 of respondents earn R5, 000 and above, 2 respondents earn 3,001-4,000, 2 respondents earn R2, 000- 3, 000, and there were no respondents earning below R2, 000.

### 4.4.2. QUALITATIVE ISSUES

#### 4.4.2.1. AFFORDABLE HOUSING OPTION

The researcher observed that the Carr Garden housing project presents a viable, flexible and sustainable housing option for poor South Africans. Most respondents were of the opinion that living in Carr Gardens is better than living in the informal settlement which is far from job opportunities, lack access to infrastructure and mixed use options. Conversely, the same respondents complained about high rent that they pay. "I earn R8, 500 and the cheapest

rental accommodation is R3, 000, that is almost half of my salary”. She continued to say “government must intervene to ensure that residents pay affordable rent”.

Even though evictions are now prohibited by the Rental Housing Act (Act 43 of 2007) , the Carr Gardens manager stated that there are some cases where tenants are locked out of their houses because they do not pay rent (South African Government , 2007). According to the Manager, lock outs are not serious because often people find rent money within a week. There are two systems of payment; some tenants opt for the stop-order option, while other prefers paying cash up front. The Manager felt strongly that upfront payments are problematic because some people run away when they have to pay at the end of the month.

According to the representative from the Provincial Department of Human Settlements rental housing is not affordable when beneficiaries are paying rent that is more than one-third of their salary. The municipal rates also pose a major financial challenge for residents; most respondents were of the opinion that water and electricity are expensive. Furthermore, respondents also lamented even though their settlement is accessible, transport cost are becoming unaffordable.

#### **4.4.2.2. OWNERSHIP ISSUES**

One of the important pillars of the BNG strategy is to improve access to title deeds (Department of Housing, 2004). The concept of home-ownership proved to be important and presented diverse views. Some respondents maintained that having a house of their

own was important to them. They feel that paying rent every month is not a good investment. According to one respondent “if I die my children will not have a home because they will be evicted”. On the other hand, some respondents, especially the younger generation, felt that rental accommodation was best for them because they are still young and still not sure about where they would settle. Ownership is a long term financial commitment which requires the payment of rates and maintenance, in addition, there was a general sentiment that “rent-to- buy” would be beneficial for the community. Rent-to-buy is a situation where the renter can buy the housing stock after renting for a certain period of time. Some respondents maintained that rent-to-buy would give them time to assess whether they can afford to pay a bond.

#### **4.4.2.3. DENSIFICATION ISSUES**

The paradigm shift towards densification is driven by the needs of sustainable land use and environmental protection issues. The argument around densification is also about ensuring access to urban infrastructure, transportation nodes and employment. In the Carr Gardens project, there was perception that living high densities result in low quality of life because of over-crowding and noise. There were also cultural misconceptions about densification. One respondent was of the opinion that a man must have a roof to consider “a house a home” – and this is not provided by social housing. The concept of a “roof over a man’s head” is an important cultural dimension for most African people. Most Africans view a roof of house a sacred place where ancestors reside. The roof is an important place where ancestors can monitor and protect their families. As a result, social housing is seen as dwelling that does not provide for ancestral protection and spirituality.

#### **4.4.2.4. LACK OF MAINTENANCE**

The BNG strategy states that there should be funding solely dedicated for social housing such as Carr Gardens human settlements (Department of Housing, 2004). This funding will be used to maintain social housing stocks. According to the Johannesburg Housing Company, maintenance is the sole responsibility of the caretaker. The caretaker is required to go through a basic training on maintenance and general management. This assists the caretaker to identify maintenance problems in Carr Gardens.

The design of the settlement requires high level of maintenance by residents. According to the researcher's observation, the Carr Gardens is relatively well-maintained. That being said, most residents complained about cockroaches. Their caretaker cleans communal areas at least once a week. According to the Manager, people having parties are problematic because they do not clean after themselves after their function. In addition, there is minimal operational budget to buy cleaning and maintenance equipment. According to the Manager "when tenants pay rent on time, we are able to buy cleaning materials to ensure cleanliness". Some of the money gathered from rent is used to hire cleaning service providers.

#### **4.4.2.5. POLITICAL PROMISES**

The issue of political promises seems to be a persisting problem. According to most respondents, local politicians and government officials often make empty promises. Furthermore, local politicians are often accused of interfering with local development issues and beneficiary administration. Those who are politically connected get preferential treatment. Residents prefer to have their democratically elected committee or representative. According to some respondents, there was a committee at the inception of the project which disappeared because there were no community issues to be addressed. The committee was used as a platform to negotiate housing issues with the Johannesburg Housing Company. Furthermore, the committee was instrumental in organizing events such as funerals and “stokvels”.

#### **4.4.2.6. Housing design**

According to the Project Manager, the rationale behind the Carr Gardens project was to ensure densification, integration and value for money for the beneficiaries. During project inception, densification was seen as the priority to maximize the use of well-located land. Furthermore, the Project Manager justified higher densities (three and four-storey housing) on the ground that it provided housing opportunities for many people. Housing design does not allow for cultural practice. According to a Project Manager from the Johannesburg Housing Company, there are a total of 211 housing units in Carr Gardens, divided into 164 two-bedroom, 33 one-bedroom, and 14 single room units with communal facilities.

Even though the housing design is authentic and modern, most respondents were concerned about the size of these housing units. Cultural functions such as funeral and

wedding cannot be conducted in these housing units because they are small. According to a respondent, “when my sister died early this year (2014), I had to erect a tent at the park for my church people to conduct a ceremony... This was embarrassing”. According to one respondent “these houses are too small for my family of five”. Furthermore, respondents who live in single rooms with shared facilities complained about privacy. There was a general concern about people stealing food from the communal fridge and general cleanliness of common facilities such as kitchen, living area and bathrooms. According to a respondent “life is better now that I bought a personal fridge because I avoid people from stealing my food”. The settlements design does not accommodate people with special needs such as the elderly, the disabled and pregnant women.

#### **4.4.2.7. ACCESS TO INFRASTRUCTURE AND SOCIAL AMENITIES**

Important social facilities such as homework centre, parking, playground and a crèche are available. There was a general agreement that facilities such as playground and parking were not safe. Most women were sceptical about allowing their children to play in the playground because of persistent crime. According to a respondent, there is a lot of break-in in the cars in the parking spaces. With regards to access to infrastructure, the settlement is close to the main bus and taxi routes, areas for shopping, the Braamfontein train station, and the Market Theatre.

#### **4.4.2.8. LACK OF COMMUNITY INVOLVEMENT**

According to the Housing Act (1997) and Integrated Development Framework, in every government’s funded housing project there must be a “housing voice”. This is a person or



group of people who negotiate housing needs for a specific community. The inclusion of the housing voice in project planning phase is imperative to ensure community preferences are taken to consideration. For Tonkin (2008), community involvement should be part of every project to assist with community empowerment through skills transfer, the development of leadership, financial management, meeting procedure and advocacy. According to the Johannesburg Housing Company there was minimum community participation due to the nature of rental housing. According to beneficiaries, they were not involved in project design and implementation. Only the initial residents were involved in the discussion about affordable rent.

#### **4.4.2.9. LACK OF MONITORING AND EVALUATION INSTRUMENTS**

According to the United Nations Handbook (2002) impact assessment is the type of evaluation that focuses on the broad, long-term impact or results, whether intended or unintended, of a programme or outcome. Monitoring and evaluation is important because it informs government officials about successes and failures of a particular intervention. Lesson learned can be replicated to future human settlements projects. The challenge is that the monitoring and evaluation process was not followed. During interviews with officials from both the provincial department and the municipality, the researcher realized that was no formal monitoring and evaluation done for the Carr Gardens project. On the other hand, the Johannesburg Housing Company had up-to-date information about several of their projects. Monitoring and evaluation is important because it can prevent repetition of mistakes.

#### **4.4.3. Reflection on government structures**

This section unpacks the housing challenges experienced by government officials. Issues such as financial constraints, implementation challenges, lack of intergovernmental coordination, lack of appropriate skills and unclear human settlements policy are discussed.

##### **4.4.3.1. APARTHEID HOUSING POLICY**

Tonkin (2008:36) claims that under the apartheid regime, an estimated 80% of Blacks were denied access to land and housing. It emerged that government officials are still struggling with the effects of the apartheid housing policy. The apartheid spatial design is still evident where most South Africans even now remain in poverty traps such as informal settlements and reserves. These places are characterized by inadequate housing, lack of service delivery and limited economic activities. In the post- 1994, there was a high rate of urbanization because people wanted to benefit from urban infrastructure and employment opportunities. This is evident in Carr Gardens most people are from other provinces.

##### **4.4.3.2. SHORTAGE OF WELL- LOCATED LAND**

Well- located land for development is limited which leads to development on the urban edges of South African cities and towns. In addition, the lack of well-located land results in housing that lacks integration; due to limited land in affluent areas of South Africa. According to government officials, well-located land for affordable housing in Gauteng is very limited and expensive. The National Department of Human Settlements appointed the Housing Development Agency (HDA) to identify suitable and well-located government owned land for human settlements development. The challenge is that HDA does not have

an adequate operational budget ensure the identification of land. In the 2012/13 financial year, the HDA was allocated only R100 million to identify and acquire well-located land for human settlements (Republic of South Africa, 2013). Most well-located land in Gauteng is expensive and HDA has a limited capital and operational budget. According to government officials, HDA has now shifted its focus from land identification to assisting with informal settlement upgrading programmes. Furthermore, provincial HDA offices are not functioning optimally important land issues are always referred to main office. Intertwined with the issue of skills shortage, there is still confusion about the fundamental role of the HDA. As a result, suitable land for sustainable human settlement is not being identified or acquired.

#### **4.4.3.3. RAPID URBANISATION TO GAUTENG**

The province of Gauteng is the most urbanized province in South Africa. High rates of urbanisation result in the high demand for affordable housing in Gauteng province, especially in the City of Johannesburg. According to a government official, the housing backlog in Johannesburg is increasing every week while there are limited resources to effectively deal with the backlog. Consequently, governments have to provide housing on scale while compromising the quality of houses. The problem of unplanned urbanisation is evident in the mushrooming of informal settlements. The densities in informal settlements are excessively high, such that it poses a significant challenge to people's health and quality of life. According to government officials, urbanization puts added pressure on urban infrastructure.

#### **4.4.3.4. FINANCIAL CONSTRAINTS**

Housing finance is considered one of the key elements of sustainable human settlements in the City of Johannesburg. Government officials interviewed indicated that housing funds for human settlements planning are not adequate. Both Provincial and National Departments of Human Settlements were blamed for a lack of insight about real challenges at implementation level. Well-located land for human settlements in a province such as Gauteng is very expensive and the housing subsidy is not adequate.

#### **4.4.3.5. LACK OF PROJECT MANAGEMENT COMPETENCIES**

The implementation of sustainable human settlement policy is complex process that requires proper planning around electricity, roads, water and sanitation. This complexity requires a specific set of skills in project management. Government documents such as the National Development Plan and Breaking New Grounds recognize the importance of project management in order to properly implement sustainable human settlements. The City of Johannesburg indicated that even though it has some professionals such as town planners, engineers, and architects, this pool of skills is insufficient to address the housing challenge in Gauteng. Furthermore, the appointments of project managers are a political process where competent individuals are generally not employed while those that are politically connected are employed.

#### **4.4.3.6. POLITICAL INTERFERENCE**

Linked to the lack of skills is the problem of political interference, especially at the local level. According to some officials, human settlements tenders are given to those who are politically connected or relatives of decision-makers. In addition ward councillors and top management usually do not award tenders to people who will not give them kick-backs. This results in incomplete and blocked projects where human settlement principles are compromised.

#### **4.4.4. GENERAL REFLECTION ON CARR GARDENS**

This section provides a reflection on the human settlements challenges experienced by Carr Gardens residents. As a point of departure, the Carr Gardens housing project has been able to encapsulate the concept of sustainable housing. It is an urban renewal project which was intended to have faster access to housing and improve quality of life for South Africans because the project targeted people who are earning around R3, 500; it ensures integration to important urban benefits; it shows the practical implementation of higher densities; and it is the best quality of construction. According to the Department of Housing (2002: 73) the Carr Gardens project is a reflection of safe and decent housing which is a good example of urban regeneration in Johannesburg. Furthermore, the project is a living example of intergovernmental collaboration between national, provincial, local and Johannesburg Housing Agency (JHA) (Department of Housing, 2002: 73).

In addition, the project is good example of co-operative investment from foreign and national partners (Department of Housing, 2002: 73). None the less, there are some critical

challenges that are faced by decision-makers. Evidence shows that there was minimal community participation during the inception of the project; even though the project is close to Newtown Cultural facilities libraries and business offices (Department of Housing, 2002: 73), the actual housing design does not accommodate cultural considerations and integration to urban amenities. Furthermore, Carr Gardens is also negatively affected by urban crime in the City of Johannesburg.

#### **4.4.5. REFLECTION ON OTHER HUMAN SETTLEMENTS PROJECT**

The broad objective of the N2 Gateway project was to encourage co-operation between the three spheres of government; namely, national, provincial and local sphere of government. Similar to Carr Gardens, the N2 Gateway project is the implementation of the BNG human settlements policy with a special emphasis on class and race integration (Tonkin, 2008). As oppose to the Carr Gardens project, the N2 Gateway project has multiple houses typologies ranging from rental stock, fully subsidized houses, and institutional housing. In both of these projects, specialist have complained about the level of community involvement. The N2 Gateway project has been accused of being a “top-down approach to human settlements development” where the National Department of Human Settlements exclusively conceptualized the project; with minimal community involvement (Tonkin, 2008: 358).

With regards to the Cosmo City human settlements project; this project is the first attempt of the implementation of sustainable human settlements in South Africa. Parallel to the N2

Gateway project, the Cosmo City project has a variety of housing typologies with a special focus on the integration (Urban Land Mark, 2011). Similar to the Carr Gardens, there is special focus on infrastructure development in Cosmo City. The Carr Gardens project is a significantly small project compared to both Cosmo City and the N2 Gateway projects, but provides housing beneficiaries with a sustainable housing solution (Urban Land Mark, 2011).

#### **4.5. CONCLUSION**

This chapter explored the concept of sustainable housing in South Africa. It provided sustainable housing indicators which were used to assess the Carr Gardens housing project. Data collection revealed that even though the Carr Gardens housing project is the best reflection of sustainable housing, there are still some challenges. These challenges include the lack of beneficiary participation, limited financial and human resources, political interference, rapid urbanization in the Gauteng province, shortage of well-located land, and lack of affordable housing. The next chapter provides conclusions and recommendation for this research endeavour.

## **CHAPTER 5: CONCLUSIONS**

### **5.1. RECOMMENDATIONS AND CONCLUSIONS**

The Constitution of the South African Republic (1996) states that every South African has a right to access adequate housing and the state has to create conditions for this right to be realized. As a result, the post-apartheid government fundamentally focused on quantitative delivery of housing. This resulted in several concerns around the sustainability of human settlements. Consequently, this research endeavour unpacked the concept of sustainable housing in South Africa and its' important elements. It used the Carr Gardens housing project to reflect on the sustainable housing indicators. It was uncovered that the concept of sustainable housing is complex and difficult to achieve. From the research conduct at Carr Garden housing project, it was evident that both government and housing beneficiaries have to play a role to ensure sustainable housing.

#### **5.2.1. LESSONS LEARNT FROM CARR GARDENS**

The Carr Gardens housing project is a good example of an attempt to create sustainable human settlements in South Africa. This was done through social housing programme in the national Housing Code. Through this research initiative, there are important lessons for policy-makers and government officials which were unpacked. These lessons were as follows:

- The Carr Gardens project only used the social housing programme to achieve sustainable housing. The project did not consider that housing needs are diverse.



- Even though it is difficult to manage community participation in the rental housing, community participation is an important indicator for sustainable housing.
- Social housing can be strategically used for beneficiaries to access social and economic benefits such as public transportation, work opportunities and operating small businesses.

## **5.2.2. THEORETICAL REFLECTIONS**

### **5.2.2.1. NEO-LIBERALISM**

Neo-liberal school of thought has influence in sustainable housing studies and is now gradually dominant in the environmental studies. In the housing context, this approach has only been concerned with the questions of residential location, changes in housing prices, distributional equity and housing policy. Its main concern is to remove barriers in order to efficiently operate the housing market. With regards to the critical question of how neo-classical housing economic can respond to environmental issues, it should be noted that there are overlaps between neo-classical framework and the techno-centric approaches on their solutions to environmental problems. The techno-centric approach proposes the use of efficient management, science and technology to curb environmental degradation. The neo-classical paradigm argues that the market come up with environmentally sound practices (Bhatti, 2001: 42-43).

According to neo-classists, the environment is degraded there is no price attached to it. The argument is that free environmental services results in people using it unaccountably. To prevent this behaviour, the neo-classical approach proposes attaching a market value to the

environment. This will determine which individual is willing to pay for given environmental quality (Bhatti, 2001: 43). Placing monetary value on the environment imply that it would be privatised. Residential attractiveness can include the level of access to natural resources and environmental quality. Thus the housing market can be seen to present monetary values for a variety of environmental goods and services.

#### **5.2.2.2. MARXIST APPROACH**

The Marxist approach sees housing as a special commodity used to advance capitalism, capitalism; it acts as a source of profit and means of reproduction of labour power. That housing in the capitalist regime is unsustainable and “crisis- ridden” (Martin, 2000: 82). This is because it is seen to allocate power within society; projecting inequalities, perpetuating residential segregation, and thereby reproducing wider social relations. The system suffers from the prioritising short-term goals at the expense of environment. However, the neo-Marxists have not explored the relationship environmental effects and capitalist housing activities. The neo-Marxists have considered the effects of capitalist activities on ecological problems (Bhatti, 2001: 46).

Marxist analysis of the environment is based on capitalism; that is it based on the generation of profit and exploitation of labour. Capitalism establishes two class; the capitalist who buys labour power and workers who sell labour and this leads to classes struggle and antagonisms. In addition, capitalism is continuing system that requires sustenance from exploitation. This means that for the system to survive, it should not consider ecological limitations and only abuse natural resources for profit maximisation. The

competitive nature of capitalism results in excessive profit making without the consideration of the environment. Capitalism produces uneven development and generates spatial differences in both the international and the national context. Capitalist accumulation is damaging to environment. The future is discounted in the search for profit; capitalism is not only incompatible with social equality, but is also in conflicting with sustainability (Bhatti, 2001: 46-47).

### **5.2.3. LIMITATIONS OF THE STUDY**

This sections list the limitation of the study:

- During data collection there were inadequate financial and human resources to ensure that substantial data collection. In order to collect data, the researcher travelled from KwaZulu Natal to Gauteng province.
- Research respondents, especially government officials, were often sceptical to provide information.
- During the research process, some respondents did not see the value of this research process. They therefore withdrew their participation. As a result, the researcher needed to identify new participants.

### **5.2.4. RECOMMENDATIONS**

This section makes the following recommendation:

- The state must strive to use all housing programmes in one project to ensure variety of housing options.

- The National Department of Human Settlement should ensure continuous monitoring of housing projects to ensure that they comply with Breaking New Ground Policy.
- All departments in the human settlements sector should ensure collaboration in human settlements projects.
- The Department of Human Settlements should embark on extensive education and training of individuals involved in housing to ensure that policy processes are adhered to.
- Before any project (rental or ownership) the Johannesburg Housing Company should ensure that there is beneficiary involvement.

#### **5.2.5. FURTHER RESEARCH**

This section proposes further studies in relation to this research topic:

- There should be a study on the beneficiaries' perception about the current housing delivery models.
- There should be study that seeks to understand the role of housing beneficiaries in sustainable housing delivery in South Africa.
- There should be a study which seeks to understand the economic, social and environmental impact of the post- 1994 housing policy programme.

### **5.3. CONCLUSION**

The fundamental purpose of this research endeavour is to understand the implementation of the concept of sustainability by means of the BNG housing policy using the Carr Gardens housing project. It was found that Carr Gardens provide an example of sustainable human settlements in South Africa which also has some shortcomings. The project only focused on rental accommodation and compromised ownership. It was also found that other projects such as the N2 Gateway and Cosmo City housing project provide a more integrated example of sustainable human settlements.

## 6. REFERENCE LIST:

Abdullahi, B.C., Aziz, W. N.A. W., Abdullah, A.A., Besksin, A. M., Alashwal, A.M., & Deraman, R. (2011). Sustainable housing policy and low-income group housing: the Malaysian experience. *Australian Journal of Basic and Applied Science*. 5 (6), 170-180.

Azerbaijan, B. (2012). Affordable house in Kuala Lumpur, Malaysia. *International Journal of Academic Research*. 4 (3), 75-82.

Babbie, S. (1992). *The practice of social research*. California: Wadsworth Publishing Company.

Babbie, E & Mouton, J. (2001). *The practice of social research*. Cape Town: Oxford University Press Southern Africa.

Beland, D. (2007). Neo-liberalism and social policy: The politics of ownership. *Policy Studies*. 28 (2), 437- 448.

Bester, J. (2011). Cosmo City: sustainable social housing. *Civil Engineering*. 19 (5), 68-70.

Bentzinger, A. L & Cook, C.C. (2012). On the path to homeownership: low-income owners and renters in rural communities. *Housing and Society*. 39 (1), 77-98.

Bhatti, M. (2000). Greening housing: a challenge for public policy? *Journal on Public Policy*. 8(4), 63-71.

Bhatti, M. (2001). Housing/ Future? The challenge from environmentalism. *Housing Studies*. 16 (1), 39-52.

Bhatti, M & Dixon, A. (2003). Special focus: housing, environment and sustainability. *Housing Studies*. 18 (4), 501-504.

Bradlow, B., Bolnick, J & Shearing, C. (2011). Housing institutions, money: the failures and promise of human settlements policy and practice in South Africa. *Environment and Urbanization*. 23 (1), 267-275.

Brown, V.J. (2003). Give me shelter: the global housing crisis. *Environmental Health Prospective*. 111(2), 92-99.

Burgess, R. (2000). The compact city debate: a global perspective. In M, Jenks & R, Burgess. *Compact cities: sustainable urban forms for developing countries*. (pp. 9-24). New York: Spon Press.

Cardoso, A.L & Leal, J. A. (2010). Policy Review: housing market in Brazil: recent trends and governmental responses to the 2008 crisis. *International Journal of Housing Policy*. 10 (2), 191-208.

Charlton, S. (2004). *An overview of housing policy and debates particularly in relation to women (or vulnerable groupings)*. Research report written for the centre for the study of violence and reconciliation.

Charlton, S. (2009). Housing for the nation, the city and the household: competing rationalities as a constraint to reform? *Development Southern Africa*. 26 (2), 301-315.

Cheserek, G.J. & Opata, G.P. (2011). Environmental and housing problems in low-income households in Eldoret Municipality, Kenya. *Journal of Emerging Trends in Economics and Management Sciences*. 2(4), 320-324.

Chenwi, L. (2007). Taking those with special housing needs from the doldrums of neglect: a call for a comprehensive and coherent policy on special needs housing. *Journals Law, Democracy and Development*. 11 (2), 1-18.

Chiu, R.L.H. (2007). Planning, land and affordable housing in Hong Kong. *Housing Studies*, 22 (1) 63-81.

Chiu, R.L.H. (2010). The transferability of Hong Kong's public housing policy. *International Journal of Housing Policy*. 10 (3), 301-323.

Choguill, C.L. (2007). The search for policies to support sustainable housing. *Habitat International*. 31, 143-149.



Clapham, D. (2002). *Housing Pathways: A post modern analytical framework*. UK: Cardiff University.

Cook, I.G., Gu, C. & Halsall, J. (2013). China's low income urban housing. *Asian Social Science*. 9 (3), 7-17.

Cox, K. C. (2005). Urbanization in South Africa and the changing character of Migrant Labor. *South African Geographical Journal*. 86 (1) 7-16.

Cross, C. (2008). *Housing delivery as anti-poverty: is South African on the right track*. Paper presented at The Southern African Housing Foundation International Conference & Exhibition. Cape Town.

Davies, R.J. (1981). The spatial formation of the South African city. *Geo Journal Supplementary Issue*. 2, 59-72.

Delgadillo, L. (2006). Demand-side housing policy in Costa Rica: a response to the housing deficit. *International Journal of Consumer Studies*. 30 (1). 95-104.

Department of Human Settlements. (2009). *The national housing code*. Pretoria.

Department of Housing. (1995). *A new housing policy and strategy for South Africa*. White Paper.

Department of Housing. (2002). *Towards sustainable settlements: case studies from South Africa*. Pretoria.

De Soto, H. (2000). *The mystery of capital: why capitalism triumphs in the west and fails everywhere else*. New York: Basic Books.

Du Plessis, C. & Landman, K. (2002). *Sustainability analysis of human settlements in South Africa*. Pretoria: CSIR.

Du Plessis, C. (2003). *Analysing the sustainability of human settlements in South Africa-challenges and methods*. Research report written for the Council for Scientific and Industrial Research.

Eloy, C.M. (2010). The revitalisation of Brazil's housing finance system. *Housing Finance International*. 24 (4), 18-21.

Eloy, C.M., Costa, F & Rossetto, R. (2012). Housing subsidy policy in Brazil: an overview of the last five decades. *Housing Finance International*. 39-47.

Eloy, C. M. & Paiva, H. B. (2011). Paving the way to extend mortgage lending to lower income groups in Brazil: the Case of the French System. *Housing Finance International*. 26 (1), 35-40.

Fernandes, E. (2007). Constructing the “right to the city” in Brazil. *Social and Legal Studies*. 16(2), 201-219.

Folaranmi, A.O. (2012). User participation in housing unit provision in Kwara State Nigeria: a basis for sustainable design in mass housing design. *Interdisciplinary Journal Of Contemporary Research In Business*. 4(2), 723-732.

Genevieve, L. R. (2009). *Housing policy and project implementation: the case of Cosmo City integrated housing project*. Unpublished Master’s Thesis, University of Witwatersrand, Johannesburg, South Africa.

Geobel, A. (2007). Sustainable urban development? Low-cost housing challenges in South Africa. *Habitat International*. 3 (4), 291-302.

Groves, R. (2004). Challenges facing the provision of affordable housing in African cities. *Housing Finance International*. 18(4), 26-31.

Harrison, P., Huchzermeyer, M. & Mayekiso, M (eds). (2003). *Confronting fragmentation. Housing and urban development in a democratising society*. Cape Town: University of Cape Town Press.

Huchzermeyer, M. (2001). Housing for the poor? negotiated housing policy in South Africa. *Habitat International*. 25, 303-331.

Jackson, R.R. (2013). *Contagion: the epidemic of slum growth in African Cities and the implications thereof for sustainable urban development*. Retrieved September 5, 2013 from [http://www.consultancyafrica.com/index.php?option\\_content&view](http://www.consultancyafrica.com/index.php?option_content&view).

Jenkins, P. & Smith, H. (2001). An institutional approach to analysing of state capacity in housing systems in Developing Worlds: Case studies in South Africa and Costa Rica. *Housing Studies*. 16(4), 485-507.

Kejia, T. (2008). *Towards sustainable housing in China*. Unpublished Master's Thesis, Royal Institution of Technology, Stockholm, Sweden.

Khaki, I. (2009). *Housing in South Africa: the challenge to provide sustainable, integrated, affordable housing*. Unpublished Master's Thesis, University of Stellenbosch, Cape Town, South Africa.

Kissick, D, Leibson, D, Kogul, M, Bachmann, J, Anderson, J & Eckert, J. (2006). *Housing for all: essential to economic, social, and civic development*. Vancouver: The World urban Forum III.

Kropczynski, J. N & Dyk, P. H. (2012). Insights into housing affordability for rural low-income families. *Housing and Society*. 39 (2), 125-148.

Laloo, K. (1999). Arenas of contested citizenship: housing policy in South Africa. *Habitat international*. 23 (1), 35-47.

Macedo, J. (2010). Methodology Adoption across levels of development: applying a US regional housing model to Brazil. *Housing Studies*. 25(5), 607-624.

Mackay, C, J. (1996). The development of housing policy in South Africa in the post apartheid period. *Housing Studies*. 11 (1), 133-146.

Malta, F. (2006). *Low income housing in Brazil: the case of Sao Sebastiao*. Paper presented at City and Regional Planning Department, Cal Poly.

Marais, L, Van Rensburg, N & Botes, L. (2003). An empirical comparison of self-help housing and contractor- driven housing: evidence from Thabang & Manguang. *Urban Forum*. 14, 4: 347-364.

Marais L & Wessels, J. (2005). Housing standards and housing rights: the case of Welkom in the Free State Province. *Urban Forum*. 16(1), 17-34.

Marais, L & Krige, S. (2000). Who received what, where in the Free State? An assessment of post-apartheid housing delivery and policy (1994-98). *Development Southern Africa*. 17 (4), 603-619.

Martin, S. (2000). Capital Against Nature: James O' Conner's theory of the second contradiction on capitalism. *Capital and Class*. 24(72), 81-109.

Meth, P. (2013). Millennium development goals and urban informal settlements: unintended consequences. *International Development Planning Review*. 35(1), 6-11.

Milligan, V. & Teirnan, A. (2011). No home for housing: the satiation of the Commonwealth's Housing Policy Advisory function. *Australian Journal of Public Administration*. 70 (4), 391-407.

Mooya, M. M. & Cloete, C.E. (2007). Informal urban property markets and poverty alleviation: a conceptual framework. *Urban Studies*. 44 (1), 147-165.

Morris, B. (2012). Housing and Community Development in Brazil. *Journal of Housing and Community Development*. 61 (6). 6 -17.

Nascimento, D. M. (2003). Low-income housing and community participation. *Journal of Architectural Education*. 43 (6), 43-48.

National Planning Commission. (2011). *National development plan, vision for 2030*. Pretoria. <http://www.npconline.co.za/medialib/downloads/home/NPC%20National%20Development%20Plan%20Vision%202030%20-lo-res.pdf>.

National Department of Housing. (2004). *A Comprehensive plan for the development of human settlements: breaking new ground*. Pretoria.

Ndaba, D. (2008). Affordable-housing programme is maturing, but the delivery pressures are mounting. *Engineering News*. 11 July 2008.

Ndaba, D. (2008). Housing the nation: housing (r) evolution. *Engineering News*. 11-17 July: 16-18.

Ntema, J. & Marais, L. (2013). Comparing low-income housing outcomes in self-help and contractor-driven projects: the case for longitudinal research. *Urban Forum*. 24, 389-405.

Odum, C. O & Ibem, E. O. (2011). Securing urban land for housing among low-income earners in Sub-Saharan Africa: case study of workers' co-operative society, Enugu, Nigeria. *Journal of Studies and Research in Human Geography*. 5 (1), 61-75.

Parnell, S. (1993). Creating racial privilege: the origins of South African Public Health and Town Planning legislation. *Journal of Southern African Studies*. 19 (3), 471-488.

Pickvance, C. G. (2009). Choice or coercion: dilemmas of sustainable social housing: a study of two developments in Kent. *Local Environment*. 14(2), 207-214.

Pickvance, C. (2009). The contraction of UK sustainable housing policy and the role of pressure groups. *Local Environment*. 14(4), 329-345.

Poitras, C. (2009). Designing sustainability for who? Recent housing developments in Southwest Montreal. *Local Environment*. 14(6), 515-528.

Pugh, C. (2001). The theory and practice of housing sector development for Developing countries, 1950-199. *Housing Studies*. 16(4), 399-423.

Ramashamole, B. (2007). *Sustainable housing development in post apartheid South Africa*. Unpublished Masters Thesis, University of Witwatersrand, Johannesburg, South Africa.

Republic of South Africa. (2013). *South Africa yearbook 2012/13*. Retrieved: February 15, 2014 from [www.gcis.gov.za/.../yearbook/2012/13%20Human%20Settlem.pdf](http://www.gcis.gov.za/.../yearbook/2012/13%20Human%20Settlem.pdf).

Jenks, M. (2000). Introduction: sustainable urban form in developing countries? In M, Jenks & R, Burgess. *Compact Cities: sustainable urban forms for Developing Countries*. (pp. 1-6). New York: Spon Press.

Jenkins, P. & Smith, H. (2001). An institutional approach to analysis of state capacity in housing system in developing world: case studies in South African and Casto Rica. *Housing Studies*. 16 (4), 485-507.

Johannesburg Housing Company. (2013). *Annual Report (2012-2013)*. Retrieved November 30, 2013 from <http://www.jhc.co.za/files/files/file/JHC%20Annual%20Report%202013.pdf>.



Ibem, .E.O., Anosike, M.N., & Azuh, D.E. (2011). Challenges of public housing provision in the post- Ibem, E. independence era in Nigeria. *International Journal of Human Sciences*. 8(2), 421-443.

Ibimilua, A. F. (2011). The Nigerian National Housing Policy in perspective: a critical analysis. *Journal of Social Development in Africa*. 26(2), 165-188.

Jones, G.A & Datta, K. (2000). Enabling housing markets to work? Housing policy in the new South Africa. *International Planning Studies*. 5, 393-416.

Kajimo-Shakantu, K & Evans, K. (2006). The role of banks in the provision of low-income housing finance in South Africa: can they play a different role? *International Journal of Strategic Property Management*. 10, 23-38.

Kauko, T (2001) Combining theoretical approaches: the case of urban land value and housing market dynamics. *Housing, Theories and Society*. 18 (3-4), 167-173.

Khan, F & Thring, P. (2003). *Housing policy and practice in the post- apartheid South Africa*. Johannesburg: Heinemann Publishers (Pty) Ltd.

Kiddle, G.L. (2010). Key theory and evolving debates international housing policy: from legalisation to perceived security of tenure approaches. *Geography Compass*. 4 (7), 881-892.

Lyons, M., Smuts, C.& Stephens, A. (2001). Participation, empowerment and sustainability: how do the links works? *Urban Studies*. 38(8), 1233-1251.

Musembi, C.N. (2007). De Soto and land relations in rural Africa: breathing life into dead theories about property rights. *Third World Quarterly*. 28(8), 1457-1478.

Ndinda, C. (2004). Sweat equity: women's participation in subsidised housing in South Africa. *Africa Insight*. 34(2/3): 58- 64.

Ndinda, C. (2006). Large and small houses in Luganda: housing construction and gender in South Africa. *Development Southern Africa*. 23 (3), 401- 416.

Ross, N., Bowen, P,A. & Lincoln, D. (2010). Sustainable housing for low-income communities: lessons for South Africa in local and developing world cases.

Sandelowaski, M. (2000). Focus of research methods: Whatever happened to qualitative description? *Research in Nursing & Health*. 23, 334-340.

Santos, A. D., Da Rocha, C.G., & Lepre, P. (2010). Barriers and opportunities in developing do-it-yourself products for low-income housing. *Journal of Construction in Developing Countries*. 15(1), 29-43.

Smith, L & Vawda, A. (2003). Citizen vs. Customer: different approaches to public participation in service delivery in Cape Town. *Urban Forum*. 14 (1), 26- 52.

Somerville, P. (1992). Homelessness and the meaning of home: rooflessness or rootlessness. *International Journal of Urban and Regional Research*. 16 (4), 529- 529.

South African Government. (1997). *Housing Act (No. 107 of 1997)*. Pretoria.

South African Government. (2007). *Rental Housing Act (Act 43 of 2007)*. Pretoria.

Tale, J. (2002). Void dwellings- a headline indicator? *Sustainable Development*. 10, 36-50.

Tellis, W. (1997). Application of a case study methodology. *The qualitative Report*. 3 (3), 1-17.

Terreblanche, S. (2012). *Lost in transformation: South Africa's new search for a new future since 1986*. Johannesburg: KKM Review Publishing Company.

Tissington, K. (2011). *A resource guide to housing in South Africa 1994-2010: legislation, policy, programmes and practice*. Johannesburg: Socio-economic Rights institute of South Africa.

Tonkin, A. (2008). *Sustainable medium-density housing*. Cape Town: Development Action Group.

Turner, J. (1976). *Housing by people: towards autonomy in building environment*. London: Marion Byers.

Tomlinson, M.R. (2006). From quantity to quality: restructuring South Africa's housing policy ten years after. *International Development Planning Review*. 28(1), 85-104.

United Nations –Habitat. (2012). *Sustainable housing for sustainable cities: a policy framework for Developing Countries*. Retrieved September 1, 2012 from [www.unhabitat.org/pmss/getElectronicVersion.aspx?nr=3365...1](http://www.unhabitat.org/pmss/getElectronicVersion.aspx?nr=3365...1)

Urban Foundation. (1994). *The urban foundation 1994 annual review*. Johannesburg: The Urban Foundation.

Urban Land Mark. (2011). *Urban Land Mark land release assessment tool: Cosmo City case study report*. Retrieved March 24, 2013 from [http://www.urbanlandmark.org.za/downloads/lram\\_cosmo\\_cs\\_2011.pdf](http://www.urbanlandmark.org.za/downloads/lram_cosmo_cs_2011.pdf).

Valance, M.M.& Bonates, M. F. ( 2009). The trajectory of social housing policy in Brazil: from the National Housing Bank to the Ministry of the Cities. *Habitat International*. 3, 1-9.

Ward, P.M. (2003). *Land regularization in Latin America: lessons in the social construction of public policy*. Cambridge, MA: Lincoln Institute of Land Policy. Retrieved September 17, 2013 from [http://www.lincolninst.edu/pubs/819\\_Land-Regularization-in-Latin-America](http://www.lincolninst.edu/pubs/819_Land-Regularization-in-Latin-America)

Williams, M. (2003). *Making sense of social research*. London: SAGE Publications.

Winston, N. (2009). Urban regeneration for sustainable development: the role of sustainable housing? *European Planning Studies*. 17(12), 1781-1769.

Winston, N. (2007). From boom to bust? An assessment of the impact of sustainable development policies on housing in the Republic of Ireland. *Local Environment*. 12 (1), 57-71.

Winston, N & Eastaway, M. P. (2008). Sustainable housing in the urban context: international sustainable development indicators sets and housing. *Social Indicators Research*. 87: 211-221.

Zack, T & Charlton, S. (2003). *A somewhat better life: beneficiaries' perception of subsidised housing*. Johannesburg: Housing Finance Resource Programme.

Zanetta, C. (2001). The evolution of the World Bank's urban lending in Latin America: from sites and services to municipal reform and beyond. *Habitat International*. 25, 513- 533.

Zhang, L. (2010). The choice of China's Housing Policy with the idea of harmonious development. *International Journal of Business and Management*. 5(5), 97-103.

Zhang, J., Yuan, J., & Skibniewski, M. J. (2011). The analysis of the policy of access to economically affordable housing in China: an area calculation model based on the incentive

mechanism design. *International Journal of Strategic Property Management*. 15(3), 231-256.

**7. ANNEXURE**

**7.1. ANNEXURE ONE: RESEARCH QUESTIONNAIRE FOR CARR RESIDENTS**

General questions					
1.	Gender			Male	Female
2.	Race	Black	White	Indian	Coloured
3.	What Type of unit do you live in?	Fully subsidized	Rental Unit	Bonded housing	

**Specific questions:**

4.	<p>Are you currently employed?</p> <p>If <b>YES</b>, how do you travel to work?</p> <p>.....</p> <p>.....</p> <p>.....</p>
5.	<p>Have you been employed in the Carr Gardens Project? Please Explain</p> <p>.....</p> <p>.....</p> <p>.....</p>
6.	<p>How long have you lived in Carr Gardens?</p> <p>.....</p> <p>.....</p> <p>.....</p>

7.	In your opinion, what is good about your home Carr Gardens? ..... ..... ..... .....
8.	What do you like about your Carr Gardens home? ..... ..... ..... .....
9.	Do you like the structure of your house? ..... ..... ..... ..... .....
10.	Do you fix your house often? Explain ..... ..... ..... ..... ..... .....



11.	Do you feel safe in Carr Gardens? Explain ..... ..... ..... .....
12.	In your opinion, is it better to live in Carr Gardens? Please Explain ..... ..... ..... .....
13.	Do you think it affordable to live in Carr Gardens? Explain ..... ..... ..... ..... .....
14.	Do you have additional comments about your home? ..... ..... ..... .....
<b>Thank you</b>	

**7.2. ANNEXURE TWO: RESEARCH QUESTIONNAIRE/ INTERVIEW SCHEDULE: FOR GOVERNMENT OFFICIALS**

General questions					
1.	Gender			Male	Female
2.	Race	Black	White	Indian	Coloured
3.	Which directorate do you work in? ..... ..... .....				
4.	What role did you play in Carr Gardens housing project? ..... ..... ..... .....				

**Specific questions:**

5.	How long did you work on the Carr housing project? ..... ..... .....
6.	Do you think Carr housing project is sustainable? If yes, why? ..... .....

	<p>.....</p> <p>.....</p>
7	<p>Do you think that Garr housing project encourages investment? Explain</p> <p>.....</p> <p>.....</p> <p>.....</p>
8.	<p>Would you consider living in Garr Gardens?</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>
9.	<p>Would you be comfortable to raise your family in Garr Gardens? Please Explain</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>
10.	<p>Do you think Carr Gardens project was a value for money project? Explain</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>
11	<p>Did you employ local people in the project?</p> <p>.....</p>

	<p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>
12.	<p>Do you think that the Garr Gardens housing project empowered local people? If yes, How?</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>
13.	<p>Do you have additional comments about Garr housing project?</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>
<p><b>Thank you</b></p>	

### ANNEXURE THREE: QUESTIONNAIRE DATA MATRIX

Response rate	<ul style="list-style-type: none"> <li>• 60 self-administered questionnaires were sent</li> <li>• 46 were questionnaire were returned</li> <li>• 41 were considered to be valid</li> </ul>
Q1. Gender of respondents	<ul style="list-style-type: none"> <li>• There were 12 male</li> <li>• And, 29 female respondents</li> </ul>
Q2. Race of respondents	<ul style="list-style-type: none"> <li>• Black = 31</li> <li>• White = 1</li> <li>• Indian = 0</li> <li>• Coloured = 8</li> </ul>
Q3. Type of units	<ul style="list-style-type: none"> <li>• Rental unit = 41</li> <li>• Fully Subsidized unit = 0</li> <li>• Bonded houses = 0</li> </ul>
Q3.1. Size of the rental unit	<ul style="list-style-type: none"> <li>• Single rooms = 5</li> <li>• One bedroom = 11</li> <li>• Two bedroom = 24</li> </ul>
<b>Specific Questions - The responses were rounded up to most emerging topics or perspectives</b>	
Q4. How many respondents are currently employed?	<ul style="list-style-type: none"> <li>• 41 respondents are employed</li> <li>• 36 respondents have jobs</li> <li>• 5 are respondents self-employed</li> </ul>
Q4.1. How do you travel to work?	<ul style="list-style-type: none"> <li>• Personal Vehicle = 33</li> <li>• Public transport ( taxi, bus) = 7</li> <li>• Work = 1</li> </ul>
Q4.2. Amount of time travelled by respondents daily	<ul style="list-style-type: none"> <li>• 30-60 minutes = 28</li> <li>• 1- 2 hours = 11</li> </ul>
149	

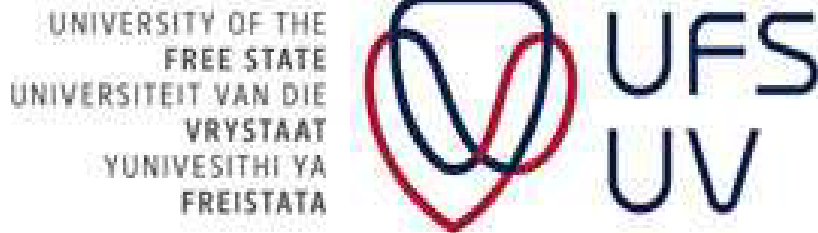
	<ul style="list-style-type: none"> <li>• 2 hours - and more hours = 2</li> </ul>
Q5. Have you been employed in the Carr Gardens housing project?	<ul style="list-style-type: none"> <li>• All respondents have never participated in the construction of the Carr Gardens project.</li> </ul>
Q6. How long have respondents been living in Carr Gardens?	0-1 year = 5 1-2 year = 0 2-3 years = 11 3-4 years = 7 4-5 years = 5 5-6 years = 13 6-7 years = 0 7-8 years = 0 8-9 years = 0 9-10 years = 0 10- more years = 0
Q7. In your opinion, What is good about your home in Carr Gardens?	<p><b>Main responses:</b></p> <ul style="list-style-type: none"> <li>• 31 respondents = These respondents felt that their home were closer to their work and school, shopping centres and transport facilities</li> <li>• 3 respondents = These respondents felt that Carr Gardens provide cheap and temporary rental accommodation – some of these respondents felt that rent was not affordable.</li> <li>• 7 respondents = These respondents had nothing to say</li> </ul>
Q8. What do you like about your home in Carr Gardens?	<ul style="list-style-type: none"> <li>• 23 respondents = My personal space</li> <li>• 11 respondents = The location of Carr Gardens</li> <li>• 4 respondents = Everyone follow the rules</li> <li>• 3 respondents = I don't like Carr Gardens – I am just waiting to get a permanent house</li> </ul>

<p>Q9. Do you like the structure of your house?</p>	<ul style="list-style-type: none"> <li>• 23 respondents = The structure small for my family- some people were concerned about limitations in conducting their cultural functions</li> <li>• 11 respondents = These respondents felt that the structure of their home is ok- it a good start towards their housing solutions</li> <li>• 4 respondents = These respondents felt that Carr Gardens housing are limiting because they cannot extend</li> <li>• 2 respondents = These respondents were concerned about their houses not being conducive for growing children</li> <li>• 2 respondents = These respondents did not care about the structure of their homes</li> </ul>
<p>Q 10. Do you fix your house often?</p>	<ul style="list-style-type: none"> <li>• All respondents are renting, the Johannesburg Housing Company is responsible for fixing problems. There are was a concern that problems are usually not fixed on time.</li> </ul>
<p>Q11. Do you feel safe in Carr Gardens?</p>	<p>The issue safety is a major concern for Carr Gardens residents.</p> <ul style="list-style-type: none"> <li>• 12 respondents = These respondents feel safe inside the Carr Gardens settlement. They are concerned about break-in in their cars</li> <li>• 15 respondents = These respondents are concerned about the safely of their children. This is because there are not enough planning facilities for children, thus children resort to playing in car parks</li> <li>• 11 respondents = These respondents were concerned about people they do not know who are allowed access to Carr Gardens. These respondents also complained about</li> </ul>

	<p>house break-in.</p> <ul style="list-style-type: none"> <li>• 3 respondents = felt safe or indifferent about safety issues.</li> </ul>
Q12. In your opinion, is it better to live in Carr Gardens?	<ul style="list-style-type: none"> <li>• 28 respondents = Life is better in Carr Gardens- it is accessible, safe, and closer to shopping centres, and work</li> <li>• 9 respondents = they were indifferent</li> <li>• 4 respondents = they have never thought about it</li> </ul>
Q13. Do you think that it is affordable to live in Carr Gardens?	<ul style="list-style-type: none"> <li>• 35 respondents = these respondents felt that rent is too high and it increases every year. Cost of petrol and transportation cost were sighted as a problem.</li> <li>• 6 respondents = these respondents felt that rent was affordable. They were some concerns about maintenance of the complex.</li> </ul>
Q14. Additional information	<ul style="list-style-type: none"> <li>• Most respondent (39) did not provide additional information</li> <li>• 2 respondents were concern about renting; they feel that government should assist them with permanent housing or housing for ownership.</li> <li>• There were also unhappiness about noise and cleanliness.</li> </ul>



## ANNEXURE FOUR: CONSENT LETTER



### **Consent form for housing beneficiaries of the Carr Gardens housing project.**

My name is Zama Khuzwayo and I am a student doing my Masters in Land and Property Development Management with the University of Free State. I am conducting a study which seeks to assess the sustainability in government housing using the case study of Carr Gardens housing project.

I humbly request your participation. Your contribution to the study will assist me (the researcher) get more insight on the research problem. The research results may not benefit you directly but policy makers may use this study to develop further policies. Your participation in this study is voluntary and you may withdraw any time you feel uncomfortable. You are therefore requested to fill the attached questionnaire as honestly as possible.

**Acknowledgement:** I have read and understood the above and understand that I can withdraw from the study anytime. If I have any question, I can contact the researcher on (zama@uthukeladm.co.za) and his supervisor: Professor Verna Nel (Vernanel@ufs.ac.za).

Participant Signature.....

Date.....