DISSERTATION TOPIC:

ASSESSING THE LINK BETWEEN THE PROVISION OF BASIC MUNICIPAL SERVICES IN INFORMAL SETTLEMENTS AND THE CREATION OF SUSTAINABLE HUMAN SETTLEMENTS: CASE STUDY OF REDCLIFFE AND MAGWAVENI INFORMAL SETTLEMENTS.

BY

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DECLARATION

**Submitted in partial fulfillment of the requirements for the degree
in Masters of Housing, in the in
The School of Built Environment and Development Studies,
University of KwaZulu Natal, Durban,
South Africa.**

I declare that this dissertation is my own unaided work. All citations, references and borrowed ideas have been duly acknowledged. It is being submitted for the degree of Masters of Housing in School of Built Environment and Development Studies, University of KwaZulu Natal, Durban, South Africa. This dissertation has not been submitted previously for any degree or examination in any other university.

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ABSTRACT

The provision of basic municipal services to informal settlements in South Africa has been vital in bringing much need services to poor households and addressing hazardous living conditions prevalent in informal settlements. The research evaluates the provision of municipal services to informal settlements by the eThekwini Municipality. It highlights the challenges which are experienced by informal settlements dwellers, due to the lack of services such as roads, water, sanitation and electricity. The study then looks at the current housing backlog and sets out the approaches applied in South Africa and internationally to address the challenges that are experienced by residents in informal settlements. The broad aim of this dissertation is to evaluate how households in informal settlements attain basic services and whether the provision of interim services has assisted such households in meeting their housing needs incrementally. The qualitative approach method was used to collect data on the provision of basic municipal services to informal settlements and the study involved the use and collection of empirical data, two case studies, personal experiences, direct observation and interviews. Two specific housing policies relevant to this study are the Comprehensive Plan for Human Settlements or commonly referred to as the Breaking New Grounds (2004) and the National Housing Code (2009).

The study's findings showed that residents had high levels of access to housing even though they were still occupying informal houses as many households were generally satisfied with the essential municipal services provided and had embarked on making improvements to their currently occupied informal dwellings. The high levels of dissatisfaction with sanitation provided were recorded as residents found it socially unacceptable to be sharing toilets with other settlement dwellers and the study revealed that in both the case study areas there were high levels of access to electricity provided and this was due to the provision of prepaid electricity by the municipality. The study also found high levels of satisfaction with the power supply provided as residents were able use the electricity for household activities and more importantly they no longer had to worry about disconnections as the electricity was supplied by the municipality. The study found that there were high levels of satisfaction with access roads and footpaths provided as the infrastructure provided vehicular access to those residents who owned vehicles and as well as for mini bus taxis transporting residents. The

provision of basic services to the study areas was a clear indication by the municipality of laying the building blocks for future houses to be constructed by the municipality and this was in line with the Housing Policy

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ACRONYMS

BNG   Breaking New Grounds

CORC   Community Organisation Resource Centre

FBE   Free Basic Electricity

FEDUP   Federation of the Urban Poor

IDP   Integrated Development Plan

ILO   International Labour Organization

INEP   Integrated National Electrification Programme

ISUP   Informal Settlement Upgrading Programme

KENSUP   Kenya Slum Upgrading Programme

MDGs   Millennium Development Goals

NGO   Non-Governmental Organisation

NUSP   National Upgrading Support Programme

RDP   Reconstruction and Development Programme

SA SDI   South African Slum Dwellers International

SDI   Slum Dwellers International

SMMEs   Small Micro Medium Enterprises

UKZN   University KwaZulu Natal

UN HABITAT   United Nations Habitat

UNO   United Nations Organisation

VIP   Ventilated Improved Pit Latrine

CHAPTER ONE: INTRODUCTION TO THE STUDY AND RESEARCH METHODOLOGY

1.0 INTRODUCTION

In order to address the backlog the municipality has formulated innovative strategies to addressing challenges faced by informal settlements (eThekwini, 2011). Although some progress has been made in dealing with the housing problem in developing countries, rapid urbanization has accelerated the concentration of poor households in cities and generated a greater demand for adequate shelter, especially among poor families who lack the income to pay for decent housing (Rondinelli, 1990). In South Africa various housing subsidy instruments have been introduced to assist low-income households to access housing. The Post 1994 South African government incorporated the Self-Help Housing Approach in the South African Housing Policy as a housing subsidy programme aimed at assisting the poor and marginalized to access housing opportunities. This approach to housing was limited to greenfields housing projects where government's role was to be the enabler of housing delivery through the provision of land, serviced sites, basic infrastructural provision and a core house. Housing consolidation for beneficiaries of self-help housing were to be incrementally achieved through sweat equity and using household resources such as financial contributions. In 2004, government introduced the Informal Settlement Upgrading Programme (ISUP) as part of its Comprehensive Plan to Human Settlements: Breaking New Grounds (BNG) and the National Housing Code of 2009 which introduced *in situ* upgrading of informal settlements (Department of Housing, 2009).

This research evaluates the provision of civil engineering municipal services to informal settlements by the eThekwini Municipality. It highlights the challenges which are experienced by informal settlement dwellers, due to the lack of services such as roads, water, sanitation and electricity. The study then looks at the current housing backlog and sets out the approaches applied in South Africa and internationally to address the challenges that are experienced by residents in informal settlements. According to the 2001 Census, there are approximately 1.11 million households living in areas that are characterized as informal settlements in South Africa. The eThekwini municipality has a growing housing backlog and the highest number of informal

settlements in South Africa. There are approximately 270 000 households living in the 520 informal settlements spread throughout (eThekwini, 2011). So far the City has delivered 160 000 formal dwellings through the Reconstruction and Development Programme (RDP). The city has an average annual delivery target of 16 000 units and it is assumed that the housing backlog will be addressed by year 2028 (eThekwini, 2011).

1.1 RESEARCH PROBLEM

There has been urban housing demand in Africa which is attributed to an outcome of rapid and large-scale urbanisation. Battlacharya (2002) describes urbanization as a migration of the rural population to the urban centres creating a natural growth rate of the urban population. As Africa continues to rapidly urbanize, the migration of rural households to urban areas in search of better urban opportunities has placed, and will continue to place, immense pressure on acquiring affordable land and housing for poor households. Most governments in the developing world have not been proactive in acknowledging and planning for urbanisation and as a result informal settlements have proliferated throughout the cities of the developing world and these settlements have provided shelter to a considerable and growing proportion of the population. Most settlements are located on the peripheries and on neglected parts of cities where makeshift structures are a common feature.

The UN-Habitat (2002) defines informal settlements as a wide range of low-income settlements of poor human living conditions inhabited by the poor and are commonly found in the cities of the developing world. In its report on the challenge of slums, the UN habitat (2003: 11) characterized informal settlements as those settlements that are exposed to challenges such as lack of access to water and sanitation facilities, absence of solid waste collection systems, lack of electricity supply, nonexistence of surfaced roads, footpaths, street lighting and storm water drainage. In addition, these settlements have also been associated with a high number of substandard housing structures unsuitable for human habitation and often built with non-permanent materials and lack of security of tenure and legal documentation entitling the household to occupy the land or structure as prima facie evidence of illegality and slum occupation. Such settlements are commonly the manifestation of poverty in the urban centres.

According to the United Nations Organisation (1998) poverty has been defined as a denial of choices and opportunities, a violation of human dignity. It also includes the lack of basic capacity of households to participate effectively in society, not having access to food security, education, health care, credit and land. It often applies to individuals and households living in informal settlements and fragile environments, without access to clean water or sanitation. On the contrary, not all households who reside in informal settlements are poor, as many people have risen out of income poverty and choose to continue living in slums for various reasons ranging from the lack of affordable housing in better parts of the city and sustaining social networks that have been formed (UN-Habitat, 2006).

More than one half of the world population now lives in urban areas and virtually all countries of the world are increasingly urbanizing. The process of urbanization has become a global phenomenon that has nonetheless different expressions across regions. In Latin America, for instance, a large proportion of the population is residing in urban areas, whereas Africa and Asia are still predominately rural and will continue to urbanize faster than other regions over the coming decades. These trends have been changing the landscape of human settlement, with significant implications for the living conditions of the poor and impacting negatively on the environment (World Bank, 2009). Goldstein (2002) argues that urbanization has a physical and social impact on the health of urban dwellers due to persistent high levels of poverty and inadequate affordable housing.

In addressing the ever growing housing backlog the South African government formulated various housing subsidy programmes contained in the South African Housing Policy that aim to make incremental interventions in the delivery of housing to the very poor. The BNG plan of 2004 and the Housing Code of 2009 introduced *in situ* upgrading of informal settlements through subsidy programmes such as the upgrading of informal settlements programme which made provision for the security of tenure to households in informal settlements, land acquisition, provision of basic municipal services and the initial construction of the complete housing unit. The consolidation subsidy programme contained in the Housing Code as a government housing subsidy programme provided access to housing consolidation for the building of the top

structures or housing units for households residing in serviced site schemes and transferring ownership to beneficiaries (National Housing Code of 2009).

The problem of informal settlements in eThekwini is set to increase as the KwaZulu-Natal Provincial population urbanizes. The provision of interim services to informal settlements by the eThekwini Municipality is a strategy to deliver essential municipal services to informal settlements that have been earmarked for housing upgrading in the medium to long term period. Interim services provided to informal settlements include the provision of water and sanitation, road infrastructure, domestic waste collection and electricity (eThekwini, 2011).The informal settlements in this category are incrementally upgraded and informal residents have no formal security of tenure during initial stages of the interim services provision, but their rights to occupy the site are recognized informally. This gives residents some kind of safety from evictions and their right to benefit from the services provided by the municipality during the incremental upgrading process (eThekwini, 2011).

The problem in eThekwini municipality is that the most of the households residing in informal settlements fall within the indigent policy and have a household income of less than R1-500 per month, or no income at all, and many are entirely dependent on the housing subsidy to meet their housing needs (eThekwini, 2011). Whilst the interim services programme does deliver much needed basic services to informal settlements, it does not deliver the core house as is commonly desired by the poor as opposed to *in situ* upgrading projects where site and services are provided along with a government assisted house. Misselhorn (2008:3) argues that because of the constraints faced by government in delivering conventional housing, the reality is that the majority of informal settlements have still not received significant development attention whether in the form of *in situ* upgrading, relocation to greenfields housing projects, or the provision of significant interim interventions to mitigate living conditions. As a result households in such settlements are exposed to hazardous living conditions.

Agevi (2003b) argues that inadequate shelter provision has negative consequences for poor households in informal settlements as households are continuously exposed to harsh living conditions, lack of social cohesion and political instability hampering economic development in

developing countries. Inhabitants of informal settlements suffer from a variety of health problems, particularly gastro-intestinal and respiratory diseases. This is due to the poor environmental conditions in which poor households live and to nutritionally poor and inadequate diets. In cases where such settlements have access to some type of potable water supply, sanitary waste disposal systems and health care services, the general health conditions of the residents seem to be better (UN-Habitat, 2006b). Based on the above discussion, the aim of this research is to assess whether the provision of interim services to informal settlements in eThekwini municipality stimulates the creation of sustainable human settlements by improving the living conditions of shack dwellers.

1.2 STUDY JUSTIFICATION

Given the proliferation of informal settlements in eThekwini municipality, the study is important as it makes contributions to the practice of upgrading informal settlements and provides recommendations to the South African housing policy. Available literature, case studies, findings and statistics provide insight to the phenomena of informal settlements internationally and locally in order to highlight the best practice in the upgrading informal settlements.

1.3 AIMS AND OBJECTIVES

1. To critically evaluate how households in informal settlements attain basic services such as electricity, water and sanitation prior to the provision of interim services.
2. To evaluate whether households in informal settlements are satisfied with services provided by the municipality.
3. To evaluate whether the provision of interim services has assisted households in informal settlements to meet their housing needs incrementally.
4. To assess whether the programme has stimulated the creation of sustainable human settlements.
5. To ascertain the limitations of the interim services programme and whether the strategy can be replicated to other municipalities faced with service delivery challenges imposed by informal settlements.

6. To determine how the interim services strategy could be improved in order to effectively address service delivery challenges imposed by informal settlements.

1.4 RESEARCH QUESTION

To what degree has the provision of basic municipal interim services to informal settlements assisted residents to improve their living conditions and the creation of sustainable human settlements?

1.4.1 RESEARCH SUB-QUESTIONS

1. Is the settlement serviced with electricity, sanitation and roads, if not how far away are these services from the settlement?
2. Since the installation of these services how has life changed?
3. How have households been accessing basic municipal services prior to the provision of interim services in this settlement?
4. Are residents happy with the provision of the interim services programme in this settlement?
5. Have they been able to build a formal house after the provision of interim services? If not why?

1.5 HYPOTHESIS

The provision of interim civil engineering services could be used to enhance the creation of sustainable human settlements and improve living conditions of the shack dwellers.

1.6 KEY CONCEPTS AND DEFINITIONS

1.6.1 INFORMAL SETTLEMENT

Boaden and Taylor (2001:147) refer to informal settlements as a predominant housing delivery system in the metropolitan region, representing the actions of the very poor and not so poor to house themselves without subsidy from government or employers. Abbot (2001) argues that informal settlements are predominately built on public or private land and are generally located in environmentally sensitive areas with little or no adherence to municipal building regulations. The UN-Habitat (2006) defines an informal settlement as a settlement with households located in urban areas in which the inhabitants live in inadequate housing and lack basic services such as access roads, electricity, refuse disposal, water and sanitation and these conditions expose informal settlement households to health hazards making them prone to diseases. For the purpose of this study, the focus will be on two informal settlements, Redcliffe and Magwaveni that are located in the eThekwini municipality and which have been provided with interim services.

1.6.2 INTERIM SERVICES

Municipalities like eThekwini are faced with high numbers of people migrating to the cities for employment opportunities on a daily basis. Local governments face enormous challenges in providing services to their residents. In order to meet developmental objectives, local authorities have to find new avenues and innovative strategies to provide services needed by the people they serve (Honadle, 1984). Sudhir and Yassir (1995) argue that investments in infrastructure and associated provision of services are integral to the process of sustainable development and the primary concern of the most vulnerable members of society that should be made available and easily accessible. The interim services provision concept is a new innovative strategy by the eThekwini municipality. The main objective of the provision of interim services is to provide basic municipal services to informal settlement dwellers (eThekwini, 2011). Services provided include road infrastructure, pathways, refuse removal, electrical services, water and sanitation. The importance of providing these services is to ensure households residing in informal

settlements attain municipal services while housing upgrades are being planned by the municipality.

In the past local authorities' thinking towards housing placed an emphasis on delivering a full housing product and basic services delivery to a wider population in informal settlements in dire need shifted. Faizal Seedat (2011) argues that the principle of the interim services initiative acknowledges that there are a large number of informal settlement communities that would simply have to wait years before the housing programme reaches them, but given their location, close proximity to social and economic opportunities, there is no reason why such communities cannot be provided with basic services like water, sanitation, electricity, access roads and footpaths (www.durban.gov.za).

1.6.3 SECURITY OF TENURE

The UN-Habitat (2006) defines secure tenure as "the right of all individuals and groups to effective protection from the state against forced evictions". In most of the developing world tenure legalization promotes house improvements for the very poor through housing consolidation and promotes informal settlement upgrading (Mukhija, 2001:213). According to Urban LandMark (2010:08) tenure security triggers the provision of essential municipal services for poor households residing in informal settlements and provides a basis against which households can raise loan finance. Land tenure is most relevant to this study as households in informal settlements are uncertain about the tenure of the land they occupy. This has an influence on the type of housing solution they provide for themselves.

1.6.4 INFORMAL SETTLEMENT UPGRADING

Informal settlement upgrading is a method that involves the gradual improvement and upgrading of shacks through the provision of basic services such as clean water, sanitation and infrastructure in the process regularizing and legalizing the land occupied by the people informally (Menshawy, et al., 2011). It has to be noted that informal settlement upgrading involves the construction of dwellings where households are already located and housing is

achieved through an incremental approach. The objective of informal settlement upgrading is to develop and create human settlements that are sustainable for future generations to come and incremental housing becomes the responsibility of the household (Huchezermeyer, et al., 2006). The upgrading of informal settlements as an intervention to challenges imposed by informal settlements has become an acceptable methodological approach in the developing world to addressing the housing needs of the urban poor and in the process of improving their living conditions (Abbot, 2002:303). For the purpose of this study, informal settlement upgrading refers the regularization of land occupied by shack dwellers and the provision of basic services while detailed planning and township layout are being planned for incremental housing upgrade projects (Huchzermeyer, et al., 2006).

1.6.5 SOUTH AFRICAN HOUSING POLICY

Section 26 of the South African Constitution (1996) enshrines the right of every South African citizen to have access to adequate housing and propagates that the state must take reasonable legislative and other measures within its available resources to ensure the progressive realisation of this right. As a response to the immense housing backlog the Housing Act, 1997 (Act No 107 of 1997) defines the functions of the three spheres of government in respect to housing development in South Africa. Two specific housing policies relevant to this study are BNG (2004) and the National Housing Code (2009). BNG aimed to create integrated human settlements and focused on improving and upgrading informal settlements. The National Housing Code outlined the policy intent and provided clear guidelines on informal settlement upgrading projects and other housing programmes. In order to fast track the delivery of basic services and housing in South Africa government introduced Outcome 8 as an outcomes-based approach focused on creating sustainable human settlements and improving the quality of lives of South African households (www.poa.gov.za). For the purpose of this study, the housing policy framework will be used as a basis on which to build the foundation of this dissertation.

1.7 RESEARCH METHODOLOGY

This section outlines the methods in which the study was conducted and provides information on how data was collected in order to answer the research question. The choice of the study area was largely influenced by the fact that the two informal settlements were piloted with the interim services programme. The study used both primary and secondary sources of data available to the researcher. The qualitative approach was used to collect data on the provision of basic municipal services to informal settlements prior to the upgrade of housing. The qualitative aspect of the study involved the use and collection of empirical data, two case studies, personal experiences, direct observation and interviews. These tools were used in order to get a better understanding of the subject matter being investigated (Denzin and Lincoln, 2000:3-4). This will involve structured one-on-one interviews with housing policy experts and with the Senior Manager of Housing Planning in the eThekwini Municipality. The qualitative research method was used in this study as it allowed for an in-depth examination of the provision of engineering services to beneficiaries in informal settlements. The said research method allowed for the examination of complex questions that would have not been possible with quantitative methods as research projects using qualitative measures have smaller sample sizes than quantitative studies.

1.7.1   PRIMARY SOURCES OF DATA

For the purpose of this study, information collected used the following sources, research tools and methods as listed below.

1.7.1.1 SAMPLING METHOD

In this research, a systematic sampling method was used to select households residing in informal settlements to participate in the study. Systematic sampling refers to the process whereby the researcher knows the number of cases in the study area and selects a particular number which leads to the accomplishment of the particular sample size the researcher chooses to cover in the area (Burton, 2000). In this case, participants were households in informal settlements who have benefited from the provision of interim services who are 18 years and

above. To elaborate on this, Redcliffe informal settlement has 3000 households that have been serviced with the interim services. Given the large number of households the study only covered 5% of the households and therefore every 20th house was selected for the purpose of the study. That means only 150 households serviced with the interim services were considered for the study. In Magwaveni informal settlement there are 2000 households also serviced with interim services. The same criterion was applied where only 5% of the households were selected for the purpose of this study; therefore every 100th house was selected. That means only 100 households were considered. The basis for the systematic sampling is that it spreads the sample more evenly over the population under study and makes the sampling credible as every 5th shack will get an equal chance to participate in the study.

1.7.1.2 QUESTIONNAIRES

In this study only adult household heads of either gender were systematically selected to respond to the questionnaire. The researcher ensured that respondents were 18 years or more, in order to ensure that responses were authentic and valid. The responses were captured on the questionnaires provided, which were designed in a format that would allow the researcher to obtain data on the respondents" ages, period spent living in the informal settlement, households level of income and access to municipal services prior to interim services provision and whether households have been able to incrementally upgrade their informal structures after the provision of the services so that their housing condition is improved. In cases where the respondents were not able to read or write, the questions in the questionnaire were verbally asked and responses were captured by the researcher. Both closed and open-ended questions were contained in the questionnaire. The closed questions required respondents to answer either „yes" or „no"; while open-ended questions allowed respondents to share more insight in their responses. The information solicited from the respondents assisted the researcher in evaluating whether the provision of interim services to informal settlements had met the objectives of the programme and whether provisions may have stimulated informal residences to incrementally upgrade their houses.

1.7.1.3 OBSERVATIONS

In this study site investigation and visual evaluation of interim services provided in the two informal settlements were conducted through observation and photographs were captured for record purpose and formed part of the dissertation findings. Observation included assessing the usage of municipal services provided such as road infrastructure, solid waste removal, electricity supply, access to water and sanitation. An assessment form was designed in order to capture observable physical characteristics of the existing settlements and this allowed the researcher to evaluate whether the provision of engineering services had allowed households in the two informal settlements to incrementally meet their housing need.

1.7.1.4 INTERVIEWS

1.7.1.4.1 Housing Policy Expert

As a primary source of information, a face-to-face interview was conducted with the eThekwini Housing Planning Department Senior Manager. Given the challenges of servicing and upgrading informal settlements, the interviews aimed to find out about the challenges encountered by the municipality when servicing informal settlements with the interim services pilot programme. The aim of the interview was also to understand whether the objectives of the interim services programme were being met. The objective of interviewing the official responsible for policy implementation was to discuss in greater detail how the interim services programme was implemented and how it could be better implemented in the future in order to ensure that informal households can have better access to services and subsequently incrementally consolidate their informal structures so as to meet their housing needs and in the process contribute to the creation of sustainable human settlements.

1.7.1.4.2 Project Officers

The researcher conducted interviews with the relevant stakeholders responsible for project implementation of interim services. The aim was to source information on the level of basic

services provided and whether the interim services programme had enabled households in the informal settlements to meet their housing needs incrementally and also the manner in which these services were provided. Stakeholders interviewed for the case study were:

- Principal Project Officer (Redcliffe and Magwaveni settlements)
- Community Liaison Officer (Redcliffe and Magwaveni settlements)

1.7.2   SECONDARY SOURCES OF DATA

Secondary sources of data were utilized in this research in order to gather the required information and address the research problem. Sources of data included the use of academic research papers, internet, books, international and national literature, theses and journals obtained from the University of KwaZulu-Natal (UKZN). The Don African library was also utilized to source data as were municipal journals from the eThekwini Municipal Library. Additional data was collected from the internet in order to ascertain international experience in the field of study. The sources and literature reviewed provided insight into the theories and approaches and explained in greater detail the role of the state in housing provision nationally and internationally. The sources also provided insight into the provision of services to informal settlements and whether such provision stimulates the creation of sustainable human settlements.

1.7.3 DATA ANALYSIS

The researcher utilized both the qualitative and quantitative methods of data analysis. The objective was to establish whether the provision of interim civil engineering services had helped households to improve their housing conditions in the informal settlements and if this had stimulated the creation of sustainable human settlements. Data collected from the interviews and questionnaires from the study areas piloted with the interim services programme were tabulated and analysed to provide more insight regarding household satisfaction with services provided. The use of tables and graphs was the suitable method to analyse the findings of the research. The

findings and the interpreted results were compared and conclusions drawn about the levels of satisfaction of services provided for each study area.

1.7.4 CHAPTER OUTLINE

The dissertation has five chapters, as follows:

CHAPTER 1

This chapter consists of an introduction to the research problem and research question, subsidiary questions and the objective of the study. Also provided in this chapter is the methodology which was used to collect and analyse data.

CHAPTER 2

This chapter comprises a review of literature and theoretical and conceptual frameworks. It outlines and examines the definition of concepts and their meanings locally and internationally. This is achieved by providing a theoretical overview of concepts in the field of housing and in particular the provision of municipal services prior to the *in situ* upgrading.

CHAPTER 3

This chapter provides a detailed historical background to the case study areas in order to give insight and provide reasons for choosing the study areas concerned.

CHAPTER 4

This chapter provides analysis and interpretation of the data collected from case studies and findings are presented to clarify whether the objectives of the interim services programme have been met and to see if they have stimulated the creation of sustainable human settlements. A review of policy objectives is also shown.

CHAPTER 5

This chapter consists of a summary of findings, conclusion and recommendations of the study.

CHAPTER TWO: THEORETICAL FRAMEWORK AND LITERATURE REVIEW

2.0 Introduction

This chapter intends to unpack the school of thought, theories and approaches around the provision of basic services to the residents of informal settlements. The theoretical and conceptual framework of the study is drawn from extensive literature on informal settlements and settlement upgrading. Approaches to be used in the study will include the basic human needs approach and the enabling approach of UN-Habitat that argues for the state to be the enabler of housing by stimulating the creation of a sound financial environment that will encourage private investment in the provision of infrastructure and basic services in order to assist the poor to access housing opportunities and advance the improvements in housing conditions (UN-Habitat, 2005b). This chapter is relevant because the South African government is currently faced with an escalating housing backlog and proliferation of informal settlements, which have very little or no access to basic services and as a result settlements are continuously exposed to extreme environmental conditions and health hazards.

Misselhorn (2008) argues that due to constraints in rolling out conventional housing, the reality is that the majority of informal settlements have still not received significant development attention whether in the form of full upgrading, relocation to greenfields housing projects, or the provision of significant interim interventions to mitigate living conditions. As a result, informal settlement residents remain substantially outside of the new South African democracy and do not receive tangible benefits from government programmes and policies. Misselhorn (2008) indicates that encompassed in the South African housing policy is the settlement upgrading programme, which has been interpreted as being broadly responsive and in part transformative in its approach to addressing the challenges informal settlements are facing. The implementation of the interim services programme to informal settlements has been applied as a transformative policy with the intention of transforming settlements through the upgrading of infrastructure and

facilities, formalising land tenure and integrating informal settlements into the existing urban fabric, while being responsive to addressing challenges faced by households in informal settlements and meeting basic needs of beneficiaries. The transformative response to settlements applied by government recognises informal settlements as having a role to play in ameliorating and decreasing the housing backlog (Huchzermeyer, et al., 2006).

2.1 Approaches informing the study

2.1.1 Basic Human Needs Approach

The study will review the basic human needs approach as a critical approach in assessing the linkages in the provision of basic municipal services to informal settlements in order to stimulate the creation of sustainable human settlements by beneficiaries. The approach advocates for state intervention in meeting the basic needs of the poor in society. The basic human needs approach was adopted by the International Labour Organization (ILO) in 1976 detailing how government can meet the needs of the poor. According to Streeten (1979a), the objectives of the basic needs approach is to provide opportunities for the full development of the individual and places a focus on mobilizing particular resources for particular groups identified as deficient in these resources. The basic needs approach has informed the study by highlighting the need of the state in providing opportunities to the urban poor through the provision of engineering services and stimulating housing consolidation by beneficiaries.

Streeten (1979b) argues that the philosophy behind the basic needs approach is that everyone should be able to pursue well-being as the approach provides a positive concept of eliminating and reducing unemployment, alleviating poverty and reducing inequality and has been significant in encouraging developmental policies that are proactive in alleviating poverty for the urban poor. McHale and McHale (1979) argue that to assess human development, attention is often focused on the basic needs an individual can acquire, in terms of food supply, education, health and housing as these are strong components in traditional development and aid

programmes. The implementation of the basic human needs approach can create benefits such as employment opportunities, poverty alleviation and fighting inequality (Myeni, 2005). In this study the objective of basic service delivery as a basic human needs approach will assist in explaining an ideal relationship between engineering service provisions and housing construction. The beneficiaries of municipal services are able to meet their housing needs incrementally through housing consolidation and this takes the burden off the state for providing the full housing package to the poor.

2.1.2 Participatory Approach

According to Duraiappah et al. (2005) community participation can be defined as a participatory approach to development involving affected communities and relevant stakeholders to participate in their own development process by unlocking ideas and realistic solutions through engaging, promoting and supporting effective project implementation in order to enhance and better the well-being of the poor and marginalised communities. In most of the developing countries the concept of community participation has been initiated on this basis to ensure communities benefiting from government developmental programmes and initiatives drive their own developmental agenda. As a result, the participatory method has been a central tool utilised in achieving the developmental goal of communities and has been applied in a variety of contexts such as the provision of basic services and housing for the urban poor. In the upgrading of informal settlements most governments in the developing world have endorsed the role of community participation in the delivery of shelter for the poor.

According to Myers (2005:6 cited in MacPherson 2013) the participatory approach has become the favoured practice by many African governments in the provision of basic services and *in situ* upgrading of informal settlements as beneficiaries are actively involved in the decision-making, implementation, monitoring and evaluation process thereby acknowledging the importance of their needs. The participatory approach is most relevant for this study as beneficiaries of municipal services are able to guide their own developmental initiatives. It is derived from the notion that communities know and understand their own needs best. For any government

development programme to be successful it must have the endorsement of communities it intends to service and this is achieved through community participation.

2.1.3 UN- Habitat and Enabling Approach

The concept of the "enabling approach to shelter" was first coined in the late 1980s with the adoption of the Global Shelter Strategy to the Year 2000 (GSS), which aimed to provide housing policy guidelines and promoted national housing policies designed to assist the poor to access housing and advance the improvements in housing conditions in more than 100 developing countries. The policy guidelines were developed as a response to the failure of the housing markets to meet the housing needs of the marginalized sector of society. The concept of the enabling approach is relevant to this study as enabling shelter strategies have been incorporated and endorsed in the South African housing policy through various housing programmes such as informal settlement upgrading and self-help housing. Prior to this, governments in the developed and developing world had the responsibility of formulating and implementing housing policies and had the primary responsibility for the planning, mass production and allocation of public housing for the urban poor. This implied that governments were in charge of housing development and improvement programmes and projects (UN-Habitat, 2011: 1).

It has to be noted that the enabling approach does not dictate that governments should withdraw completely from provision of housing to the poor as access to adequate and affordable housing is determined by the performance of the housing sector. Thus, there is a need to have an in-depth understanding of how the housing sector is structured and how it functions as this is the key to enabling access to adequate and affordable housing for the poor. The enabling approach to housing emphasizes governments" significant role in creating an appropriate legal, institutional and regulatory environment in order to ensure the availability of housing finance for all sectors of society as this enables other actors in the shelter process to fulfill their own potential and optimize their own contributions to housing development and improvement (UN-Habitat, 2011: 3). Therefore, the provision of municipal civil engineering services helps households residing in informal settlements to incrementally meet their housing needs.

Urbanization has brought an increase of human exposure to health hazards in both developing and developed countries. Urban growth has preceded the establishment of a solid, diversified economic base to support the provision of housing, infrastructure and employment opportunities. Tibaijuku (2008:1) argues that the phenomenon of urbanization has been a defining feature of the new century and of the new millennium. The UN-Habitat (2003) report on slums concludes that one in every six human beings resides in informal settlements and the numbers are likely to increase in the next three decades given the rapid pace of urbanization. Major urban population growth trends have been occurring in the cities of the developing world and authorities have very little or no planning to accommodate the increased population and provide households with basic services. The report acknowledges that with increased urban growth poor households living in slums are continuously exposed to increasing poverty, lack of sanitation, water, electricity and social exclusion and inequality. As a response, the eight Millennium Development Goals (MDGs) of the United Nations have been aimed at improving the lives of households residing in informal settlements by 2020. According to Dietz (1969), the migrant flow of employment seekers into major cities perpetuates the formation of informal settlements as squatter settlements emerge as a response of the urban poor to meet their housing needs, as conventional housing markets exclude the very poor.

Huchzermeyer (2006) argue that most governments would agree that informal settlements are an indication of a failure of the public sector, the legislative framework and the economy to provide conditions through which the poor may be housed formally, whether this is through government programmes or through private means. Informal settlements can now be considered to be the evidence that the political and economic system does not adequately serve the needs of the urban poor and imposes challenges to the poor to meet their shelter requirements. Society''s response to these challenges has been through squatter settlements in the peripheries of the city; the phenomenon of informal settlements has remained a constant reminder in the urban spatial form (Huchzermeyer, 2002:38).UN-Habitat (2003) argue that public authorities responsible for human settlement policies, urban and regional planning have not been able to meet the escalating demand for affordable housing and serviced land in adequate scale. Urban poverty has become a common feature and a growing number of households cannot afford housing in planned and serviced settlements. Squatter settlements and informal subdivisions on public or private land,

often located on hazardous sites unsuitable for residential developments, are a direct response to the absence of pro-poor urban planning and provision of affordable land and housing. Mangin (1967) argues that one major contribution of informal settlements is that millions of people mostly in the developing world have solved their own housing problem in situations where the local, provincial and national governments were practically unable to do so.

2.1.4 Informal settlement upgrading

The slums and informal settlements that continue to proliferate within and on the peripheries of the cities can be attributed to poorly functioning housing markets that do not provide a range of affordable housing alternatives for poor households. As a result, vast numbers of households are forced to live in inadequate housing in slums and informal settlements because they cannot access better quality housing at affordable prices (UN-Habitat, 2011). The continued spread of informal settlements, coupled with the complex nature of living conditions, has compelled governments in the developing world to formulate policies aimed at addressing the challenge of settlements. The formulated policies aimed to go beyond the provision of basic infrastructure as attempts to deal with housing backlogs through massive resettlement and public housing have proved to be of little success (UN-Habitat, 2006).

Informal settlement or *in situ* upgrading is an approach applied by organs of the state and developmental agencies responsible for housing in order to formalize and upgrade informal settlements that are deemed to be unfit for human habitat. In simple form it refers to the improvement of informal structures occupied by urban low-income households from the provision of basic services such as clean water supply, electricity supply and provision of adequate sewage disposal to the construction of a dwelling unit in order to improve the well-being of communities residing in settlements. According to Desai (1995:37) Informal settlement upgrading projects involve council authorities regularising the illegal land tenure of squatters and providing basic infrastructure in the settlements so that beneficiaries can meet their housing needs incrementally. Upgrading is carried out incrementally as a phased-in process, which includes the provision of municipal services such as road infrastructure, electricity, water and sanitation accompanied by secure land tenure. In most developing countries few governments

have managed to curb the proliferation of informal settlements. According to UN-Habitat (2005) to date informal settlement upgrading and the prevention of the proliferation of slums have been viewed as key measures to attain the objective of poverty alleviation in the developing world.

With the adoption of the MDGs in 2000, the living conditions of the urban poor residing in unplanned settlements were put on the global development agenda (UN-Habitat, 2005). Misselhorn (2008) argues that most *in situ* upgrading projects are often neglected by local authorities in favour of other more „quick fix" approaches such as housing development in a form of green-fields development combined with relocation of household beneficiaries. The reason that *in situ* upgrading cannot minimize relocation of households is a challenging and complex task that is time consuming and requires extensive and often challenging social engagements with local residents if it exceeds its stipulated timeframe. Fundamental to the upgrading of informal settlements is the legalizing and regularizing of properties where settlements are located and providing security of tenure in situations of insecure or unclear land tenure. Informal settlement improvement and formalisation where attempted, has often proven to be far too complex to implement.

Only a few countries have progressed to develop national-level policies and programmes that aim to address informal settlements such as the Brazilian Programme to Support Sustainable Land Regularisation, the Kenyan National Slum Upgrading Programme and the South African ISUP (Huchzermeyer and Karam, 2006:1). The post-apartheid South African government through its National Department of Human Settlements responsible for the creation of sustainable human settlements for the low-income group, sees its housing policy and programmes advocating for the clearance and formalization of informal settlements mainly by means of implementing and operationalizing BNG, which supports and creates a more enabling environment for alternative and flexible strategies for the upgrading of settlements in order to ensure poor households have access to better housing, services and infrastructure (UN-Habitat, 2007).

The greatest challenge in upgrading settlements is the fact that most are predominately located on land that has been earmarked for uses other than residential and settled illegally by squatters.

Housing protagonists such as Turner have made a positive contribution in shaping the perceptions on low-income housing for the poor. In turn, governments in the developing world have developed housing policies that support *in situ* upgrading and self-help approaches to meet the needs of urban poor households. Turner (1976) argues that the role of the state in the provision of housing should change from that of producing a complete housing unit. Instead the state should be the enabler of housing through the provision of serviced sites and a core house and housing consolidation should be the responsibility of the housing beneficiaries. Turner (1972) further argues that housing is best provided and managed by those who are to dwell in them rather than being centrally administered by the state. In the self-building and self-management of housing and neighborhoods, he also stresses that neighborhoods designed with local groups worked better since households were experts on their own situations and should be given the 'freedom to build'. Whether this freedom was granted by the state or wrested from it through squatting was less important.

Within this framework the state, as well as private professionals such as engineers, can act as enablers of housing delivery resulting in a shift in thinking on housing policy with the introduction of the 'aided self-help' policies of the World Bank, for which Turner is frequently credited. According to UN-Habitat (2011), from the 1980s onwards the „enabling" approach became the dominant global housing sector model which many African countries adopted. This approach suggested that the lack of affordable housing was seen as a failure of the market caused by too much government intervention. To redress this and to increase housing supply, governments were to reduce their role as direct providers of land and housing and act as enablers of the private sector to produce housing at scale. However, this period was characterised by the lack of coordinated government programmes designed to adequately address housing backlogs as housing upgrading projects were disconnected from national programmes given that fewer government programmes were available to address the needs of low-income households. Where programmes did exist, they were often cut short due to the changing political regimes or never implemented due to lack of resources, institutional capacity or political will (UN-Habitat, 2011).

According to UN-Habitat (2005), global indicators reveal that there is a widening gap between income groups in terms of the availability, affordability and habitability of housing, access to

utilities and essential services, ultimately resulting in an increase in the number of people residing in inadequate housing conditions. In order for governments in the developing world to adequately address the escalating housing backlog and the problem of informal settlements, the state should support self-help housing efforts by the poor in order for the most vulnerable households in society to be able to meet their housing needs. For upgrading projects to be implemented successfully a sense of partnership has to be developed between the city, the community and households residing in informal settlements. Lastly, settlement upgrading must meet the needs of the poor and institutional arrangements must be coordinated with clear responsibilities defined for all stakeholders involved in the upgrading process in order to ensure sustainability (www.upgradingsupport.org).

The UN-Habitat report on the MDGs for 2013 reported that a great proportion of slum dwellers in the cities and metropolises of developing countries has been considerably declining given that between the year 2000 and 2010, over 200 million slum dwellers benefited from improved water source supply, sanitation facilities and durable housing, thereby exceeding the 100 million MDG target. In addition, many countries across all regions have shown remarkable progress in reducing the proportion of urban slum dwellers (UN- Habitat, 2013)

2.1.5 Civil Society and Informal Settlements

In South Africa a number of community based organizations have emerged as a driving force in supporting the development agenda of the urban poor. The Shack Dwellers International (SDI), which is the mother body of the South African SDI Alliance (SA SDI Alliance), has made arguments in the role of the households" participation in informal settlement upgrading in South Africa and has supported the urban poor in their efforts to house themselves (Bolnick and Bradlow, 2010). The main objective of SDI seeks to create an institutional framework that allows the formation of nationwide organizations capable of organizing people around housing, infrastructure and citizenship rights in urban areas. It aims to produce a critical mass of community members who are able to identify their priority issues, fight evictions and negotiate

solutions by working with government and communities to produce scalable and lasting pro-poor urban development (Mitlin and Patel, 2005).

According to Bolnick and Bradlow (2010) the SA SDI Alliance has since its inception in 1991 attempted to moderate the damaging aspects of the South African housing delivery system by piloting community-led informal settlement upgrading projects in partnership with the state. The main community partners in this alliance are the South African Federation of the Urban Poor (FEDUP), which is a nationwide federation of slum dwellers who practice the rituals of all federations affiliated to SDI throughout the world and its activities include women-led savings, enumeration, pragmatic partnerships with the state, land acquisition and incremental informal settlement upgrading. Another organization is the Community Organization Resource Centre (CORC) which is a Non-Governmental Organisation (NGO) that supports the social processes of community-based organizations that aim to work for themselves, by facilitating engagements with formal actors in housing delivery and supports community-led development strategies.

CORC has been instrumental in coordinating communities in the City of Cape Town through the implementation of its proactive re-blocking process of informal settlements. The re-blocking of informal settlements refers to the process of reconfiguration of the layout of informal settlements by spatially reorganizing, coordinating and grouping shacks into clusters in such a manner as to optimally utilise space to promote the health, safety and well-being of households, with a particular focus on promoting accelerated service delivery to informal settlements. It has to be noted that the re-blocking of informal settlements does not form part of any national housing programme but has emerged as a response against harsh living conditions by households residing in shacks (City of Cape Town, 2013).

2.2 International Perspective on Informal Settlement Upgrading

International experiences and perspectives on informal settlement upgrading in different countries will be discussed. In addition, illustrative examples of informal settlement upgrading from Mexico, Brazil and Kenya will be used as these countries have established successful

ISUPs. The guidelines and strategies informing the successful implementation of upgrade projects can be used to facilitate effective implementation of upgrade projects in South African. Hence, it is necessary to reflect on international experiences and lessons of upgrading and use them as a guide. Informal settlement upgrading has been used in the developing world as a means of providing shelter to poor households residing in conditions unfit for human habitat.

2.2.1 Settlement Upgrading in Mexico

According to Tames (2004), in Mexico there has been a growing low-income housing construction boom which has favoured the development of large, standardized housing projects. At the same time, informal settlements continue to expand and consolidate, providing flexible environments and opportunities to those who cannot access "formal" options. Rapid economic growth in Mexico was coupled with an increasing, unequal income distribution throughout its urbanized cities. According to Connolly (1990), many poor Mexicans residing in the cities opted for self-built housing solutions, self-managed by the occupants in incremental stages and at first they tended to have acute problems of overcrowding, structural insecurity, lacked provision of services and in most cases were in confrontation with the city"s town planning schemes due to irregular buildings, irrational street layouts and chaotic land subdivisions. Ward (1976 cited in Connolly 1990) states that with notable exceptions, the housing in irregular settlements tends to improve with the provision of basic services from makeshift shacks to middle-class houses.

Perlo (1981) quoted by Connolly (1990) points out that the Mexican state intervention into irregular settlements began in the 1940s when Mexico City"s local government began acquiring private land that was invaded by squatters in order to re-sell it legally to households occupying sites in the settlements. By the late 1980s government departments such as the State Commission for the Regularization of Land Tenure (CORETTE) and *Instituto Nacionalpara el Desarrollo de la Comunidad y Vivienda Popular* (INDECO) were responsible for and tasked with acquiring new facilities for administering land expropriated for regularization purpose and regularization of informal settlements. This period paved the way for a more clear-cut set of procedures for the expropriation of land from the community concerned and subsequent re-sale to the occupants in order to regularize irregular settlements and bring about neighbourhood improvements (Connolly, 1990). The rising building costs and the modified criteria used for quantifying

housing programmes brought about changes introduced at the level of policy definitions. These changes were proposed in the Federal Housing Law and in the National Programme for Urban Development and Housing. The main objectives of the policies included: making housing more accessible to a wider range of the population, giving preference to low-income families, widening the social coverage of the finance mechanism to benefit non-salaried workers, the constitution of land banks for low-cost housing, improvement of the existing stock, and providing for subsidies to housing development for rent.

Emphasis was also placed on the promotion of user organizations such as co-operatives and to smaller credit packages such as core housing, sites and services provision (Connolly, 1990:25). According to Connolly (1990:25) the National Housing Programme covered the entire spectrum of government housing agencies and the policy objective pertained strongly to the agency *Fondode Habitaciones Populares* (FONHAPO) trust fund. According to Duhau (1988 quoted in Connolly 1990), FONHAPO made innovations in providing credit for houses built by public and private organizations, government institutions and non-government institutions. Credit packages provided for stages of housing development such as studies and projects, land purchase, urbanization, construction and purchase of building materials for self-building. FONHAPO was not directly responsible for the programmes it financed as these were developed by the institutions it financed. From 1981 to 1986 FONHAPO financed various types of credit packages such as 35% of sites and services, 49% of progressive housing (core housing), 14% of home improvements and 2% of finished housing projects.

According to Imparato and Ruster (2003), in the late 1990s, significant reforms in the housing policy were introduced by the Mexican government. The Tijuana municipal government in Mexico introduced reforms including an enhancement of the local revenue generation and supported the involvement of civil society in the city"s strategic planning. Tijuana also pioneered an approach to informal settlement upgrading that couples participatory budgeting, in which the community members in informal settlements made upfront cash contributions averaging 30 percent of the cost, with community managing of small local works projects. In general, throughout Tijuana, community upgrading improvements included land tenure regularization, electrification, water supply, sanitation and storm drainage and street paving. Imparato and

Ruster (2003) point out that community upgrading programmes in Tijuana were highly innovative and could be applied to other developing countries as the programme allowed for beneficiary participation in the housing process through government subsidies, decision making and the infrastructure provision helped develop low-income communities.

2.2.2 Informal Settlement Upgrading Brazil

In Brazil the emergence of most favelas or informal settlements was the result of households migrating from the rural areas to the urban centres in search of better economic and social opportunities as this form of housing was the most affordable for the low-income sector. In other cities of Brazil, such as Rio de Janeiro, favelas began after the urban reforms to change the architecture of the city and were introduced and implemented by municipal authorities such as mayor Pereira Passos (1902-1906). The Reforma Passos promoted a radical redesign of Rio de Janeiro's downtown areas to make way for the construction of boulevards and avenues. Many tenements were demolished leaving many poor families homeless. As a result affected families began to occupy the hillsides close to downtown which would later become favelas (Braathen et al., 2013). These favelas often lacked the provision of adequate infrastructure and basic municipal services as they were unplanned and located on the peripheries of the city. According to Huchzermeyer (2002), the favelas that characterized the cities of Brazil were evidence that the political-economic system did not adequately serve the urban poor population. Braathen et al., (2013) argue that the emergence of the favelas represented a problem for the elite and city-planners as concerns around adequate sanitation, hazardous living conditions and public security issues provided common arguments in favour of removing the favelas by relocating households to low-cost government assisted housing. In 1937 the Public Works Code of Rio de Janeiro prompted city planners to building working class housing blocks (*parquesproletários*) manly to accommodate residents of favelas. The aim of the code was to construct housing where former individuals of favelas could be re-socialized through proper housing conditions. As a reaction to this process of relocation to the working class housing block, most residents of favelas founded the first residents" committees which were responsible for challenging and contesting the removal of favelas.

Although many civil society organizations were repressed during the period of the military dictatorship that began in 1964, the residents" associations did not disappear. They became, to a large extent during this period, part of the state apparatus receiving support from the state in order to support and accelerate the removal process. The removal of favelas was boosted by the support of foreign development agencies, such as USAID. The American development agency funded the construction of housing for former favela residents in Cidade de Deus, Vila Kennedy, Vila Aliança and Vila Esperança. In general, these housing projects were located in areas far away from downtown and richer neighbourhoods of the city. Despite the repression by the authoritarian regime, there was a strengthening of discourse against the removals and in favour of up-grading the favelas. During the re-democratization period that began in the 1980s, this discourse gained political support after the election of Leonel Brizola as governor of the State of Rio de Janeiro. As a member of the Democratic Labour Party (PDT), Brizola elaborated a social agenda for the favelas – despite the lack of support from the federal government. The premise of this agenda was the need for integrating the favelas with the city and to avoid removals (Braathen et al., (2013).

According to Fernandes (2001), the political re-democratisation and economic restructuring of the 1980s gradually brought some changes in the pattern of urban management, including the recognition by some municipalities of the need to confront the process of social exclusion and spatial segregation as a result of urbanisation. This has been done through the provision of affordable and secure access to land and housing for the urban population. As a result, important tenure policies have been formulated in some cities within the context of regularisation programmes aimed at upgrading and legalising favelas. In addressing favelas, municipal authorities were significantly strengthened in terms of legal, political, administrative and financial terms by the 1988 federal Constitution. The Constitution provided the overall conditions for the promotion of a socially-orientated and democratic urban management local government explicitly recognising the principle of the "social function of property and of the city". Among other important developments, the 1988 Constitution also recognized a special right of urban *usucapiao*, a form of adverse possession for those occupying private areas up to $250m^2$, thus encouraging the formulation of municipal policies aimed at legalizing and improving tenure conditions in informal settlements.

In a context which combined the clear notion that previous approaches had failed, the reconceptualization of informality, now understood by some as a resourceful response in terms of enhancement of the favelas rather than eradication, and the need to cut costs, the path to "non-conventional" policies was open to paradigm shifts. A new set of "non-conventional policies" began to be adopted by governments and donors in different parts of the world. They were translated into different forms of aided self-help, sites-and-services and *in situ* slum upgrading projects and also included some levels of land regularization, provision of public services and access to financial and technical assistance (Simpson, 2013).

The first phase of Brazil"s non-conventional policies to address inadequate housing challenges facing residents in the favelas was the introduction of the aided self-help programmes. The programme saw the use of beneficiaries" own sweat equity in house construction with a strong emphasis on unpaid labour as a means to reduce construction costs whilst developing communities and giving locals a chance to learn a trade in house construction (Simpson, 2013). According to Wakely (1988 quoted in Simpson 2013), this approach was "short lived for few basic reasons": labour represented a small portion of the costs and was less productive this way; livelihood necessities meant that building a new dwelling had low priority if compared to their need to earn an income; and beneficiaries had become a source of free labour, and not the drivers of the process as had been advocated for. In the pursuit of cheaper housing, lending and donor agencies (i.e. World Bank) and governments attempted to invest in self-construction without devolving decision-making power. Once again, authorities had failed to understand the multi-dimensional meaning and strategic functions housing has.

The introduction of the sites-and-services schemes in Brazil was introduced as a response to calls for more participation of the housing beneficiaries and aimed to help the poor to help themselves. According to Fiori and Brandão (2010: 25 quoted in Simpson 2013), the programme was supported by the World Bank and propagated for the provision of serviced sites for poor households in favelas. This scheme provided for the incremental construction of affordable housing and offered beneficiaries a small piece of serviced land on the outskirts of the city. The programme also unlocked access to credit and technical help for construction of housing for the

residents of the favelas. In Brazil, this programme failed to eradicate informal settlements as it was frequently badly administered by local authorities, the land was poorly located on the peripheries of the city and most importantly it was expensive to implement. The programme was short-lived and never reached its maximum scale.

The introduction of *in situ* slum upgrading projects in Brazil was as the result of the subsequent failure of the earlier non-conventional housing programmes. It aimed to effectively address the Brazilian housing backlog adequately through the provision of infrastructure, social and economic facilities. Pugh (2001 quoted in Simpson 2013) argues that as a result of this programme, *in situ* slum upgrading became increasingly popular and remains popular today as it is considered to be the most effective approach in addressing informal settlements. Its popularity was not only founded on lower costs, but also on the political and social gains to be won from avoiding evictions. This third type of "non-conventional" policy promoted by the World Bank partly recognized, for the first time, the rights of the poor to live in urban land and that slums were part of the city.

The process of upgrading consisted of the regularization of land occupied informally by residents in the favelas by providing improvements to informal settlements through infrastructure provision that was up to municipal satisfactory standards. In Brazil, as in most developing countries, upgrading projects in favelas made possible for the provision of footpaths, pit latrines, street lighting, drainage systems, roads and water supply. According to Wakely (1988 cited in Simpson 2013) *in situ* slum upgrading in Brazil did not include housing construction for beneficiaries of services, but the state acknowledged the people"s capacity to produce and manage their own shelter and that, given some kind of security of land tenure, households would invest their savings in housing development.

2.2.3 The Kenya Slum Upgrading Programme (KENSUP)

Nabutola (2004) argues that Kenya was faced with the challenge and opportunity to house her citizens better and make decent amenities available to all as a matter of right. The absence of decent housing cannot be ignored and has to be addressed urgently as it has a direct impact on

the national security and national conscience. The majority of the population (over 80%) residing in the rural areas has no access to funding for housing; their counterparts in the urban areas are no better off. According to UN-Habitat (2007) rapid urbanisation coupled with the inability of local authorities to control the growth of settlements, many Kenyan cities have been faced with a challenge of addressing informal settlements. As a result there has been rapid growth of slums in Kenyan towns and cities.

The KENSUP became a collaborative initiative between the government of Kenya and UN-Habitat with the objective of improving the livelihoods of households residing in informal settlements in all of Kenya's urban areas affected by settlements. The programme aimed to meet objectives set out in the UN-Habitat Agenda as well as the MDGs, which aim to improve the lives of slum dwellers. As a result the programme was implemented in Kenyan towns and cities through interventions promoting a multidisciplinary and integrated approach to slum upgrading. The implementation of the programme by the Kenyan government and the UN-Habitat links the basic infrastructure provisions such as water and sanitation with income-generation activities as an entry point to informal settlement upgrading and access to secure land tenure and housing improvement follows (UN-Habitat, 2007).

Muraguri (2013) indicates that KENSUP adopted strategic interventions in informal settlements through:
• Housing development and community mobilization;
• Preparation of land use master plans for settlement improvement;
• Provision of physical infrastructure: sewerage system, water supply and sanitation, access roads, storm water drainage, electricity and street lighting;
• Provision of social infrastructure: schools, health centres, community centres and recreational facilities;
• Provision of secure tenure and residential security;
• Environmental and solid waste management: garbage collection;
• Employment and income generation: markets, skills enhancement, micro-financing and credit systems;

• Addressing issues of HIV/AIDS: HIV education and awareness, counselling and testing centres, HIV dedicated clinics;

• Conflict prevention and management in the targeted informal settlements and prevention of proliferation of slums.

According to UN-Habitat (2007) the Kenyan government is one of the few governments in Africa that acknowledges the importance of slum upgrading and has consequently formulated slum upgrading strategies that are in line with national policies on poverty reduction and the global MDGs. In turn, the KENSUP strategy for intervention in informal settlements through provision of basic services and housing development thus enjoys strong political will from the central government and has its own budget line within the national budget.

2.3 The South African housing policy and informal settlement upgrading

In South Africa the post-apartheid government is faced with the proliferation of informal settlements despite extensive government intervention through the delivery of subsidized low income housing delivery for the poor (Huchzermeyer, 2006). The majority of households residing in the informal settlements spread out across the country have a household income of less than R1, 500 per month or no income at all and most are dependent on the housing subsidy to meet their basic housing needs. In pre-1994 South Africa the role of housing delivery for the low income group was the key function of the state. According to McDonald (2008) the Keynesian economic model adopted by the government placed high levels of state intervention for the welfare of its citizens through the provision of basic services and public housing. Section 26 of the Bill of Rights contained in the South African Constitutions of 1996 stipulates that every citizen has the right to have access to adequate housing and the state must take reasonable legislative and other measures, within its available resources, in order to achieve the progressive realization of this right for its citizens (Constitution, 1996).

The post-1994 South African government''s role in housing delivery has considerably shifted from being the sole provider of housing to that of a supporter of housing for the low-income group and the poor through its housing programmes such as informal settlement upgrading and incremental approach to housing delivery for the poor. The responsibility of incremental housing is shifted to the beneficiary and the state''s role is that of an enabler of housing. Kingsley (1991) argues that in most developing countries in the south, government housing policies shifted from being the sole provider of housing, towards that of enabler and facilitator of housing in order to achieve an increased rate of national economic betterment of its citizens. Rondinelli (1990:156) argues that the increasing demand for housing has forced government thinking and approach to the delivery of housing for the most vulnerable. This is evident in the innovative housing strategies aimed at addressing the housing challenges faced by the urban poor in informal settlements through a variety of housing programmes such as the self-help housing approach, site and services schemes and informal settlement upgrading. These housing development strategies have been heavily endorsed by governments in the developing world faced with the challenges of informal settlements.

In 2004 the introduction of the ISUP subsidy programme, as a framework for *in situ* upgrading of informal settlements subsequently responding to the challenges imposed by settlements, was introduced by the South Africa government under the BNG policy: A Comprehensive Plan for the Development of Sustainable Human Settlements (Huchzemeyer, 2006b). Based on the challenge faced by government of meeting the growing housing backlog as the result of urban growth in the context of slow employment creation and slow delivery of housing units, the policy aimed to address the challenges of accessibility to housing by the urban poor as it emphasized the role of housing delivery in poverty alleviation, linking this to employment creation and providing access to subsidized property as a form of empowerment (Department of Housing, 2004). The National Upgrading Support Programme (NSUP) of the South African National Department of Human Settlements defines the upgrading of settlements as a staged process of improvement of the quality of life for the inhabitants residing in informal settlements and is based on incremental provision of services and tenure. The upgrading of informal settlements by the government seeks to maximize *in situ* developments in appropriate areas suitable for housing

implementation and aims to minimize relocation of residents at all cost (www.upgradingsupport.org).

In 2009 the government introduced the National Housing Code, which provided for incremental intervention in informal settlements through the National Housing Programme: ISUP (Department of Housing, 2009). The objectives of the programme has been geared to facilitate the structured *in situ* upgrading of informal settlements in order to achieve tenure security for households in informal settlements by recognising and formalising their tenure rights. The programme advocates for the development of healthy and secure living conditions by facilitating the provision of affordable and sustainable basic municipal engineering infrastructure to the residents and addresses the social and economic exclusion of residents by focusing on community empowerment through the promotion of social and economic integration and building social capital (Department of Housing, 2009).

In 2010 government introduced the 12 outcomes based approach to ensure progress is made in improving the lives of ordinary South Africans. Each outcome had a Delivery Agreement which contained measureable outputs, activities, indicators and clear targets to be achieved. The inclusion of upgrading targets in Outcome 8 focused on creating sustainable human settlements and improving the quality of lives for South African households (www.poa.gov.za). The Outcome 8 approach had a limited number of four outputs with targets linked to a set of activities set out by government in order to achieve and contribute to the outcome. Output 1 focused on the upgrading of 400 000 units of accommodation within informal settlements to ensure access to housing for poor households. Output 2 focused on improving access to basic services such as water, sanitation, refuse removal and electricity to formal and informal settlements. Output 3 aimed to facilitate the provision of 600 000 accommodation units within the gap market for people earning between R3 500 and R12 800 per month and Output 4 focused on the mobilisation of well-located public land for low income and affordable housing with increased densities on this land (www.thepresidency.gov.za).

According to Misselhorn (2008), in South Africa different approaches exist and have been implemented by government to upgrade informal settlements and it is important that the approaches are properly understood as the implementation may vary from one place to another. Conventional informal settlement (*in situ*) upgrading entails the re-development of an informal settlement in a comprehensive and relatively complete fashion in respect of housing, tenure and infrastructural services. The full range of project fundamentals have to first be secured before such upgrading can be successfully achieved. Non-conventional upgrading takes two main forms mainly the provision of interim services to address key needs such as fire protection, basic sanitation, access to potable water, solid waste removal, basic health care and improved internal vehicular access. It also entails the delivery of a full upgrade solution utilising different methods and housing typologies such as densification of housing and makes provision for alternative forms of tenure (Misselhorn, 2008).

A myriad challenges in developing informal settlements have been highlighted by researchers in South Africa. Gorgens and van Donk (2012) argue that one of the challenges faced by officials, actors in the housing field, civil society organizations and communities has been to ensure that the partnership in the incremental and *in situ* upgrading of informal settlements are constantly reasserted and systematized in practice in order to ensure that such interventions result in qualitatively improved quality of life for the residents and create more sustainable and less-formal settlements. Misselhorn (2008) argues that given the relevant ease of developing Green-field housing projects the *in situ* upgrading of informal settlements is typically avoided by some municipalities due to the unwillingness to trigger resistance from ratepayers in adjacent formal suburbs. As a result, many informal settlements, which are in fact suitable for upgrading, are not upgraded and left as is.

Constraints in rolling out conventional *in situ* upgrading at scale can also be attributed to the fact that high densities of many informal settlements prevent conventional upgrading because of the inevitable reality of relocating residents on a permanent or temporary basis due to households having to make way for space for the provision of roads and other services during housing implementation stage. Misselhorn (2008) argues that the per annum financial implications of eradicating slums assuming the 2014 target are R12.7billion in housing funding and R1.3 billion

in additional infrastructure requirements. This means that in order to address the entire informal housing backlog, whether by conventional means, *in situ* upgrading, green-fields projects or a combination of these, huge financial resources would be required by the state.

Misselhorn (2008) suggests that land ownership issues are often too complex ranging from factors such as the unwillingness of land owners and state agencies to alienate the land for housing. In addition to this there is an acute scarcity of well located, developable land for housing and relocation of households affected by upgrade projects. In most cases developable land has already been developed and the land that remains is typically located on the peripheries of the city far away from urban centres and economic nodes which offer access to employment opportunities, educational institutions and social facilities. In most cases where land located on the outskirts of the city is developed and households are relocated to the greenfields housing projects, many households are forced to incur increased transportation costs to their employment destinations which in turn affect their livelihood strategies. Huchzermeyer (2005) argues that project-linked housing subsidy delivery for the poor often perpetuates the delivery of non-functional, standardized housing developments on cheap, poorly located land and far away from development corridors. Urban Landmark (2007) argues that South Africa has experienced a massive boom in the land and property market since the year 2000. Both residential and commercial property prices have increased significantly. The increase in house prices has often put home ownership out of reach for a great proportion of the population who are often poor and marginalised.

Notwithstanding the above, in South Africa the ever complex, rigid and formal processes of township establishment and the amendments on township layouts that require compliance with municipal bylaws and relevant planning laws often make the upgrading of informal settlements a very unattractive prospect for developers or local authorities. The conventional wisdom for the development of land cannot be applied and very few innovative solutions exist. The development and construction industry as a whole is very conservative and alternative strategies with respect to planning procedures, engineering designs and construction processes is often frowned upon (UN-Habitat, 2007).

In South Africa there has been a radical shift in the government''s housing policy and programme that aims to address informality in urban centres and decrease the ever escalating housing backlog. Over the years, increased evidence of a concerted attempt being made by the government to shift the practice of the state towards embracing a model of informal settlement upgrading has been seen. This included the creation and funding of the NUSP, the prominent inclusion of upgrading targets in Outcome 8 which aims to create sustainable settlements and improve quality for households in informal settlements, the continued funding of the Urban Settlement Development Grant (USDG) and their explicit inclusion in the National Planning Commission's National Development Plan (Gorgens and van Donk, 2012).

2.4 Conclusion

In conclusion the provision of engineering municipal services to households residing in informal settlements has to be recognized as a starting point in the *in situ* upgrading of slums. The provision of services to informal settlements not only remedies the harsh conditions in slums faced by residents but also provides residents with an opportunity of residing in informal settlements that are provided with roads and footpaths infrastructure which provides for easy vehicular access in the settlements making it possible for easy policing and fire fighting in cases of fire disaster. The infrastructure not only allows for vehicular access in the settlements, but it also assists medical personnel using ambulances with reaching disabled and sick patients. The provision of municipal services also provides households living in informal settlements with a sense of well-being. This feeling is created as the result of beneficiaries of services being aware of the fact that their houses are provisionally being transformed by responsible local authorities from informal houses to houses with the much needed municipal services, in turn providing for pleasant living condition.

The provision of engineering services in informal settlements can be argued as the foundation for any successful housing upgrade project being initiated by the local government. In this regard the provision of services also provides the building blocks for the laying out of the much needed infrastructure that can be incorporated by households residing in informal settlements to

incrementally upgrade their informal dwellings as the most basic services such as electricity, roads, footpaths, water and sanitation are provided and their informal occupation of the land is recognized by the relevant local authorities. The provision of these services allows for residents to gain full access to places of economic opportunities, social welfare, health and educational facilities. These services allow for households to gradually improve their well-being. In this scenario, government enables residents to gain access to much needed services, while beneficiaries are given the opportunity to meet their housing needs incrementally through sweat equity and savings before housing consolidation projects are initiated by the government.

CHAPTER THREE: BACKGROUND INFORMATION OF THE STUDY AREAS

3.0 Introduction

The purpose of this chapter is to provide the historical background of the two case study areas and their location within eThekwini Municipality. The case study areas involved are Redcliffe and Magwaveni informal settlements. The provision of municipal services to informal settlements will be discussed area by area as well as each settlement"s characteristics.

3.1 eThekwini Municipality

The eThekwini Municipality is located on the east coast of South Africa in the Province of KwaZulu-Natal. It spans an area of approximately 2297 km^2 and is the economic hub of the KwaZulu-Natal Province. Map 1 on page 41 shows the geographical boundary of eThekwini with other neighboring municipalities. In 2005 the domestic gross product generated by the municipality amounted to R135 billion and in national terms contributed 10% of South Africa"s economic output (eThekwini, 2006). Out of the 3.5 million inhabitants residing in eThekwini, a quarter of the population reside in urban and rural informal settlements, which are predominately located on land which is both difficult and costly to develop due to constraints such as steep slopes, unstable soils and high land costs. Map 2 on page 42 shows the location of informal settlements within the municipal boundary. The eThekwini municipality has been pro-active at responding to a range of challenges faced by households in informal settlements through the implementation of broad-based service delivery programmes aimed at providing essential municipal services (www.upgradingsupport.org).

In meeting its developmental objective as enshrined in the constitution of South Africa, section 152 (b) (d) the municipality has assisted poor households in informal settlements to gain access to municipal services. This has been achieved through channeling significant resources for the provision of infrastructural services. In its Integrated Development Plan (IDP) review of 2013/14, the municipality acknowledged that the provision of acceptable basic services is a critical element in the national developmental agenda. The provision of water, electricity,

sanitation facilities, waste removal and social amenities has been identified as a key critical service required by inhabitants to meet their basic needs (eThekwini, 2013).The municipality is also faced with an escalating and complex housing backlog such as backyarders, hostels, and informal settlements and acknowledges it will take many years to eradicate this. To improve the quality of life in informal settlements as a short term measure, interim services such as ablution blocks with male and female toilets and showers, refuse removal services, pedestrian paths with storm water channels, limited road access for emergency and solid waste vehicles and fire breaks are being rolled-out to earmarked informal settlements (eThekwini, 2013).

Map1: eThekwini Municipality
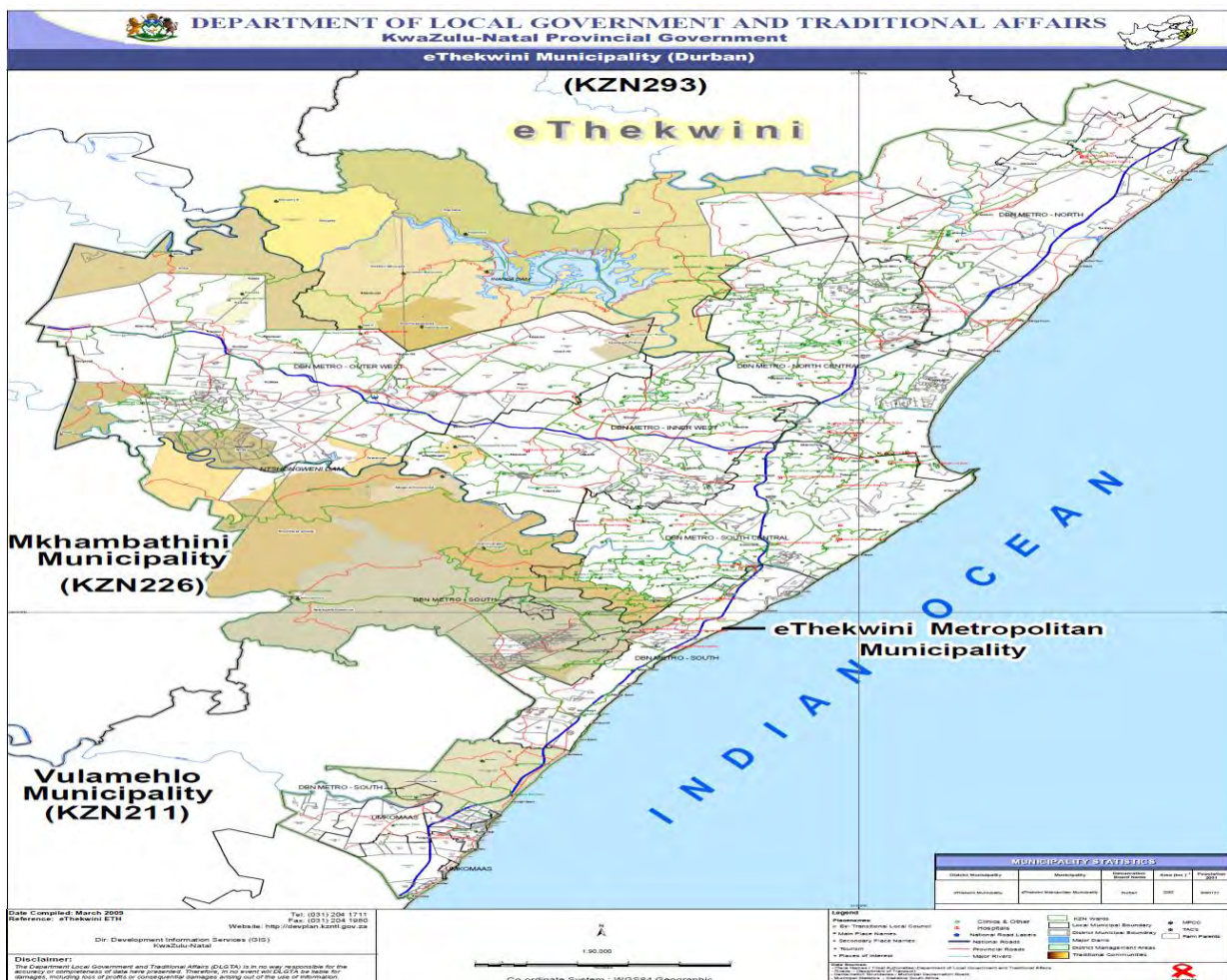
Source: (KZNCOGTA, 2013)

Map 2: Informal Settlements in eThekwini Municipality
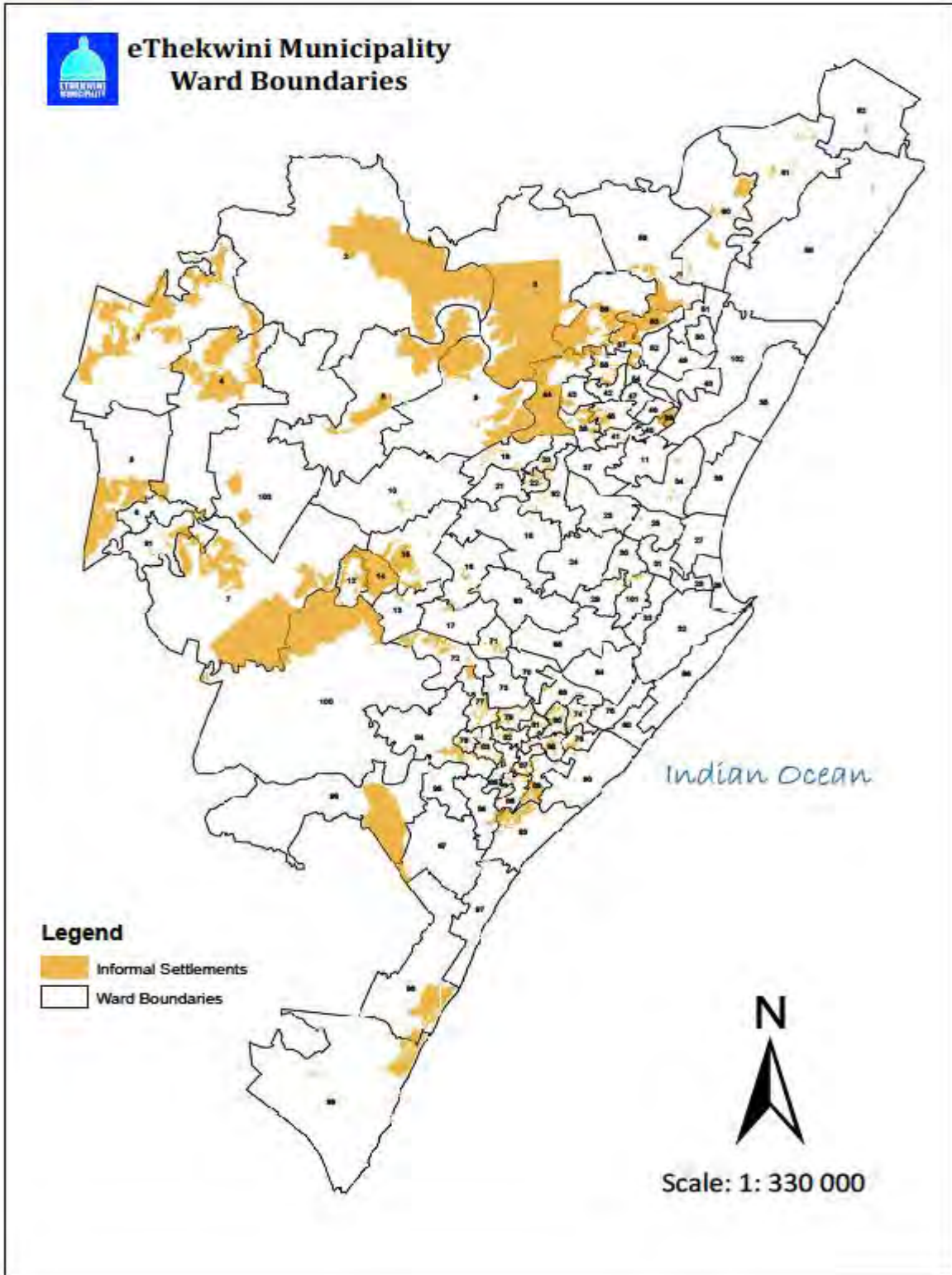
Source: eThekwini Human Settlements (Accessed, 2013).

3.2 Case Study Areas

This chapter discusses the Redcliffe and Magwaveni informal settlements in detail. It draws on published and unpublished material, newspaper reports as well as on the researcher"s own experience and observation after visiting the study area. The purpose of this case study was to evaluate how the provision of basic municipal services to informal settlements assisted residents to improve their living conditions. The case studies were selected considering the settlements" spatial location, characteristics, upgrading stages and both settlements presented the research project with an authentic environment for understanding issues pertaining to the provision of interim services to informal settlements. Redcliffe and Magwaveni informal settlements have the features and characteristics appropriate for assessing the link between the provision of basic municipal services in informal settlements and the creation of sustainable human settlements, as both settlements have been provided with interim services.

3.2.1 REDCLIFFE INFORMAL SETTLEMENT

3.2.1.1 Characteristics of Redcliffe

Redcliffe informal settlement falls under Ward 60 and is located in the northern region of eThekwini Municipality. There are more than 3000 households residing in the area and the settlement is located on land that was formerly used for agricultural practices and is within close proximity to the Redcliffe quarry. It falls within the Redcliffe planning unit and is part of the Verulam West suburb (see Map 3 on page 45). According to the residents, the settlement was formed in the late 1980s by households migrating from the rural areas to Verulam seeking employment opportunities in the Verulam town centre and the surrounding suburbs. Verulam is the economic zone of the surrounding suburbs and townships as it is concentrated with places of industrial, commercial, educational, government and economic activities. The settlement is spatially well located on a gentle slope and is adequately serviced with electricity, access roads, footpaths and water mains but lacks the provision of bulk sanitation infrastructure. The availability of municipal infrastructure indicates the strategic provision of essential municipal engineering services to the settlement prior to the settlement upgrading.

3.2.1.2 Levels of education

In Radcliffe informal settlement older residents indicated they had no access to higher education as they were unable to get financial assistance and had the responsibility of supporting their extended families in the rural areas. Interestingly though amongst the younger generation there were higher levels of school going children attending the former Indian primary and high schools in the surrounding suburbs of Verulam and a small fraction were attending tertiary institutions such as the Durban Institute of Technology (DUT) and University of KwaZulu-Natal (UKZN).

3.2.1.3 Economic Status

Residents in Redcliffe informal settlements indicated that they were faced with many challenges such as the ever increasing levels of unemployment and poverty. Residents who are economically active in the settlement are involved in the informal economy such as selling food, fruit and vegetables, prepaid electricity coupons and cellular phone airtime. It is a contrast when considering that the Verulam area provides employment and economic opportunities to the inhabitants of the area as it is concentrated with sectors such as agriculture, cleaning services, shopping centres, light industrial, manufacturing, commercial banks, automotive and transport.

3.2.1.4 Social Related Issues

Households residing in Redcliffe informal settlement have been faced with lack of proper basic services such as health and sanitation facilities. As a result residents have been exposed to various illnesses such as diarrhea, tuberculosis and acute respiratory infections. In Redcliffe the eThekwini municipality, in its quest to eradicate lack of access to sanitation, has provided Ventilated Pit Latrines (VIP), Urine Diversion (UD) toilets and recently, under the interim services programme, water reticulated ablution facilities have been provided (Sutherland and Lewis, 2012).

Map 3: Redcliffe Informal Settlement
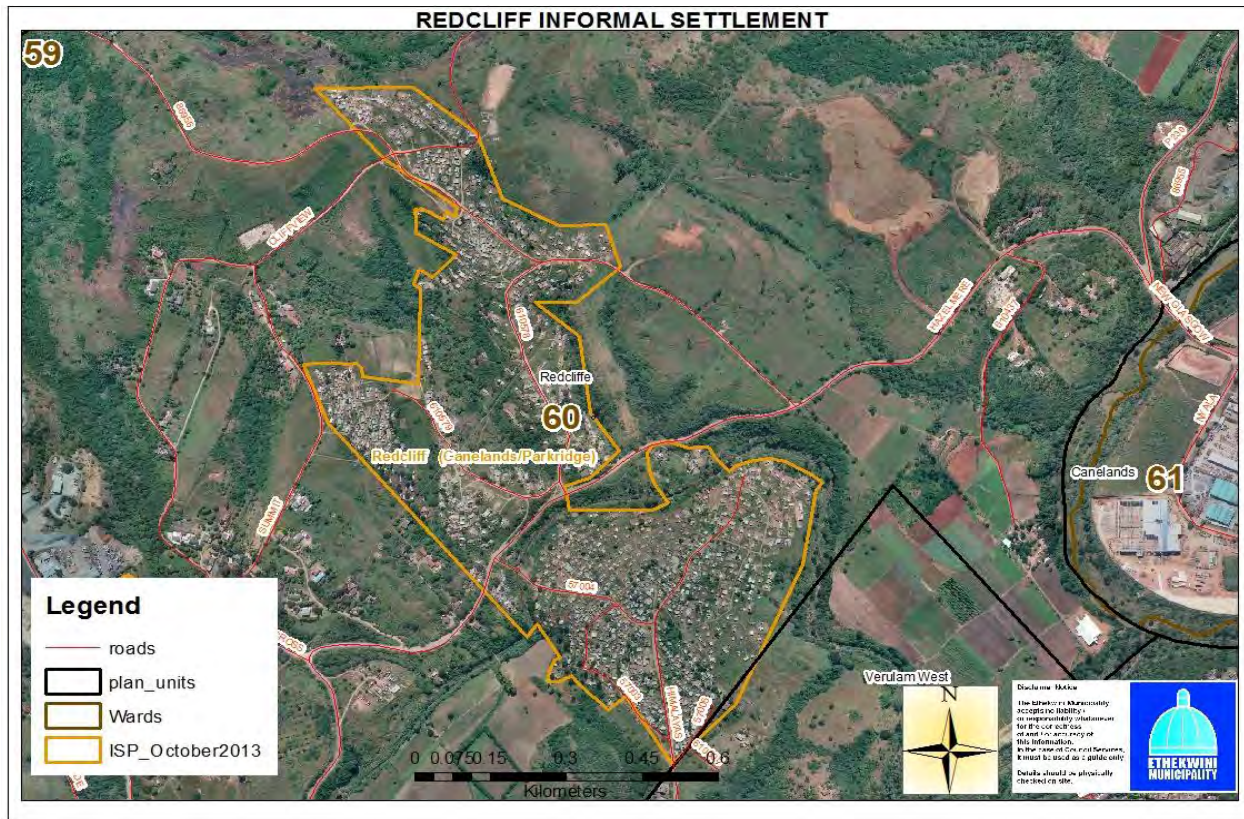
Source: eThekwini Human Settlements (Accessed, 2013)

3.2.2 MAGWAVENI INFORMAL SETTLEMENT

3.2.2.1 Characteristics of Magwaveni

Magwaveni informal settlement in the Tongaat area first emerged in the late 1970s as a result of people migrating from rural areas such as Ndwedwe, Nyoni and Nongoma amongst other areas in search of employment opportunities (see Map 4 on page 48). Tongaat area is one of eight economic zones in the eThekwini municipality falling within the northern area. Geographically the area is surrounded by areas such as Ballito, Stranger in the northern region, and the Durban CBD. Tongaat is located in one of the highest potential growth areas in KwaZulu-Natal as it is found between the Durban and Richards Bay corridor development. This strategic location of Tongaat, coupled with its proximity to the Dube Trade Port, means that Tongaat is facing exceptional growth and development over the next coming years. The Dube Trade Port

development, situated 6km from Tongaat provides many job opportunities to the people of the eThekwini municipality. The greater Tongaat area also provides road and rail access for the rural communities who trade in the greater Durban municipal area and it is a more accessible area for other surrounding rural communities. Tongaat is, therefore, an important commercial transit node for many of the people living beyond the eThekwini municipality (Tongaat Local Economic Development Strategy, 2008).

3.2.2.2 Levels of education

In most of the households residing in the informal settlement there were very few with higher education amongst the older population. The younger population, which made up a small fraction of the population, was either in lower primary or high school with a very small number being in tertiary institutions. Residents indicated the former Indian schools provided better education for their children as opposed to schools in the rural areas where they originated. The process of education and training is a vital key to changing the social and political participation of residents as this will ensure that they are not excluded from the community, economic empowerment and national development opportunities made available by business and government. The output of education and training is human capital, which constitutes the nation‟s primary wealth and potential for growth. Therefore, illiteracy and unemployment need to be considered as threats to personal, community as well as national development (Tongaat Local Economic Development Strategy, 2008).

3.2.2.3 Economic Status

The economic growth of the Tongaat area has not been in line with the increasing population growth of Tongaat and other surrounding areas. The area had faced a number of service backlog challenges including high and increasing levels of unemployment, poverty and skills shortage. The main sectors operating in the Tongaat local economy that provide employment opportunities to the local community are agricultural, retail and food, light industrial, manufacturing, automotive and transport. Informal Economy and Small Micro Medium Enterprises (SMMEs) are more developed in the CBD than in the rest of the Greater Tongaat area. Major activities

include the following: mielie cookers, newspaper vendors, live chicken sellers, second-hand clothes dealers, hairdressers, candle makers, fruit sellers, street food vendors, street non-food products vendors, spaza shop owners and workers, tailors, dressmakers and hatters, Mr phone dealers, bead workers and sellers, shoe makers and polishers and welders (Tongaat Local Economic Development Strategy, 2008).

It has been reported that unemployment is highest in the black residential areas, largely due to the lack of education and skills development resulting from apartheid policies that denied citizens access to a better life. Approximately 32% of the economically active population of the Tongaat area is employed in some form of economic activity. There are currently local jobs for just over 47% of the population. This needs to increase to between 60% and 80%. An estimated 15 000 people must travel outside the zone daily to their places of employment. Major parts of Tongaat are affected by the current problems being experienced in the clothing, footwear, textile and luggage sectors due to low priced imports from China. The sugar industry is also experiencing low world sugar prices, so the local economy is struggling and its activity level is well below the growth periods of the past (Tongaat Local Economic Development Strategy, 2008).

3.2.2.4 Social Related Issues

Households in Magwaveni have been facing problems associated with the lack of access to basic services. The lack of availability of health and sanitation facilities has given rise to various illnesses such as diarrhea, tuberculosis and acute respiratory infections. To address health challenges in Magwaveni settlement, the eThekwini Municipality has embarked on a programme for the *insitu* upgrading of this settlement through the provision of roads, storm water, electricity, and water and sanitation services (The Housing Development Agency, 2012).

Map 4: Magwaveni Informal Settlement

Source: eThekwini Human Settlements (Accessed, 2013)

3.3 Conclusion

The study examined the provision of basic municipal services to informal settlements prior to housing upgrading. Issues such as access and satisfaction with services provided will be analysed to assess beneficiaries" levels of satisfaction and whether such services have provided households residing in Redcliffe and Magwaveni informal settlements with the opportunity to upgrade their housing incrementally in order to meet housing needs. The findings from the study areas will be presented in the following chapter.

CHAPTER FOUR: RESEARCH RESULTS AND ANALYSIS

4.0 Introduction

This chapter presents and analyses data collected from respondents in the two case studies, Redcliffe and Magwaveni informal settlements respectively. The research objectives were used as themes to allow for the thematic analysis of data. The purpose of the study was to examine the circumstances that either increase or decrease the levels of satisfaction with the provision of basic municipal services to both informal settlements and determine whether the provision of services has assisted with the creation of sustainable human settlements where beneficiaries are able to incrementally consolidate their housing needs in both settlements. The findings and data collected in this study were based on indicators used to analyse the levels of satisfaction of beneficiaries of municipal services and provide an insight on how the provision of services can satisfy the needs of its beneficiaries. The objectives and principles of the Informal Settlement Upgrading Programme (ISUP) contained in the National Housing Code (2009) aims to maximize the impact of the programme by assisting as many households as possible to attain basic municipal services prior to housing upgrading and targets the achievement of the national goal of upgrading of all informal settlements in South Africa by 2014. It is important to assess the extent to which the ISUP has been able to adequately address issues of access to basic municipal services at the two case studies and whether households have been able to adequately improve their housing conditions incrementally.

4.1 Social and Economic Overview

In order to gain insight into the study areas identified, data collected from the field survey has been used to examine the social and economic aspects of the respondents and composition of Redcliffe and Magwaveni informal settlements. The gender composition of the two settlements and the economic activity of the respondents have been analysed to ascertain the economic activity of the residents in the study area as this influenced housing improvements and investment. The analysis on gender was also conducted in order to ascertain gender distribution and the cohesiveness of the residents in the two settlements.

4.1.1 Gender Composition

The findings from the survey revealed that from all the respondents who participated in the two case studies, Redcliffe settlement had a gender composition of 51% females and 49% males, whilst the gender composition of Magwaveni settlement is made up of 53% females and 47% males. This indicates that for both study areas, females have a higher representation than males. The findings on gender distribution for both settlements are illustrated in Table 4.1.1.

Table 4.1.1: Gender composition status by settlement

Gender Composition in %

Gender Composition	Gender %	
	Redcliffe	**Magwaveni**
Male	49	47
Female	51	53
Total	**100**	**100**

Source: Field Survey: 2014

4.1.2 Employment Status and Income levels

The employment status in Redcliffe and Magwaveni showed different representations in terms of the rate of unemployment. In Redcliffe, the settlement is located within 1.5 kilometers from the Verulam CBD and is within close proximity to cane farming and industrial areas. Remarkably the settlement has a moderate rate of employment and this can be attributed to the fact that the Verulam CBD and surrounding industries in the area offer employment opportunities to households residing in the Redcliffe informal settlement. Magwaveni is located within 1.5 kilometers to the Tongaat CBD and within close proximity to surrounding industrial areas. The settlement is not located on the peripheries, but within close proximity to places of economic opportunities. Surprisingly Magwaveni settlement has the lowest rate of unemployment and has a higher rate of employment than the Redcliffe settlement. The two settlements are spatially

located within close proximity to social and economic opportunities and this has provided residents with employment opportunities subsequently contributing to the number of employed respondents. Residents from both settlements indicated that they were satisfied with the location of the settlements as the business and industries in the area provided employment opportunities and children could attend educational institutions. The South African National Housing Code (2009), with its programme for upgrading informal settlements, places an emphasis on the objective of upgrading settlements that are strategically well located to social and economic opportunities by addressing settlements that offer the opportunity of spatial restructuring and integration to the existing environment. The findings on employment for both settlements are illustrated in Table 4.1.2.

Table 4.1.2: Employment status per settlement

Employment Status in %

Employment Status	Employment %	
	Redcliffe	Magwaveni
Permanent	10	13
Temporal	40	46
Self Employed	6	7
Unemployed	44	34
Total	**100**	**100**

Source: Field Survey: 2014.

On the basis of the above findings it is clear that there is a high rate of employment in both study areas. In Redcliffe, 10% of the respondents are permanently employed; while in Magwaveni 13% are permanently employed. With regards to temporary employment 40% of the respondents in Redcliffe indicated they were temporarily employed while in Magwaveni 46% of the respondents indicated they were temporarily employed. In Redcliffe 6% of the respondents indicated they were self-employed and in Magwaveni 7% indicated they were self-employed. The findings indicate that with regards to employment opportunities residents of both settlements

were economically active. The findings indicate that respondents from both the settlements are economically active and this can be attributed to the settlement being located within close proximity to employment opportunities and other sources of income generation. The findings on unemployment revealed that there was a lower rate of unemployment at Magwaveni, at 34%, representing a labour force that was not economically active. In Redcliffe there was a slightly higher rate of unemployment of 44% representing a higher labour force that was not economically active.

4.1.3 Beneficiaries' Monthly Household Income

The household sources of income in Redcliffe and Magwaveni settlements showed similar differences when compared to each other. The variations are attributed to the skills knowledge and type of work an employee is able to perform in their area of employment. The findings are shown in detail in Table 4.1.3. Based on the table below the study indicated that in both study areas there were a number of respondents with no income at all or with earnings from R0 – 500 per month. In Redcliffe 46% of the respondents reported to be earning from R0 – R500 per month while in Magwaveni 37% of the respondents reported that they had no income and were earning from R0 – R500 per month. The respondents in both settlements indicated that their source of income was from social welfare grants and as well as monthly stipends provided by relatives to be used for day-to-day household expenses. It can be argued that these respondents are indigent as they are struggling to meet their livelihoods. This group qualifies for government assisted housing as per the government"s eligibility criteria.

In Redcliffe, 22% of the respondents indicated they had an income of R501 – R1000, while in Magwaveni only 20% of the respondents indicated they earned in this income bracket. Respondents in both study areas indicated that monthly income was generated from temporary employment, which, in most instances included odd jobs such as car guarding, domestic work, gardening and house painting. Respondents in both the study areas indicated that even though

they were not happy with their monthly income, they were at least able to meet their daily basic needs given the fact that employment opportunities are scarce. Respondents indicated that the lack of income had an impact on the households" ability to improve their housing condition as they often had difficulty to save money for housing improvements and consolidation. In terms of the eligibility criteria this group of respondents also qualifies for a full housing subsidy.

In Redcliffe, 17% of the respondents indicated they were earning a monthly income of R 1001 – R 1500 and 18% of the respondents in Magwaveni indicated they had a similar monthly income. Respondents in both study areas indicated their monthly income was generated from home-based businesses such as tuck shops, selling cool drinks, fruit and vegetables. Given the nature of income generation activities, this group indicated that they had difficulty saving for housing consolidation as income generated monthly was dependent on their ability to generate an income monthly. This group also qualifies for a government assisted housing programme as per the eligibility criteria. In Redcliffe 6% of the respondents indicated their monthly income was R 1501 – R 2000 and 11% of the respondents form Magwaveni indicated they fell within this income bracket. Respondents indicated that their source of income was generated from occupations such as petrol attendants in service stations, shop cashiers and doing unskilled and semi-skilled work in neighbouring firms and industries. Respondents indicated that even though they were economically active they were unable to save for housing improvements as they were low-income earners and monthly income was used for day-to-day household expenses. This group also qualifies for a full government subsidy programme as per eligibility criteria set by government.

In both the study areas there was a low number of respondents who earned in the R 2001 – R 3 500 salary bracket. This group of respondents indicated they were able to make some savings for housing improvements, but they also qualify for the full low cost housing subsidy. In Redcliffe alone 7% of the respondents indicated they were earning a monthly income of R 2001 – R 3500 and 9% of the respondents in Magwaveni indicated they were earning in the same income bracket. The respondents from both settlements indicated that their income was generated

through permanent employment such as call centre work, store merchandisers and office administrative clerk work. A very small number of respondents in both the study areas indicated they earned more than R 3500 per month. In Redcliffe 2% of the respondents indicated they earned more than R 3500 while 5% in Magwaveni indicated they earned above this salary bracket. Most of the respondents indicated that their monthly income was generated from conducting work such as security work, health care providers and transportation. This group earns above the eligible qualifying criteria and does not qualify for low-income housing subsidy programme.

Table 4.1.3: Beneficiaries' monthly income status in %

Monthly Income	Beneficiaries Monthly Income (R) %	
	Redcliffe	Magwaveni
0 - 500	46	37
501 – 1000	22	20
1001 – 1500	17	18
1501 – 2000	6	11
2001- 3500	7	9
More	2	5
Total	**100**	**100**

Source: Field Survey: 2014

4.2. Period of stay in the settlement

In both case studies, residents provided different numbers of years for the period spent living in the settlement. Some residents indicated that they had been living in the settlement for more than 30 years, while others indicated that they were born in the area. Residents who had been living in the settlement for a long-term period indicated they had come to the area in search of a better life as the area provided access to educational institutions as well as employment opportunities to support their extended families in the rural areas. Other residents who had been living in the settlement for a short-term period indicated that they had come to the settlement in

search of income generating activities and as a result they were renting from illegal landlords residing in the settlement. The illegal landlords referred to individuals who had invaded government or privately owned land with the intention of establishing informal settlements and in the process informally subdivide the land and illegally lease out sites to households who are requiring sites to build informal housing structures for accommodation purposes. In Redcliffe settlement it was found that 80% of the residents indicated they were the original owners of their informal dwellings and had been residing in the area for a long period of time. The remaining 20% of the respondents indicated that they were renting. In Magwaveni 75% of the residents indicated they were the original owners of the occupied dwellings while the remaining 25% of the respondents indicated they were renting.

4.2.1 Access to housing

Section 26 of the Bill of rights contained in the South African Constitution (1996) indicates that every citizen has the right to have access to adequate housing. The state is further mandated by the constitution to take reasonable legislative and other measures, within its available resources, to ensure the progressive realization of this right for its citizens. The analysis looks at the role the municipality has played in creating housing opportunities for the low-income groups without their being dependent on the housing subsidy programme for shelter provision and how it has assisted beneficiaries of basic municipal services in the two informal settlements to gain access to housing on an incremental basis. Given the provision of services to the study areas, the analysis further investigates the measures taken by respondents in Redcliffe and Magwaveni settlements to adequately improve their living conditions by investing their own sweat equity and savings into housing improvements. Access to housing was measured by the ability of the respondents to provide shelter through their own sweat equity or investments made to improving the informal dwelling.

Findings revealed that in Redcliffe 96% of the respondents indicated they had access to housing while the remaining 4% had no access to housing. In Magwaveni 99% of the respondents indicated they had access to housing while the remaining 1% indicated that they had no access to housing at all. This means that a high number of the respondents perceived themselves as having

access to housing since they were provided with the basic services such as electricity, roads, footpaths, water and sanitation, which in turn made living in the informal settlement more bearable and they could concentrate on investing their savings for housing consolidation and improvements. The remaining respondents did not perceive themselves as having access to housing as they viewed the provision of basic services as a service that the municipality is obliged to provide and measured access to housing against the government assisted housing provided under the housing subsidy programme for the low-income. Findings on access to housing are shown in Table 4.2.1 below. Further, respondents indicated that the higher levels of access to housing have been stimulated by the provision of municipal services and this in turn allowed households to invest in their housing improvements as the essential services such as electricity, roads and water were made available by the municipality though the interim services provision programme.

Table 4.2.1: Access to housing

Access to housing in %

Response	Access to housing %	
	Redcliffe	**Magwaveni**
Yes	96	99
No	4	1
Total	**100**	**100**

Source: Field Survey: 2014

4.2.2 Satisfaction with current housing

An analysis on respondent's satisfaction with the current housing condition was conducted for both the settlements. The analysis further looked at the provision of municipal services to the settlements and whether this had influenced households' satisfaction with their current housing condition. In Redcliffe, the findings of the survey showed that 13% of the respondents were

satisfied with their current housing while the remaining 87% indicated they were not satisfied. In Magwaveni only 3% of the respondents indicated that they were satisfied with their current housing conditions while the remaining 97% indicated that they were not satisfied. In both the study areas there were high levels of dissatisfaction with the current housing condition as respondents cited that the informal houses were not to the building standards of the government assisted subsidy house as the dwellings currently occupied were prone to flooding and collapse during rainy seasons and were constantly affected by fire disasters putting their lives at risk. With regards to the low levels of satisfaction with current housing conditions, residents who were satisfied with their current dwelling units indicated that the informal houses served the purpose of providing shelter and units were built with scarce financial resource available to households. Table 4.2.2 shows the findings on satisfaction.

Table 4.2.2: Satisfaction with housing condition

Satisfaction with housing condition in %

Response	Satisfaction with current housing condition %	
	Redcliffe	**Magwaveni**
Yes	13	3
No	87	97
Total	**100**	**100**

Source: Field Survey: 2014

Figure 1: A typical informal dwelling unit in Redcliffe being gradually improved by the owner from a corrugated iron and wood structure to brick and mortar through sweat equity and savings after the provision of services.

Source: Field Survey 2014

4.2.3 Awareness of housing upgrades

The National Housing Code (2009) with its ISUP suggests that the upgrading of informal settlements should be undertaken in four phases. Phases 1 to 3 place a huge emphasis on the participation of beneficiaries of settlement upgrading and the provision of basic services and land tenure security. Phase 4 constitutes the housing implementation phase through access to government assisted housing and qualification for this assistance is determined by the beneficiary profile. As suggested in the Housing Code, community participation is vital for any successful housing upgrade project as households are kept informed of the development process. The findings on beneficiary awareness on housing upgrade projects in Redcliffe and Magwaveni has been illustrated in Table 4.2.3.

In Redcliffe it was found that 39% of the respondents were aware of intended future housing upgrade projects to be implemented by the municipality and of basic municipal services to be provided under the interim services pilot project in their area while the remaining 61% were not

aware. In Magwaveni there were higher levels of awareness as 63% of the respondents indicated that they were aware of the intended upgrade projects and the provision of basic services while the remaining 37% were not aware. Respondents were asked how they were made aware of planned provision of services and housing upgrades. It was reported by the residents that service delivery issues were communicated by the local councillor, ward committee and municipal housing officials during community meetings. Respondents indicated that the meetings provided the necessary information pertaining to the provision of basic services and proposed housing upgrade timeframes to be implemented by the municipality.

Table 4.2.3: Levels of awareness of housing upgrade projects

Levels of awareness in %

Beneficiaries response	Awareness of housing upgrades %	
	Redcliffe	**Magwaveni**
Yes	39	63
No	61	37
Total	**100**	**100**

Source: Field Survey: 2014

4.3 Satisfaction with the quality of basic services provided

The National Housing Code (2009) with its ISUP provides for the phased in provision of basic services such as water, sanitation, electricity and infrastructure. These services are essential to the upgrading of settlements as they provide relief to households residing in informal settlements. The provision of basic services to households in the Redcliffe and Magwaveni settlements is vital to the improvement of the quality of life of residents. In some households the provision of services provides them with the ability to participate in home-based business initiatives such as small retail shops, panel beating, sewing and other income generating activities. This is based on the view that basic services and infrastructure provision are essential in everyday life and the lack of these impacts heavily on the quality of life of residents.

4.3.1 Access to Water

In South Africa, water provision for the poor is considered as a basic human right. The Constitution of the Republic (1996) section 27 (2) states that every South African citizen residing in the Republic has the right to have access to clean and safe drinking water and the state should take reasonable legislative and other measures within its available resources to achieve the progressive realization of this right. In realization of this right Section 2 (a) of the Water Services Act 108 of 1997 ensured the right of citizens to have access to basic water supply and sanitation provision necessary to ensure an environment not harmful to the health of the citizens. In turn, the Free Basic Water policy has made it possible for the provision of free basic water to many poor households in South Africa residing in informal settlements who could not afford to pay for a basic water supply (Dwaf, 2002).

Findings from the study areas revealed that both settlements were adequately provided with free and safe drinking water from communal stand pipes. With regards to accessibility of water, findings in Redcliffe revealed that 98% of the respondents indicated that they had access to water while the remaining 2% indicated they had no access. In Magwaveni 99% of the respondents indicated that they had access to water while the remaining 1% indicated they had no access. It is clear that the higher levels of satisfaction with water accessibility for households in the two settlements has been stimulated by the water provision initiatives undertaken by the eThekwini municipality to provide water to all households. Findings on access to water are shown in Table 4.3.1 below.

Table 4.3.1: Access to water

Beneficiaries access to water in %

Beneficiaries response	Access to water %	
	Redcliffe	Magwaveni

Yes	92	99
No	8	1
Total	**100**	**100**

Source: Field Survey: 2014

4.3.2 Water collection before services

In Redcliffe, 41% of respondents indicated that before the installation of services water was sourced from the local rivers, while 16% indicated water was sourced from nearby formal houses. The remaining 43% of the respondents indicated that other means were used to source household water. In Magwaveni 17% of the respondents indicated water was sourced from the nearby river while 16% indicated water was sourced from nearby formal houses. The remaining 67% of the respondents indicated other means were used to source water. In both the study areas respondents indicated other means of collecting water was through municipal stand pipes provided in the settlement. Findings on the collection of water before services are illustrated on Table 4.3.2 below.

Table 4.3.2: Water collection

Water collection before services in %

Response	Water collection before services %	
	Redcliffe	**Magwaveni**
River	41	17
Nearby formal houses	16	16
Other	43	67
Total	**100**	**100**

Source: Field Survey: 2014

4.3.3 Satisfaction with water provided

In Redcliffe, on assessing the levels of satisfaction with water provided by the municipality it was found that 32% of the respondents were satisfied with water provided while 39% were partially satisfied and 29% were unsatisfied. With regards to findings in Magwaveni it was found that 65% of the respondents were satisfied with the water provided while 18% were partially satisfied and the remaining 17% of the respondents indicated that they were unsatisfied. In both the study areas respondents who were satisfied with the water provided by the municipality indicated that their satisfaction was based on the quality of safe drinking water provided by the municipality. Respondents indicated the water provided enabled them to cook and clean and they did not have to source water from the river as that water was possibly polluted. Respondents who were partially satisfied with the water provided indicated their level of satisfaction was based on the fact that water provided was from a stand pipe and not connected to their informal houses. Respondents who were not satisfied with water provided indicated that they would prefer a house with all the basic services as opposed to be given a stand pipe. The findings of the satisfaction with water provided are illustrated in Table 4.3.3 below.

Table 4.3.3: Satisfaction with water

Water satisfaction in %

Response	Satisfaction with water %	
	Redcliffe	**Magwaveni**
Satisfied	32	65
Partially Satisfied	39	18
Unsatisfied	29	17
Total	**100**	**100**

Source: Field Survey: 2014

Figure 2: A water standpipe in Magwaveni informal settlement providing safe and clean drinking water to households.

Source: Field Survey: 2014

4.4 Access to Sanitation

The Water Services Act of 1997 provided poor households in informal settlements with the provision of adequate sanitation facilities. The safe provision of sanitation has become the responsibility of local government as it has the capacity to provide planned and improved sanitation integrated with water supply and other municipal services. Sanitation intervention by municipalities has been in the form of chemical toilets, VIPs and construction of communal ablution blocks (CSIR, 2000). The communal ablution block specification module includes converted containers which are plumbed into water and sewer mains. Each block consists of a

separate unit for males and females which provide toilets, showers, hand-basins and wash-troughs with lighting provided by means of solar power (eThekwini, 2011). Findings from the study revealed that in Redcliffe 55% of the respondents had access to sanitation while 45% indicated they had no access. In Magwaveni 58% of the respondents indicated they had access to sanitation while the remaining 42% indicated they had no access to sanitation. When looking at access to sanitation in the case studies it was noted that even though sanitation intervention had been conducted by the municipality in the two settlements, some residence did not concede to having adequate sanitation as they were still utilizing pit toilets and did not have flush toilets inside their yards. Other respondents indicated that the containerized ablution facilities provided were servicing the entire settlement making them prone to vandalism and were not safe to use during the night due to possible robbery. Findings are illustrated in Table 4.4 below.

Table 4.4: Access to sanitation

Access to sanitation in %

Beneficiaries response	Access to sanitation %	
	Redcliffe	Magwaveni
Yes	55	58
No	45	42
Total	**100**	**100**

Source: Field Survey 2014

4.4.1 Sanitation before services

Findings in Redcliffe revealed that before the provision of sanitation facilities 43% of the respondents indicated they used homemade pit toilets and 10% of the respondents indicated they used communal ablution facilities. The remaining 47% indicated they used other means for sanitation. In Magwaveni 51% of the beneficiaries indicated that they used homemade pit toilets and 29% indicated they used communal ablution facilities. The remaining 20% indicated they used other means for their sanitation. Findings in both case studies indicate that there was a considerable number of households that were utilising pit toilets as a means of sanitation

provision. This can be attributed to the fact that the pit toilets were constructed within close proximity to the individual household‟s informal dwelling. With regards to the use of communal toilets, a low number of households were utilizing these facilities. This can be attributed to the fact that most respondents participating in the study indicated that the number of ablution facilities provided were not enough to adequately service the households in the settlements as these facilities were either centrally located or on the settlement boundary making them inaccessible to other households situated far away from them. There was also a considerable number of household who were utilizing sanitation other than that provided. Respondents indicated other means of sanitation included the use of bushes and open fields. Table 4.4.1 below illustrates the findings.

Table 4.4.1: Sanitation before services

Sanitation before services in %

Response	Sanitation before services %	
	Redcliffe	**Magwaveni**
Pit Toilet	43	51
Communal Toilet	10	29
Other	47	20
Total	**100**	**100**

Source: Field Survey 2014

4.4.2 Satisfaction with sanitation provided

In Redcliffe, on assessing the levels of satisfaction with the sanitation provided for the households residing in the informal settlement, it was found that 19% of the respondents were satisfied, while18% of the respondents indicated that they were partially satisfied and the remaining 63% indicated that they were unsatisfied. With regard to sanitation satisfaction in the Magwaveni informal settlement, it was found that 18% of the respondents were satisfied with the sanitation provided while 9% were partially satisfied and the remaining 73% of the respondents indicated that they were unsatisfied. With regards to satisfaction of the sanitation provided,

respondents in both informal settlements indicated that their satisfaction was based on the view that the provision of sanitation facilities by the municipality in the form of VIP and communal ablution facilities was a step in ensuring a healthy and clean environment and the facilities provided a much needed service for the households. With regards to the partial satisfaction with the services provided in both settlements there were moderate rates of satisfaction as most respondents indicated that even though the facilities were provided their lives had not changed. Respondents indicated that there was still a need for government assisted housing as the provision of sanitation facilities did not eradicate their informal structures but only remedied the lack of proper sanitation in the settlements. With regards to the levels of dissatisfaction with sanitation facilities provided by the municipality, in both informal settlements residents indicated that their high levels of dissatisfaction were based on the fact that toilets provided in the form of VIPs got full quicker making the facilities a health and environmental problem and the municipality had not serviced them in many years. With regards to the containerized ablution block toilets provided by the municipality, there were higher levels of dissatisfaction with the toilets as they were prone to water leakages and blockages and repairs were not conducted in time, leaving households with no service at times. Respondents also indicated discomfort in utilizing a toilet intended for communal use. The findings on satisfaction with sanitation are illustrated below in Table 4.4.2.

Table 4.4.2 Satisfaction with sanitation

Satisfaction with sanitation in %

Response	Satisfaction with sanitation %	
	Redcliffe	**Magwaveni**
Satisfied	19	18
Partially Satisfied	18	9
Unsatisfied	63	73
Total	**100**	**100**

Source: Field Survey: 2014

Figure 3: A containerized ablution facility in Magwaveni.

Source: Field Survey: 2014

Figure 4: Flush toilets in a containerized ablution facility in Magwaveni.

Source: Field Survey: 2014

Figure 5: An informal dwelling with a VIP toilet in Redcliffe.

Source: Field Survey: 2014

4.5 Access to Electricity

The provision of electricity to informal settlements has been mandated by the Constitution of South Africa and endorsed in the Bill of Rights. Government has the responsibility to ensure that people residing in informal settlements are provided with safe and secure electricity which has been regarded as a basic service and all municipalities have the responsibility to ensure the provision of this service. The introduction of the Integrated National Electrification Programme has ensured the electrification of poor households residing in formal housing, in rural and urban areas, informal settlements and unproclaimed areas (Department of Energy, 2011). The objective of the Free Basic Electricity policy in South Africa has been to bring about relief to poor households residing in informal settlements through the provision of affordable household power supply. The provision of electricity enabled poor households to access the socio-economic benefits provided by the Integrated National Electrification Programme (Mapako and Prasad,

2005). Findings from the study revealed that in the Redcliffe informal settlement 81% of the respondents had access to electricity while the remaining 19% indicated they had no access. In Magwaveni informal settlement 85% of respondents indicated they had access to electricity and the remaining 15% of the respondents indicated they had no access. Findings are illustrated in Table 4.5 below. Most of the respondents acknowledged the efforts made by the municipality in providing and enabling a safe living environment through the provision of safe electricity connections to their informal dwellings. Residents indicated that, prior to connections being made by the municipality, households had no choice but to utilize illegal electricity connections for lighting and cooking. The use of illegal electricity connections in both the informal settlements had negative repercussions as residents were often exposed to live electricity wires and there were cases of electrocution being reported often resulting in a number of deaths.

Most households in both the case studies were connected to the local electricity grid on a pre-paid basis and indicated that connections were made possible by the municipality through the interim services programme. Those respondents without electricity supply indicated that electricity connections to their informal dwellings were being planned by the municipality and all the necessary electricity connection applications had been forwarded and submitted to the relevant electricity department in the municipality. Respondents also further indicated that even though electricity connections were being made possible by the municipality in their informal settlement, the reality was that electricity was too expensive as some households were indigent and were struggling to buy electricity re-charge coupons.

Table 4.5: Access to electricity

Access to electricity in %

Beneficiaries response	Access to electricity %	
	Redcliffe	**Magwaveni**
Yes	81	85
No	19	15
Total	**100**	**100**

Source: Field Survey 2014

4.5.1 Electricity connections before service

With regards to electricity availability before connections, it was found that in Redcliffe informal settlement 38% of the respondents indicated that electricity was sourced through illegal electricity connections while 10% indicated electricity was sourced from nearby formal houses. The remaining 52% indicated that other means of sourcing electricity were utilized. In Magwaveni informal settlement 45% of the respondents indicated that electricity was sourced illegally while 6% indicated electricity was sourced from nearby formal houses. The remaining 49% indicated other means of sourcing electricity were used. The findings reveal that in both settlements there were a considerable number of households who were utilizing illegal electricity connections for lighting, house heating and cooking purposes. In both the settlements there was a low number of households who indicated access to electricity was from nearby formal houses. Respondents indicated that arrangements were made with the neighboring formal households to allow for electricity connections to their informal dwellings and contributions towards the monthly electricity bill were shared amongst households as agreed. With regards to the sourcing of electricity, respondents indicated that other means of sourcing electricity for lighting and cooking were utilized. This clearly indicated that either residents were connected illegally or had no electricity at all. Findings are illustrated below in Table 4.5.1.

Table 4.5.1: Electricity before services

Electricity before services in %

Response	Electricity before services %	
	Redcliffe	**Magwaveni**
Illegally	38	45
Nearby formal houses	10	6
Other	52	49
Total	**100**	**100**

Source: Field Survey 2014

4.5.2 Satisfaction with electricity provided

In both the study areas satisfaction and dissatisfaction with electricity provided by the municipality were recorded. Findings revealed that in Redcliffe informal settlement 65% of the residents indicated that they were satisfied with the electricity provided while another 20% indicated they were partially satisfied and the remaining 15% indicated they were not satisfied. In Magwaveni informal settlement 83% of the respondents indicated that they were satisfied with the electricity provided and 2% were partially satisfied and the remaining 15% were unsatisfied. Findings are illustrated in Table 4.5.2 below. In both the study areas it is clear that there are high levels of satisfaction with electricity provided as well as moderate and low satisfaction levels.

Residents who were satisfied with electricity provided indicated that their satisfaction was based on the fact that they had access to safe electricity provided by the municipality and they did not have to worry about electricity disconnections by the municipality as a response to illegal electricity connections. Some residents indicated that even though electricity was provided and they were able to use electricity for cooking and lighting purposes they were partially satisfied as residents indicated prepaid electricity was expensive and sometimes they struggled to pay for the

service. In both the settlements there were residents who indicated they were unsatisfied with the electricity by the municipality as it was too expensive.

Table 4.5.2: Satisfaction with electricity

Satisfaction with electricity in %

Response	Satisfaction with electricity %	
	Redcliffe	**Magwaveni**
Satisfied	65	83
Partially Satisfied	20	2
Unsatisfied	15	15
Total	**100**	**100**

Source: Field Survey: 2014

Figure 6: Informal houses connected with electricity in Magwaveni settlement.

Source: Field Survey: 2014

4.6 Access to waste collection

Lack of management and regulation of domestic solid waste in many informal settlements can pose serious health hazards and environmental challenges. The proper management of domestic solid waste can positively contribute to the well-being of poor households, improving their health by reducing diseases, improving environmental quality and sustainability by protecting environmentally sensitive areas such as watercourses and wetlands. Waste management can also contribute to reducing poverty levels through innovative job opportunities and contributing to the local economic development of the area (National Treasury, 2011). Findings from the study revealed that in Redcliffe informal settlement 96% of the respondents had access to waste collection and 4% indicated they had no access to waste collection. In Magwaveni informal settlement it was revealed that 93% of the respondents had access to waste collection and the remaining 7% indicated they had no access to waste collection. Findings are illustrated in Table 4.6 below. Findings in both study areas reveal that there are high levels of access to waste collection service provided by the municipality. Respondents in both the study areas indicated that the provision of waste collection was made possible by the municipality through waste collection contractors who are contracted by the municipality within the settlement to ensure cleanliness.

Table 4.6: Access to waste collection

Access to waste collection in %

Beneficiaries response	Access to waste collection %	
	Redcliffe	**Magwaveni**
Yes	96 %	93 %
No	4 %	7 %
Total	**100**	**100**

Source: Field Survey: 2014

4.6.1 Waste disposal before services

Findings revealed that in Redcliffe informal settlement 49% of the respondents indicated that domestic waste was collected by a waste contractor while 17% indicated waste was disposed in a communal dumping area within close proximity to the settlement. The remaining 34% indicated they used other means to dispose of their domestic waste such as burning and burying domestic waste. In Magwaveni informal settlement 55% of the respondents indicated that waste was collected by a waste contractor and 22% indicated they utilized the communal dumping area. The remaining 23% indicated they used other means to dispose of domestic waste. Findings are illustrated below in Table 4.6.2. From the findings it is clear that the majority of residents were utilizing the services of a waste contractor while other residents disposed their waste on communal dumping space and utilized other means.

Table 4.6.1: Waste disposal before services

Waste disposal before services in %

Response	Waste disposal before services %	
	Redcliffe	**Magwaveni**
Waste contractor	49	55
Communal dump area	17	22
Other	34	23
Total	**100**	**100**

Source: Field Survey: 2014

4.6.2 Satisfaction with waste removal service

Findings in Redcliffe informal settlement revealed that 90% of the respondents were satisfied with domestic waste removal while 8% were partially satisfied. The remaining 2% were unsatisfied with waste removal. In Magwaveni informal settlement it was found that 75% of the respondents were satisfied with the service provided and 18% were partially satisfied. The remaining 7% were unsatisfied. Findings are illustrated in Table 4.6.2 below. The findings revealed that in both case study areas there were high levels of satisfaction recorded. There were moderate rates recorded on partial satisfaction and low levels of unsatisfied respondents.

Table 4.6.2: Satisfaction with waste removal

Satisfaction with waste removal in %

Response	Satisfaction with waste removal %	
	Redcliffe	**Magwaveni**
Satisfied	90	75
Partially Satisfied	8	18
Unsatisfied	2	7
Total	**100**	**100**

Source: Field Survey: 2014

4.7 Access to roads and footpaths

The National Housing Code (2009) and its ISUP makes available funding for the provision and implementation of interim and permanent municipal infrastructure, such as pedestrian footpaths and roads, to informal settlements. The provision of municipal services and infrastructure remedies the harsh conditions faced by residents of settlements. Further, the provision of services

ensures that settlements are accessible allowing for vehicular access, which makes it possible for emergency vehicles to gain access into the settlements in cases of emergencies such as fire disaster. In the Redcliffe informal settlement it was revealed that 74% of the respondents had access to roads and footpaths and the remaining 26% indicated they had no access. In Magwaveni informal settlement 70% of the respondents indicated they had access to roads and footpaths and the remaining 30% indicated they had no access. It must be noted that there were high levels of access to infrastructure in both case studies as basic road networks were provided to allow for vehicular access to the settlements and footpaths had been provided for pedestrians and residents to make for easy access into their informal dwellings units. Table 4.7 below illustrates the findings on access to roads and footpaths infrastructure.

Table 4.7: Access to roads and footpaths

Access to roads and footpaths in %

Beneficiaries response	Access to roads and footpaths %	
	Redcliffe	**Magwaveni**
Yes	74	70
No	26	30
Total	**100**	**100**

Source: Field Survey: 2014

4.7.1 Satisfaction with roads and footpaths provided

Findings in Redcliffe settlement revealed that 88% of the beneficiaries were satisfied with infrastructure provided while only 2% indicated they were partially satisfied. The remaining 10% of the respondents indicated they were unsatisfied. In Magwaveni 65% of the respondents

indicated they were satisfied with the infrastructure provided and 17% indicated they were partially satisfied. The remaining 18% indicated they were unsatisfied with the roads and footpaths provided. From both case studies it can be noted that there were high levels of satisfaction, although some respondents were unsatisfied with the roads and footpaths provided.

Table 4.7.1: Satisfaction with roads and footpaths provided

Satisfaction with roads and footpaths provided in %

Response	Satisfaction with roads and footpaths provided %	
	Redcliffe	**Magwaveni**
Satisfied	88	65
Partially Satisfied	2	17
Unsatisfied	10	18
Total	**100**	**100**

Source: Field Survey: 2014

Figure 7: Road providing vehicle access in Redcliffe settlement.

Source: Field Survey: 2014

Figure 8: Footpaths providing access to households in Magwaveni settlement.

Source: Field Survey: 2014

4.8 Assessing the link between provision of basic municipal services in informal settlements and the creation of sustainable human settlements with Housing Policy Expert.

An interview was conducted with the housing policy expert from the Human Settlements Planning Unit at eThekwini Municipality. The policy expert provided a narrative on how households residing in the two informal settlements attained basic services, such as water, sanitation and electricity, prior to the provision of services. He indicated in terms of water provision the eThekwini Water Services (EWS) would have provided water stand pipes and for sanitation households would have dug pits as a sanitation option. In terms of electricity he indicated it can be imagined or assumed that households would have accessed electricity through illegal connections. With regards to the provision of interim services at Redcliffe and Magwaveni informal settlements and how the provision of services has assisted households to meet their housing needs incrementally and whether the programme has stimulated the creation of sustainable settlements, the policy expert indicated „yes" and to an extent „no" depending on a number of factors. „Yes" in terms of when a household is provided with basic services such as water, sanitation, electricity, they would have the desire to improve their structure and hopefully would go on to build a sustainable dwelling unit. Also added to this is the fact that the

municipality in providing these services gives households some surety that they will not be evicted from the land or site occupied. The policy expert further indicated that it is important to note that sustainability also depends on other factors such as availability of social facilities, economic opportunities and public transport networks. All of this is a package that needs to be available for settlements to be fully sustainable.

With regards to how the implementation of interim services has assisted the municipality with its upgrade projects in Magwaveni and Redcliff informal settlements, the policy expert indicated that the biggest positive aspect of the interim services project is that design consultants appointed for this project would have designed preliminary layout plans showing the extent of the main access roads into the settlement, which would then open up the way for bulk infrastructure to be provided. This provides an opportunity for when an upgrade project is provided and ready for implementation, the building blocks are already in place, meaning that there would be no wasteful expenditure on starting afresh with new layout plans considering the amount of work that would have been done in sourcing these, whether for geo-tech information or environmental impact assessments. With regards to the interim services programme being applied to other municipalities in South Africa faced with challenges of informal settlements, the policy expert indicated that it could be replicated but indicated that there might be challenges with each and every municipality. In interaction with private land ownership and other municipalities it is a problem putting in services on private land. In eThekwini the municipality has managed to get legal advice and has successfully used the municipal ordinance to overcome that. So there would be challenges in other municipalities and they would have to seek legal opinion in overcoming these and how they could get an interim services project off the ground. Other than the aspect of land issues the policy expert did not see it being a problem in rolling out to other municipalities.

With regards to municipal authorities in providing interim services and how challenges could be addressed, the housing policy expert indicated that community dynamics can be a challenge. In order to overcome this challenge there needs to be proper engagement of communities upfront and this will include liaising with relevant stakeholders involved in the project, whether these are

municipal authorities, ward councillors or interest groups in the settlement. In any successful project there needs to be meaningful community engagement from day one. Another challenge would be when settlements are densely populated and in order to make way for certain services to be provided there would need to be some relocation and this would necessitate successful negotiation for the relocation of shacks or households, hopefully within the settlement. Apart from the negotiations there are always engineering solutions available to everything.

With regards to which particular policy guides the implementation of interim services to informal settlements, the housing policy expert indicated that there is a subsidy programme available under the informal settlement upgrading and the emergency housing programme. However, one of the conditions of getting this subsidy is that municipalities have to acquire the land which in the timeframe of the current project is not practical. Acquiring the land should not be a requirement to access this particular subsidy that is why the eThekwini has been using USDG funding to undertake the implementation of interim services and not the subsidy from National Department of Human Settlements. The USDG funding provides for speedy implementation of services and has less red tape. The housing policy expert also indicated that one of the policy guidelines for this particular intervention is Outcome 8 which is a national policy from the president"s office. With regards to whether the interim services programme strategy can be improved to address the challenges faced by residents in informal settlements, the policy expert indicated that most definitely the policy can be improved because a typical housing project that involves services and top structure takes a very long time to implement. Given the number of informal settlements that there are and the increasing housing backlog it would take many years reach down to people who require houses. With the interim services programme at least people can be provided with much needed services in the interim until the municipality returns to provide the top structures. It would go a long way in alleviating the plight of many people residing in informal settlements.

4.9 Assessing the link between provision of basic municipal services in informal settlements and the creation of sustainable human settlements with Housing Principal Project Officer.

In the interview with the principal project officer involved in the interim services project, the researcher asked what his role was in the project. The reason given was that his responsibility in the interim services project was to oversee and ensure the successful implementation of the project to the informal settlements identified for basic service provision, participating in meetings and reporting to relevant stakeholders with regards to the project progress. With regards to how households in informal settlements attained municipal services prior to the provision of services, he indicated household often received their water from stand pipes which are provided by the EWS. With regards to access to electricity, the official indicated that in most cases households utilized illegal connections that resulted in many cases of deaths being reported. With regards to sanitation provision, households made provisions through homemade pits and VIPs provided by EWS.

When the principal project officer was asked whether the provision of interim services had assisted households to meet their housing needs incrementally and whether the programme has stimulated the creation of sustainable settlement, he indicated „yes" as the communities now have access to services and this has resulted in some improving their homes. However, this may take time given that some households may not have the necessary financial resources to make housing improvements. With regards to how the provision of services has assisted the municipality with its upgrade projects in the informal settlements, the official indicated that the interim services project has in some form legalized the occupied sites as households are now provided with essential services, such as electricity, and in turn the municipality is able to generate revenue. Furthermore, settlements are provided with bulk services such as storm water pipes, sewer reticulation and these become the building blocks before the housing upgrading projects are initiated by the eThekwini municipality. In other words infrastructure provision costs are reduced tremendously.

With regards to whether the interim services programme can be applied to other municipalities in South Africa faced with the challenge of informal settlements, he indicated that it can. However there has to be proper engagement and community participation of intended beneficiaries to ensure project buy-in from communities. If this is done correctly there should be no obstacles in successfully implementing the project. With regards to the challenges faced by municipal authorities in providing interim services to informal settlements and how these challenges can be addressed the official indicated that again community buy-in is vital to avoid creating unnecessary tensions between beneficiaries and municipal authorities. He also indicated that some communities may not have the knowledge of the housing process such as the provision of bulk infrastructure before housing construction and communities view this project as an excuse to not provide houses. Other issues to note are local sub-contractors and contractor issues. To overcome these issues proper service contract agreements have to be drawn up spelling out responsibilities of both parties before any work is undertaken.

With regards to which policy guides the implementation of interim services project to informal settlements, the official indicated that according to his knowledge, apart from the USDG, funding for provision for interim services has been made available in the National House Code of 2009 under the ISUP. With regards to how the interim services strategy can be improved to address challenges imposed by informal settlements, the official indicated that the criteria for selecting settlements may need to change and the programme be made more flexible instead of using the project as a diplomatic tool (i.e. ease social tensions in settlements which may not receive housing within the near future).. In practice this would imply that even settlements that are to be developed in a short timeframe can be provided with services to avoid community protests (service delivery protests by households residing in informal settlements). The current approach in providing services is to service informal settlements that will only be upgraded in a long term timeframe.

4.10 Assessing the link between provision of basic municipal services in informal settlements and the creation of sustainable human settlements with eThekwini Water Services (EWS) Community Liaison Officer.

In the interview with the Community Liaison Officer involved in the interim services project, the researcher asked what his role entailed in the project. The reason given was that his responsibility in the project was to engage with the community leadership in order to ensure project buy-in from the beneficiaries and ensure the successful implementation of the project to informal settlements identified for service provision. Responsibility further entailed participating in meetings and reporting to external project stakeholders with regards to the project progress. With regards to how households in informal settlements attained municipal services prior to the provision of services, he indicated that from the initial birth of the settlement water dispensers, normally known as standpipes, were installed as part of EWS" obligation to combat waterborne diseases such as diarrhea and any other serious diseases that may arise from the usage of contaminated water.

With regards to how the provision of services to the settlement has assisted households in meeting their housing needs incrementally, the official indicated that the provision of services had made a significant change in reducing risk of fatalities that may arise from illegal electricity connections. Anecdotal evidence indicated that many young children have been electrocuted due to a spider-web of illegal connections crossing pathways. The provision of services such as electricity has combated electrocutions and households are able to invest their hard earned savings on housing improvements and extensions given that an important service like electricity had been supplied, providing power for lighting, cooking and heating in winter making their lives more bearable whilst residing in the informal settlement.

With regards to how the implementation of interim services has assisted the municipality with its upgrade projects in Magwaveni and Redcliff informal settlements, the official indicated that the project has assisted council in the prevention of looming protests on service delivery and raised hopes to communities residing in the two settlements that their places of habitat are not neglected, but are being considered for future development as the municipality had invested

money in these area in the form of infrastructure provisions and this is in line with future housing developments. With regards to whether the provision of interim services programme can be applied to other municipalities in South Africa faced with challenges of informal settlements, the official indicated that it can be applied since all citizens are entitled to these basic services as enshrined in the constitution, irrespective of the settlement dynamics. Municipal officials tasked with the provision of services should be held accountable as they have the responsibility of ensuring essential services reach communities who are in need of such services.

With regards to the challenges faced by municipal authorities in providing interim services and how to overcome these challenges, the official indicated that one of the challenges in the informal settlements is political dynamics and political factions that may exist within the settlement. In some cases if the is no political buy-in of the project it could lead to prolonged service delivery due to political tensions that may arise. Local economic empowerment should be emphasized to ensure project success (sourcing of local resources) as in some cases when the project is implemented factions erupt which lead to the stalling of projects. In relation to the policy that guides the implementation of interim services, the official indicated that most municipalities source funding for infrastructure improvements from the USDG while more funding provisions are made under the ISUP. With regards to improving the interim services strategy, the official indicated the need for a clear definition of the project objective so as to allow the beneficiaries of services to buy into the concept and this will avoid unnecessary stand offs between the municipality and the communities residing in informal settlement.

4.11 Conclusion

The findings in this research reveal that in the two case studies in the eThekwini municipality residents showed high levels of access to housing even though they were still occupying informal houses and housing upgrade projects had not been initiated by the municipality. This view is based on the fact that after the provision of basic services many households had embarked on making some improvements to their currently occupied informal dwellings. Based on the findings it is clear that the strategic location of the two settlements to centres of employment

opportunities has contributed to the proliferation of the settlements as residents were able to find employment opportunities.

This contributed to households being able to provide their housing informally. With regards to access to employment, the research revealed that households in the both the study areas had access to employment as a large proportion of people were economically active. There were high levels of dissatisfaction with their current housing condition as many residents indicated a desire to occupy a government assisted dwelling. The study revealed that there were high levels of access to water as residents indicated the water provided was clean and safe for consumption. However, there were also varying levels of satisfaction and some dissatisfaction as some residents had preferred to be connected with individual meters per household. Had this been the case there would have been higher levels of satisfaction with water provided. With regards to access to sanitation, it was found there were moderate levels of access even though the municipality had made provisions in both settlements through the provision of VIP toilets and ablution blocks.

There were also high levels of dissatisfaction with sanitation provided as residents felt that maintenance of these facilities were not undertaken by the municipality and found it socially unacceptable to be sharing toilets with other settlement dwellers. The study also revealed that in both the case study areas there were high levels of access to electricity provided and this was due to the provision of prepaid electricity by the municipality. There were also high levels of satisfaction with the power supply provided as residents were able use the electricity for household activities. More importantly, households were satisfied with the power supplied as they no longer had to worry about disconnections as the electricity was supplied by the municipality. The study also revealed that in both case studies there were high levels of access to road and footpath infrastructure by residents provided by the municipality. The provision of the infrastructure provided vehicular access those residents who owned vehicles and as well as for mini bus taxis that transport residents. There were also high levels of satisfaction with the infrastructure provided as residents indicated that the provision of these services were a clear

indication by the municipality in laying the building blocks for future houses to be constructed by the municipality.

CHAPTER FIVE: SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

The South Africa government with its housing policy aims to create an enabling environment that provides housing opportunities for poor households residing in informal settlements. The ISUP contained in the Housing Code of 2009 enables government to stimulate housing development by facilitating structured *in situ* upgrading in order to achieve land and housing tenure security for poor households residing in informal settlements. This is achieved by recognizing and formalizing the tenure rights of informal settlement dwellers and ensuring secure living conditions by facilitating the provision of affordable and sustainable basic municipal engineering infrastructure (Department of Housing, 2009). The purpose of this chapter is to provide a summary of findings, conclusions and recommendations of the study. The research questions and sub-questions are revisited and placed within specific themes in order to make informed conclusions and these questions will serve as a guide to evaluate whether findings of the study have been answered.

5.1 Provision of basic municipal services

Is the settlement serviced with electricity, sanitation and roads? This question was important in the study as it allowed for the evaluation of the interim services programme and services provided to Redcliffe and Magwaveni informal settlements. The study revealed that both settlements were provided with electricity and beneficiaries were connected to the local electricity grid on a pre-paid basis. The study also found that sanitation was provided in the form of communal ablution facilities and VIPs and these were adequately supplied. The study also revealed that both settlements were adequately serviced with free and safe drinking water through the provision of municipal water stand pipes. With regards to road infrastructure, the

study revealed that both settlements had access to pedestrian footpaths and roads that provided vehicular access to the settlements.

5.2 Access to basic services prior provision of interim services

The study found that households in Redcliffe and Magwaveni informal settlements obtained water from various sources such as local rivers, nearby formal houses and municipal stand pipes. With regards to sanitation, the study revealed that homemade pit toilets and communal ablution facilities were used prior to the provision of services. The study also revealed that there were a considerable number of households who were connected illegally to electricity for the purpose of cooking and house heating prior to the provision of services. The study also found that domestic waste was discarded by means of burning and burying.

5.3 Satisfaction with services provided

The study revealed that with regard to water provision, households were satisfied with water provided by the municipality as they had access to safe water for drinking and cooking. With regard to sanitation provision the study revealed that there were high levels of dissatisfaction with sanitation provided as toilets provided in the form of VIPs got fuller quicker making the facilities a health and environmental problem due to lack of servicing by the municipality. With regards to the containerized ablution facilities, high levels of dissatisfaction were found and this was attributed to the facilities being prone to water leakages and blockages as repairs were not conducted adequately leaving households with no services at times. The study found there were high levels of satisfaction with electricity provided and waste collection services. The study revealed that there were high levels of satisfaction with the roads and footpaths provided in both the settlements.

5.4 Access to housing

Findings from the study demonstrate that access to housing has different connotations for residents as households had high levels of satisfaction with the informal dwellings they occupied. This implied that access to essential services had an impact on households" satisfaction with their housing condition as the informal dwelling provided shelter. However, findings from the study also demonstrated that households were not satisfied with their current housing status as households cited difficulties of accessing the necessary financial capital required for housing improvements due to not having access to permanent employment opportunities. The findings of the study demonstrate empirically that the provision of basic municipal services to informal settlements by the eThekwini municipality has delivered much needed basic municipal services to households residing in shacks. However, the provision of basic services as an interim measure before housing upgrade did not provide the beneficiaries of services with an opportunity of owning adequate housing units as is commonly desired by the poor opposed to *in situ* upgrading projects where site and services are provided along with a government assisted house. The residents" housing condition remained unchanged but access to essential municipal services such as access roads, footpaths, electricity, water and sanitation were provided to remedy the hazardous conditions that residents of informal settlements are faced with.

5.5 Conclusion

The theme of this dissertation has been to assess the extent to which the provision of basic municipal services to informal settlements has assisted residents to improve their living conditions and stimulate the creation of sustainable human settlements. The intended goal of the study was to evaluate how households in informal settlements attain municipal services prior the provision of basic services and whether households were satisfied with services provided. The findings of the study revealed that the strategic spatial location of the Redcliffe and Magwaveni informal settlements to places of social and economic opportunities coupled with the provision

of basic municipal services by the eThekwini municipality provided some households with the opportunity to embark on house improvements to their currently occupied informal dwellings as residents were able to find employment and gradually improve their current living conditions. The findings of the study also revealed that in both case study areas there were high levels of access to road and footpath infrastructure and high levels of satisfaction with the infrastructure. The conclusive answer to the research question is that the provision of basic municipal services to informal settlements has contributed immensely in providing much needed services to poor households. However, it has not stimulated households residing in informal settlements to incrementally improve their housing condition as they are entirely dependent on the housing subsidy to meet their housing need.

5.6 Recommendations

According to the findings of this study the following recommendations have been identified to address challenges faced by households residing in informal settlements with regards to access to basic services and housing.

5.6.1 Creation of Informal Settlement and Upgrading Committees for service delivery

The study has found that with regards to the beneficiaries of municipal services there were variations with regards to the level of awareness of housing upgrade projects intended for the two study areas. The study, therefore, recommends that committees that are service delivery orientated should be established to fast-track the provision of much needed services to poor households residing in informal settlements. According to Kunene (2010) the creation of Informal Settlements and Upgrading Committees as bodies responsible for overseeing the regularization and upgrading of settlements is essential in monitoring the implementation of basic municipal services. These committees are vital in overseeing the participation of all relevant role players responsible for the delivery of basic municipal services to informal settlements. The committees provide for a coordinated service delivery approach and these

committees should be chaired by the relevant municipality as they are the local authorities closer to the beneficiaries of basic municipal services residing in informal residents. The committee"s role in the development of informal settlements should be to eradicate informal settlements on an incremental housing approach to create sustainable human settlements in order to enable the municipalities to address residents in informal settlements to obtain some form of individual tenure to protect the investments made by households to their structures and other housing improvements initiatives.

5.6.2 Basic Services and infrastructure provision

The study has found that for both the case study areas basic services such as water, sanitation, electricity, and road and footpath infrastructure were adequately provided. The study recommends that community participation of beneficiaries of basic services should be intensified and encouraged in the project"s initial planning stages as this will ensure that the services being provided are in line with the wishes of the community as they are the custodians of the services and infrastructure provided. According to the NUISP (2014) it is almost impossible to initiate informal settlement projects without the complete and enthusiastic involvement of the residents. Past experiences have indicated that if beneficiaries are not informed or consulted about the municipality"s plans to upgrade their areas, they will not regard the project as theirs and are unlikely to feel responsible for protecting what it provides. However, if residents participate in the development process a completely different attitude can be expected. The involvement of community members in the project will ensure that cases of vandalism are minimized as they would have made an input to the services being provided by the municipality. Innovative strategies should be applied in the provision of services, such as water and sanitation, to households as these were not provided to individual informal dwellings as opposed to electricity which was provided for each dwelling. The study recommends that in the event of provision of services the municipality should make interim measures to ensure services such as water and sanitation are provided inside the informal dwelling and can be incorporated in the future housing upgrade plans to be in line with the conceptual layout plans. If this is done households would be in a better position to make housing improvements as it would be much easier and simpler to connect to services provided and house construction.

5.6.3 Land acquisition for informal settlement upgrading project

Land acquisition for informal settlements located on privately owned land in South Africa has proved not to be a straightforward process as the willing buyer willing seller concept has to be adhered to. According to Misselhorn and Zack (2008), the problem is that in any provision of services for development on privately owned land by the municipality, private landowners could potentially request to be compensated for the value of the improvements which the municipality has embarked on. Therefore, it is critical that municipalities take a bold stand and put themselves in a position to rapidly invest in the land irrespective of land ownership issues, even if it takes some risks in doing so. The study, therefore, recommends that in South Africa the three spheres of government should plan adequately and make available financial budgets for land acquisition. Furthermore, the spheres of government should prioritise the speedy acquisition of land suitable for informal settlement upgrading. Allocation of funds for land acquisition from the National Department of Human Settlement should be used strictly for land acquisition as successful informal settlement upgrade projects are highly dependent on the availability of land with few land legal implications. Once the land has been acquired it should be subdivided and preliminary layout plans should be designed to assist with opening up the way for bulk infrastructure to be provided in the informal settlement. This will provide an opportunity for when an upgrade project is provided and ready for implementation, the building blocks being already in place, there would be no wasteful expenditure on starting afresh with new layout plans considering the amount of work that would have been done in sourcing layout plans. Conditions and restrictions such as court orders or interdicts should be put in place so as to ensure the informal settlement is ring-fenced and that the land acquired is not further invaded.

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APPENDIX ONE

SURVEY QUESTIONS FOR INTERIM SERVICES PROVISION TO INFORMAL SETTLEMENTS

RESPONDENTS QUESTIONIARE

A. Socio-Economic Profile

1. Gender

Male	
Female	

2. Are you the household head of your family?

Yes	
No	

3. How many people stay with you?

4. How long have you stayed in the area

Less than a year?	
1-10 years?	
10-20 years?	
20 years and more	

5. What is the main reason that brought you here?

………
………
………
………

6. Are you currently employed

Yes	
No	

7. If yes, what is your occupation?

Skilled	
Unskilled	
Self Employed	

8. What is your monthly income R

0 – 500	
500 – 1000	
1000 – 1500	
1500 – 2000	
2000 – 3500	
More	

B. **Access to housing**

1. Do you have access to housing?

Yes	
No	

2. If yes, what form of housing, shack or formal?

Shack	
Formal	

3. When did you come here?..

4. Are you aware of proposed housing upgrades in your area?

Yes	
No	

If yes, when will they start?……………………………………………………………

5. Do you think the municipality is doing enough to assist with access to housing and municipal services?

Yes	
No	

6. Are you satisfied with your current housing condition?

Yes	
No	

Why?...

C. Basic services satisfaction indicators

1. Do you have access to:

   1.1 Water?

Yes	
No	

   1.2 Sanitation?

Yes	
No	

1.3 Electricity

Yes	
No	

1.4 Waste Removal

Yes	
No	

2. Please indicate your satisfaction with the quality and level of services provided through the interim services project?

2.1 How satisfied are you with water provided

Satisfied	
Partly Satisfied	
Unsatisfied	

For either answer please give reasons…………………………………………………

2.2 How satisfied are you with sanitation provided

Satisfied	
Partly Satisfied	
Unsatisfied	

For either answer please give reasons…………………………………………………..

2.3 How satisfied are you with electricity provided

Satisfied	
Partly Satisfied	
Unsatisfied	

For either answer please give reasons………………………………………………..

2.4 How satisfied are you with electricity provided

Satisfied	
Partly Satisfied	
Unsatisfied	

For either answer please give reasons……………………………………………

2.5 Where did you get these services before they were installed here?

…………………………………………………………………………………………
…………………………………………………………………………………………
…………………………………………………………………………………………
…………………………………………………………………………………………

 2.6 After the provision of services, will you continue living here?

…………………………………………………………………………………………
…………………………………………………………………………………………
…………………………………………………………………………………………
…………………………………………………………………………………………

2.7 What does the provision of services mean to you in terms of land tenure, health, housing improvement and relocation?

…………………………………………………………………………………………
…………………………………………………………………………………………
…………………………………………………………………………………………

KEY INFORMANT INTERVIEW QUESTIONS FOR EVALUATION OF INTERIM SERVICES

Overview of questions to be asked.

1. How households in the Redcliff and Magwaveni informal settlements attained basic services such as electricity, water and sanitation prior to the provision of interim services?

2. Do you think the provision of interim services at Redcliff and Magwaveni informal settlements has assisted households to meet their housing needs incrementally and whether the programme has stimulated the creation of sustainable settlements?

3. How has the implementation of interim services assisted the municipality with its upgrade projects in Magwaveni and Redcliff informal settlements?

4. Yes or no - do you think the interim services programme can be applied to other Metropolitan municipalities in South Africa faced with challenges of informal settlements, and what are the challenges being encountered by authorities in providing interim services and how these challenges can be addressed?

5. In your opinion which particular policy guides the implementation of interim services?

6. According to your opinion can this strategy be improved to address challenges imposed by informal settlements?