An Evaluation of Government Housing Projects against the Breaking New Ground Principles in Wells Estate in the Nelson Mandela Bay Municipality

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DECLARATION

I, Thuthuka Siphumezile Songelwa, student number 9833449, hereby declare that the Treatise for An Evaluation of Government Housing Projects against the Breaking New Ground Principles is my own work and that it has not been previously submitted for assessment or completion of any postgraduate qualification to another university or for another qualification.

Thuthuka Songelwa  Date
DEDICATION

This treatise is dedicated to the Songelwa family. May we all be inspired to break new ground through Education.
ACKNOWLEDGEMENTS

This study was made possible by the generous assistance, guidance and support of certain people. Your reinforcement, motivation and encouragement assisted me in successfully completing this study.

- The late Professor JJ Van Wyk, for the inspiration to undertake this study. May your soul rest in peace.
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- Dr Bekker, for your insights and expert advice, which helped me in putting together this study.
- My family for all their support throughout my studies, and
- All the people of Wells Estate who participated in the survey.
ABSTRACT

Despite the array of polices adopted to address the housing issue in South Africa in the post ‘94’ dispensation, South Africa in 2015 remains riddled with the same housing challenges as at 1994 even despite the significant improvements that have been achieved. Subsidised housing projects completed between 1994 and 2004 are characterised by poor design, poor quality, late delivery, poor location, and spatial marginalisation. To address these shortfalls, the Department of Human Settlements adopted the Breaking New Ground (BNG) principles in 2004 and the housing code of 2009 to mitigate shortfalls in the provision of low cost housing and thereby creating sustainable human settlements. It was in such context that this study sought to assess whether the BNG and housing code of 2009 was implemented in the building of the low-cost houses of the Wells Estate Human Settlement in the Nelson Mandela Bay Municipality (NMBM), constructed post-2004.

An exploratory study using both the quantitative and qualitative data collection methods was used to conduct the study. A questionnaire with open and closed questions was used to collect data. To complement the use of the questionnaire, transect walks were also undertaken. The findings of the study were that; firstly:

- The majority of the beneficiaries belonged to the productive age that is between 18 and 60;
- Wells Estate depicts a pre ‘94 spatial planning given its peripheral location there by affecting cost to work and job searching;
- The quality of houses complied with the tenets of the BNG and housing code of 2009;
- Access to services and facilities like police station, community halls, clinics, and schools remained a challenge because their availability is determined by the population size and utilisation rate, and
- Access to socio economic opportunities was still a challenge. The beneficiaries of Wells Estate even in the case for businesses owned this; these were for subsistence only such as street vending, shoe repairing, and painting.

Given the above findings, the study recommends that:
There is need to focus on human capital development through skill development to the productive age group which is unemployed. With skills, the unemployed have an opportunity to look for employment thereby improving their livelihoods;

The provision of housing alone cannot alleviate the socio-economic challenges affecting the poor, however there is a need for a multi-pronged approach to address other socioeconomic determinants such as access to employment and education, and

There is need to for a collaboration approach between the NMBM and other government departments for instance with the Department of Basic Education for scholar transport.

**Key Words:** Housing, Low Cost Housing, Adequate Housing, Sustainable Human Settlements
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<td>Breaking New Ground</td>
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CHAPTER ONE: INTRODUCTION AND PROBLEM STATEMENT

1.1 Introduction

Chapter One presents the background to the problem statement of the study with the purpose of defining the problem in context. Also presented are the statement of the problem, hypothesis, and objectives of the study. Furthermore, the data collection and research methods utilised for the study are introduced. Thereafter, an overview of the chapters that constitute the rest of the study is provided.

1.2 Preliminary Review of the Related Literature

Housing is one of the main development challenges confronting post-‘94 South Africa. The massive backlog in housing requires the government to commit to delivering houses at a faster rate (Sowman & Urquhart, 1998: 2). The housing backlog stood at 2.3-million in 2014 (Public Bill Committee Debate (Bill 31) 30 January 2014 c5). This is further compounded by a growing population and rapid urbanisation (Public Bill Committee Debate (Bill 31) 30 January 2014 c5). Many South Africans currently live in inadequate shelters - mostly in overcrowded informal settlements - with poor access to basic services such as water, sanitation and refuse collection. The Human Settlements Minister Lindiwe Sisulu (2014b: 5) in addressing this issue responds that government is under-resourced to confront the rate of urbanization, as land for housing that is well positioned in relation to work opportunities is scarce. Given the scale of this problem in housing delivery, it appears unlikely that the post-94 government will be able to meet the huge demand for housing and provide conventional houses for all. In addition, there are questions related to its financial sustainability. Thus, the low-cost housing that has been delivered and that still is to be built should be of high quality to minimise the cost of rectifications thereto by the government – an expenditure that is in essence, wasteful.

1.3 Defining Social Housing

The Department of Human Settlements (1999: 17) defines housing as, “a variety of processes through which habitable, stable, and sustainable public and private residential environments are created for viable households and communities.” This characterisation of
housing is buttressed by Tonkin (2008:32), who describes housing as a broad concept that includes houses, flats and other housing typologies, as well as infrastructure and can include the whole residential neighbourhood, including public spaces. Van Wyk (2009: 18) view housing as a tool for political ability, economic prosperity, social welfare and household well-being and as an economic, physical product - which requires various parallel and consecutive processes, services, suitable resources and relevant systems to make and maintain a quality, sustainable living setting for human beings. The above definitions recognize that the environment within which a house is built is as important as the house itself in satisfying the needs and requirements of its occupants.

Rust and Rubenstein (1996: 45) express that housing has a bearing on the ability or inability of the individual to satisfy his or her social, physical, mental, and interactive needs. Golland and Blake (2004: 5) posit that housing is a multi-faceted process to which nearly all sorts of everyday life activities have some input and further claim that homes make up the core element of neighbourhoods, villages and towns, and have influenced the location of schools, supermarkets; health centres and children’s play areas. Together with community facilities and local roads, houses make up the residential landscape that most people fondly associate with their childhood (Golland & Blake, 2004: 5). Given these conceptualisations of housing and of the associated socio-economic and spatial context thereof, one can note that the provision of adequate housing needs a multipronged approach to ensure that it does not address housing as a deliverable in isolation of the equally important issues experienced by the poor in terms of bulk services access (such as to roads, water and electricity, among others).

1.3.1 Low Income Housing in South Africa

In a bid to address the housing challenges that confronted the post-’94 South Africa, the government embarked on building low cost houses. Low-income housing is for people whose combined monthly household incomes are below R3 500 per month (Social Housing Act, 16 of 2008: 11), while social housing is a rental or cooperative housing option for low to medium households (earning not less than R3 500 per month in income (Department of Human Settlements, 2009: 17). For purposes of this research and the documentation thereof, use of the term ‘low-cost housing’ is applied to both ‘low income housing’ and to ‘social housing’.
1.4 Historical Perspective on Housing

The housing challenges confronting South Africa today are a result of the pre-‘94 political dispensation that left unequal and racially stratified settlement patterns in its wake. Tonkin (2008: 2) explains that the pre-‘94 government used housing as an instrument of separation, segregation and economic deprivation as it deliberately confined the black population to areas on the periphery of urban centres, far removed from quality service delivery and economic opportunities.

The housing problem in South Africa as indicated could be traced back to the legislation passed prior to 1994. The Land Act of 1913 and its subsequent amendments were the first attempt by the newly formed Union of South Africa to codify a system of territorial segregation and racial discrimination. Though the housing problems confronting the post-‘94 government cannot solely be attributed to the land act of 1913, the act gave birth to the Bantustans concept, which resulted in the creation of homelands for black people and contributed to the foundations of the housing challenges that would eventually confront the post-‘94 government. The Land Act of 1913 set aside only 13 percent of the country’s surface area for blacks that were in the population majority to own (Encarta Encyclopaedia, 2000: 1). Furthermore, the Act forced the indigenous people off their land, partly to expand the supply of cheap labour for the mines and commercial farms (Turok, 2012: 7). The reserves themselves were in areas with no agricultural and mining potential, mostly arid and distant from the main economic centres (Turok, 2012: 7). Thus, the lack of adequate agricultural land in these reserves forced people to migrate to urban areas, commercial farms, and mines which were, however inadequately prepared to host such a vast number of people who were mass migrating thereto. In essence, the prominence of the Land Act is that it served as a first major piece of legislation that would eventually comprise the legal structure of the pre-‘94 government. The pre-‘94 government, in fact, subsequently created legislation that sought to ensure that the intentions of the Land Act would be effectively realised.

The Urban Areas Act No 20 of 1923 authorised municipalities to impose residential segregation and further barred freehold property rights to Africans as they were regarded thereby as temporal urban residents and therefore would be permitted within municipal areas only for so long as their presence was demanded by the aspirations of the white population (Worden, 1994: 43). The 1950 Group Areas Act approved the racial composition
of every residential area, and was used to forcibly remove people who lived in the ‘wrong’ areas’. In addition, this Act allowed the government to demolish informal settlements.

The Bantu Authorities Act of 1951 legislated the establishment of authorities having jurisdiction over educational institutions, roads, housing, and hospitals for natives. The Promotion of Bantu Self-Government Act of 1959 established independent states, according to ethnic groups, each with its own homeland, which would develop separately from the rest of South Africa. In 1967, industrial development was restricted in white cities and towns and redirected to the Bantustans Turok (2012: 7). The rationale was to decrease migration from rural areas to the cities. Additionally, Turok (2012: 7) further explains that, the Black Homeland Citizenship Act of 1970 removed citizenship from blacks that lived outside of the Bantustans to compel them to become citizens of one of the ten Bantustans, and according to their ethnic group.

The pre-’94 government carried out forced removals, abolished ‘black spots’ and controlled urbanisation through influx control and by segregation of living areas. Pillay, Tomlinson and du Toit (2006: 1) elaborates that the lack of access to basic municipal services, limited or no access to land for housing, and a highly destabilised housing environment, contributed further to the current housing crisis.

Summarily, the housing challenge confronting the post-’94 government can be attributed to the pre-’94 government in that the failure to provide adequate housing for non-whites was not sustainable in the end. The reserves (Bantustans) had limited socio-economic opportunities and were not adequately financed to provide necessary socio-economic services such as adequate housing.

### 1.5 Urbanisation

#### 1.5.1 Defining Urbanisation

Other than the historical origin of the housing challenges of the post-’94 period, other factors contributed further to the problem’s exacerbation. These amongst others, included urbanisation. According to Turok (2012: 7) urbanisation is, “the increase in the number of people living in urban areas.” According to Turok (2012: 7), 62% of South Africans live in urban areas. The Department of Human Settlements Annual Report (2005: 41) states that, “Urbanisation is caused by rural-urban migration and population growth.” In the South African context, international migration has also increased the populations of urban areas.
The determinants for urbanisation include the need for access to improved socio-economic opportunities such as better housing, jobs, education, and health and for generally better living conditions. According to the Department of Human Settlements Annual Report (2005:41), one fifth of urban residents are rather newcomers to urban areas (first generation residents) and these areas are expected to continue to grow at the rate of 2.7% per annum. However, the main challenge with such rabid urbanisation is that national housing policy and provincial allocations have not always been able to respond to the changing nature of demands deriving from urbanisation pressures - hence the resultant housing backlogs, mushrooming of informal settlements, and increase in slum and backyard dwellers.

1.5.2 South African Urbanisation Experience

Urbanization in South Africa is shaped historically by policies that controlled the movement and settlements of black people (Peberdy, 2009:12). Wilson (1972: 3) indicates that prior to 1994; blacks were temporary sojourners who entered into urban areas to service the needs of the white population. The pre-‘94 government enacted policies to confine the black population to ‘homelands’ - predominantly rural and - with inadequate economic opportunities (Wilson, 1972: 3). Despite the government’s effort to control the mobility of the black population and to restrict rural-urban migration, such increasing conflicted with the economic imperative to increase the supply of cheap labour to the mines and to expanding urban industries (Turok, 2012: 7). However, migrant workers who relocated to urban areas received no housing subsidies (Turok, 2012: 7). The vast majority lived in rudimentary bachelor compounds, which were much cheaper for the government to provide than family quarters (Turok, 2012: 7).

The removal of the pre-‘94 restrictive policies on migration resulted in vast numbers of people migrating from the reserves and into towns in search of better economic opportunities, yet these cities were insufficiently resourced to accommodate such large numbers in terms of the provision of adequate services such as housing - hence the proliferation of informal settlements, and back yard shacks. In 2011, the government estimated that 2 700-shack areas countrywide were accommodating approximately 1.2-million households (Southern African Cities Network, 2011: 1).

Aside from the housing challenge confronting the post-‘94 government and originating from the pre-‘94 government, rapid urbanisation because of rural urban migration and population growth were also key factors in exacerbating the national housing challenge. It can be said
with certainty, that the restriction of access to non-whites of urban areas was the realisation of the inadequacy of the capacity of those urban areas to host such vast numbers of people.

1.6 Post Democratic South Africa

The post-'94 Government introduced various interventions to address the housing issue in South Africa. However, some of those interventions have since been abolished, but shall be discussed as they provide an ideological background to the current housing situation.

1.6.1 Reconstruction and Development Programme

The Reconstruction and Development Programme (RDP) was the first socioeconomic development blueprint of the first democratic government of South Africa. The RDP represented a vision for the transformation of South African society (Ramutsindela, 2001: 74) and the RDP objectives, *inter alia*, sought to deliver subsidised housing for low-income households. The RDP had a set goal to construct 300 000 houses per year with a minimum of one million low cost houses to be constructed within the first five years (Tonkin, 2008: 23). The RDP is, however, criticised for the resulting poor quality of housing and location of housing. The RDP settlements further perpetuated rather than overcame apartheid spatial patterns (Gilbert, 2000: 27). Simultaneously, demand for housing increased due to rapid urbanisation and population growth. The delay in provision of adequate housing for all as enunciated by the RDP thus resulted in the mushrooming of informal settlements and other informal living arrangements (backyard shacks, overcrowding, and inner-city building occupation) as the poor sought access to the city and urban opportunities (Tonkin, 2008: 19).

1.6.2 Growth, Employment and Redistribution - a Micro-Economic Strategy

The second development policy adopted by the post-'94 government was the Growth, Employment, and Redistribution policy (GEAR). The GEAR policy was a departure from the ideological underpinnings of the RDP as it sought to provide basic services such as housing to the poor, but specifically through economic growth led by private sector investment. According to Reitzes (2009: 10), the positive achievement of GEAR was macro-economic stability. However, despite the stability of the economy, the GEAR policy was criticised for its anti-poor stance as it focused on economic growth rather than major improvements to
the lives of the poor (Thompson, 2000: 281 & Davids et al., 2005: 43). This is because whichever way it is argued about GEAR, a key point that emerges is that development prospects will remain gloomy if the government reverts to the plan of reliance on the private sector to reduce poverty, and fails to do more itself through effective income support programmes for the poor.

1.6.3 Housing Act of 1997

The Housing Act of 1997 aligned the national housing policies with South Africa’s Constitution and clarified the roles and responsibilities of the national and provincial governments and municipalities. Furthermore, the Housing Act stipulated the administrative procedures for the development of national housing policy (Department of Human Settlement, 2000: 13).

1.6.4 National Housing Code

The revised National Housing Code of 2009 simplified the implementation of housing projects through being less prescriptive while giving clear guidelines. The National Housing Code of 2009 stipulated the guidelines, norms and standards that apply to government and various housing assistance programmes introduced since 1994 (Department of Human Settlements, 2010: 12).

1.6.5 Peoples Housing Process (PHP)

The PHP policy shifts the focus of housing delivery in South Africa from a state-driven (top-down) approach to a more people driven approach (Department of Human Settlements, 2000: 2005), and provides training and technical support to individual families who possess undeveloped, serviced property and who wish to apply for a housing subsidy to build their own homes. In addition, the PHP allows groups of people who qualify for housing subsidies to pool their resources and contribute their labour to the qualifying group, to maximise on the outcomes of their subsidies (Cape Gateway, 2007:6). Overall, the dissatisfaction with the quality and suitability of subsidised housing has led to an increasing emphasis on the PHP (Khan & Ambert, 2003: 15). The PHP was however replaced by the Enhanced People Housing Process (ePHP) in 2008. The new policy adopts a broader definition of PHP, allowing greater flexibility and choice while maintaining the central
principles of people-centred development (Himlin, 2008:1). The main aim of the ePHP programme is to deliver better human settlement outcome based on community contribution, partnerships, and the leveraging of additional resources through partnerships. This is achieved by developing livelihoods interventions, which lead to outcomes such as job creation, developing a culture of savings, skills transfer, and community empowerment, building of community assets and social security and cohesion (Himlin, 2008:1).

1.7 Housing Crisis in South Africa

Despite the array of polices thus far here introduced and which were adopted to address the housing issue in South Africa in the post-'94' dispensation, - and though there have been significant improvements in the provision of housing - South Africa in 2015 remains riddled with the same housing challenges as in 1994. Napier, as cited by Morare and Sikota (2014: 1), posits that the housing challenge in South Africa is probably misconstrued, and that the major housing challenge is in people's expectation that the government should grant houses to everyone who needs them. Though the element of justifiability and progressive realisation apply in housing, the provision of adequate housing has become a political tool, hence the increase in housing service delivery demonstrations. Napier, as cited in Morare and Sikota (2014: 1) claims that the main challenge, in housing is the issuing of title deeds, which is lagging, and which essentially means that people's ownership of a house cannot be established legally, leaving them unable to use it as an asset or as security for a loan. This study posits however, that low cost housing should not be used as a security/guarantee for a loan – as the low level of income required to qualify for low cost housing in the first place, intimates that such loans would leave many people homeless, should they fail to pay. This, on the overall basis that the majority of beneficiaries’ socio-economic standing is very low.

Morare and Sikota (2014: 2) further argue that the housing crisis has been exacerbated by poverty and that secondly, the housing problem is predominantly an urban one. This is mostly reflected in the increase in informal settlements that mushroom in open spaces in towns and cities. In addition, there is an increase in backyard dwellings and urban slum building dwellings - which are often rundown and without services, and characterised by crime and dereliction. Morare and Sikota (2014: 2) further note that in many instances, this hidden mass of homeless people is overlooked when housing issues are deliberated upon. As a result, this has led to a situation when in, for everyone squatter settlement removed,
another emerges from nowhere. In addition, there are also categories of people who do not qualify for low cost housing, but who simultaneously cannot access adequate housing and as a result end up occupants of informal settlements. It is therefore critical to approach the housing challenge in South Africa from a position that considers the various dynamics of the housing crisis.

1.8 Summary

The afore-discussed preliminary literature has provided a social and policy context to the challenges confronting housing in South Africa from a historical perspective. The appraisal thereof established the housing challenge as a creation of the pre-'94 government but also as one further exacerbated by rapid urbanisation resulting from migration (rural-urban and international migration) and population growth. The discussion further addressed the housing crisis in the post-'94 period and the various attempts by government to address the challenge. More significantly, noted was that the housing crisis in South Africa is complex and that the attempt to use the provision of low cost housing to address the sociological and economic challenges confronting the poor is not sustainable. There is need for a multi-pronged approach that includes access to improved human development index determinants such as employment, education to adequately address the housing crisis in South Africa.

Furthermore, the discussion clarified that, despite the progressive policies adopted in housing provision, the quality of housing and the ultimate goal of creating sustainable human settlements is not achievable - hence the importance of this study's intention to identify the disparities between housing policy and its implementation.

1.9 Problem and Its Setting

According to Khan (2003: 11), the demise of the pre-'94 government ushered in a new era that required a radical shift in ideological thinking for service delivery and socioeconomic transformation. Among the top priorities of the post-'94 government, was housing. According to the South African Presidency 20 Year Review Report (2014: 67), since 1994, the government has built approximately 3.7-million subsidised homes for approximately 12.5-million people of poor socio-economic status. Of the 3.7-million low cost houses built, 56% percent have been allocated to woman-headed households. In addition, there has been
progress in terms of the racial integration of cities and towns. However, despite such efforts, housing in South Africa remains characterised by severe spatial and functional inequalities.

Post-1994 housing development has come a long way; progressing from a race based to a non-racial approach. According to the Human Settlements Reference Group (2005: 10), the legacy of the pre-‘94 dispensation left the housing landscape, “physically, socially, and racially segregated and fragmented.” In a bid to remedy the injustices created by the pre-‘94 government, the post-‘94 democratic government launched low cost housing projects throughout the country. The RDP became the vehicle through which these low-cost housing settlements were delivered. However, these low-cost houses became known as RDP houses - a name greatly stigmatised. This, because, RDP Settlements lacked access to proper infrastructure, basic services, clinics, schools, green spaces, and other amenities that higher-income areas could take for granted (Donaldson, 2001: 6). In addition, these settlements were also characterised by small, low-quality units, constructed on the peripheries of towns and economic centres (Gilbert, 2000: 27). The RDP concept aimed at meeting people’s basic rights on a sustainable basis. Tomlinson (2006: 93) notes that, the focus of the post-‘94 government in early housing policy was to provide security of tenure through home ownership and access to basic services through an incremental plan of delivering serviced sites with rudimentary structures. Tomlinson (2006: 97) further argues that the government defended the ‘breadth over depth’ delivery processes; providing as many low-income housing structures as possible (breadth), rather than building fewer structures of better quality (depth). However, this ‘breadth over depth’ approach indicated a failure of the government to adequately address the housing challenge in South Africa (Tomlinson, 2006: 96-97). This, owing to that early RDP settlements lacked clinics, schools, social services, and access to economic activities (Donaldson, 2001: 6). Gilbert (2000: 27) notes that the quality of RDP settlements disappointed many, both in the size of the units and in terms of quality of construction, and beneficiaries reported feeling worse off in their new circumstances than previously.

In a bid to address the shortfalls of the earliest human settlement developments, the Department of Human Settlements in September 2004 adopted the Breaking New Ground Principles (BNG). The BNG reinforced the vision of the Department of Human Settlements, “to promote the achievement of a non-racial, integrated society through the development of sustainable human settlements and quality housing” (Department of Human Settlements,
Within this broader vision, the Department of Human Settlements commits to meeting the following specific objectives:

- Accelerating the delivery of housing as a key strategy for poverty alleviation;
- Utilising provision of housing as a major job creation strategy;
- Ensuring property is accessed by all as an asset for wealth creation and empowerment;
- Leveraging growth in the economy;
- Combating crime, promoting social cohesion and improving quality of life for the poor;
- Supporting the functioning of the entire single residential property market to reduce duality within the sector by breaking the barriers between the first economy residential property boom and the second economy slump, and
- Utilizing housing as an instrument for the development of sustainable human settlements, supporting spatial restructuring (Department of Human Settlements, 2004a: 11-12).

The BNG essentially reflects a major shift in housing policy, seeking to refocus national housing policy attention on the development of sustainable human settlements, rather than on the delivery of subsidized housing units in isolation (Department of Human Settlements, 2004a: 12). The Department of Human Settlements envisaged the BNG to provide integrated sustainable development, wealth creation, and poverty eradication, wherein present and future inhabitants of such settlements live in a safe and secure environment with adequate access to:

- Economic opportunities;
- A mix of safe and secure housing and tenure types;
- Reliable basic services, and
- Entertainment, educational, cultural, health, welfare, and police services


It is within such a context, that this study employs the BNG principles as the standard against which to evaluate the post-2004 housing developments in the Nelson Mandela Bay Municipality (NMBM).

1.10 Statement of the Problem

Subsidised housing projects completed between 1994 and 2004 are characterised by poor design, poor quality, late delivery, poor location, and spatial marginalisation. These projects
generally are unsustainable and non-conducive to social and economic upliftment (Tissington, 2011: 8). To address these shortfalls, Tonkin (2008: 418), explains that the Department of Human Settlements adopted the BNG principles in September 2004 as a framework with which to underpin housing policy and practice. “The BNG sets out a comprehensive plan for the development of sustainable human settlements, promoting the development of integrated, functional and environmentally sustainable human settlements, and departs from the former policy intention to deliver freestanding subsidised low-density housing on a large scale regardless of the quality of the settlements” (Tonkin, 2008: 418). The BNG principles were therefore intended to address issues experienced during the development of pre-2004 housing projects. One of the requirements of the BNG was for an update of the Housing Code of 2000 to set out the underlying policy principles, guidelines and norms and standards that apply to National Housing Programmes ensuring their conformity with the requirements of the BNG (Tissington 2011: 21). Subsequently, the housing code of 2009 contains the BNG-compliant National Housing Programmes, described as the “building blocks in the provision of sustainable human settlements” (Tissington, 2011: 21).

There are, however, indications that subsidised housing projects completed since 2004, remain plagued by the same issues that characterised housing projects of pre-2004. The Public Protector Report on RDP housing (2013) identified defects in housing structures resulting from poor workmanship resulting in cracks (severe) and leakages (Public Protector, 2013:1). The Minister of Human Settlements Lindiwe Sisulu indicated in 2014, that rectification programmes had spent R2.1-billion to rectify RDP houses nationally between 2011 and 2014. The Eastern Cape used R206-million thereof on the rectification programme in the same period (Sisulu, 2014b: 1) - money that could have been used to build more low-cost houses.

A further second challenge with low cost housing is the location thereof. These settlements are still being constructed at the peripheries of towns, and the spatial planning associated thus still follows pre-’94 spatial planning patterns, positioning the disenfranchised far away from the economic opportunities that the very empowerment thereof requires. The prevalence of this practice has been attributed to non-availability of cheap land near city or town centres and to resistance by property owners to have low cost housing settlements constructed close to their neighbourhoods, as this would decrease their property value.
The third challenge this study notes is that low cost housing settlements are still being constructed without planning for access thereof to essential services and facilities. These absent services include necessary health facilities, police, municipal service centres, community halls, schools, and adequate infrastructure such as roads, streets, and lights.

This study’s assessment, therefore seeks to answer the following research questions:

- Has the BNG been successful in addressing the issues that characterised housing projects constructed pre-2004 during the implementation of housing projects since 2004;
- If so, to what extent have these issues been addressed in projects since 2004, and
- To what extent has the introduction of the 2009 version of the SA Housing Code contributed in addressing the new BNG requirements?

### 1.11 The Main Problem

The South African Government between 1994 and 2004 had a narrowly focused commitment to, housing provision: to increase the quantity of housing stock available to the poor and as quickly as possible. (Barry et al. 2007: 33). Khan (2003: 17) posits that in a bid to address the housing problem, some socio-economic imperatives that could have uplifted the livelihoods of the poor might have been overlooked. Despite this acknowledgement of housing programmes having gone wrong, Khan (2003: 18) argues that over the years, dwellings have tended to be: “generally poorly designed; environmentally unsound; located in the peripheries and spatially marginalised; and non-conducive to social and economic development.” This is despite the existence of progressive policies such as the BNGs and South African Housing Code of 2009. It is in such a context that this study seeks to assess whether the BNGs were implemented – and to what extent – in the building of the low-cost houses of the Wells Estate Human Settlement in the Nelson Mandela Bay Municipality (NMBM), constructed post-2004.

### 1.12 Sub Problems

**Sub-problem 1**: Housing projects completed since 2004 are plagued by poor design and substandard quality.

**Sub-problem 2**: Recipients of houses in newly developed subsidised housing projects cannot afford (money and / or time) to travel great distances to access primary community facilities (including commercial, municipal, recreational, and religious facilities).
Sub-problem 3: Recipients of government-subsidised houses generally remain unemployed and economically depressed.

1.13 Hypotheses

Hypothesis 1: The time lag between the introduction of the BNG and the introduction of the 2009 version of the SA Housing Code contributed to the perpetuation of design and quality issues on housing projects. The SA Housing Code is not applied on subsidised housing projects.

Hypothesis 2: Housing projects are poorly located, spatially marginalised and no consideration is given to the establishment of multi-purpose cluster facilities.

Hypothesis 3: Recipients of government-subsidised houses do not have access to economic opportunities.

1.14 Delimitation of the Study

The term BNG is used in specific reference to the comprehensive plan for the development of sustainable human settlements drafted by the housing department of South Africa and introduced in 2004. This study will thus focus on housing projects constructed in the NMBM post-2004. Excluded from this study are the responses of the applicable beneficiaries in their personal capacity; however, the researcher will note the general responses of the community in instances wherein such have been of pronounced prevalence.

1.15 Definition of Terms

Breaking New Ground: A comprehensive plan for the development of sustainable human settlements presented by the Minister of Housing to Cabinet in September 2004 following an intensive review of housing policy and a consultation process (Department of Human Settlements, 2004: 1).

Social Housing: A rental or co-operative housing option for low income persons at a level of scale and built form which requires institutionalised management and provided by accredited social housing institutions or in accredited social housing projects in designated restructuring zones (Department of Human Settlements, 2005: 8).
Low-income persons: Those whose household income is between R1 500 and R7 500 per month (Department of Human Settlements, 2005: 9).

1.16 Importance of the Study

The post-1994 government introduced several policies and legislative initiatives concerning human settlements with the intention to address the inherited spatial disparities that included; long distances to economic opportunities from human settlements and substandard social housing. In spite of the substantial progress achieved in delivering housing, the condition of low-income housing delivery is far from satisfactory and an excessive number of constraints obstruct the provision of adequate and affordable housing to low-income households. It is such a context that the findings of this study would assist the Department of Human settlements and policymakers to understand the disparities that exist between the BNG, 2009 Housing Code and the implementation thereof. Further, the findings would also assist the Department of Human Settlements and policymakers to reflect on the low-income housing situation and identify opportunities for improvement in the compliance of these human settlements with the BNGs and 2009 Housing Code. Over and above, the study seeks to contribute to the existing literature on human settlements in South Africa and thus to the body of knowledge that informs the advancement thereof.

1.17 Aim and Objectives

This research aims to evaluate housing settlements constructed post-2004 in terms of whether the development thereof is in adherence to the principles of BNG. The broader objective of the study is:

- To assess the variances between selected housing developments in the NMBM in terms of their alignment with BNG principles through:
  - Determination as to whether residents do live in a safe and secure environment, and have adequate access to economic opportunities, a mix of safe and secure housing, and tenure types, reliable and affordable basic services, education, entertainment and cultural activities, and health, welfare and police services, and
  - Evaluation as to whether the multi-purpose cluster concept is applied so as to incorporate the provision of primary municipal facilities, such as parks, playgrounds, sports fields, crèches, community halls, taxi ranks, satellite police stations, municipal clinics, and informal trading facilities, and
• To make recommendations for improvement of human settlement policies and practices.

1.18 Housing Projects in the Nelson Mandela Bay Municipality

The research studied Wells Estate, a housing settlement within the Nelson Mandela Bay Municipality. Wells Estate is 15 kilometres from the city centre and according to De Moss (2015: 224), was constructed following, the Coega Development Corporation’s (CDC) prior (1999) collaboration with city officials in Port Elizabeth to create a housing community for people who lived in informal settlements within the demarcations of the CDC industrial zone. Thus, many of the beneficiaries of houses in Wells Estate were displaced by the construction of the CDC Industrial Zone.

The study of the Wells Estate example was structured to enable the researcher to understand and obtain as much opinion on these beneficiaries’ perceptions of the following:

• The quality of houses they received;
• Access to primary municipal amenities like Clinic, police station, schools, recreational facilities, and
• Access to social, economic opportunities.

Further, Wells Estate served as a good research example for this study as the settlement has sections both built before and post 2004. The researcher would thus be enabled to determine comparatively whether any improvement is represented in terms of human settlement development practice post 2004 -relative to BNG principles’ required application.

1.19 Qualifications of the Researcher

Thuthuka Songelwa is a black young female with more than ten years of experience in the Built Environment. Thuthuka is currently studying towards an MSc in Project Management with Nelson Mandela Metropolitan University in Port Elizabeth. Thuthuka also holds a B-Tech in Quantity Surveying from Tshwane University of Technology. Her work experience is diverse and ranges from consultancy for the Department of Human Settlements Provincial as well as for the Nelson Mandela Bay Municipality. Thuthuka values team work, hard work, dedication, and enthusiasm entrenched by a high moral and ethical standing.

**Current position:** Thuthuka Songelwa is currently working as a Quantity Surveyor, Health, and Safety consultant for BNTS Consulting Services, a company based in Port Elizabeth,
whose mandate is to serve its clients through the management of projects within all the key variables of a successful project.

1.20 Outline of the Study

Chapter One: Introduction and Problem Statement
Introduction to the study (Introduction and background, problem statement, objectives of the study, ethical considerations, limitations of the study).

Chapter Two: Review of Related Literature
Theoretical orientation and literature review, covering the definition of housing and Conceptual Framework on housing.

Chapter Three: Research Methodology
A detailed description of the research method to be utilised by the study, and which includes the applicable data collection techniques, sampling method, data analysis and recording and administration of data.

Chapter Four: Presentation and Interpretation of Data
All research findings derived from the methodology’s different tools will be integrated into major findings of the study.

Chapter Five: Summary and Conclusion
A summary, conclusion of the research will be presented.

1.21 Conclusion
Chapter one has presented the background context of the study, research objectives, as well as clarification of the concepts used in the study. Some of the concepts clarified in this chapter are important to the study - as they addressed the core of the study. The chapter to follow reviews the literature on the development and implementation of the BNG policy, policy implementation issues and perspectives of different authors as well as the study’s theoretical framework.
CHAPTER 2: LITERATURE REVIEW

2.1 Introduction
The provision of adequate housing is one of the many developmental challenges confronting the post-'94 South African government. This is compounded by increased backlogs in housing provision, homelessness, poverty, and unemployment. The post-'94 government’s provision of low-cost housing is thus in a bid to mend the historical race-based inequalities in housing. It is in this context that this chapter presents the literature review on sustainable human settlements. The review commences with discussion of the theoretical framework on which this study is based. By the end of the chapter, the review would have provided an overview of the transition from housing to sustainable housing through the BNG plans.

2.2 Sustainable Development Paradigm in Housing Provision
This study is positioned within the sustainable development framework. The purpose of a theoretical framework is to analyse the empirical reality to existing theories in order to identify and formulate central propositions as well as to sort and direct data, which then facilitates interpretation and analysis (Verslius, Van Keulen & Stephen, 2010: 24).

The definition of sustainable development is very complex and multi-dimensional depending on one’s socio economic and the political paradigm one is located within. This study thus uses the definition of sustainable development as provided by the United Nations World Commission on Environment and Development (1987: 8) which expressed it as, “the ability to provide for the development needs of the present population without compromising the ability to meet those of the future generations.” The United Nations World Commission on Environment and Development (1987: 8) further notes that human development needs are basic and essential. Therefore, economic growth and equity in sharing resources with the poor is required to sustain them. In addition, Esben and Ramboll (2000: 22) describe that these developmental needs are socio-economic and cultural as well as ecological issues. The United National Development Programme Johannesburg Declaration on Sustainable Development (2002:1) confirmed alignment with the World Commission on Environment and Development’s definition of sustainable development. Linked to this notion of sustainable development have been the eight Millennium Development Goals, which have been further elevated to Sustainable Development Goals vision 2030. The Sustainable Development
Goal 11 seeks to create cities and human settlements that are inclusive, safe, resilient and sustainable (United National Development Programme, 2015: 12). In the context of this study, the provision of adequate housing is one of the primary sustainable development needs. It is therefore important to state that human settlements are now significantly urban and urbanization is increase at such a pace with cities thus either becoming drivers of or barriers to, sustainable development.

To achieve sustainable development, a country needs to meet the following basic sustainable development tenets as outlined by the United Nations World Commission on Environment and Development (1987:8):

- Revitalizing economic growth to allow sustainable development to tackle absolute poverty, which is prevalent in developing countries;
- Changing the content of economic growth by making it less material- and energy-intensive and more equitable in its impact. Some of the sustainable development indicators for this are equal distribution of income, and to reduce the degree of vulnerability to economic crises;
- Meeting essential needs for jobs, food, energy, water, and sanitation, because all too often poverty manifests itself in such a way that people cannot satisfy their basic needs for survival and well-being even if goods and services are available;
- Ensuring a sustainable level of population, as the sustainability of development is intimately linked to the dynamics of population growth;
- Preserving and enhancing the resource base because if needs are to be met on a sustainable basis the earth’s natural resource base must be conserved and enhanced;
- Reorienting technology and managing risk in such a way that there is a link between technology and nature. Technological innovation should be enhanced to respond effectively to the challenges of sustainable development. In addition, the orientation of technology development must be changed to pay greater attention to environmental factors, and
- Integrating environment and economics in decision-making. This requires a change in attitudes and objectives and in institutional arrangements at every level.

The Centre for Global Studies (1999: 2) reports that sustainable development improves the community’s well-being in terms of jobs, health, education and how it operates. In the context of housing provision, sustainable cities refer to rebuilding human settlements that are more compact and cohesive to support efficient and safe transportation, reduce sprawl,
and preserve open space (Centre for Global Studies, 1999: 2). Such development encourages living, working, shopping, and playing within walking or biking distance. Juxtaposing this conceptualisation of sustainable human settlements against the current spatial plans, human settlements, and one would note that the settlements of towns are more dispersed in spread than needed. In addition, it is the poor that are located at the periphery of these-spread out cities - thereby placing them far from socioeconomic opportunities (Centre for Global Studies, 1999: 2). This has resulted in the poor populations consuming too much time and money on transport to meet daily needs; hence contributing to the unsustainability of such human settlements. The sustainability indicators must be integrated, in the sense that they must attempt to portray linkages between the economic, environmental, and social dimensions of sustainability.

2.3 Conceptualising Housing

Given the conceptualisation of sustainable development in the provision of socio-economic services, it goes without saying that it is of crucial importance to define housing within the confines of sustainable Development. Schoenauer (2000:5) defines housing as, a shelter, building, or place for habitation by human beings that includes many kinds of dwellings ranging from rudimentary huts of nomadic tribes to high-rise apartment buildings. This characterisation of housing is buttressed by Tonkin (2008:2), who describes housing as, “a broad concept that includes houses, flats and other housing typologies, as well as infrastructure and can include the whole residential neighbourhood, including public spaces.”

The above definitions recognize that the environment within which a house is built is as important as the house itself in satisfying the needs and requirements of its occupants. Mahanyele (2002: 6) posits that the defining of housing only as a physical structure is inadequate since housing is concerned with, “fulfilling basic human needs, the availability of land, and access to credit, affordability, basic services, economic growth, social development, and the environment”.

The concept of housing in the legislative framework of the South African government is defined within housing rights. The Department of Human Settlements (2009: 17) defines housing as, “a variety of processes through which habitable, stable, and sustainable public and private residential environments are created for viable households and communities.” In addition, the Department of Human Settlement (2009: 17) makes use of the concept of
'adequate housing' which is measured through: legal security of tenure; the availability of services; materials, facilities and infrastructure; affordability; habitability; accessibility; location and cultural adequacy. The South African Housing White Paper of 1994 interprets the concept of adequate housing as, "viable socially and economically integrated communities, situated in areas allowing convenient access to economic opportunities as well as health, educational and social amenities, within which all South Africa's people will have access to." Adequate housing should enhance secure tenure, privacy and adequate protection against the elements; and portable water, adequate sanitary facilities including waste disposal and domestic electricity supply (Department of Human Settlement, 2009: 17). From an international perspective on housing, (Anderson, 2000: 154) posits that in the United States of America, housing is understood within the context of a decent home and a suitable living environment for every family.

Rust and Rubenstein (1996: 45) articulate that housing has a bearing on the ability or inability of the individual to satisfy his or her social, physical, mental and interactive needs. Golland and Blake (2004: 5) further posit that housing is a multi-faceted process to which nearly all sorts of everyday life have some input - and that homes are the core element of neighbourhoods, villages and towns, and have influenced the location of schools, supermarkets; health centres and children’s play areas. Together with community facilities and local roads, houses make up the residential landscape that most people fondly associate with their childhood (Golland & Blake, 2004:5). From the above descriptions of the meaning of housing, one can note that “adequate” does not only refer merely to the physical structure of housing but is multi-dimensional. Adequate housing includes satisfaction, affordability and an adequate internal space as essential features of sustainable human settlements.

2.4 Historical Perspective on Housing

It is important to analyse the historical legacy of housing planning and delivery in South Africa to have an understanding of the current housing crisis. An understanding of this crisis assists in preparing, planning, and strategizing towards creating sustainable, decent human settlements.
2.5 Determinants of Housing Crisis in Pre-‘94

The housing challenges confronting South Africa today are a result of the pre-‘94 political dispensation, which left unequal and racially stratified settlement patterns. Tonkin (2008: 2) expresses that the pre-‘94 government used housing as an instrument of separation, segregation, and economic deprivation with the government deliberately confining the black population to areas on the periphery of urban centres, far removed from quality service delivery and economic opportunities.

The housing problem in South Africa as indicated could be traced back to the legislation passed prior to 1994. The Land Act of 1913 and its subsequent amendments were the first attempt by the newly formed Union of South Africa to codify a system of territorial segregation and racial discrimination. Though the housing problems confronting the post-‘94 government cannot be solely attributed to the Land Act of 1913, the Act gave birth to the Bantustans concept, which resulted in the creation of homelands for black people - eventually contributing to the housing challenges that would challenge the post-‘94 government.

The Urban Areas Act No 20 of 1923 authorised municipalities to impose residential segregation and further barred freehold property rights to Africans – regarding them as temporal urban residents and therefore only permitted within municipal areas for so long as their presence was demanded by the wants of the white population (Worden, 1994: 43). The 1950 Group Areas Act approved the racial composition of every residential area, and was used to forcibly remove people who lived in the ‘wrong’ areas'. In addition, this Act allowed the government to demolish informal settlements.

The Bantu Authorities Act of 1951 legislated the establishment of authorities that would have jurisdiction over educational institutions, roads, housing and hospitals for natives, while the Promotion of Bantu Self-Government Act of 1959 established independent states, according to ethnic groups, each with its own homeland, which would develop separately from the rest of South Africa (South Africa History Online, 2014: 2). In 1967, industrial developments were restricted in cities and towns but were redirected to the Bantustans (Turok, 2012: 7). The rationale was to decrease migration from rural Bantustans to the cities. Additionally, Turok (2012: 7) explains that, the Black Homeland Citizenship Act of 1970 removed citizenship from blacks that lived outside Bantustans in order to compel them to become citizens of one of the ten Bantustans, according to their ethnic group.
The pre-’94 government carried out forced removals, abolished ‘black spots’, and controlled urbanisation through influx control and by segregation of living areas. Pillay, Tomlinson and du Toit (2006: 1) highlight how, the lack of access to basic municipal services, limited or no access to land for housing, and a highly destabilised housing environment, have contributed to the current housing crisis.

The housing challenge confronting the post-’94 government can be attributed to the pre-’94 government in that the failure to provide adequate housing for non-whites was not sustainable in the end. The reserves (Bantustans) had limited access to socio-economic opportunities and were inadequately financed to provide socio-economic services such as adequate housing.

2.5.1 Rapid Urbanisation in post-’94

Urbanization in South Africa is shaped historically by policies that controlled the movement and settlements of black people (Peberdy, 2009: 12). Wilson (1972: 3) indicates that before 1994, blacks were temporary sojourners who entered into urban areas only to attend to the needs of the white population. The pre-’94 government enacted policies to confine the black population to ‘homelands’ - predominantly rural and with inadequate economic opportunities (Wilson, 1972: 3).

Despite, the pre-’94 government’s efforts to control the mobility of the black population and restrict rural-urban migration, such an agenda was increasing in conflict with its simultaneous economic imperative to increase the supply of cheap labour to the mines and to expanding urban industries. However, migrant workers who relocated to urban areas received no housing subsidies, with the vast majority thereof living in rudimentary bachelor compounds, which were much cheaper for the government to provide than family quarters (Turok, 2012: 7).

The removal of the pre-’94 restrictive policies on migration resulted in the migration of vast numbers of people from the reserves into towns and urban centres in search of better economic opportunities. However, these cities were not sufficiently resourced to accommodate such large numbers in terms of the provision of adequate services such as housing - hence the proliferation of informal settlements and back yard shacks. In 2011, the government estimated that 2 700-shack areas countrywide were accommodating about 1.2-million households (South African Cities Network, 2011:1).
Despite the housing challenges confronting the post-'94 government and originating from the pre-'94 government, rapid urbanisation because of rural urban migration and population growth are also key factors in exacerbating the housing challenge. It could also be said with certainty that the restriction of non-whites from urban areas has yielded the inadequacy of the capacity of urban areas to host large numbers of people.

2.6 Housing Crisis in South Africa

Despite an array of polices discussed and which were adopted to address the housing issue in South Africa in the post-'94 dispensation - and though there has been significant improvement in the provision of housing - South Africa in 2015 remains riddled by the same housing challenges as at 1994. Napier, as cited by Morare and Sikota (2014: 1), posits that the housing challenge in South Africa is probably misconstrued, and that the major housing challenge is in people’s expectation that the government should grant houses to everyone who needs them. Though the element of justiciability and progressive realisation apply in accessing adequate housing, the provision of adequate housing has become a political tool, hence the increase in housing service delivery demonstrations. Napier, as cited in Morare and Sikota (2014: 1) claims that the main challenge, in housing is the issuing of title deeds, which is lagging, and which essentially means that people’s ownership of a house cannot be established legally, leaving them unable to use it as an asset or as security for a loan. This study posits however, that low cost housing should not be used as a security/guarantee for a loan – as the low level of income required to qualify for low cost housing in the first place, intimates that such loans would leave many people homeless, should they fail to pay. This, on the overall basis that the majority of beneficiaries’ socio-economic standing is very low. The House Code (2009: 34) states that government subsidy houses cannot be used as collateral security as the Housing Act as amended bars dictates the selling of subsidy as argues that the houses will always belong to the state.

2.7 Housing in the Post-‘94’ Era

The Department of Human Settlements (2004c: 2) poses a pertinent question regarding human settlements: “Has development in sustainable human settlements since 1994 served to further the course of sustainable development, with respect to the inter-linked pillars of environmental, social, and economic sustainability?”
As alluded to in the previous chapter, the South African housing context is marred by pre-‘94 government policies, high levels of unemployment and a lack of social stability, and linked to poverty among urban and rural communities (Department of Human Settlements, 2004c: 2). Because of the policies and political turbulence of the apartheid era, the housing landscape inherited by the new South African government in 1994 was hindered by severe problems.

Lack of access to the most basic municipal services, limited or no access for the poor to land for housing, and a highly destabilised housing environment, further contributed to the housing crisis. In 1994 South Africa, had dire housing and services backlogs, inequalities in municipal expenditure, the spatial anomalies associated with the pre-’94 cities, profound struggles against pre-’94 local government structures, high unemployment and many poverty-stricken households (Pillay, Tomlinson & du Toit, 2006: 1).

The Department of Human Settlements (2000: 2) further describes that the non-payment of housing loans and service payment boycotts during the 1980s affected many households. Non-payment of housing loans resulted in lenders being hesitant to lend to low-income families for the building of houses. There were also other obstacles confronting the post-’94 government, and these included:

- Slow and complex land identification, allocation and development processes resulting in insufficient land for housing development purposes, and
- Service and housing standards, which led to difficulty in providing affordable housing products (Department of Human Settlements, 2000: 2).

The 1994 White Paper on a New Housing Policy and Strategy for South Africa captured the housing situation in 1994, highlighting the conditions prevailing at the time with particular focus on the poor. The policy estimated that over 66% of South Africa's population was functionally urbanised and that the remaining 34% of the total population resided in rural areas, many of whom would spend part of their working lives in the urban areas (Government Digest, 2004: 16). Approximately 58% of all households had secure tenure whereas an estimated 9% of households lived under traditional, informal/inferior, and/or officially unrecognised tenure arrangements in rural areas. An additional estimated 18% of all households were forced to live in squatter settlements, backyard shacks or in overcrowded conditions in existing formal housing in urban areas, with no formal tenure rights over their accommodation. This pattern of insecure tenure is without a doubt one of the most prominent features and causes of South Africa's housing crisis in 1994. The tenure
situation, which is an indication of the patterns of distribution of physical assets, was further characterised by an entrenched disparity of home ownership in terms of income, gender and race (Government Digest, 2004: 16).

In a bid to redress the housing crisis in South Africa, the post '94 government adopted the Reconstruction and Development Programme (RDP). The RDP committed to meet the basic needs of all South Africans. These basic needs included, among others, housing. The RDP housing provision was a package that included secure tenure; land; a top structure; and the supply of water, sanitation, and electricity (Mahanyele, 2002: 2). By the late 1990s, housing specialists had begun raising concerns that the delivery of RDP housing was inadvertently creating unviable, dysfunctional settlements. From about 1999 onwards, therefore, there has been increasing focus by the Department of Human Settlements on the intention to produce 'quality' rather than mere quantity (Charlton & Kihato, 2006:254).

The post-1994 housing programme has been highly significant in numerous ways. Housing delivery has been important in demonstrating the distribution of a tangible asset to the poor, and in this sense, it can be argued to have played a key role in establishing a certain level of pride among low-income households. According to Charlton and Kihato (2006: 254), it is contended that the government-housing programme is one of the few state interventions, which place a physical asset directly in the hands of households living in conditions of poverty. The extent to which the household is then able to make use of that asset to improve its livelihood and to boost its broader portfolio of assets (i.e. human, social, natural and financial) is a key indicator of the successful outcome of housing policy (Government Digest, 2004:16). The National Housing Policy that has been formulated and implemented since then, is strongly influenced by the need to address such (Department of Human Settlements, 2000:1).

2.7.1 Low-income Housing Policies in the Post-‘94 Dispensation

The year 1994 was a watershed in South African politics as a majority democratically elected political party assumed political power to govern the country. The post-‘94 government adopted a new constitution, which among other rights placed housing as an inherent human right. Thus, the establishment of democratic government in South Africa, in April 1994, had as a priority, the provision of houses to the previously disadvantaged (Baumann, 2000:85). To achieve its goal in housing provision, government formulated a number of policy documents. These included the White Paper on Housing in 1994, PHP policy in 1998, and

2.7.2 Transition to Sustainable Housing

During the struggle for the liberation of South Africa, the liberation movements in 1995 adopted the freedom charter, which had projections of what the post-independence South African state should look like. One of the clauses dealt with human settlements that, ‘There shall be houses, security and comfort for all. All people shall have the right to live where they choose, to be decently housed, and to bring up their families in comfort and security. Slums shall be demolished and new suburbs built where all shall have transport, roads, lighting, playing fields, crèches, and social centres’ (Congress of the People; 1955:2).

The transition to sustainable human settlement delivery in South Africa was a result of need to comply with the United Nations. The Vancouver Declaration on Human Settlements and the Vancouver Action Plan resulted in the United Nations General Assembly creating a Commission on Human Settlements. The UN-Habitat was established in 1976 because of this event. The 1996 UN Habitat addressed two issues. The first theme was concerned with access to safe and healthy shelter, as well as basic services, as essentials to a person’s physical, psychological, social, and economic well-being (United Nations Habitat, 1996:1). The second theme focused on issues of sustainable development of human settlements such as economic, social development and environmental protection, with full respect for all human rights and fundamental freedoms (United Nations Habitat, 1996:1). In line with these two themes above, the United Nations compels governments to take appropriate actions in order to promote, protect and ensure full and progressive realisation of the right to adequate housing (United Nations Habitat, 1996:23). These actions include adopting policies aimed at making housing habitable, affordable and accessible, including for those who are unable to secure adequate housing through their own means, by promoting sustainable spatial development patterns and transportation systems that improve accessibility of goods; services; amenities and work.
2.7.2.1 The Breaking New Ground (2004)

It was against this background that in 2004, the Department of Human Settlements unveiled the Comprehensive Plan on Sustainable Human Settlements. The then minister of Human Settlements in her ministerial budget vote speech (May 2005) stated that the south African government was committed to implement the tenets of the freedom charter and recognised that adequate housing was a prerequisite for comfort and security.

The “Comprehensive Plan for Housing Delivery” - the BNG is defined as, “a new human settlements plan to advance the achievement of a non-racial, integrated society via the creation of sustainable human settlements and quality housing.” By adopting the BNG, the Department of Human Settlements devotes to achieving seven unique aims:

- Residents should live in a safe and secure environment, and have adequate access to economic opportunities, a mix of safe and secure housing, and tenure types, reliable and affordable basic services, educational, entertainment and cultural activities, and health, welfare and police services;
- Ensure the development of compact, mixed land use, diverse, life-enhancing environments with maximum possibilities for pedestrian movement and transit via safe and efficient public transport in cases where motorised means of movement is imperative;
- Ensure that low-income housing is provided in close proximity to areas of opportunity;
- Integrate previously excluded groups into the city, and the benefits it offers, and to ensure the development of more integrated, functional, and environmentally sustainable human settlements, towns and cities. The latter includes densification;
- Encourage Social (Medium-Density) Housing – Social Housing is generally medium-density, and this housing intervention may make a strong contribution to urban renewal and integration;
- There is a need to move away from a housing-only approach to a more holistic development of human settlements, including the provision of social and economic infrastructure;
- Multi-purpose cluster concept will be applied to incorporate the provision of primary municipal facilities, such as parks, playgrounds, sports fields, crèches, community halls, taxi ranks, satellite police stations, municipal clinics, and informal trading facilities;
- More proper settlement designs and housing products, and more acceptable housing quality;
• Enhancing settlement design by including design professionals at planning and project design stages, and developing design guidelines;
• There is a need to focus on changing the face of the stereotypical RDP houses, and settlements, through the promotion of alternative technology and design;
• Social housing must be understood to accommodate a range of housing product designs to meet spatial and affordability requirements. Social housing products may include:
  o Multi-level flat, or apartment options, for higher income groups, incorporating beneficiary mixes to support the principle of integration and cross-subsidisation;
  o Co-operative group housing;
  o Transitional housing for destitute households, and
  o Communal housing with a combination of family and single-room accommodation with shared facilities and hostels.

The implementation of the Breaking New Ground policy was made possible by the introduction of the housing code of 2009. One of the challenges and outcries on low cost subsidised housing has been around the quality and size of the houses. Since 1994, the government was interested in supplying large quantities of houses rather than ensuring the quality of the houses (Tissington, 2011:21). The quality of low cost housing was due to poor workmanship, inexperienced contractors and quality of material used. This has resulted in many millions being used in the rectification (Tissington, 2011:21).

In response to complaints by beneficiary about the size and quality of the houses delivered and builders about the quantum of the subsidy being insufficient to build to the standard expected, thus the national minimum norms and standard for servicing and top structure were introduced. The National Minimum Norms and Standards were first introduced in the Housing Code of 2000, revised in the Housing Code of 2009 (Tissington, 2011:21). These norms and standards were further updated in the Enhanced National Norms and Standards for the construction of standalone residential dwelling and engineering services and took effect on 1 April 2014 (Department of Human Settlements, 2013:7). These norms and standards are based on the requirements of the 2011 revised National Building Regulation; South African National Standard (SANS) 10400 XA- Energy Usage in Buildings (South Africa National Standards, 2011:3).

The norms and standards were designed to ensure that government’s investment in a subsidised housing product gives value for money. The standards defined the maximum
expenditure permissible on land, services, and the top structure. Summarily, the Norms and Standards aim to:

- Promote the establishment and maintenance of habitable, stable and sustainable public and private residential environments to ensure viable households and communities in areas allowing convenient access to economic opportunities, and to health, educational and social amenities in which all citizens will on a progressive basis, have access to:
  - Permanent residential structures with secure tenure, ensuring internal, external privacy and providing adequate safety and security, and
  - Potable water, adequate sanitary facilities, and domestic energy supply;
- Give effect to the Comprehensive Plan for the Creation of Sustainable Human Settlements, and
- Give effect to the National Housing Regulations (NHR) thus requiring all subsidized built after 2002 to be enrolled with the National Housing Building Regulation Council (Department of Human Settlements, 2009:16).

For the purposes of this study, three BNG themes were identified and these include:

- Improving the housing product
  - Improving the housing design
  - Improving settlement design
  - Improving the quality of the house
- Improving the spatial planning, location and multipurpose
- Improving access to socio economic opportunities

These three themes are hereunder discussed.

2.7.2.2 Minimum Size and Facilities of a Subsidy House

The minimum size for a subsidy house is as defined on the Enhanced National Norms and Standards for the construction of standalone residential dwelling and engineering are:

- 40 m\(^2\) (square metres) of gross floor area (General Applicant);
- 45 m\(^2\) (square metres) of gross floor are designed to cater for the needs of the disabled persons who are wheelchair dependent, and
- 50 m\(^2\) (square metres) of gross floor for military veterans (Department of Human Settlements, 2013:7).
Apart from the size, the house should at least have:

- Two bedrooms;
- A separate bathroom with a toilet, shower, and hand basin;
- A combined living area and kitchen with wash basin, and
- A ready board electrical installation where electricity supply in the township is available (Department of Human Settlements, 2009:16).

More so, to enhance the thermal performance of the house, the following should have:

- An installed ceiling with the prescribed air gap for the entire dwelling;
- An installation ceiling insulation compromising a 130mm mineral fibreglass blanket of the entire house;
- Have all internal walls plastered;
- Rendering on external walls;
- Smaller size windows, and
- Special low E clear and E opaque safety glass for all window types as prescribed (Department of Human Settlements, 2013:7).

2.7.2.3 Minimum Services and Technical Specifications

Tabulated below are the minimum technical specifications.

Table 1: Minimum Technical Specifications

<table>
<thead>
<tr>
<th>Type of Service</th>
<th>Minimum Level</th>
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</thead>
<tbody>
<tr>
<td>Water</td>
<td>Single standpipe per stand (metered).</td>
</tr>
<tr>
<td>Sanitation</td>
<td>VIP or alternative system depending on the circumstances</td>
</tr>
<tr>
<td>Roads</td>
<td>Graded or gravel paved road access to each stand. This does not necessarily require a vehicle access to each property</td>
</tr>
<tr>
<td>Storm water</td>
<td>Lined open channels.</td>
</tr>
<tr>
<td>Street lighting</td>
<td>High mast security lighting for residential purposes where this is feasible and practicable, on condition that such street lighting is not funded from the MIG initiative or from other resources.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Technical Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foundations</td>
</tr>
<tr>
<td>Type of Service</td>
</tr>
<tr>
<td>----------------------</td>
</tr>
<tr>
<td>Floor</td>
</tr>
<tr>
<td>Wall</td>
</tr>
<tr>
<td>Glazing</td>
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<td>Roof</td>
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<td></td>
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<tr>
<td>Lighting and Ventilation</td>
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<tr>
<td>Plumbing</td>
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Source: (Department of Human Settlements, 2009:16)

2.7.2.4 Developing Social and Economic Infrastructure

The Comprehensive Plan highlights the importance of establishing sustainable human settlements, which provide more than just housing, and caters for a range of social and economic opportunities. Hence, the plan proposes:

- A new Programme to fund the development of primary social and community facilities and basic economic infrastructure. In areas where other funding is not available the Programme provides funds to municipalities for the development of community halls, parks, sports grounds, informal trading areas and taxi ranks, and
- That municipalities will be responsible for the maintenance of the facilities created.
2.7.3 Critique of the BNGs

Rust (2008:5) notes that while progress in the provision for low-cost housing since 1994 is acknowledged, South Africa battles to remedy the inherited race-based disparities, poor municipal service delivery infrastructure, and current urbanization. Thus, the BNG seeks to redress such shortcomings Department of Human Settlements, 2004a: 2) and aims at creating non-racial, diverse communities and offers a choice of housing, from government-subsidised housing; affordable bonded houses with a supply of rental accommodation for those not yet ready to buy a home or for people who have left behind a BNG home in another city or province (Department of Human Settlements, 2004). The current plan also saw the size of the house increased to 40 m² from 28 m² (Department of Human Settlements DHS, 2004a: 6).

There are many structures and programmes designed at all spheres of government with the intention to deliver effect to the right to human settlements including stable residential environments which allows access to socio-economic benefits for all citizens of South Africa (Department of Human Settlements, 2004a: 6). In addition, the Department of Human Settlements subscribes to the United Nations Millennium Development Goals (MDGs), which were adopted to improve millions of households living in informal settlements globally by 2020.

The Department of Human Settlements is however failing to keep pace with new housing developments; and it has failed to dismantle the housing backlog. Instead, informal settlements have grown progressively due to the rapid urbanization (Department of Human Settlements, 2004b:14). Nevertheless, the number of families in informal settlements which would need to be upgraded over a period of 15 years is approximately 2.9-million. This implies that around 193 000 households per annum would be in need of settlement upgrades over the 15 years period.

The key policy intent of the BNG is to facilitate structured settlement upgrades. It advises that upgrading should be undertaken with a pragmatic approach, taking into consideration the changing realities and concerns of communities. The BNG posits that informal settlements should not be seen as just a “housing problem” in need of a “housing solution” – but rather as a sign of structural changes, which require multi-sectorial partnership, long-term commitment and political patience (Department of Human Settlements, 2004a: 4). The BNG affirms the achievement of complex and interconnected policy aims, such as tenure security, health and safety, and empowerment of the urban households (Department of
Thus, the plan supports the ‘eradication of informal settlements’ via the adoption of an in-situ upgrading approach based on global best practice (Department of Human Settlements, 2004a: 12). The policy has twenty principles to be undertaken during upgrading programmes. Some of the principles include considerations for a holistic approach; qualification for benefits; stand sizes; suitable land and demolition of shacks; and roles of provincial government, and municipalities (Department of Human Settlements, 2004a:8). Notably, the BNG discourages the displacement of families, because it is costly, causes conflict, and further divides and fragments previously marginalized and urban indigents. It is understood that households living in informal settlements are frequently dependent on fragile networks to warrant their livelihoods and survival.

Above all, the programme seeks to reduce disruption of the affected communities. Nevertheless, relocation is sometimes unavoidable in situations wherein households are living in risky conditions or in the immediate vicinity of vital engineering or municipal structure. In such cases, relocation could take place at ‘a location as close as possible to the existing settlement’ and as approved by the affected community (Department of Human Settlements, 2004a: 19).

McLean (2006: 55) raises the issue that even after the adoption of the BNG principles since 2004, the poor are still being located on the urban outskirts. Instead, the BNG implementation focused mostly on social housing, or ‘medium-density housing’ for enhancing mobility and advancement of urban integration (McLean 2006: 55). Social housing is expensive as the costs are often borne out by benefactors. These high costs also contribute to the instability and non-sustainability of the social housing sector (McLean, 2006: 55). Other challenges have been extensive corruption in the distribution of low-cost housing units, subsidies and the allocation of construction contracts.

While the BNG is viewed as showing fresh ingenuity to variety in low-income housing models, Goebel (2007: 292) argues that: “South Africa’s urban settlements reveal a past, present and projected future of unsustainability.” This author alleges that South Africa is graded to have among the most, “inefficient and wasteful urban environments in the world” (Goebel, 2007: 292).

As Goebel (2007: 292-293) has so clearly articulated, BNG faces the challenges of apartheid legacy and relentless inequality. South African cities have exclusive and intricate histories that severely mark pre-1994 housing development, and rural-urban migrants live, “on the periphery of areas, historically reserved for Africans, such as townships.” Goebel
(2007: 297) further notes that the major problem is that past race and disparities in quality services, housing, and the urban environment continue and that thus, the vision of, “building ecologically healthy and sustainable settlements remains, for the most part, a distant dream.” It is argued that informal settlements or low-cost housing are commonly exposed to environmental hazards, such as surface and groundwater, and disturbance of estuarine or wetland sites.

2.8 Summary

Chapter Two has discussed the theoretical framework, which informs this study. In addition, the concepts of housing and adequate housing have been discussed in detail. Also deliberated were the roots of the housing crisis in South Africa and the transition to sustainable housing. The chapter to follow presents the research methodology of the study.
CHAPTER 3: RESEARCH METHODOLOGY

3.1 The Data

The data analysed for the purposes of the study includes both primary and secondary data.

3.1.1 Primary Data

According to Oakes (2002: 46), primary data is data collected for the first time and is original in character. The primary data was collected using the following methods:

- Direct personal investigation;
- Indirect personal investigation, and
- Investigation through questionnaire.

3.1.2 Secondary Data

Oakes (2002: 46) defines secondary data as data collected by someone other than the investigator himself, and as such, the problems associated with the original collection of data do not arise here. The secondary data is collected directly - either from published or unpublished sources. The following are the sources from which secondary data is collected:

- Official publications;
- Semi-official publications;
- Research publications, and
- Technical or trade journals.

3.2 Criteria governing the Admissibility of the Data

3.2.1 Reliability

Reliability refers to the consistency of results obtained in the research, and concerns how proficiently the researcher carried out the research – reliability thus deems it possible for other researchers to replicate the research and conclude the same results under similar conditions (Amaratunga et al. 2002: 29). The basis for reliability is to reduce errors and biases in a research. Yin (2009: 45) explains that the essence of reliability is to ensure that if another researcher follows the procedures highlighted by the researcher that carried out the initial research, both researchers should arrive at the same findings and conclusions.
External reliability concerns the consistency of a measure over time while internal reliability concerns whether each scale is measuring a single variable (Amaratunga et al. 2002: 29). In order to achieve reliability, the researcher maintained consistent record of all activities conducted throughout the research process. Other activities undertaken to ensure reliability included:

- Minimising external sources of variation;
- Standardised conditions under which measurement occurred;
- Improved researcher consistency, and
- Broaden the sample of measurement questions by:
  - increasing the number of researchers (triangulation).

3.2.2 Validity

According to Sutrisna (2009: 55-56), validity refers to whether the identified inputs within their attributes actually produce the expected output, and to what extent the research findings can be generalised - beyond the setting the research took place - to the entire population. Validity was ensured from the design, data collection, data analysis and report writing. The following activities were undertaken:

- An appropriate time scale was chosen;
- Adequate resources for the research were made available;
- Selected the appropriate methodology;
- Selected the appropriate instruments;
- Used an appropriate sample, and
- Avoided having biased researchers.

There are different types of validity as indicated below:

3.2.2.1 Content Validity

Content validity refers to a systematic examination of the test content to determine whether it covers a representative sample of the domains of behaviours measured. Therefore, a test with content validity has components that satisfactorily assess the content investigated.
3.2.2.2 Criterion Validity

Criterion validity is the extent to which a measuring instrument accurately predicts behaviours in a given area. In application to this study, criterion validity was confirmed through use of concurrent validity to test the implementation of BNG in Wells Estate.

3.2.2.3 Construct Validity

Construct validity is the degree to which a measuring instrument accurately measures a theoretic constant or trait that it is designed to measure. One means of establishing construct validity is through correlation of performance on the test with performance on a test for which construct validity has already been determined. In the case of this research effort, the test was compared with similar studies in other municipalities.

3.3 Theoretical Framework

This study adopted a mixed research methodology that encompassed both qualitative and quantitative research paradigms to contribute to the solution of the main problem. This because, the suppositions underlying the quantitative and qualitative research methodologies epitomise the two extremes of the data continuum. Morgan (2007: 23) notes that quantitative approaches link with the deductive-objective-generalising domain while; the qualitative approaches link with the inductive-subjective-contextual domain. Pathirage et al. (2008: 11) notes that research problems are better understood using both methods and in a complementary manner. This is because; the strengths of the one method compensate for the weaknesses of the other (Pathirage et al., 2008). Brewer and Hunter (2006: 4) posit that the major aim of a combined or mixed method is to, “attack a research problem with an arsenal of methods that have no overlapping weaknesses in their complementary strengths.”

Given the problem of this study, a mixed method minimised the dependence on statistical data. According to Jogulu and Pansiri (2011: 1-22) by using mixed methodology, researchers reduce over-reliance on statistical data to explain social occurrences and experiences mostly subjective in nature. Creswell (2009: 11) puts it that mixed methodology is a pragmatic paradigm. In addition, Hesse-Biber and Leavy (2011: 277) posit that mixed methodology gained prominence following the weaknesses observed in cases wherein qualitative and quantitative methodologies when used in isolation. In addition,
Johnson and Onwuegbuzie (cited by Yin, 2009: 62) summarise that a mixed methods approach is a class of research where the researcher mixes or combines quantitative and qualitative research techniques, methods, approaches and concepts into a single study. Johnson and Onwuegbuzie (2004: 21) identify the advantages of the mixed method as:

- Its greatest strength is its ability to combine the strength of both the qualitative and quantitative approaches, thereby limiting their weaknesses;
- Different types of research questions asked are not limited to one approach;
- The textual evidence is used to give credence to measurements and vice versa;
- The result of one method could form a basis of the start of another method and vice versa;
- The conclusions reached could be enriched as the result of one aspect can complement or corroborate the other aspect;
- The quantitative aspect of the study can be used to increase the generalisability of the study;
- The overall study could be enhanced in that the possibility of omission is reduced as against when a single method is used, and
- When the two approaches are used together, they give a deeper knowledge to further understand theory and practice.

The method therefore allows the researcher flexibility and practicality in the use of procedures for data collection and analysis. “The multi-method approach often labelled triangulation refers to the combination of two or more theories, data sources, methods or investigators in a study of a particular phenomenon to converge at a single construct” (Shakantu, 2004: 173).

In accordance with the preceding, the elements of both quantitative and qualitative methods applied to this research are presented as follows:

- Qualitative research is a means of exploring the depth, richness, and complexity inherent in phenomena (Burns & Grove, 2005: 61; Polit & Beck, 2010: 21). The qualitative research paradigm is suitable for this study as a means of verifying whether housing projects constructed post-2004 was done in accordance with the BNG principles. Further, the qualitative research paradigm utilises flexible and unstructured methods of inquiry, which enables the researcher to obtain a more extensive level of insight and opinion from housing beneficiaries;
A quantitative research paradigm is a request for information from a community or an individual, based on testing a theory grounded on the unpredictable; calculated in numbers and analysed with statistical methods to establish whether the prognostic generalisations of the theory are factual (Leedy & Ormrod, 2001: 133-134). Leedy and Ormrod (2001: 133-134) further state that, “the purpose of the quantitative research paradigm is to explain and predict, confirm, validate and test theory.” This study had three hypotheses which were tested, including:

- The time lag between the introduction of the BNG and the introduction of the 2009 version of the SA Housing Code contributed to the perpetuation of design and quality issues on housing projects. The SA Housing Code is not applied on subsidised housing projects;
- Housing projects are poorly located, spatially marginalised and no consideration is given to the establishment of multi-purpose cluster facilities, and
- Recipients of government-subsidised houses do not have access to economic opportunities.

3.4 Research Design

According to Yin (2003: 23), a research design is a logical sequences that links empirical data collection to initial research questions and the eventual conclusion. Yin (2003: 25) further outlines that a research design should focus on:

- What questions to study;
- What data are relevant;
- What data to collect, and
- How to analyse the results?

According to Yin (2003: 1), the choice of a design or strategy in social science research depends on three conditions, namely:

- The research question;
- The control an investigator has over the actual behavioural events, and
- The focus on contemporary as opposed to historical events.

Given that this study adopted a mixed research paradigm, an exploratory and descriptive approach will be used to conduct this study. As mixed methods allow the researcher to delve deep into the problem, and reach the “roots” thereof (De Vos, 2005: 335). In addition, this
mixed method allows for open-ended and inductive exploration of the phenomenon under study since little is known as to whether the housing projects of post-2004 were built in accordance with the BNG (Terre Blanche, Durrheim & Painter, 2006: 272).

3.5 Research Methodology

According to Rudestam and Newton (2000: 23) research methodology refers to the principles and procedures of logical thought processes applied to a scientific investigation. Therefore, the research methodology is an overall strategy to achieve the aim and objectives of the research. In addition, research methods, on the other hand, are merely tools. Thus, within a research methodology, different research methods are used to achieve the aim and objectives of the research. This section focuses on the research methods the researcher used to collect data and analyse data.

3.5.1 Selection and Description of the Research Site and Participants

This section of the chapter discusses the aspects of the research methodology of the study. The aspects of the research methodology discussed include the research population, the sampling method, sample size, and data collection method and data analysis.

3.5.2 Research Population

Research population refers to all elements (individuals, events and circumstances) that meet the sampling criteria for inclusion in the study (Burns & Grove, 2005: 806). The research population for the study comprised housing beneficiaries residing in Wells Estate. To be eligible for inclusion into the study, individuals complied with the following eligibility criteria:

- Residing at the Wells Estate in houses built post 2004 in the Nelson Mandela Metro Municipality, and
- Participants willing to give consent.

3.5.3 Sampling Method

Given that the study adopted a mixed research approach, there was a need to balance the two data collection methods. In terms of the qualitative aspect of the study, the researcher used direct observation to supplement the survey questionnaire. For the quantitative
component of the study, the researcher used the probability sampling method - which makes use of a stratified random sampling technique, which minimises sampling error. Stratification refers to the grouping of units composing a population into homogeneous groups or strata before sampling (Babbie, 2007: 212). Babbie (2005: 214) further advises that this technique improves the representativeness of the sample for variables used in the stratification.

3.5.4 Sample Size

According to Babbie (2005: 196), a sample is an element or set of elements considered for selection in a study. The sample for this study was determined through the use of the following sample size consideration:
- Confidence Interval - 95%;
- Margin of Error - 5%;
- Population Size - 400 Beneficiaries, and
- Response Distribution - 50%.

3.5.5 Data Collection Strategies

This section of the chapter discusses the aspects of data collection, namely; the data collection method and the data collection process.

3.5.5.1 Data Collection Method 1: Questionnaire surveys

Creswell (2009: 145) states that a survey provides a quantitative description of phenomena such as trends, attitudes, or opinions of the population. Collins and Hussey (2003: 66) describe a survey as, a sample from a larger population to draw conclusions about the population. According to Babbie and Mouton (2005: 232) survey research is one of the best methods used in collecting data where the objective is to reach a larger portion of the society, which would have been difficult to observe directly through the use of other methods. Surveys make use of questionnaires to prompt responses or feedbacks to pre-arrange questions presented in a specific order (Nahiduzzaman, 2006: 12).

The questionnaire included both structured and semi-structured questions. The structured questionnaires comprised multiple-choice questions as well as closed questions. The semi-structured questionnaires contained both open-ended and close-ended questions. The open-ended questions permitted participants to freely express their opinions and views.
without bias so that sufficient information could be attained relating to the objectives of the study.

3.5.5.2 Data Collection Method 2: Direct Observations

In the case of this study, direct observations included observation of the actual houses to identify the quality of the housing structure against the BNGs and Housing Code of 2009, and availability of primary community amenities like clinics, schools, police station and recreational facilities. Direct observations are a useful tool in data collection as they supplement interviews as additional sources of data and can take place on both an informal and formal basis. This research made use of structured observation and tracing/unobtrusive observation techniques.

3.5.5.3 Data Collection Process

The researcher established a therapeutic environment and a relationship of trust with participants before commencement of the survey thereof. The researcher made use of field notes as a record keeping tool and debriefed participants upon completion of the survey questionnaire. Debriefing enabled the researcher to discover any problems generated by the research experience so that those problems could be resolved.

3.6 Data Analysis

The researcher captured the quantitative data in Microsoft excel for statistical analysis. Qualitative data was captured, sorted and arranged thematically. Thematic analysis involved sorting the data into particular themes, categories and patterns (De Vos, 2005: 337 and Babbie, 2007: 384). The emerging themes, categories and patterns were then analysed. The researcher considered the research findings in consultation of literature and current research to offer critique, possible applications, and further directions of research and to enhance the rigour of the study.
3.7 Specific Projected Treatment of each Sub-Problem

3.7.1 Sub-Problem 1

Housing projects completed since 2004 are plagued by poor design and substandard quality.

3.7.1.1 Data Required

The data required for sub-problem one included: observations of the actual houses against the BNGs and Housing Code of 2009; reports of houses rectified in Wells Estate; and views of the beneficiaries of the houses. Data were collected from the residences of Wells Estate and related public literature.

3.7.1.2 How the Data were Secured

Respondents were not required to reveal their identity when responding to the questionnaire and direct observations. All responses and views of all respondents were (and continue to be) treated as strictly confidential.

3.7.1.3 How the Data were Treated and Interpreted

The data collected were analysed and interpreted subject to the information collected and responses to questions posed during the questionnaires survey. Quantitative data were statistically analysed, while qualitative data were thematically analysed.

3.7.1.4 How the Data were Presented

The researcher presented the quantitative data in tables and graphs, while qualitative data were sorted according to themes.

3.7.2 Sub-Problem 2

Recipients of houses in newly developed subsidised housing projects cannot afford (money and / or time) to travel great distances to access primary community facilities (including commercial, municipal, recreational and religious facilities).
3.7.2.1 Data Required

The data required for sub-problem two included written records, and social and economic indicators from Wells Estate.

3.7.2.2 How the Data were Secured

Respondents were not required to reveal their identity when responding to the questionnaire and direct observations. All responses and views of all respondents were treated as strictly confidential.

3.7.2.3 How the Data were Treated and Interpreted

The data collected were analysed and interpreted subject to the information collected and responses to questions posed during the questionnaires survey. Quantitative data were statistically analysed, while qualitative data were thematically analysed.

3.7.2.4 How the Data were Presented

The researcher presented the quantitative data in tables and graphs, while qualitative data were sorted according to themes.

3.7.3 Sub-Problem 3

Recipients of government-subsidised houses generally remain unemployed and economically depressed.

3.7.3.1 Data Required

The data required for sub-problem three included written records, economic indicators and accounts of past events (historical data).

3.7.3.2 How the Data were Secured

Respondents were not required to reveal their identity when responding to the questionnaire and direct observations. All responses and views of all respondents were treated as strictly confidential.
3.7.3.3 How the Data were Treated and Interpreted

The data collected were analysed and interpreted subject to the information collected and responses to questions posed throughout the questionnaire survey. Quantitative data were statistically analysed, while qualitative data were thematically analysed.

3.7.3.4 How the Data were Presented

The researcher presented the quantitative data in tables and graphs, while qualitative data were sorted according to themes.

3.8 Ethical Considerations

This section of the chapter discusses the ethical principles applied in the study, namely: protecting the rights of participants; protecting the rights of institutions; scientific integrity/honesty on the part of the researcher; and maintaining an ethical researcher-participant relationship.

3.8.1 Protecting the Rights of the Participants

The researcher provided participants with the adequate information necessary to make a reasoned decision as to whether to participate in the study, and so that they were enabled to give informed consent. Such information included clarification of the purpose of the study, and of its methods, risks and benefits. The researcher required that consenting participants sign a consent form in order to secure formal documentation of their voluntary and informed participation. The researcher however, kept individual participants’ responses confidential and their identity remained anonymous in presentations, reports and publications of the study. The researcher also debriefed participants upon completion of the questionnaire survey.

3.8.2 Scientific Integrity/Honesty on the Part of the Researcher

The research findings were considered in consultation of literature and current research to offer critique, possible applications, and further directions of research and to enhance the rigour of the study. The researcher was thus enabled to document an accurate, objective, clear, unambiguous account of the study. The researcher avoided all forms of emphasis and
slanting to bias throughout the study and also acknowledged the study's shortcomings in order to enhance its scientific integrity.

3.8.3 Maintaining an Ethical Researcher-Participant Relationship

The researcher established and maintained a collaborative partnership between herself and the study’s participants. The researcher, was also respectful of all the participants’ values, beliefs, cultures and traditions. The findings of this study will be made available to the participants of this study.
CHAPTER 4: PRESENTATION AND INTERPRETATION OF DATA

4.1 Introduction

Chapter Four presents and interprets the data collected from participants of the research study that sought to assess the extent to which the housing settlements of post-2004 in the NMBM, Wells Estate comply with the tenets of the BNG Principles. In order to achieve the objectives of the study three-delivery categories were measured, namely:

- The quality of houses beneficiaries received;
- Access of households to primary municipal amenities such as a clinic, police station, schools, and recreational facilities, and
- Access to social and economic opportunities.

This chapter is divided into four sections:

Section A: covers the demographic profile of the research participants.

Section B addresses the quality of the human settlements of Wells Estate.

Section C: assesses the accessibility of Wells Estate households to primary municipal amenities.

Section D: examines the accessibility to social and economic opportunities of Wells Estate housing.

4.2 Response Rate

The section of Wells Estate constructed post-2004 has 400 houses. Thus, the target population for the study was 400 beneficiaries of low cost housing. The researcher calculated the sample size using the following method:

<table>
<thead>
<tr>
<th>Confidence Interval</th>
<th>Population</th>
<th>Margin of error</th>
<th>Response Distribution</th>
<th>Sample Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>95%</td>
<td>400</td>
<td>5</td>
<td>50%</td>
<td>197</td>
</tr>
</tbody>
</table>

197 questionnaires were issued to field workers and 65 questionnaires were responded to. The response rate was thus 33% which is admissible. Factors that could influence a lower than targeted response rate in the case of this study include, among others:
• Non-availability of low cost housing beneficiaries in Wells Estate during the day when the survey was conducted. Carrying out the survey at night posed safety and security limitations and hence was not an option.

4.3 Section A: Demographic Information

4.3.1. Gender and Age

![Gender and Age of Respondents](image)

**Figure 0.1**: Gender and age of respondents

Figure 4.1 shows the gender and age of the survey respondents. Of the 65 respondents, 69% were female and 31% were male. According to the Housing Code of 2009, which provides the guidelines for who qualifies for the low-income housing, it states that, “applicants should be South African citizens older than 21 years.” The new pronouncement by the minister of Human Settlements Lindiwe Sisulu in November 2014, proposed 40 years of age as the minimum age at which one could qualify for low income housing (Sisulu. 2014a.1). This would have meant that the majority of beneficiaries that participated in the study who were between the ages of 18 and 39 years of age - would not have qualified for low-income houses. Enforcement of a policy excluding adults of under 40 years of age from qualifying for access to low cost housing however, would set in play a legal minefield as the Constitution of South Africa Act 108 of 1996 does not allow for any limitation on access to housing by age. In addition, the Figure 4.1 also shows that an economically active population is dependent on government for provision of housing. It also shows that regardless of age, the first generation of homeowners depends on government for the realisation of housing (Moroke, 2009: 99).
4.3.2. Marital Status

Figure 0.2: Marital status of respondents

Figure 4.2 above reflects the marital status of survey respondents. There were a significantly low percentage of respondents reporting their status as cohabitation. One of the challenges of low-income housing policy is that posed to ownership of the house in a cohabitation relationship. Though the National Housing Code of 2009 recognises a person who habitually cohabits with another to be eligible for a housing subsidy, it does not provide guidance on how this should be managed when a cohabitation relationship breaks down either through separation or death. The separation poses a problem in the allocation of property. In most cases, women are chased out of the Subsidy House rendering them illegible for another subsidy since they are regarded as not first-time homeowners.
4.3.3. Levels of Education

![Educational Level and Gender of Respondents](image)

**Figure 0.3:** Educational levels of respondents

Figure 4.3 reflects the educational level of respondents by gender. Low educational levels include no education, primary, and secondary school education. This may be the reason for beneficiaries’ necessity to become recipients of low-income housing, as lack of education commonly limits access to a sustainable income. Low education levels, as argued by Van der Berg (2002: 1), places individuals into a state of poverty as they struggle to become employed. Education enhances the earning potential of the poor, both in competing for jobs and earnings and as a source of growth and employment in itself (Van der Berg, 2002: 1). In addition, women are the most affected due to low educational level. The figure 4.3 shows as beneficiaries of low-income houses in Wells estate had a higher percentage of 70% while males were 30%.

4.3.4. People Staying in the House

Figure 4.4 reflects the number of people reported to be staying in the houses of the beneficiaries surveyed. According to Moroke (2009:23), the number of people, sharing a household has a bearing on the privacy of those living in the house. Linked to this is the question as to whom the beneficiary lives with. In this regard, privacy would be affected by the size of the unit, and position of the bedroom(s) and toilet. In instances, wherein the beneficiary shares a household with a big family, this typically results in the building of shacks behind the main house to be used by other family members (Aigbavboa & Thwala, 2013: 251).
4.3.5. Period in which the House was Acquired

Figure 4.5 reflects the years the beneficiaries moved into their newly built low-income houses in Wells Estate. Houses fell in the indented period for the study that is post 2004 but also post 2009 when the new housing code was established. This entails that the houses were in Wells Estate were new, implying that the Breaking New Ground principles should have been implemented. In addition, the challenges encountered in the development of other housing settlements should have been mitigated against in the building of low cost housing in Wells Estate.
4.3.6. Ownership of the House

Figure 4.6 reflects the ownership of the houses of beneficiaries surveyed. Despite that the sale of low cost houses is prohibited – in accordance with the National Housing Act of 1997 - a considerable percentage of the beneficiaries who participated in the study indicated having purchased their houses from the main beneficiaries. This essentially which renders the sale illegally sanctioned by the government. The Act states that:

“No purchase price or other remuneration shall be paid to the person vacating the property, but such person will be eligible for obtaining another state-subsidised house, should he or she qualify therefore.”

Figure 0.6: Ownership of the houses

4.4 Section B: Sub Problem 1-Quality of Housing Structures

This section of the chapter provides an assessment as to whether – and to what extent - the houses constructed since 2004, conform to the minimum, Breaking New Ground Principles and Housing Code of 2009 technical and general guidelines.
### 4.4.1. State of the House at Occupation

![State of the House at Occupation](chart)

**Figure 0.7**: State of the house at occupation

Figure 4.7 reflects the state of beneficiaries’ houses at occupation thereby. As per the requirements of the Housing Code of 2009, a house should have: plastered walls; ceiling; electricity; a flushing toilet; a sink; water and a bathroom. Of the 65 respondents surveyed, all indicated that at the time of occupation, their houses had all walls plastered inside and out, ceilings in all rooms, connection to an electricity grid, a flushing toilet, a sink in the kitchen, inside water installation and a bathtub. This entails compliance with the BNG and the House Code of 2009.

An analysis of data on piped water suggests that NMBM is securing water access to its households; the Water Services Act 108 of 1997 reflected in its mandate the right of access to basic water supply and basic sanitation (Moroke, 2009: 117).
4.4.2. Cracks on the House

![Cracks on the House](image_url)

**Figure 0.8:** Cracks of the house at the time of study

Given that the houses as indicated in Figure 4.8 had been recently built, the cracks on the floor and walls should be considered negligible. In construction, cracks in walls usually occur because of overloading or in cases wherein the structure has settled or heaved. Cracks frequently occur in areas such as interior walls, exterior walls, and at the corners of doors, windows and ceilings. In addition, the Housing code of 2009 stipulates that at a bare minimum, housing should be constructed in a manner that ensures that it will adequately resist the penetration of water into any part of the building where it would be detrimental to the health of the occupants or to the durability of the building.

Figure 4.8 further reflects that of the 65 houses surveyed, 100% of the houses’ floors had no cracks.

Atkinson (1999: 11) posits that most flaws in housing construction projects are a result of human error, while Zunguzane, Smallwood and Emuze (2012:29) argue that poor workmanship in housing construction, and poor management and control of building contractors contribute to the housing problem. Nima, Abdul-Kadir, Jaafar and Riadh (2002:9) claim that 90% of building failures are resultant of problems arising in the design and construction stages. These problems include poor communication; inadequate information or failure to check information; inadequate checks and controls; lack of technical expertise and skill; and inadequate feedback leading to recurring errors. This not only affects
the quality of life of occupants but also imparts a bad image on the parties involved in the construction of low cost housing Othman and Mydin (2014: 300).

4.4.3. House Leakages

Figure 0.9: House leaks

Figure 4.9 above reflects whether the houses of those beneficiaries surveyed were leaking at the time of the study. Leaking constitutes water seeping out from behind walls, under concrete slabs and asphalts, from basements, landscaping, irrigation systems, and radiant heat system or from water intrusion in roofs. Leaking mostly occurred due to improper installation of piping systems causing dampness and mould growth in the house.

4.4.4. Maintenance Performed on Beneficiaries’ Houses

The figure 4.10 reflects the prevalence with which beneficiaries had performed any maintenance on their houses since the occupation thereof. 100% of respondents indicated that they had not performed any maintenance on their ceilings; construction defects in the roof system can cause damage to personal property in a house and, to its ceilings, drywall, and paint by allowing water into the building. A faulty installation increases the likelihood of problems and reduces a roof system’s life expectancy.

If there is a water intrusion, the chances of mould growth are high. The presence of mould on the wall of a house can affect the occupants’ health (WHO, 2004). Once discovered,
mould infestation should be remedied immediately in an effort to minimize the possibility of health issues (WHO, 2004).

Figure 4.10: Maintenance performed on the house

4.4.5. Improvements Made to the House

Figure 0.10: Improvements made to the house

Figure 4.11 reflects the prevalence with which beneficiaries of the houses surveyed had made improvements thereto.
An inference that can be made from the above results is that the beneficiaries of low cost housing are dependent on government to provide quality housing of zero defect as those who qualify for low cost housing are unable to afford to extend their houses, fix the cracks, or repair leakages.

4.4.6. Quality of Houses

<table>
<thead>
<tr>
<th>Level of Concern with Quality of House</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ventilation, window for each room</td>
</tr>
<tr>
<td>Mould on the walls internally</td>
</tr>
<tr>
<td>Foundation subjected to excessive movement</td>
</tr>
<tr>
<td>Rust in the roof</td>
</tr>
<tr>
<td>Cracking walls internal and external</td>
</tr>
<tr>
<td>Leaking in the roof, pipes, sinks or baths</td>
</tr>
</tbody>
</table>

Figure 0.11: respondents concerns about the quality of their houses

Figure 4.12 reflects the level of concern of beneficiaries surveyed with the overall quality of their houses.

These findings concur with those of Mkuzo (2011: 78) who noted that beneficiaries of housing in Joe Slovo Settlement in Nelson Mandela Bay Municipality were not concerned about the quality of the housing provided to them, arguing that:

- Obtaining a house is much better than staying in a shack;
- A house has more space than a shack;
- A house provides the personal privacy which a shack lacked;
- These houses have an internal toilet and bathroom, which shacks do not have;
- Houses provide decent shelter, and
- The government free of charge provided the houses.
The hypothesis of the study posited that the time lag between the introduction of the BNG and the 2009 version of the SA Housing Code contributed to the perpetuation of design and quality issues on housing projects. The above reported findings are to the contrary of the hypothesis. The findings indicate there is compliance with BNG principles and with the Housing Code of 2009. This is inferred owing to that the section of Wells Estate Human Settlement studies had recently been built and following introduction of the BNG and Housing Code of 2009.

4.5 Section C: Sub problem 2 - Multipurpose Cluster, Mixed Land Use, Diverse, Life-Enhancing Environments

The Breaking New Ground principles and the Housing Code of 2009 highlight the importance of establishing sustainable human settlements which provide more than just housing, but that also cater to a range of social and economic opportunities. This section assesses whether the Wells Estate Low Cost Housing Settlement was constructed as a multipurpose cluster with mixed land use and a diverse life-enhancing environment.

4.5.1. Proximity to Services and Facilities

![Proximity of Facilities and Services to Residents](chart.png)

**Figure 0.12:** Proximity of beneficiaries' homes to necessary facilities

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Pre Schools</th>
<th>Primary Schools</th>
<th>Secondary Schools</th>
<th>Post Office</th>
<th>Bus Stop</th>
<th>Community Halls/centres</th>
<th>Playing fields</th>
<th>Clinic or Mobile</th>
<th>Hospital</th>
<th>Police station</th>
<th>Municipal service offices</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-5km</td>
<td>75%</td>
<td>40%</td>
<td>0%</td>
<td>100%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>11%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>6-10km</td>
<td>14%</td>
<td>23%</td>
<td>88%</td>
<td>100%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>100%</td>
<td>3%</td>
<td>100%</td>
</tr>
<tr>
<td>Above 10km</td>
<td>11%</td>
<td>37%</td>
<td>12%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>30%</td>
<td>100%</td>
<td>0%</td>
<td>85%</td>
<td>0%</td>
</tr>
<tr>
<td></td>
<td>0%</td>
<td>100%</td>
<td>0%</td>
<td>0%</td>
<td>100%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>26%</td>
<td>0%</td>
<td>74%</td>
</tr>
</tbody>
</table>
Figure 4.13 should be read together with table 2. Based on the population census of 2011, Wells Estate has a population of 18884.

Table 3: Social Facility Provision Guidelines for Access Norms and Threshold

<table>
<thead>
<tr>
<th>Facility</th>
<th>Distance</th>
<th>Population Size</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preschool</td>
<td>2km</td>
<td>2400-3000</td>
<td>Compulsory-basic essential service</td>
</tr>
<tr>
<td>Primary School</td>
<td>5km</td>
<td>7000</td>
<td></td>
</tr>
<tr>
<td>Secondary School</td>
<td>5km</td>
<td>12500</td>
<td></td>
</tr>
<tr>
<td>Playing Field</td>
<td>3km</td>
<td>15000</td>
<td></td>
</tr>
<tr>
<td>Clinic</td>
<td>5km</td>
<td>24000-70000</td>
<td></td>
</tr>
<tr>
<td>Hospital</td>
<td>30km</td>
<td>300 000</td>
<td></td>
</tr>
<tr>
<td>Police Station</td>
<td>8km</td>
<td>60000-100000</td>
<td></td>
</tr>
<tr>
<td>Community Hall</td>
<td>10-15km</td>
<td>10000-15000</td>
<td></td>
</tr>
<tr>
<td>Post Office</td>
<td>5-10 km</td>
<td>10000-20000</td>
<td></td>
</tr>
<tr>
<td>Bus Stop</td>
<td>400-600m</td>
<td>n/a</td>
<td>Discretionary-non-essential provision based on under supply/unserved need, distance or other factors including funding availability</td>
</tr>
<tr>
<td>Municipal Office</td>
<td>5-10km</td>
<td></td>
<td>Recommended-valuable services that are unfunded or non-essential</td>
</tr>
</tbody>
</table>

Source: (Council for Scientific and Industrial Research (CSIR), 2012:25)

Table 3 depicts the standard norms and guidelines for accessing amenities within settlements. These norms and standards are juxtaposed with Figure 4.12 to compare if the residents in Wells Estate have access to facilities within the prescribed norms. The comparison reveals that access to facilities and services is dependent on the population size and utilisation rate. As such, the facilities and services for the residents in Wells Estate are within the range as prescribed by the CSIR report on guidelines for the provision of social facilities in South African settlements.

Given that the housing settlement is still new, tarred roads have not been built. Taxis only enter Wells Estate up to where the tarred road ends - thus respondents indicated that the nearest available bus stops are 1 km to 2 km away. Further to this is that there is no taxi rank in Wells Estate. Respondents indicated also that, in Wells Estate, there is no:

- community hall;
- playing fields;
- clinic or hospital;
- police station,
• municipal service office.

These facilities are located in Motherwell, which is over 2km away from Wells Estate.

4.5.2. Safety in Wells Estate

Figure 0.13: Times respondents felt safe in Wells Estate

Figure 4.14 reflects the level of safety reported within the Wells Estate human settlement. Respondents qualitatively indicated that the safety of their area was dependent on high mask street light and reported also using their own exterior lights in order to light their surroundings and protect their property. In addition, some beneficiaries noted that the use of external lights and external light fittings were expensive and as such, they were not commonly in a position to use external lights. Reported was that they thus had to rely on the scant light from streetlights that reaches them.

Moroke (2009:121) posits that there is a direct relationship between theft and street lighting, with an increased crime rate in places wherein lights are absent or not working.

The Whitepaper on safety and security (2016:3) Vision 2030, states that South Africa will be a society in which all people:
• Live in safe environments;
• Play a role in creating and maintaining the safe environment;
• Feel and are safe from crime and violence and conditions that contribute to it, and
• Have equal access and recourse to high quality services when affected by crime and violence.

The vision of the White Paper is aligned to the National Development Plan (NDP) and rights and values enshrined in the Constitution of the Republic of South Africa (Act 108 of 1996).

4.5.3. Type of Roads and Size

![Type of Road and Size](image)

**Figure 0.15:** Type of road within Wells Estate

Figure 4.15 reflects the type and size of road in Wells Estate. Respondents indicated that there was: 0% tarred road; 0% brick paved road; 100% gravel road - with 25% being single lane and 75% having two lanes.

The Housing Code of 2009 indicates that settlements should have graded or gravel paved road access to each stand therein. This does not necessarily require vehicle accessibility to each property.

4.5.4. Side Walks

Given that the roads of Wells Estate are gravel, Figure 4.15 above reflects that 95% thereof do not have sidewalks, whereas 5% have sidewalks.

The Breaking New Ground principles and the Housing Code of 2009 highlight the importance of establishing sustainable human settlements which provide more than just housing, but which also cater for a range of social and economic opportunities. This section
assessed whether the Wells Estate low cost housing settlement was constructed as a multipurpose cluster having mixed land use and a diverse life-enhancing environment. The findings indicate that the beneficiaries of low cost housing have challenges in terms of access to basic facilities, as their location is distant from such. These facilities and services include:

- Pre-Schools, primary and secondary schools;
- Police station(s);
- Clinic(s);
- Community halls;
- Play grounds, and
- Municipal service centres.

The non-availability of these facilities can however be attributed to the low potential utilisation rate. The Wells Estate human settlement is relatively new and thus the population is still potentially too low to warrant the building of secondary schools, a clinic, and police station. However, there are facilities such as a community hall and playgrounds that can still be built.

In terms of safety, the area is relatively safe. The times indicated as unsafe are not limited to Wells Estate alone, but to many human settlements. It is however important to note the reported increase in crime rate especially in the morning and evening when people are going to and returning from work. Furthermore, the safety of the area could be enhanced by means of mass street lighting at night.
In concluding this section, it is important to state that, there is a major focus on providing housing with the assumption that other secondary aspects of housing will follow.

4.6 Section D: Sub Problem 3: Access to Economic Opportunities and Affordable Basic Services

The purpose of this section is to determine the economic sustainability of Wells Estate and whether there are any means for economic growth and increasing general and individual prosperity within the area.

4.6.1. Employment Status and Income Level

Figure 4.17 reflects the employment status of respondents. 19 (29%) indicated that they were employed, whereas 46 (71%) were unemployed. The level of education has an impact on the employability of an individual hence the level of income depicted in figure 4.16.
4.6.2. Household Income

Figure 0.18: Household income

Figure 4.18 shows the household income of the respondents. The figure reveals that residents earned between R0.00 and R3500. R3500.00 is the sealing amount for one to qualify for a subsidy house as prescribed by the Housing code of 2009. The level of education and types of jobs residents also impact household income.

4.6.3. Frequency of Income

Figure 0.19: Frequency of receiving income
Figure 4.19 reflects the frequency with which respondents acquire their income. Of those employed: 2 (3%) receive their income daily; 1 (1.54%) receive their income irregularly; 15 (23.08%) receive their income monthly; and 1 (1.54%) receive their weekly.

The large gap is between those who receive income from employment or from self-employment - when compared to those who do not receive any income -income weekly.

Of those unemployed, 46 (71%) in figure 4.18 receive irregular income. This indicates that most respondents' financial status is critical; this translates in difficulties making ends meet.

4.6.4. Sources of Income of the Unemployed

![Source Of Income If Not Employed](image)

**Figure 0.20:** Source of income for the unemployed

Figure 4.20 reflects the sources of income of those beneficiaries reporting being unemployed as in figure 4.17.

The above findings align with those of Moroke (2009:113), whose study revealed that a large percentage of low cost housing beneficiaries depend on government grants for survival (mostly old age pension and child support grants) with a small margin of disability grants. Moroke (2009: 113) further states that this reliance on government grants leads to teenagers having children to be eligible for child support grants. The current study therefore argues that the prevalence of teenage pregnancies reflects a need for rapid intervention through either awareness campaigns or the revisiting of social grant rights in order to mitigate against creation of a vicious cycle of poverty and the need for the government to provide increasing quantities of housing.
4.6.5. **Entrepreneurial Activity**

**Figure 0.14: Entrepreneurial activity**

Figure 4.21 above shows whether respondents surveyed had a business as a source of income to ameliorate their income levels. 59 (92%) indicated that they had no businesses, while 7 (8%) indicated that they had businesses. These businesses included enterprises of street vendor; painting service; and recycling. The finding if juxtaposed against the educational level of respondents surveyed indicates that the beneficiaries of low-income houses acquire low-income jobs, thus creating a total dependence on the state to provide for their survival through social grants.

4.6.6. **Transport Cost to Work**

**Figure 0.15: Transport costs incurred by respondents to work**
Figure 4.22 above reflects the monthly costs to the employed incurred on their way to work. The above expenditure on transport compared against the monthly income earned is very high. The BNG principles seek to set up human settlements that are near economic opportunities. However, reality on the ground indicates that human settlements like Wells Estate are located at the periphery of urban centres. This has resulted from practical limitations; such as the unavailability of cheap land close to town, or resistance by the affluent suburbs to be located near to low-income houses, fearing a decline in property values and increase in crime. Kerr (2015:2) states that many South Africans live far from their workplaces, which means travel to work is costly in terms of time and money. Partly this result of the apartheid and pre-apartheid policies separated racial groups, mainly by moving black, coloured, and Indian households away from areas close to central business districts (Ibid). High costs of commuting may contribute to high rates of poverty, lower productivity and less time spent with the family.

4.6.7. Place and Cost of Transport in Search of Employment

Figure 0.16: Places and costs for employment search

Figure 4.23 reflects the costs incurred by respondents when seeking employment and the frequency with which they go looking for employment. 52% of the unemployed is sitting at home while 48% looks for work in suburbs around Wells Estate, suburbs around City Centre and the city centres. The percentage of those sitting at home could be a result of the high
travelling cost to look for employment. De Lange (2013:8) posits that increased expenditure reduces incentives for job searches and that transport costs are a vital part of job searches and commuting to work. They are even more crucial for unskilled job seekers living on the edge of urban areas. Living on the urban fringes increases the search costs (including transport costs) of attaining work resulting from the increased commute length to and from urban labour markets (Leibbrandt et al., 2002:15).

4.6.8. Access to Nearest Shopping Malls

<table>
<thead>
<tr>
<th>Access and Services at the Nearest Shopping Mall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage</td>
</tr>
<tr>
<td>Banking</td>
</tr>
<tr>
<td>Kenako Mall</td>
</tr>
<tr>
<td>Motherwell Mall</td>
</tr>
</tbody>
</table>

Figure 0.17: Access and services at the nearest shopping malls

Figure 4.24 above shows the nearest shopping malls to Wells Estate at which respondents reported receiving access to certain basic services. 58 (89%) of respondents indicated that the nearest shopping mall is the Motherwell Shopping mall which around 8km from Wells Estate. 7 (11%) make use of the Kenako Mall which is 15km from Wells Estate. Respondents indicated that they use these malls for banking, grocery shopping, medical and entertainment purposes.

4.7 Hypothesis Testing

Since no t-test statistical analysis of the data were done to be able to reject or accept the null hypothesis, the hypothesis was tested by comparing the norms and standards in the BNG and housing code of 2009 against the research findings to see if there were any disparities.

Hypothesis 1: The time lag between the introduction of the BNG and the introduction of the 2009 version of the SA Housing Code contributed to the perpetuation of design and quality
issues on housing projects. The SA Housing Code is not applied on subsidised housing projects.

**Table 4: Hypothesis 1**

<table>
<thead>
<tr>
<th>BNG</th>
<th>Type of Service</th>
<th>Minimum Level</th>
<th>Research Findings</th>
<th>Compliance with BNG/2009 Housing Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enhancing the Housing Product</td>
<td>Water</td>
<td>Single standpipe per stand (metered).</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Addressing housing quality</td>
<td>Sanitation</td>
<td>VIP or alternative system depending on the circumstances</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Enhancing settlement design</td>
<td>Roads</td>
<td>Graded or gravel paved road access to each stand. This does not necessarily need a vehicle access to each property</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Enhancing housing design</td>
<td>Storm water</td>
<td>Lined open channels.</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Street lighting</td>
<td>High mast security lighting for residential purposes where this is feasible and practicable</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**Technical Specifications**

<table>
<thead>
<tr>
<th>BNG</th>
<th>Type of Service</th>
<th>Minimum Level</th>
<th>Research Findings</th>
<th>Compliance with BNG/2009 Housing Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foundations</td>
<td>The foundation must be designed to safely transmit all the loads from the building to the ground without causing or being subjected to excessive movements</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
</tbody>
</table>

| Floor                                    | The floor must be Water resistant in the case of the floor of any kitchen, shower room, bathroom or room having a water closet | Yes               | Yes                                   |

| Wall                                     | The wall should be Adequately resist the penetration of water into any part of the building | Yes               | Yes                                   |

| Glazing                                  | Any glazing shall be of glass and be fixed to: |
|                                          | • Safely sustain any wind loads, and |
|                                          | • Not allow the penetration of water to the interior of the building. | Yes               | Yes                                   |

<p>| Roof                                     | The roof should: |
|                                          | • Resist any forces to which it is likely to be subjected; |
|                                          | • Be durable and waterproof, and | Yes               | Yes                                   |</p>
<table>
<thead>
<tr>
<th>BNG</th>
<th>Type of Service</th>
<th>Minimum Level</th>
<th>Research Findings</th>
<th>Compliance with BNG/2009 Housing Code</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>• Not allow the accumulation of any rainwater upon its surface;</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Be constructed to provide adequate height in any room immediately beneath</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>the roof/ceiling assembly, and</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Have a fire resistance appropriate to its use.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lighting and Ventilation</td>
<td>• Any habitable room, bathroom, shower-room and room containing a water closet</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>need to have correct lighting and ventilation, which will enable such room</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>to be used, without detriment to health and safety or causing any nuisance,</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>for the purpose for which it is designed.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Plumbing</td>
<td>Drainage installations shall be:</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• The installation can carry the hydraulic design load and of discharging it</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>into a common drain, connecting sewer or sewer provided to accept such</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>discharge;</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Watertight;</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Protected against any damage wherever this is necessary, and</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Capable of being cleaned and maintained through the means of access provided.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The above table shows that the Well Estate Settlement complies with the tenets of the BNG and Housing Code of 2009 therefore the hypothesis fails to be accepted.
Hypothesis 2: Housing projects are poorly located, spatially marginalised and no consideration is given to the establishment of multi-purpose cluster facilities.

**Table 1: Hypothesis 2**

<table>
<thead>
<tr>
<th><strong>BNG</strong></th>
<th><strong>Specific Requirements-Norms and standards</strong></th>
<th><strong>Facility</strong></th>
<th><strong>Distance</strong></th>
<th><strong>Population Size</strong></th>
<th><strong>Research Findings</strong></th>
<th><strong>Compliance with BNG/2009 Housing Code</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Construction of social and economic infrastructure</strong></td>
<td></td>
<td>Preschool</td>
<td>2km</td>
<td>2400-3000</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Primary School</td>
<td>5km</td>
<td>7000</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Secondary School</td>
<td>5km</td>
<td>12500</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Playing Field</td>
<td>3km</td>
<td>15000</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Clinic</td>
<td>5km</td>
<td>24000-70000</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Hospital</td>
<td>30km</td>
<td>300 000</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Police Station</td>
<td>8km</td>
<td>60000-100000</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Community Hall</td>
<td>10-15km</td>
<td>10000-15000</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Post Office</td>
<td>5-10 km</td>
<td>10000-20000</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Bus Stop</td>
<td>400-600m</td>
<td>Discretionary</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Municipal Office</td>
<td>5-10km</td>
<td></td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Table 5 shows if the Wells Estate Settlement was poorly located, spatially marginalised and no consideration was given to the establishment of multi-purpose cluster facilities. The table shows that the Wells Estate is complying with the tenets of the BNGs and housing code of 2009 thus the hypothesis above fails to be accepted.
Hypothesis 3: Recipients of government-subsidised houses do not have access to economic opportunities.

Table 6: Hypothesis 3

<table>
<thead>
<tr>
<th>BNGs</th>
<th>Norms</th>
<th>Research Findings</th>
<th>Compliance with BNG/2009 Housing Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accelerating the delivery of housing as a key strategy for poverty alleviation</td>
<td>Employment status</td>
<td>71% is unemployed</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Income-R3500-00 (Minimum)</td>
<td>Only 20% of the respondents had a household income of R 3500.00.</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Access to Social Grants</td>
<td>82% of the unemployed depend on social grants.</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Household Expenditure</td>
<td>80% have household have less than R3500.00 and 89% have a family size of more than one.</td>
<td>No- R 992 per person (upper bound poverty line- StatSA 2017:1)</td>
</tr>
<tr>
<td></td>
<td>Place of Employment</td>
<td>No norm or standard is given but the findings were that 74% incurred transport costs of up to R1000:00 to places of employment.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Transport costs in search of employment</td>
<td>No norm is provided but the findings were that 48% of job seekers incurred costs to places of employment search hence the high percentage of unemployed not seeking employment.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Access to Service Centres</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

The provision of economic opportunities to beneficiaries of low cost housing is not only the competence of the Department of Human Settlements’ BNG and Housing Code of 2009 but also the other policies like the National Development Plan Vision 2030, the national minimum wage of South Africa. These policies are implemented by other state departments. Thus, as shown in table 5, access to economic opportunities is a challenge as such the hypothesis presented fails to be rejected.

4.8 Summary

In summary, this chapter sought to present an analysis and interpretation of data collected in Wells Estate. The chapter gave a discussion of the demographic aspects of the population sample; the quality of houses they received; access to primary municipal amenities such as a clinic, police station, schools, recreational facilities; and access to social, economic
opportunities. The overall picture gleaned is indicative of the notion that housing is not the final answer to problems experienced by the poor - other socio-economic determinants such as access to employment, among others, are also important. Emanating recommendations will be discussed in the chapter to follow, which will also conclude the report.
5.1. Summary

Access to adequate housing is a developmental challenge confronting the post-'94 government. The determinants of poor provision of adequate housing include homelessness, housing backlogs, and slow delivery of low-cost housing, and defective housing. Defects to the low-cost housing have been attributed to shoddy workmanship.

The literature reviewed indicates that the post-'94 government introduced low cost houses in 1994. The major focus of this initial effort to provide housing was on quantitative delivery of housing rather than quality thereof. The study further noted that the provision of adequate housing does not merely require provision in great quantity and that low-cost housing endeavours cannot be reduced to the mere mass production of buildings. It is in this context that the study argued that adequate and sustainable housing is significant to poverty alleviation. Inadequate and poor-quality housing perpetuates the poor quality of people’s lives.

The Wells Estate Human Settlement is one of many of government’s initiatives across the country aimed at creating a better life for all. It is a realization of the country’s commitment to improve the lives of previously disadvantaged communities and those who are victims of poverty.

The main purpose of the study was to assess the extent to which the Wells Estate Human Settlement is planning and construction had adhered to the Breaking New Ground Principles, with a special focus on:

- What was the quality of houses that beneficiaries received;
- Does the Wells Estate settlement allow access to primary municipal amenities such as a clinic, police station, schools, and recreational facilities, and
- Do the beneficiaries of low cost housing in Wells Estate have access to social and economic opportunities?

The data for the study were collected with a questionnaire distributed to a sampled population of the Wells Estate community. All respondents received the same set of questionnaires. Transect walks were also made to observe the state of the Wells Estate in terms of the services and facilities available.
Chapter Four provided a synopsis of the challenges faced by Wells Estate human settlement beneficiaries and demonstrated that there were legitimate concerns regarding access to facilities and services, as well as to economic opportunities.

In this chapter, the findings of the study are outlined based on the results of the data analysis undertaken. Recommendations and conclusions are also presented.

5.2. Findings

Following complete analysis of the primary data collected from the beneficiaries of the Wells Estate Human Settlement and the review of related literature, the researcher was positioned to present the findings, recommendations and conclusions thereof, as contained in the sections to follow.

The literature review determined that housing relates to more than just the physical structure of a house. Aspects such as the environment, social and economic factors, all play a role when defining housing. The geographical location of any housing project is important to successful housing delivery. Housing projects that are constructed on the peripheries of urbanised areas have an entrenched history of not yielding the desired results. As noted in the literature review, communities, which are far, removed from the major economic activities of cities, have no chance of prosperity. The literature review demonstrated that: housing that is not sustainable is a waste of resources and presents a major drawback to developmental goals. The review of secondary information emphasized that effective housing cannot be attained without addressing the quality aspect thereof. Also exposed was that the current housing programme in South Africa is for the most part more concerned with mass production and little care is taken towards ensuring the quality of housing.

5.2.1. Finding 1: Demographics

From the data analysis presented in Chapter 4, the study found that the majority of the beneficiaries of the low-cost housing were in the age category of between 18 and 60 years, which is regarded as the productive age. This age category should be able to provide for their own accommodation without government assistance.

5.2.2. Finding 2: Human Settlements still based on pre ‘94 Spatial Planning

One of the goals of breaking new grounds and the housing code is to create inclusive human settlements across all races. Wells Estate is predominantly African Xhosa dominated human
settlement; located on the periphery of the NMBM city centre thus perpetuated the spatial development plans of the pre '94 spatial planning. The location of Wells Estate has a bearing on the transport costs for those that are employed and those seeking jobs.

5.2.3. **Finding 3: Low levels of Educational Qualifications**

The finding was that Wells Estate low level of education, the majority had primary and secondary education only, which subjects them to low levels of employment hence becoming dependent on the state assistance through social grants.

5.2.4. **Finding 4: Quality of Houses**

From the data analysis presented in Chapter Four, the study found that the quality and amenities of the Wells Estate Human Settlement houses complied with the BNG This was indicated by: the number of respondents who expressed a low level of concern in terms of the size of their houses; the limited extent of maintenance done by beneficiaries on their houses; and minimal extent of cracks on the floor and walls.

5.2.5. **Finding 5: Access to Services and Facilities**

From the data analysis undertaken, access to facilities that provide for basic service delivery was a major concern of beneficiaries. These facilities include a secondary school; clinic; police station; municipal service centre; and playgrounds. Further, there is no taxi rank at Wells Estate as its roads for the most part, are gravel.

5.2.6. **Finding 6: Safety and Security of Residents**

The finding of the study was that the safety and security of residents was compromised during the early morning, this is the time those that were employed wake up and walk where they get transport to work or walk to the places of their employment. More so, late in the night the level of safety and security were also a challenge.

5.2.7. **Finding 7: Access to Socio-Economic Opportunities**

This finding should be juxtaposed against the socio-economic demographics of beneficiaries of low cost housing. Given the low educational levels of the study's respondents, their ability to access socio-economic opportunities has been compromised. With low educational levels, only low-income jobs are accessible such as general cleaning and domestic work.
Linked to this was the need to create businesses. The study found that even in the case of businesses owned, these were for subsistence only – such as street vending, shoe repairing, and painting. In essence, there is need for mitigation against creation of a vicious cycle of poverty that will perpetually lead to beneficiaries’ excessive dependence on government benevolence through provisions such as social grants, nutrition for children - and thus classifying the beneficiaries of low cost housing as indigent.

5.3 Recommendations and Conclusions

The recommendations of the study regarding the low-cost housing process in Wells Estate should be viewed as advice for a course of action for the purpose and objectives of this study.

**Recommendation 1: Access to socio Economic Opportunities**

This study recommends that, socio economic opportunities should be available to the residents in well Estate to enhance the sustainable livelihoods and reduce their vulnerability. Taking into cognisance the low levels of education, labour intensive interventions can be through:

- Expanded Public Works Programme, and
- Community Works Programme.

These projects may go a long way in providing financial capital to the residents in Well Estate.

**Recommendation 2: Support of Informal Businesses**

This study recommends that support should be given to informal business in Wells Estate. The support can be in form of:

- Provision of designated marketing stalls for street trading.

**Recommendation 3: Community Capacity Building Interventions**

This invention is aimed at increasing the knowledge, skills, awareness, and participation in local economic development. The community capacity building interventions can be in form of housing consumer education.
Recommendation 4: Safety and Security for Residents

The safety and security of residents in Well Estate can be improved if there is increased visibility of the police. In addition, the police can assist the community to establish community police forums.

Recommendation 5: Collaboration with other government departments

The NMBM may collaborate with other government departments to provide:

- Scholar transport- Department of Basic Education;
- Safety and security though increase visibility and coordinate activities of Police forums - South African Police Service, and
- Social grants-Department of Social Development.

Recommendation 6: Integrated approach to resolving socio economic challenges confronted beneficiaries of low cost housing

The provision of housing alone cannot alleviate the socio-economic challenges affecting the poor; however, there is a need for a multi-pronged approach to address other socioeconomic determinants such as access to employment and education.

5.4 Conclusion

It can be concluded that housing development is an appropriate mechanism to spread access and implementation of infrastructure and services in South Africa. However, an additional contribution is required to overcome capacity and financial constrictions. Thus, housing considerations must be taken into account at every stage of the planning process, from the identification of residential land through to the setting of development controls, and assessment of particular developments against these controls.
REFERENCES


De Moss, N.T. 2015. From informal settlements to formality: a resettlement group’s adaption to a newly planned community in Port Elizabeth, South Africa, Independent Researcher, Washington, DC 20002, USA.


Schoenauer, N. 2000. 6,000 years of housing. New York: W.W. Norton & Company.


Sutrisna, M. 2009. Research methodology in doctoral research: understanding the meaning of conducting qualitative research. Proceedings of the Association of Researchers in Construction Management (ARCOM) Doctoral Workshop held in Liverpool John Moores University. Conducted by ARCOM Liverpool, UK: ARCOM.


Annexure: the questionnaire

Survey questionnaire on government housing projects against the breaking new ground principles

Your assistance in completing this questionnaire is greatly appreciated. The aim is to ascertain if the newly built housing projects do conform to the breaking new ground principles.

Your confidentiality is assured.

Section A. Demographics

<table>
<thead>
<tr>
<th>1. What is your gender? Tick only one.</th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2. What is your age?</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-30</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>31-40</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>41-50</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Older than 50</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3. What is your marital status?</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Divorced</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Widowed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cohabitation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>4. What level of education have you obtained?</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>No schooling</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grade R to 7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grade 8 to 12</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Post Matric</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>5. How many people live in this house</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>I live alone</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>More than 1 up to 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>More than 5 up to 9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>More than 9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>6. When did you move into your RDP house?</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between 2004 &amp; 2006</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between 2007 &amp; 2009</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between 2010 &amp; 2012</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between 2013 &amp; 2015</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>7. Are you the owner of this house?</th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>8. Please indicate how you got to own this house?</th>
<th>Tick</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.1 Main beneficiary</td>
<td></td>
</tr>
<tr>
<td>8.2 Purchased the house</td>
<td></td>
</tr>
<tr>
<td>8.3 Inherited the house</td>
<td></td>
</tr>
<tr>
<td>8.4 Renting</td>
<td></td>
</tr>
<tr>
<td>8.5 Other</td>
<td></td>
</tr>
</tbody>
</table>

If you answered ‘other’ then please specify:........................................................................................................

Section B. Quality of Housing Structures

<table>
<thead>
<tr>
<th>9. Which of the following did your house have when you moved in?</th>
<th>Tick any of the following</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.1 Ceiling – in all the rooms</td>
<td></td>
</tr>
<tr>
<td>9.2 Plastered walls – external and internal</td>
<td></td>
</tr>
<tr>
<td>9.3 Connected Electricity</td>
<td></td>
</tr>
<tr>
<td>9.4 Sanitation - Flushing toilet – with water connected</td>
<td></td>
</tr>
<tr>
<td>9.5 Water - Single standpipe per stand (metered).</td>
<td></td>
</tr>
<tr>
<td>9.6 Sink – with water connected</td>
<td></td>
</tr>
<tr>
<td>9.7 Bath tab / shower</td>
<td></td>
</tr>
</tbody>
</table>
10. Do the walls and floor of your house have any cracks?  
<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>No</td>
<td></td>
</tr>
</tbody>
</table>

11. If you answered ‘Yes’ in Question 10, please describe the type of cracks by choosing one of the descriptions for each structural element as indicated in the table below:  
<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Walls</td>
<td>Floors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negligible - Up to 1mm</td>
<td>Minor - More than 1mm up to 2mm</td>
<td>Major - More than 2mm up to 5mm</td>
<td>Severe - More than 5mm</td>
</tr>
</tbody>
</table>

12. Does the roof of the house leak when it rains?  
<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>It does not</td>
<td>Does</td>
<td>Sometimes</td>
<td>Always</td>
</tr>
</tbody>
</table>

13. Do all doors fit securely in their frames?  
<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Front Door</td>
<td>Back Door</td>
<td>Internal Door</td>
<td></td>
</tr>
</tbody>
</table>

Elaborate  
………………………………………………………………………………………………………………………………
………………………………………………………………………………………………………………………………
………………………………………………………………………………………………………………………………
………………………………………………………………………………………………………………………………

14. Please indicate whether you have done any maintenance on the items listed below and explain what type of maintenance was done.  
<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ceiling</td>
<td>Cracks on the walls</td>
<td>Cracks in the floor</td>
<td>Doors, internal and external</td>
</tr>
<tr>
<td>Toilet</td>
<td>Water pipes</td>
<td>Sink</td>
<td>Bath Tab / Shower</td>
</tr>
<tr>
<td>Other</td>
<td>Please explain what type maintenance was done?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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15. Have you made any improvements to the house since occupancy?

<table>
<thead>
<tr>
<th>Tick any option</th>
<th>Please explain what type of improvement was done?</th>
</tr>
</thead>
<tbody>
<tr>
<td>15.1 Extended the house</td>
<td></td>
</tr>
<tr>
<td>15.2 Installed new Ceilings</td>
<td></td>
</tr>
<tr>
<td>15.3 Extended inside and walls</td>
<td></td>
</tr>
<tr>
<td>15.4 Floors</td>
<td></td>
</tr>
<tr>
<td>15.5 Installed new doors</td>
<td></td>
</tr>
<tr>
<td>15.6 Installed new Toilet</td>
<td></td>
</tr>
<tr>
<td>15.7 Diverted Water pipes</td>
<td></td>
</tr>
<tr>
<td>15.8 Fit in a new Sink</td>
<td></td>
</tr>
<tr>
<td>15.9 Changed Bath Tab / Shower and installed new</td>
<td></td>
</tr>
<tr>
<td>15.10 Fence/security wall</td>
<td></td>
</tr>
<tr>
<td>15.11 Security alarm</td>
<td></td>
</tr>
<tr>
<td>15.12 Fit in new lights</td>
<td></td>
</tr>
<tr>
<td>15.13 Other</td>
<td></td>
</tr>
</tbody>
</table>

16. On a scale of 1 (no concern) to 5 (high concern), please rate your level of concern with regard to the quality of your house? (You can tick more than one).

<table>
<thead>
<tr>
<th>Description</th>
<th>1 No concern</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5 High concern</th>
<th>Explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>16.1 Size</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16.2 Leaking in the roof, pipes, sinks or baths</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16.3 Cracking walls internal and external</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16.4 Rust in the roof</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16.5 Foundation subjected to excessive movement</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16.6 Mould on the walls internally</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16.7 Ventilation, window for each room</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16.8 Other (Specify)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Section C Multi-purpose cluster, mixed land use, diverse, life-enhancing environments

17. Indicate in the table below how far are these facilities from your house (Tick any option - more than one)

<table>
<thead>
<tr>
<th>Facility</th>
<th>750m – 1km</th>
<th>1km – 1,5km</th>
<th>1,5km – 2km</th>
<th>2km – 2,25km</th>
</tr>
</thead>
</table>

89
17.1 Pre Schools
17.2 Primary Schools
17.3 Secondary Schools
17.4 Post Office
17.5 Bus Stop
17.6 Taxi Ranks
17.7 Community Halls /centres
17.8 Playing fields
17.9 Clinic or Mobile
17.10 Hospital
17.11 Police station
17.12 Municipal service offices
17.13 Other (specify)

Elaborate

18. On a scale of 1 (not safe at all) to 5 (very safe), how safe do you feel walking down your street during the following times of day
Tick only one option per question.

<table>
<thead>
<tr>
<th>Time</th>
<th>1 (Not safe at all)</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5 (Very safe)</th>
</tr>
</thead>
<tbody>
<tr>
<td>18.1 Early morning 03:00 – 06:00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18.2 Morning 06:00 – 09:00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18.3 Early evening 18:00 – 21:00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18.4 Late evening 21:00 – 24:00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

19. What type of main roads (street) do you have within the community
Tick only one option

<table>
<thead>
<tr>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>19.1 Tar road</td>
</tr>
<tr>
<td>19.2 Brick paved road</td>
</tr>
<tr>
<td>19.3 Gravel road</td>
</tr>
<tr>
<td>19.4 No road built</td>
</tr>
</tbody>
</table>

20. On a scale of 1 (not wide) to 3 (very wide), is the street in front of your house wide for public use?
Tick only one option.

<table>
<thead>
<tr>
<th>Width</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Wide- No vehicle can pass through</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single lanes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Two lanes</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

21. Are there walkways or pedestrian pavements on your street
Tick only one option.

<table>
<thead>
<tr>
<th>Option</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
</tr>
<tr>
<td>No</td>
</tr>
</tbody>
</table>

Section C: Access to economic opportunities and affordable basic services

22. Are you employed
Tick only one option

<table>
<thead>
<tr>
<th>Option</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
</tr>
<tr>
<td>No</td>
</tr>
</tbody>
</table>

23. If you are working, please describe the type of employment you have?

………………………………………………………………………………………………………………………………
………………………………………………………………………………………………………………………………
………………………………………………………………………………………………………………………………
………………………………………………………………………………………………………………………………
24. When do you get paid?  
<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daily</td>
<td>Weekly</td>
<td>Bi Weekly</td>
<td>Monthly</td>
<td></td>
</tr>
</tbody>
</table>

25. What is your average monthly income?  
<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>R0 up to R1000</td>
<td>R1001 up to R2000</td>
<td>R2001 up to R3500</td>
<td>More than R3500</td>
<td></td>
</tr>
</tbody>
</table>

26. If no one in your household is employed what are the sources of income that sustain your family?  
<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pension</td>
<td>Disability grant</td>
<td>Child support grant</td>
<td>Other</td>
<td></td>
</tr>
</tbody>
</table>

Elaborate

27. Do you have your own business  
<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Street vendor</td>
<td>General Worker</td>
<td>Shoe maker</td>
<td>Other</td>
<td></td>
</tr>
</tbody>
</table>

Elaborate

28. How much does your business make every month?  
<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>R0 up to R1000</td>
<td>R1001 up to R2000</td>
<td>R2001 up to R3500</td>
<td>More than R3500</td>
<td></td>
</tr>
</tbody>
</table>

29. How much do your household spend to go to work every monthly?  
<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below R500</td>
<td>Between R500-R1000</td>
<td>Above R1000</td>
</tr>
</tbody>
</table>

30. Where is your place of employment?  
<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suburbs around Wells Estate</td>
<td>Town Centre</td>
<td>Suburbs Around town Centre</td>
<td></td>
</tr>
</tbody>
</table>

31. If you are not employed, are you looking for employment?  
<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>No</td>
<td></td>
</tr>
</tbody>
</table>

32. Where do you go to look for work?  
<table>
<thead>
<tr>
<th></th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suburbs around Wells Estate</td>
<td>Town</td>
</tr>
<tr>
<td>Suburbs around town centre</td>
<td>Other</td>
</tr>
</tbody>
</table>

If you answered 'other' then please specify:

33. Have you been able to find work in these areas in the past  
<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>No</td>
<td></td>
</tr>
</tbody>
</table>
### 34. How many times per week do you go to look for work in the areas mentioned above?

<table>
<thead>
<tr>
<th></th>
<th>Once</th>
<th>Twice</th>
<th>Thrice</th>
<th>Four</th>
<th>Five</th>
<th>Six</th>
<th>Seven</th>
</tr>
</thead>
</table>

Tick only one option per question.

### 35. How much do you spend per day when you go looking for employment?

<table>
<thead>
<tr>
<th></th>
<th>R25</th>
<th>R50</th>
<th>Above R50</th>
</tr>
</thead>
</table>

Tick only one option per question.

### 36. Where do you generally buy your monthly provisions?

<p>| |</p>
<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Tick</td>
</tr>
</tbody>
</table>

36.1 Motherwell Mall  
36.2 Kenako Mall  
36.3 Green Acres  
36.4 Walmer Park  
36.5 Bay West Mall  
36.6 Other

### 37. Does your nearest shopping mall have all the services you require

<p>| |</p>
<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Tick</td>
</tr>
</tbody>
</table>

37.1 Banking  
37.2 Grocery Shops  
37.3 Medical Services (Clinic, Hospital or Doctors rooms, Medical Centre)  
37.4 Entertainment  
37.5 Other

### Other Questions

38. What upgrades have you noticed in the area since you have moved into your house?

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

39. What new developments in this area will improve your lives (or any other reason)?

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

...........

Thank you