LAND USE PLANNING FOR INFORMAL SETTLEMENTS: INCORPORATING COMMUNITY-DRIVEN PLANNING IN THE LOCAL INTEGRATED DEVELOPMENT PLAN

A case study of Hanipark, Matjhabeng Local Municipality

by

Gosego L. Maselwanyana

Submitted in partial fulfilment
of the academic requirements for the degree of
Master of Environment and Development (Land-Information Management)
in the Centre for Environment, Agriculture and Development
School of Environmental Sciences
Faculty of Science and Agriculture
University of KwaZulu-Natal

Pietermaritzburg 2007

Supervisor: Dr Denis Rugege

SUMMARY

The problem of informal settlement is well established in many urban areas of South Africa and in many other developing countries. Efforts to upgrade urban informal settlements have largely failed due to lack of effective participation in the planning processes which are conventionally driven by professional land use planners.

This study was carried with the objectives to determine the causes of failure of conventional land use planning in upgrading informal settlements and the resulting spatial implications. There also sought to investigate current best practices of in-situ upgrading of informal settlements and to use these in formulating a proposed approach that would include community-driven planning into the local integrated development planning.

In a case study of the Hanipark Informal Settlement in Matjhabeng Local Municipality, Free State Province key informants identified from the various stakeholders involved in the upgrade process were interviewed in order to establish the causes of failure of the planning processes. Ortho-rectified imagery of 2000 and 2003 were also analysed to establish the spatial trends of the informal settlement during the informal settlement upgrade of the study area.

The results showed that the in-situ upgrade of the Hanipark Informal Settlement was largely driven by the Matjhabeng Local Municipality planners using the conventional technical approach with minimum participation of the beneficiary informal settlement dwellers. It was revealed that while the upgrade planning was in progress, new informal dwellers continued to settle. Over a three-year period between 2000 and 2003, the number of informal settlement dwellers increased by more than 1,000 households, increasing settlement density and expanding the area extent of the informal settlement by more than 10 ha.

The study results suggest that an adaptation of the current practices centred on the UN_HABITAT procedure could be more successful in informal settlement upgrading. A three-phase approach is proposed to include as the first phase, the formation of a Stakeholders Forum which conducts a land audit, identifies policy instruments and

accessible resources and establishes a partnership with the private sector; as the second phase, a land zoning procedure and the establishing of a suitable land tenure framework and carrying out detailed planning and implementation as the third phase.

PREFACE

This thesis represents the original work of the writer hereof and has never been submitted
in any form, part or entirely to any other university. Where use has been made of the work
of others, these have been duly acknowledged in the text.

As the Candidate's Supervisor, I have approved this mini-dissertation for submission.

ACKNOWLEDGEMENTS

This thesis could not have been written without the patience, love, and support of my wife, Mothootsile and my children, Moalosi, Thotloetso and Kealeboga who have constantly supported me whilst I was most of the time away from home.

I would also like to thank Dr Denis Rugege, my Supervisor and a Mentor for the excellent guidance I have received from him.

Faith Nzimande for the invaluable assistance with the administrative issues, you deserve my thanks.

My colleagues, especially Peter Brislin and Oganne Ramagaga who have been constantly encouraging and reminding me of the importance of the path I have taken, also deserve my thanks.

To my colleagues at Welkom District Office (FSPLRO), thank you for your support and understanding.

Finally, I would like to thank the Department of Land Affairs for affording me the opportunity to further my studies and for acquiring better knowledge and skills.

TABLE OF CONTENTS

LIST OF FIGURES	viii
LIST OF TABLES	ix
ACRONYMS	X
CHAPTER 1: INTRODUCTION	
1.1 BACKGROUND	
1.2 PROBLEM ANALYSIS	1
1.3 SETTLEMENT LAND ACQUISITION GRANT (SLAG) AND	
MUNICIPAL PROCESSES	2
1.4 RESEARCH OBJECTIVES	
1.5 RESEARCH HYPOTHESIS	
1.6 RESEARCH QUESTIONS	
1.7 METHODOLOGY	
1.8 LITERATURE REVIEW	
1.9 COLLECTION OF SECONDARY DATA	5
1.9.1 GIS analysis of informal settlement expansion trends in the	
study area	
1.9.2 Interviews with key informants	
1.9.3 Materials	6
CHAPTER 2: LAND USE PLANNING FOR INFORMAL SETTLEMENT	
UPGRADING	
2.1 INTRODUCTION	
2.2 CONSTITUTIONAL AND LEGISLATIVE FRAMEWORK IN GE	
2.2.1 Institutional framework	
2.3 LAND USE PLANNING AND MANAGEMENT BEST PRACTIC	
2.3.1 Informal land market	
2.3.2 International Federation of Surveyors	
2.3.3 The benefits of participation	
2.3.4 The practicalities of participatory planning	
2.3.5 Well-informed planning	
2.3.6 Services	
2.3.7 Approaches to the upgrading of informal settlement in-sit	u 24
CHAPTER 3: INTEGRATED DEVELOPMENT PLANS (IDP)	
3.1 INTRODUCTION	
3.2 WHY IS IT NECESSARY TO DO AN IDP?	
3.2.1 Effective use of scarce resources	
3.2.2 It helps to speed up delivery	
3.2.3 It helps to attract additional funds	
3.2.4 It strengthens democracy	29

3.2.5 It helps to overcome the legacy of apartheid	
3.2.6 It promotes co-ordination between local, provincial and national	
government	29
3.3 WHO ARE THE STAKEHOLDERS IN THE IDP PROCESS?	29
3.3.1 Municipality	29
3.3.2 Councillors	29
3.3.3 Communities and other stakeholders	30
3.3.4 National and provincial sector departments	30
3.4 UPGRADING INFORMAL SETTLEMENTS IN THE MATJHABENG	
MUNICIPAL IDP	30
3.4.1 Stand allocation	30
3.4.2 Land titling	30
3.5 EMERGENCE OF IDP CONCEPT: HISTORICAL OVERVIEW	31
3.6 CONSTITUTIONAL GUIDELINES	
3.7 DISTRICT MUNICIPALITY AND LOCAL MUNICIPALITY	33
3.8 POLICY INTENTIONS OF IMPLEMENTING THE IDP PROCESS	34
3.9 LEGAL REQUIREMENTS AND GUIDELINES	36
3.9.1 Legislative requirements	36
CHAPTER 4: DATA COLLECTION, ANALYSIS AND RESULTS	
4.1 INTRODUCTION TO THE STUDY AREA	37
4.2 MATJHABENG LOCAL MUNICIPALITY AS AN ECONOMIC	
ATTRACTION	38
4.3 POPULATION STATISTICS OF MATJHABENG LOCAL	
MUNICIPALITY	
4.4 LEVEL OF EDUCATION IN MATJHABENG LOCAL MUNICIPALITY	
4.5 DATA ANALYSIS AND RESULTS	
4.5.1 Analysis of the informal settlement expansion trend	
4.5.2 Spatial manifestation of conventional planning failure	
4.5.3 Key informant interviews	
4.5.4 Origin of Hanipark settlers	
4.5.5 Priority needs of Hanipark settlers	48
CHAPTER 5: CONCLUSION AND RECOMMENDATION	49
REFERENCES	52
APPENDIX: UNSTRUCTURED INTERVIEW QUESTIONNAIRE	56

LIST OF FIGURES

Figure 1: Hanipark informal settlement within the local, provincial and national reference	37
Figure 2: Population distribution by urban centre in the Free State (Source: IDP)	
Figure 3: Level of education in Matjhabeng Local Municipality	40
Figure 4: Annual household income levels (Source: IDP).	40
Figure 5: An ortho-rectified aerial photograph showing the Hanipark informal settlement in 2000. Note a recently settled portion in the south-west	42
Figure 6: Boundary polygons based on 2000 air photo (white) and 2003 (red) against the laser image backdrop showing the increased area extent.	45
Figure 7: Layout plan for Hanipark as prepared by municipal planners; old and new area extents overlaid on the laser image of 2003.	

LIST OF TABLES

Table 1: The number of informal settlements per province as provided by various sources.	11
Table 2: In-situ Informal settlement upgrade vs Greenfield development (based on Abbot, 2000)	
Table 3: Social policy objective vs IDP process (Dept of Provincial and Local Government, 2000)	35
Table 4: Details of Key Informants and their respective affiliations as stakeholders	47
Table 5: Proposed approach for upgrading Hanipark and similar informal settlements insitu, based on UN-HABITAT (2004) best practice.	

ACRONYMS

FIG Fédération Internationale des Géomètres. The International Federation

of Surveyors is an international, non-government organisation whose purpose is to support international collaboration for the progress of

surveying in all fields and applications. www.fig.net

GIS Geographic Information System. A system for capturing, storing,

checking, manipulating, analysing and displaying data in reference to

the earth

LIM Land Information Management

UN-HABITAT United Nations Human Settlements Programme, formerly United

Nations Centre for Human Settlements (Habitat). www.unhabitat.org

DLA Department Of Land Affairs (South African Government)

IDP Integrated Development Plan

CBD Central Business District

ANC African National Congress

NP National Party

COSATU Congress of South African Trade Unions

MEC Member of Executive Council

FEPD Forum for Effective Planning and Development

RDP Rural Development Program

LED Local Economic Development

MSA Municipal Systems Act No. 32 of 2000

CHAPTER 1: INTRODUCTION

1.1 BACKGROUND

Upgrading of urban informal settlements is a corporative mandate of the Department of Land Affairs and other government departments to facilitate land tenure security, of the local authorities to provide housing and other services, and to facilitate poverty alleviation (White Paper on Land Policy, 1995). Problems of continued poverty and lack or unaffordable services have been encountered following the implementation of various projects. These problems probably emanated from the approach taken in the planning and implementation phase that was conventionally top-down and based only on physical conditions, ignoring the social and economic aspects that are largely responsible for the unplanned settlements.

Extended delays by the Department of Land Affairs in disbursing grants intended to assist the landless in acquiring land for settlement within urban informal settlements aggravates the problem. This situation comes about due mainly to the formalisation processes driven by planning agencies of municipalities. This has become an impediment for reasons that include overwhelming and continuous expansion of the settlements.

This study analyses the possible causes of the failure to upgrade informal settlements and proposes possible solutions.

1.2 PROBLEM ANALYSIS

Although the rural-to-urban migration is not unique to a single country or region, the problem of informal settlements in South Africa largely emanates from the apartheid regime's spatial segregation based on race. Black Africans were forcibly removed and placed in the then so-called self-governing states or homelands which were generally poor with no economic activity for employment and where agriculture was impractical. As a result, people settled in informal dwellings within commuting distance to the then designated areas for the white South Africans where industries and other economic activities could be accessed for jobs.

The growth of informal settlements within the urban fringes continued even after the end of apartheid, driven by poverty and what had become an inherent social exclusion. In order to

reverse this trend, the present South African government has put in place policies and legislative framework such as the Integrated Development Plans (IDP) of municipalities and the Land Reform Programme, managed by the Department of Land Affairs, and other various accompanying acts. Through these policies and legislation, the government hopes to achieve equity in access to land and hence enable those who were dispossessed of their land by the apartheid regime to gain access to land on which they can settle and engage in productive activities such as agricultural production.

1.3 SETTLEMENT LAND ACQUISITION GRANT (SLAG) AND MUNICIPAL PROCESSES

One of the practical instruments in Land Policy is the land acquisition and settlement grant that is available to certain categories of applicants. The grant, disbursed through the Land Reform Programme, may be used to cover the costs for the enhancement of tenure rights, specifically land titling, seen by municipalities as a prerequisite for the upgrading of informal settlements. Municipalities seem to approach the integration process of informal settlements into the formal urban set-up with continued bias towards conventional planning and implementation based on the suitability of physical conditions and followed by land titling or relocation where dwellers are deemed unsuitably placed.

The Municipality of Matjhabeng has in its Integrated Development Plan (IDP) document which identifies housing as one of its priorities. The intention is to establish and maintain habitable, stable and sustainable public and private residential environments. The IDP also includes areas with convenient access to economic opportunities, health education, and social amenities, create residential structures with secure tenure, internal and external privacy as well as to create decent structures that have potable water, adequate sanitary facilities, domestic energy supply and road access.

The main objective of the IDP is to make land available in close proximity to areas that have access to economic opportunities by identifying government owned land and using it to develop the required housing. If suitable land is privately owned then it would be purchased using the Department of Land Affairs' grants and/or Municipal funds. This process is usually initiated by the communities who would have raised their needs in their ward meetings.

The council would decide as to whether or not the need is a priority. Once consensus is reached that the land need is a priority, the municipal council applies for a grant from the Department of Land Affairs. They do so by submitting an application letter, council resolution that they indeed agreed, need analysis, list of applicants and recent audited financial statement (proof that they do not have enough funds to purchase land on their own). The resolution should also be guaranteeing that they will not sell the land to their communities. The application is then considered at a District Screening Committee (DSC) where the application is approved on the basis of the criteria set out in the land reform policy. After the DSC deliberations, recommendations and suggestions, the project is then allocated a budget and planned for. When all the documentation is ready it will then be sent the Provincial Grants Committee for approval and releasing of the grant to allow individual land parcels to be purchased. The settlement planning by the local municipality is subsequently evoked with township layout including basic services infrastructure.

However, recent research and best practice by Abbot and Douglas (2001) recommend that tenure security options be considered as a last step in the process of upgrading informal settlements in-situ. Informal settlements are characterised by poverty and social exclusion manifested in lack of basic services available to the broader urban society. A methodology developed by Abbot and Douglas (2001) for in-situ upgrading of informal settlements in South Africa, recommends the acquisition and evaluation of an extensive information base regarding structural development and social development, gender equity and economic development as a first activity. The methodology then recommends that an internally driven implementation strategy should follow, putting in place movement and access systems, economic activity support infrastructure, water and sanitation.

The Namibian Ministry of Regional and Local Government and Housing developed a simplified manual for a community-driven upgrading of informal settlements in-situ, based on similar principles. The United Nations Human Settlement Programme (UN-HABITAT) has published best practice guidelines for integrating informal settlements into city planning approaches (UN-HABITAT, 2004).

The three approaches emphasize poverty alleviation and service provision, as a central sustainability problem that should be addressed in the first instance and for residents to choose from the available tenure security options as a last step. This basic principle is shared

in the residents and community leaders' guide for the upgrading of informal settlements in Namibia (Alberts *et al.*, 1996).

There exists therefore, a fundamental contradiction with regard to the timing of land tenure security upgrading for informal settlements that necessitates a paradigm shift among land use planners. The recommended timing of land tenure formalization should also directly influence the timing of the disbursement of the land acquisition and settlement grant by the Department of Land Affairs.

This research investigates the nature and causes of failure of conventional upgrading of informal settlements based on physical planning using the Hanipark informal settlement as a case study. The research analyzes the expansion trends of the study area using Geographic Information Systems (GIS). The research also investigates some of the recent approaches in in-situ upgrading of informal settlements and puts forward a proposal for integrating community-driven planning in municipal IDPs that seems to promise poverty alleviation and social re-integration of informal settlement dwellers into the rest of society.

1.4 RESEARCH OBJECTIVES

This study aims to establish the nature and causes of failure in upgrading informal settlements for security of land tenure and basic municipal services using Hanipark Informal Settlement as a case study.

The main objectives of the study are:

- To investigate the causes of conventional planning failure in upgrading informal settlements
- To establish informal settlement spatial manifestations of conventional planning failure in the study area, and
- To propose a participatory method for in-situ informal settlement upgrade which can be adopted by other municipalities

1.5 RESEARCH HYPOTHESIS

Failure to upgrade informal settlements by municipal planning agencies is due to lack of community participation.

1.6 RESEARCH QUESTIONS

- What are the reasons behind the migration and settlement into Hanipark?
- What is the current approach in upgrading and social integration of Hanipark?
- What are the current best practices for informal settlement upgrading?
- Who are the stakeholders and what are their respective roles in the planning of Hanipark?
- What is the relationship between the community and the municipal planners?

1.7 METHODOLOGY

In order to test the stated research hypothesis and meet the research objectives, the following research methods were applied:

1.8 LITERATURE REVIEW

Local and international literature was reviewed to gain insight into the problem of land use planning and in-situ upgrading of informal settlement. This included topics on best practices, informal land markets, the benefits and practicality of stakeholder participation in planning, service delivery constraints, approaches to the upgrading of informal settlement in-situ and municipal integrated development plans.

1.9 COLLECTION OF SECONDARY DATA

IDP documents and other secondary data were obtained from the Matjhabeng Local Municipality through office visits. Digital data in form of a scanned 1: 50,000 topographic map and a digital ortho-rectified panchromatic aerial photograph were obtained from the Chief Directorate Surveying and Mapping while tiles of ortho-rectified laser images of the study area were supplied by the local engineering firm, Laubsher, Slabert and Brink Pty Ltd.

1.9.1 GIS analysis of informal settlement expansion trends in the study area

One of the complicating factors in the difficult task of in-situ upgrading of informal settlements found in literature is the continued inflow of new settlers and the resulting densification and expansion of informal settlements.

In order to confirm this occurrence, a temporal analysis of imagery using GIS was applied to detect changes in the settlement patterns of the study area. The Visual Interpretation change

detection technique (Lu *et al.*, 2004) was applied on ortho-rectified imagery of a panchromatic aerial photograph of 2000 obtained from the South African Chief Directorate of Surveying and Mapping and a laser image of December 2003 obtained from a local engineering firm Laubsher, Slabbert and Brinks. The two images were co-registered in the South African spatial reference STMLo27 and the WGS84 datum, overlaid and a qualitative visual analysis performed on them based on tone, texture, shape, size and pattern image characteristics.

The two images had similar spatial resolution at 0.75 m and 0.59 m for the aerial photograph and laser image respectively. However, spectral and radiometric information were not available for either image and therefore radiometric normalization was not possible to allow a quantitative analysis. Spatial changes could therefore only be detected by visual analysis. The changes in spatial extent of the informal settlement structures were delineated by on-screen digitizing.

1.9.2 Interviews with key informants

Unstructured interviews with open-ended questions were conducted with municipal officials responsible for planning and implementation of upgrading the study area as key informants to establish the processes involved. Elected councillors for the study area as well as residents were interviewed to establish the origin of dwellers, their motivation for coming to the study area and about their priority need. The interviews also served to establish the level of stakeholder participation in the planning and implementation processes.

1.9.3 Materials

The following materials were used in data collection and analysis:

- 1: 50,000 and 1: 250,000 Topographic maps
- Digital Ortho-rectified panchromatic aerial photograph (Spatial resolution: 0.75 m)
- Laser image tiles (Spatial resolution: 0.59 m)
- Digital camera
- Computer with ArcGISTM 9.0 software

CHAPTER 2: LAND USE PLANNING FOR INFORMAL SETTLEMENT UPGRADING

2.1 INTRODUCTION

In the Metropolitan Spatial Development Framework (1995), Informal settlements are being described as dense settlements comprising communities housed in self constructed shelters under conditions of informal or traditional land tenure. They are common features of developing countries and are typically the product of an urgent need for shelter by the urban poor. As such, they are characterised by a dense proliferation of small, make-shift shelters built from diverse materials, degradation of the local ecosystem and by severe social problems.

Informal settlements occur when the current land administration and planning fails to address the needs of the whole community. These areas are characterized by rapid, unstructured and unplanned development. On a global scale, informal settlements are a significant problem, especially in third world countries housing the world's disadvantaged.

A UNCHS global report on human settlements (1986) pointed out that 30–60% of residents of most large cities in developing countries live in informal settlements.

South Africa has a high rate of population growth that is impacting on the cities in the form of burgeoning squatter camps and informal settlements (Saff 1996: 235–255). South Africa's total population was estimated at approximately 44 million in 1995 with estimates for annual population growth for urban Africans ranging from 2.4% to 3.5%. The majority of South Africa's poor are African, as are the majority of informal settlement dwellers. In 1994, approximately 1.06 million households comprising 7.7 million people lived in informal settlements. Coupled to this, an estimated 720,000 serviced sites that were provided by provincial legislatures under the previous government required upgrading and 450,000 people lived in various, often inappropriate, forms of hostel accommodation (Republic of South Africa 1994: 9, South African Institute of Race Relations 1994: 328, 367, Barry and Mason 1997).

Mazur and Qangule (1995) as cited in Urban Studies Unit of the Cape Town City Council showed that Cape Town and growing number of informal settlement dwellers and a substantial proportion of its population are on formal property but need improved shelter. In 1995, it was estimated that more than 400,000 people were inadequately housed in the Cape Town Metropolitan area

The Metropolitan Spatial Development Framework (1995: 10) cited urban growth rates for Cape Town of between 1.8% and 5% per annum. This was due both to organic growth and a major influx of people, predominantly Xhosa speakers, with the easing of the pass laws in 1986.

The improvement of living conditions in informal settlements is one of the most complex and pressing challenges facing developing countries today. A prerequisite for such improvement is a framework of up-to-date spatial information.

This is in contrast to the developed world where developments towards technologies for reconstructing 3D models of formal urban, spatial models of informal settlements (IS) are required to support efforts to improve basic living conditions. Common scenarios include, amongst others:

- 1. Monitoring and predicting expansion;
- 2. Relocation of residents to formal housing;
- 3. Upgrading of settlements, e.g. through provision of basic infrastructure;
- 4. Disaster management, e.g. flooding and fires, and
- 5. Environment and resource management.

With the exception of perhaps scenario 3, a requirement for spatial models of IS emphasise less the need for positional and object modelling accuracy and opt for more completeness of records in the face of highly dynamic environments.

A crucial requirement of effective planning is ready access to accurate and up-to-date spatial data. As informal settlements grow and change quite rapidly, traditional mapping techniques are not economic or practical. Therefore aerial imagery is the best source of spatial information on informal settlements. (Metropolitan Spatial Development Framework, 1995)

The scale of the housing crisis in urban South Africa has been widely acknowledged. In its 1994 Housing White Paper, the government estimated that, nationally, the urban housing backlog in 1995 was approximately 1.5 million units. In addition to this, 720,000 serviced sites in urban areas required upgrading, and 450,000 people were living in hostel accommodation which required upgrading (Department of Housing, 1994, par. 3.2.1). It was estimated that, in order to eradicate the existing backlog over a period of 10 years, 200,000 units would have to be built every year. However, this assumes no increase in the backlog. If growth in the number of households formed continues at its current rate, 350,000 houses would have to be built each year for the backlog to be eliminated (Department of Housing, 1994, par. 4.1).

One response to the shortage of housing has been the growth of informal settlements. These began to mushroom in Gauteng during the 1980s. The number of settlements and their inhabitants continue to grow. By 1990, there were 47 informal settlements in the Pretoria-Witwatersrand-Vereeniging region, housing 49,000 people (Sapire, 1992). In 1998 there were 180 informal settlements in Gauteng (Gauteng DDPLG, 1998), claimed to be housing more than one million people according to a provincial government newspaper (Sefatlhe, 1998). Such is the contemporary demand for land that "land mafia" can charge individuals R50 to sign a "housing list" to help them settle on invaded land. Additionally, up to R30 a month in protection and legal fees is charged once they have been allocated stands and have moved to the new area (*The Saturday Star*, 21/2/98, p. 9).

A number of factors have caused this growth in informal settlements in Gauteng. These are reflected in the stories of residents reported in this paper. One is simply the housing shortage, which is part of the legacy of apartheid. The last major boost to low-cost housing had been the government's township building programmes of the 1940s and 1950s. These had been in response to the dramatic increase of the urban African population during World War 2, owing partly to increased employment opportunities created by the absence of white men away at war. During the 1950s and 1960s, the booming local economy continued to draw Africans to the cities, although influx control reduced the rate of in-migration from the 1950s (Parnell, 1997). However, after 1968 government policies required that Africans be housed in nearby homelands rather than in "white" (urban) South Africa. This put an end to the construction of government houses for Africans in urban areas.

In apartheid South Africa only white people had a right to have access to adequate housing but in the democratic South Africa, the opposite is true. Section 26 of our constitution clearly stipulates that "everybody has a right to adequate housing, and that the state must take reasonable legislative measures, within its available resources to achieve the progressive realisation of this right". In dealing with this repulsive past, which unfortunately, still exists at present, it is crucial that we put it into its right historical context. The Influx Control, Migrant Labour and Group Areas Act are entirely to blame for the existence of the informal settlements.

The apartheid advocates only needed a few blacks to come and work in their factories, and housing them was the least of their worries. After the repeal of influx control, African people were allowed free movement across the country, going wherever they thought they could find employment, which of course, were the urban areas. The majority of those who moved to the cities could not find decent employment because of their low skills profile. The only accommodation these poor people could afford would be a shack in an informal settlement.

On the basis of international experience, the process of eradicating informal settlements will still haunt South Africa for at least the next two decades.

Because of the ongoing lack of employment, the growth of informal settlements is outstripping the province's capacity to provide formal housing opportunities.

The MEC for Housing in The Gauteng Legislature, Mr Paul Mashatile (May 29, 2001) argued, when presenting his budget speech, that the apartheid past is depicted by historic events and policies that significantly shaped the face of the provincial development landscape, and the housing sector in particular. These historical events and policies subjected the majority of underprivileged people to squalor, poverty and other appalling living conditions.

The state machinery attempted to thwart the settlement of African people in urban areas. The Group Areas Act zoned residential developments in relation to racial classification, while the Land Act prevented black people from acquiring land, let alone owning it, and the Influx Control Act made it difficult for Africans to settle in urban areas and relegated them to the homeland areas. These were the major influencing factors that determined the landscape inherited by the present government.

Table 1: The number of informal settlements per province as provided by various sources.

Source	Year	Place	Number of Informal Settlement	No of Dwellers
Sapire (1992)	1980	Witwatersrand- Pretoria- Vereeniging	47	490,000 Households
Gauteng DDPLG	1998	Gauteng	180	1,000,000 Households
		Northern Cape	31	20,438 Households
		Eastern Cape	179	136,567 Households
		KwaZulu-Natal	162	177,212 Households
The Star Newspaper	Monday, 13 October, 2003	Free State	126	147,081 Households
		Limpopo	57	56,930 Households
		Western Cape	119	142,706 Households
		Mpumalanga	90	92,877 Households
Total			991	2,263,811

The advent of democracy, which followed the 1994 national elections, ushered in a period of accelerated growth and development, and indeed a paradigm of unprecedented social development and transformation.

This paper considers the migration experiences of residents of informal settlements in Gauteng. It provides further evidence that the residents of informal settlements are generally not new migrants from rural areas. In particular we consider residents' origins and their reasons for moving to the settlements. Satisfaction with their latest move is also considered, as it is related to the factors that caused respondents to move.

This research also considers the prospects for creating stable, well-integrated communities from a group accustomed to frequent moves, by discussing the attitudes of residents to rural and urban life. These attitudes are linked to the migration experiences of residents – their origins and levels of satisfaction with their current settlements. Differences between the four

case-study settlements are apparent, allowing a discussion of regional and site-specific factors affecting attitudes to urban life, and in turn the likely stability of informal settlements.

The research on which this paper is based monitors the impact of the subsidy scheme in four of Gauteng's peripheral informal settlements over a four-year period (Stevens and Rule, 1997; Stevens and Rule, 1998; Stevens *et al.*, 1998). With the exception of the study in Bloemfontein by Botes and Stewart *et al.* (1996), all previous similar research in South Africa as far as could be established has taken snapshot or retrospective approaches.

From 1990 onwards steps were taken to negotiate the shape of a new housing policy for South Africa. This was in the context of sustained policy debate in favour of self-help housing and the provision of state land for low-income households (Bernstein, 1989; Hendler, 1991; Harrison, 1992) in the light of mistakes made locally and elsewhere in the developing world (de Beer, 1989; Beavon, 1989; Hart, 1989; Rogerson, 1989a, b; Pillay, 1995; McCarthy and Bernstein, 1996; Macoloo, 1996, 1998; Marais, 1997; Yousry and Aboul Atta, 1997).

Of particular importance in this process was the National Housing Forum, established in 1992, which brought together a wide range of stakeholders including political parties, trade unions, financial institutions and civic organisations. The origins of the housing policies outlined in the Government's Housing White Paper (Department of Housing, 1994) can be found in the work of the Forum and in the government's Reconstruction and Development Programme. The White Paper on Housing clearly states the intention of the government to provide accommodation and basic services for all (Department of Housing, 1994, par. 4.2).

"Government strives for the establishment of viable, socially and economically-integrated communities, situated in areas allowing convenient access to economic opportunities as well as health, educational and social amenities, within which all South Africa's people will have access on a progressive basis to:

- a permanent residential structure with secure tenure, ensuring privacy and providing adequate protection against the elements; and
- potable water, adequate sanitary facilities including waste disposal and domestic electricity supply."

The strategy that has been adopted is based on the provision of a housing subsidy. This takes the form of a once-off payment, usually made to developers on behalf of households in a community. There was a great deal of debate about the amount of the subsidy and what it

could be expected to provide. The outcome is a means-tested subsidy that can provide a household with "[just] a serviced site, or a serviced site with a rudimentary structure, [or be] used for the in-situ upgrading of a community, or for a portion of the cost of a house or flat." (Tomlinson, 1998: 140). In all cases, beneficiaries will own their home and the land it is built on, providing security of tenure. The actual amount of the housing subsidy granted varies from R5,000 to R15,000, depending on the level of household income.

In November 1996, the Gauteng Department Housing and Land Affairs (GDHLA) embarked upon two new programmes, linked to the housing subsidy scheme, to address the issues of landlessness and tenure insecurity in the province. These are the (Stevens and Rule, 1998). Mayibuye Programme¹ (MP) and the Informal Settlement Upgrading Programme (ISUP).

- (a) The MP arranges the release of vacant, minimally serviced land for rapid settlement. Priority for stands in the new settlements is given to people living in areas that are not suitable for upgrading. Some of the stands may also be allocated to people from other areas. All residents move voluntarily. They occupy the plots as soon as the land has been surveyed and stands laid out. The aim is to release land quickly to prevent invasions, and to help avoid situations in which people settle on areas such as flood plains and refuse dumps, which are unsafe for permanent structures.
- (b) The ISUP involves the purchase of land by individuals who are already occupying informal settlements, as the first step to upgrading the settlement.

Under both programmes, the beneficiaries use the subsidy money to buy their stands, to install or upgrade water, sewerage reticulation and roads in the settlements, and eventually to build a formal house.

2.2 CONSTITUTIONAL AND LEGISLATIVE FRAMEWORK IN GENERAL

In its attempt to redress these issues of informal settlements, the Government developed legislations and policies, which involved citizens of South Africa.

¹ Mayibuye programme is more on redressing the apartheid regime on inequalities

2.2.1 Institutional framework

The Government in its Department of Housing Policy (1994) acknowledged that the development of acceptable and sustainable medium density rental housing could only be realised through sustainable social housing institutions and adequate private sector involvement. Social housing has proved to be able to significantly address concerns around urban regeneration and improve housing densities. It clearly contributes to sustainable development, especially when location, integration, viability and sustainability are carefully considered. It has promoted the effective and efficient management of rental and/or collective forms of accommodation (with emphasis on long-term management and maintenance) and stimulated an economic contribution by way of regular payments to local authorities for services provided. The sector is showing an ability to facilitate local economic development through supporting local economies and stimulating a fiscal benefit that exceeds public sector investment in housing. Therefore, the macro objectives of promoting citizenship, democracy and good governance are contributed to by social housing. Local authorities by implication have a key role to play as partners in social housing development.

The social housing sector however, has been dependent on various international donors for financial support. This support is limited and finite, and alternative funding sources will have to be provided for the sector. To date, only limited private sector support and funding has been brought into the sector. This limitation is in large measure caused by the lack of a defined policy and regulatory environment.

To achieve its housing objectives and to provide coherence to the social housing sector, the Government will pursue the establishment, regulation and maintenance of social housing institutions through a structured and dedicated policy programme. This Social Housing Policy outlines the Government's proposed range of interventions as an overarching approach to stimulate the development of the sector. The overall purpose of this policy is to establish a mechanism in terms of which Government can create an enabling environment for the development, delivery and maintenance of the social housing sector required to deliver housing opportunities at scale in South Africa. In order to achieve this, the document suggests, *inter alia*, changes to the institutional framework for social housing; a new funding framework for the sector to ensure that institutions are adequately funded to the point where their growth becomes organic without any further subsidisation, and a regulatory framework based on a best practice regime.

The government also focuses on the following principles, as guidance in an attempt to underpin the social housing policy:

- To promote the social, physical, and economic integration of housing development in existing urban and/or inner-city areas through the creation of quality living environments.
- To respond to local housing demand.
- To support the economic development of low income communities by ensuring that they
 are close to job opportunities, markets and transport and by creating job opportunities for
 emerging entrepreneurs in the housing services and construction industries.
- To ensure the involvement of residents in the social housing institution (SHI) and/or key stakeholders in the broader environment through defined meaningful consultation, information sharing, education, training and skills transfer.
- To ensure secure tenure for the residents in social housing institutions, on the basis of the general provisions for the relationship between residents and social housing institutions as defined in the Housing Act, 1997 and the Rental Act, 1999 Chapter 3, section 4 (1) to (5).
- To support mutual acceptance of roles and responsibilities of tenants and social landlords, on the basis of the general provisions for the relationship between residents and social housing institutions as defined in the Rental Act, 1999 Chapter 3, sections 4 and 5, in the Cooperatives Act, 1998 (Act 91 of 1998) and in the envisaged Social Housing Act. To be facilitated, supported and/or driven by all spheres of government.
- To promote the creation of sustainable, viable and legally independent housing institutions responsible for providing and/or developing, holding and managing social housing stock.
- To ensure transparency, accountability and efficiency in the administration and management of social housing stock.
- To promote best practices and compliance with minimum norms and standards, in relation to the delivery and management of social housing as a sector.
- To promote the use of public funds in such a manner that stimulates and/or facilitates private sector investment and participation in the social housing sector. To promote housing delivery for a range of income groups (including, *inter alia*, middle income, emerging middle class, working class and the poor) in such a way as to allow integration and cross subsidisation.

- To operate within the provisions of the Constitution, 1996, the Public Finance Management Act, 1999, the Preferential Procurement Act, 2000 and other statutory procurement prescripts.
- To be implemented by social housing institutions of various legal forms.

2.3 LAND USE PLANNING AND MANAGEMENT BEST PRACTICE

2.3.1 Informal land market

Land markets in South Africa can be divided into two types. The first and more familiar form is that of the formal land market which operates within the parameters of legislation relating to land use, tenure and the cadastre. Compliance with the actions outlined by this formal framework results in a specific urban form that provides a range of shelter options and services within a regulated market. A second more unfamiliar type falls outside these parameters and can be termed the informal land market. Such a market does not only occur in informal settlements created outside legislative parameters, but can be found in formally laid out towns where the formal system operates and is the norm. Essentially, though the measure of whether a transaction is legal or illegal depends on where they operate relevant to the legislative and procedural frameworks and that underpin the formal land market. Within any given settlement there are degrees or layers to the legality of a particular land market that operates in it.

A common response to informal land markets has been to formalise the nature of the exchange by legalising the rights that an owner or occupier has on a particular piece of land through the provision of tenure. In so doing, the owner and prospective buyer know what rights they have, or will have, on the land. In theory, this brings security to the transaction, deals with any former unofficial transactions, and legalizes the current landholder or occupier allowing them access to the benefits associated with having secure title. In South Africa, the Department of Agriculture and Land Affairs Tenure Security Programme and the Department of Housing's subsidy scheme have endorsed the formalisation of land markets through the provision of freehold title. Parallel land and housing databases have been recreated to legalise and record the principle of one subsidy, one title deed, and one housing opportunity. The intention is to redress the inequalities of the past, create a single land registration and ensure that access to land markets is open to all. It is also argued that local economic spin-offs,

investment in housing and access to formal finance is contingent on this system. To some extent the system itself reinforces these assumptions.

The concept of "informal land markets" makes a number of assumptions. Firstly, that there is a formal method of exchanging land. The second one implies that informal land markets by contrast are a divergence or alternative construct to that of the government, working against the proposed system. A third assumption is that informal land markets are wrong and that the need is to conform to prescribed legal norms in order to acquire legality – a perspective that is regarded as unquestionable. Such assumptions would suggest that informal land markets are homogenous and easy to define when in fact this is not true. Payne (1991) defined six different situations that constituted an informal land market.

- (i) The first is when an owner gives incorrect tenure to a buyer. This can occur in a situation in which the incorrect procedure has been followed in obtaining the tenure.
- (ii) The second topology is where the developer sells the plots laid out on a subdivision outside the legislation pertaining to the national cadastre, therefore making it impossible to register the subdivisions, and grant title to the occupiers.
- (iii) The third occurs when the land-use of a particular site is not in keeping with the zoning or planning scheme of the city or country.
- (iv) The fourth topology concerns the failure of sub-divisions to follow the township layout. Such a problem would make transactions in the land illegal, as the land parcel is considered null and void.
- (v) A fifth type of informal land transaction occurs when the land purchaser fails to follow standards and procedures laid out by building and occupation codes. This may pertain to building on particular types of terrain for example low-lying areas such as vleis, riverbanks or steep slopes. Or it might concern legislation outlining what materials an owner may use in the construction of his or her home.
- (vi) A final type of informal land market is that of land invasion and the creation of informal settlements. However, a land invasion in and of itself does not necessarily constitute a land market unless the invaders had to pay for the site they invaded, as was the case in the land invasion that occurred at Bredell in Gauteng in 2005.

Generally speaking, in the case of Hanipark and other Informal Settlements, this was not considered at all. The Formal Land Market seems to be too tedious and time consuming to process. People enter into an informal land market because of lack of knowledge and sometimes because of economic pressure. The fact is that they end up in an informal land

market transaction without ever being involved in the planning of their settlement, and the implication of that is unknown to them. It is easy for somebody who does not have any sort of income to subdivide his\her portion or site either to sell or rent it if it is believed to be able to generate income. The other factor is that the area was to be used as a hold-up camp until suitable land was found. After the municipality has finally planned the area, people are now faced with having to pay for services rendered by the municipality. Most of the residents come up with techniques to live better, hence subdivide and lease or even sell their allocated land to the prospective buyers; normally these will be the better off citizens and business people and will move to squat somewhere else where they feel they will not be disturbed. People squat because they do not have job security and by doing so, they do not have to pay for services. Most of the time they settle in an area very close to town; within a walking distance to town so as to avoid having to pay for transportation.

Thirkell (1996) agues that middle income owners will often choose to sell land to move to a different area, to buy titled property or for speculative purposes.

However, poorer residents are less mobile because of fewer resources and opportunities. Therefore, low-income residents usually sell plots when there is an immediate need for money. The only way to obtain instant cash under such circumstances is to liquidate their property, a process known as "crisis-selling". Common reasons for such crisis-selling are illness of a family member, legal expenses if the household is involved in a court case, or extreme poverty.

The severity of the crisis determines the level of the price, in that the plot is worth as much as the value of the need. Therefore, poor families are often forced to sell at below "market" value. The poor only sell when they are in great need of money and, therefore, can be beaten down on their price.

However, in speculative rights sales usually afforded by the middle-income [earners], prices are high because the need for immediate sale is not high. Sites in the same area with different occupants of different income sell at widely differing prices." "Crisis-selling" is a crucial social factor in the determination of price and enables middle-income buyers to exploit the poverty of poorer residents. Using such tactics the middle-income buyers can acquire land at relatively low prices and displace poorer residents or sell for speculative purposes. Not only is the buyer paying less than the market value for the plot but he is also increasing the price way

beyond the original sale price, making the re-purchase of the plot by a poorer resident impossible.

Thirkell (1996) in addition, the tragedy of such selling is that not only is little money received from the sale but also that this has already been targeted for a particular need and, therefore, the families receive limited real benefits from the sale. The vulnerability of the urban poor and the more sophisticated tactics of the middle-income groups prevent poorer sellers from charging high prices and thus form an economic constraint based on the social status of the seller, which adversely affects the market position of low-income sellers.

2.3.2 International Federation of Surveyors

FIG Commission 3 – Spatial Information Management in co-operation with the UN-HABITAT, Best Practice Guidelines in City-wide Land Information Management believes that the following ten points in achieving the city wide LIM will assist in the upgrading of informal settlements:

- Understand the vision of sustainable development ensure that all stakeholders in the
 management of land understand sustainable development principles and the role of Citywide LIM in supporting more effective decision making through the provision of
 integrated land information.
- 2. Appoint a Single Responsible Officer City-wide LIM involves considerable interdepartmental co-operation. This will only work if there is a Single Responsible Officer with clear authority for delivering City-wide LIM.
- 3. Clarify the role of each stakeholder in implementing the common City-wide LIM vision all stakeholders, at the political, service delivery and citizen levels, must fully understand their roles and responsibilities in implementing their component parts of the common City-wide LIM vision.
- 4. Obtain political support success is dependent on political backing. Short "proof of concept" projects aligned with current political issues and an effective communication strategy will secure support at the highest level within the city.
- 5. Comply with national land policy the City-wide LIM must operate within, and effectively support, the corresponding national legal, institutional and fiscal frameworks.

- Implement good governance of LIM manage information as a resource just like as human and financial resources. Good governance of LIM will inextricably lead to good governance of land.
- 7. Ensure that the implementation is business / user led the priorities for implementing a City-wide LIM must be led by real business / user needs and deliver clear benefits to the city (improved decision making and efficiencies) and to citizens (engaging them in decision making).
- 8. Prepare an information inventory an analysis of business requirements for a City-wide LIM will identify information needs. A subsequent inventory of existing and missing information will form the basis for planning a City-wide LIM, clearly identifying standards, procedures and custodians for information management.
- 9. Underpin operations with sustained capacity building success of City-wide LIM is dependent on appropriate human resources. A programme of continued capacity building is required at technical and management levels (strong project management culture) and not just short term training
- 10. Ensure that there is continuing investment City-wide LIM is an on-going programme requiring continuing investment to renew and improve technology and resources and to continually maintain information.

These guidelines upport the fact that there is no way one can succeed in using the desktop planning style and exclude communities from planning and it is not targeted at cities only, but also at the rest of the world.

2.3.3 The benefits of participation

Involvement of the community, and especially women:

- will lead to clear and more relevant objectives (UNCHS, 1996b: 6–8);
- create a feeling of ownership by the community of policies and strategies (UNCHS: 1996b: 6–8), which is important for long-term maintenance in the area (Diacon, 1997);
- leverage people's extensive knowledge of their own conditions (UNCHS, 1996b: 6–8);
- encourage affordable systems, self-funding and cost recovery (Diacon, 1997: 63);
- promote public awareness which will help strengthen and enforce political determination, which will in turn generate initiatives and encourage people to exercise their citizen's rights (UNCHS, 1996b: 6–8); and
- promote transparency and accountability in the planning and implementation of policies and programmes (UNCHS, 1996b: 6–8).

2.3.4 The practicalities of participatory planning

In a planning context, a participatory approach means setting aside the Master Plan for an area, or only using it as a starting point, or not waiting for one to be created by a central government agency, and instead using the existing local layout as the basic plan for the area. This means that only a minimal number of informal settlers will need to be resettled. However, it also means that compromises will have to be made, such as between retaining existing sites/houses and the creation of straight-line service corridors, if the informal local layout becomes a key planning instrument. The straighter the service corridor, the cheaper it is to service an area, as each corner turned for water or sewerage pipe increases costs.

In other planning decisions, which have to do with the choice of services, stakeholder participation, and especially community participation – including women's participation – is of critical importance. Service affordability by the community and local authorities ability to recover costs should feature prominently among planners' designs, rather than national planning rules and standards (Diacon, 1997). The community may well prefer to have concrete footpaths as an access to every house, and agree to prevent vehicles from using those footpaths, instead of facing the cost of upgrading the settlement to allow expensive vehicle access to every house.

From another angle, typically, the planning of informal settlement regularization has taken place on an ad hoc, settlement-by-settlement basis. The best approach, however, is a city-wide approach and this has been successfully done in respect of three Indian cities, including one with a population of over one million people (Diacon, 1997). Instead of focusing on individual settlements or on the city limits as the area for planning, the focus should be on the primary infrastructure networks, such as the water mains, road networks and/or sewerage system of the urban area.

2.3.5 Well-informed planning

Information is a vital prerequisite for effective planning. The planner should acquire information through a participatory planning process, which involves all stakeholders, and especially the community. The community being upgraded is a key element in the supply of information and a structured information system should be set up as soon as possible to facilitate the guidelines of the handbook on best practices such as security of tenure and access to land information between the professionals and the communities. Such a system should supply information to all stakeholders, including the community (Davies and Fourie, 1999) for:

- the identification of stakeholders and local leaders;
- the identification of who has de facto land use rights and of what type;
- ascertaining what services are already in place;
- large-scale planning and ongoing maintenance;
- building local knowledge about land development procedures and servicing issues; and
- enhancing the "right to the city" of informal settlers.

Finally, planning is tied to servicing, but is not necessary for security of tenure, especially when no services are planned. However, countries often prefer to link planning, services and security of tenure because of central government approaches to effectiveness and for political reasons (Azuela and Duhua, 1998 – Mexico; Huchzermeyer, 1999 – South Africa).

2.3.6 Services

Servicing informal settlements can be approached in a variety of ways. In some situations and countries, full service is provided, including electricity, water, sewerage, roads and community facilities (El-Batran, 1999a, b – Egypt). In others, only electricity and water are

supplied. Service standards vary from long drops to underground sewers, from overhead to underground power cabling, from water trucks to water mains, with roads of different surfaces and widths.

Most informal settlements are serviced on an ad hoc, settlement-by-settlement basis, where central government reacts to problems and needs as they arise (Azuela and Duhua, 1998; El-Batran, 1999a, b – Egypt; Varley, 1999 – Mexico). However, some informal settlements are serviced through the development of infrastructure networks for the whole city (Diacon, 1997; Durand Lasserve, 1998: 241), where the local authority supplies the infrastructure network, and individuals take responsibility for their own connections.

Individual site servicing is often undertaken through specific projects, either by central (Azuela and Duhua, 1998; Varley, 1999 – Mexico) or local governments (de Castro, 1999a – Brazil). Sometimes the servicing is carried out by the community once the area has been legalized (www.bestpractices.org, 1999), including both infrastructure and/or individual connections;

Servicing can take place without legalization (Banerjee, 1999a, b – India), before legalization (Azuela and Duhua, 1998 – Mexico), or at the same time as legalization (Huchzermeyer, 1999 – South Africa). Governments can experience problems when servicing private land in the absence of any legalization process. In many countries, government is barred from servicing private land with informal settlements, as, by law, government cannot add value to private owners' property. A way around this is possible where central government makes provision of vital services compulsory by law (El-Batran, 1999a: 1 – Egypt; Diacon, 1997: 56 – India), thereby limiting private property rights and allowing government to add value to private land under prescribed circumstances.

Too often services have been supplied as part of regularization without any thought about ongoing maintenance and/or affordability. This has led to situations in which services have collapsed some time after introduction, or the settlers have sold the properties and moved to more affordable accommodation (Diacon, 1997 – India; El-Batran, 1999a, b – Egypt).

Various approaches have been adopted with regard to payment for services, including for capital costs, ongoing maintenance and user charges. Approaches include central authority funding (Varley, 1999), local authority funding (de Castro, 1999b – Brazil), donor funding (El-Batran, 1999a – Egypt, www.bestpractices.org, 1999 – GTZ/Senegal), full-cost recovery

(El-Batran, 1999a – Egypt), loans (www.bestpractices.org, 1999 – Voi, Tanzania), self financing (www.bestpractices.org, 1999 – SEWA/India), funding through cross-subsidisation (Diacon, 1997 – India, Huchzermeyer, 1999 – South Africa) and partnerships including NGOs (Diacon, 1997). Instances of best practice for project completion and sustainable regularization include partnerships between local authorities, communities and NGOs, self-financing of individual connections, and community involvement in maintenance (Diacon, 1997 and www.bestpractices.org, 1999 – Pakistan/KKB), together with cross-subsidies for infrastructure networks (Diacon, 1997). For these approaches to work, communities must have been fully involved in the choice of services, so that community ownership guarantees affordability and sustainability.

2.3.7 Approaches to the upgrading of informal settlement in-situ

The upgrading of informal settlements differs very much from the development of vacant land for housing. Yet the majority of existing approaches continue to mirror traditional practice in developing an implementation strategy. Specifically they continue to place a great deal of emphasis on physical conditions, and the improvement thereof, and rely heavily upon the independent use of specific, sector based activities. This results in a diverse range of approaches to upgrading, which seek to achieve specific objectives, without thought being given to the longer-term development (Abbot *et al.*, 2001). The result is the prioritising of short-term objectives rather than the achievement of long-term sustainability.

Abbot *et al.* (2001: 74–92) identified a number of different approaches to informal settlement upgrading as they were internationally used in different projects and describe them as follows:

- Water quality/public health improvement as a basis for upgrading;
- Infrastructure provision as a basis for upgrading;
- Community choice as a basis for upgrading;
- Housing as a basis for upgrading;
- Formal tenure as a basis for upgrading; and
- An integrated approach to upgrading.

These approaches, in turn, can be divided into two broad types or categories. The first type is ad hoc sector based upgrading, and covers the first four approaches. Here there is no long-term vision or plan, as expressed in terms of spatial relationships. The primary objective is to address a specific need, whether defined internally by the community or externally by the

government or a third party (e.g. Development Professionals). What is most interesting about the majority of these approaches is the extent to which they reflect external perceptions of the "problem", i.e. as viewed from the perspectives of politicians and professionals.

The second type of approach is one in which an attempt is made to define a long-term vision, towards which an upgrading program will work. Approaches five and six are of this type. This second type then has two subsets. The first, represented by approach five, may be seen as more of a master plan, whereby the final spatial relationship is determined and this then becomes the primary focus of the upgrading. With current spatial technologies this does not necessitate the wholesale removal of families. It is based instead on the creation of a formal cadastral plan, constructed wherever possible around the existing dwellings. The second subset is represented by approach six. This takes a different view, although it retains the long-term vision. This approach has a much stronger social and economic focus in that it seeks to promote social sustainability rather than spatial integrity.

Abbot *et al.* (2001) argue that a common feature of both of these approaches is that a formal tenure (i.e. the cadastral definition of each individual site) only comes as the final step in the process, not as the first step. Their view of physical infrastructure and housing is also different to other approaches. Although they recognise the importance of these elements to development, neither allows them to dominate the process. Instead, both seek to integrate these with social and economic needs. The difference then is in the weighting given to the physical and social aspects of upgrading and the relationship between them. However he continues by affirming that he is not necessarily saying that there is one "correct" method or approach to upgrading that is applicable to all informal settlements, particularly in South African situations. This should be influenced by the choice the community makes.

Table 2 shows the key points of difference in the development of "Greenfield" and informal sites (adapted from Abbot, 2000).

In the Namibian policy of Informal Settlement Upgrading, the communities make the choice; they even decide where and when each need is going to be addressed and implemented.

Table 2: In-situ Informal settlement upgrade vs Greenfield development (based on Abbot, 2000)

In-situ upgrading	Greenfield development
Identifiable community.	Non-identifiable community.
Community-driven	Developer-driven
Planning for social integration.	Planning for physical development.
Requires planning "zone of special interest".	Accommodated within generic zoning legislation.
Requires flexible standards.	Accommodated within existing by-laws.
Based upon an integrated development plan.	Based upon land-use plan.
Security of tenure is primary objective.	Ownership-driven development.
Construction for internal benefit.	Construction for external benefit.
Primary thrust economic/social development.	Primary thrust residential development.

CHAPTER 3: INTEGRATED DEVELOPMENT PLANS (IDP)

3.1 INTRODUCTION

Local municipalities in South Africa have to use "integrated development planning" as a method to plan future development in their areas. Apartheid planning left us with cities and towns that:

- have racially divided business and residential areas.
- are badly planned to cater for the poor with long traveling distances to work and poor access to business and other services.
- have great differences in level of services between rich and poor areas.
- have sprawling informal settlements and spread out residential areas that make cheap service delivery difficult.

Rural areas were left underdeveloped and largely unserviced. The new approach to local government has to be developmental and aims to overcome the poor planning of the past. IDP is an approach to planning that involves the entire municipality and its citizens in finding the best solutions to achieve good long-term development.

An IDP is a super plan for an area that gives an overall framework for development. It aims to co-ordinate the work of local and other spheres of government in a coherent plan to improve the quality of life for all the people living in an area. It should take into account the existing conditions and problems and resources available for development. The plan should look at economic and social development for the area as a whole. It must set a framework for how land should be used, what infrastructure and services are needed and how the environment should be protected

All municipalities have to produce an IDP. The municipality is responsible for the coordination of the IDP and must draw in other stakeholders in the area who can impact on and/or benefit from development in the area. Once the IDP is drawn up all municipal planning and projects should happen in terms of the IDP. The annual council budget should be based on the IDP. Other government departments working in the area should take the IDP into account when making their own plans. It should take 6 to 9 months to develop an IDP. During this period service delivery and development continues. The IDP is reviewed every year and necessary changes can be made.

The IDP has a lifespan of 5 years that is linked directly to the term of office of local councillors. After every local government elections, the new council has to decide on the future of the IDP. The council can adopt the existing IDP or develop a new IDP that takes existing plans into consideration.

The executive committee or executive mayors of the municipality have to manage the IDP. They may assign this responsibility to the municipal manager. In most municipalities, an IDP co-ordinator is appointed to oversee the process. The IDP co-ordinator reports directly to the municipal manager and the executive committee or the executive mayor.

The IDP has to be drawn up in consultation with forums and stakeholders. The final IDP document has to be approved by the council.

3.2 WHY IS IT NECESSARY TO DO AN IDP?

3.2.1 Effective use of scarce resources

The IDP will help the local municipality focus on the most important needs of local communities, taking into account the resources available at local level. The local municipality must find the most cost-effective ways of providing services, and money will be spent on the causes of problems in local areas.

For example, a municipality may decide to allocate resources to building a canal that will prevent homes being damaged during the flood season. This will reduce the financial burden placed on the municipality's emergency services.

3.2.2 It helps to speed up delivery

The IDP identifies the least serviced and most impoverished areas and points to where municipal funds should be spent. Implementation is made easier because the relevant stakeholders have been part of the process.

The IDP provides deadlock-breaking mechanisms to ensure that projects and programmes are efficiently implemented. The IDP helps to develop realistic project proposals based on the availability of resources.

3.2.3 It helps to attract additional funds

Government departments and private investors are willing to invest where municipalities have clear development plans.

3.2.4 It strengthens democracy

Through the active participation of all the important stakeholders, decisions are made in a democratic and transparent manner.

3.2.5 It helps to overcome the legacy of apartheid

Municipal resources are used to integrate rural and urban areas and to extend services to the poor.

3.2.6 It promotes co-ordination between local, provincial and national government

The different spheres of government are encouraged to work in a co-ordinated manner to tackle the development needs in a local area. For example, the Department of Health plans to build a clinic in an area. It has to check that the municipality can provide services like water and sanitation for the effective functioning of the clinic.

3.3 WHO ARE THE STAKEHOLDERS IN THE IDP PROCESS?

3.3.1 Municipality

The IDP guides the development plans of the local municipality.

3.3.2 Councillors

The IDP gives councillors an opportunity to make decisions based on the needs and aspirations of their constituencies.

3.3.3 Communities and other stakeholders

The IDP is based on community needs and priorities. Communities have the chance to participate in identifying their most important needs.

The IDP process encourages all stakeholders who reside and conduct business within a municipal area to participate in the preparation and implementation of the development plan.

3.3.4 National and provincial sector departments

Many government services are delivered by both provincial and national government departments at local level, for example, police stations, clinics and schools. Municipalities must take into account the programmes and policies of these departments. The departments should participate in the IDP process so that they can be guided on how to use their resources to address local needs.

3.4 UPGRADING INFORMAL SETTLEMENTS IN THE MATJHABENG MUNICIPAL IDP

3.4.1 Stand allocation

The Matjhabeng Business Plan does not show how the community is going to be involved in the planning of Hanipark Informal Settlement, or how the stands were allocated, even though this planning involves a number of families that will have to relocate.

3.4.2 Land titling

The Land parcels or stands need to be titled for easy identification and to ensure that there is virtually no possibility of properties overlapping and, once registered, little chance of conflicting claims to ownership. This will assist the Matjhabeng Local Municipality to preserve and keep up to date all documents and records pertaining to cadastral surveys. They will also be able to prepare and keep up to date cadastral maps and plans, both on paper and in digital form. Land titling will also be useful in that the Matjhabeng Local Municipality has to supply, to all who ask, copies of documents kept in the office in hard copy and digital form. They will be able to provide advice and information pertaining to the cadastre.

However, the Hanipark community should be involved and participate in land titling and be given a chance to mark their own boundaries as well as to number their properties, in the form of Letsema² (team work). This will promote the "Know Your Neighbour" concept, thus taking care of and respecting one another in every way. It will also build a bargaining strategy with the outside clusters.

3.5 EMERGENCE OF IDP CONCEPT: HISTORICAL OVERVIEW

The IDP Guidelines document gives an interesting account of how the concept of IDP emerged politically (DPLG, 1998) For more than five decades after the advent of municipal planning in South Africa in the 1930s, planning in most cases was conducted at the local level, and:

- was very technical in nature with little or no participation from other role-players such as communities;
- focused on the controlled use of land through a range of complicated statutory mechanisms;
- furthered the aims of the Apartheid dispensation in promoting racially segregated spatial, social and economic development;
- was predominantly sector based, with transport, land use and infrastructure plans being prepared by municipal departments in isolation from one another;
- indifferent regarding issues of environmental sustainability and economic viability;
- concerned with physical development and spectrally-structured infrastructural delivery programmes by the public sector; and
- unconcerned with the social and economic dimensions of development such as poverty alleviation, social health and welfare.

During the early 1990s, various negotiating forums (such as the Local Negotiating Forum and the National Housing Forum) conceived the notion of integrated development planning in reaction to this outdated and inappropriate way of planning. At the same time, the idea of integrated planning was gaining international ground as a response to the fragmented, ad hoc project-based approaches to planning in the 1980s, a move towards integration in technology, and the environmentalists' concern for a holistic perspective on development.

_

² Letsema is a SeTswana word for team work

The African National Congress (ANC) Policy Guidelines for a Democratic South Africa (1992), proposed that a new system of municipal planning should:

- ensure maximum involvement of all communities and stakeholders;
- be directed at those in greatest need;
- strive to break down Apartheid privilege, geography and institutional structures;
- be aimed at ensuring integrated and sustainable development, and
- be focused on delivery.

By 1995 "Integrated Development Planning" had emerged as a distinct approach to planning and was being promoted by the RDP Office and the intergovernmental Forum for Effective Planning and Development (FEPD).

These ideas were further elaborated on in the Reconstruction and Development Programme, cemented in The Constitution, and articulated further in a range of policy documents including the White Paper on Local Government and the Green Paper on Development Planning. They were also given legal substance in legislation such as the Development Facilitation Act, 1995; the Local Government Transition Act Second Amendment Act, 1996; the Municipal Structures Act 117, 1998, and the Municipal Systems Act 32, 2000.

3.6 CONSTITUTIONAL GUIDELINES

The Constitution provides for the Bill of Rights, which is the cornerstone of democracy in South Africa. It applies to all law and binds all organs of state in the provision of the various rights that people are entitled to, which include equality, political rights, environment, housing, education, health care, food, water and social security.

It states that the Republic's government constitutes national, provincial and local spheres of government, which are distinctive, interdependent and interrelated. All spheres of government and organs of state are required among other things, to respect the constitutional status, institutions, powers and functions of government in the other spheres. In addition, they are required to exercise their powers and perform their functions in a manner that does not encroach on the geographical, functional or institutional integrity of government in another sphere. The structure and responsibility of the local sphere of government is outlined in chapter 7 and schedules 4 and 5 of the Constitution. Further, Chapter 12 of Constitution provides for the recognition of tribal authorities, subject to the Constitution.

Section 212 (1) states that national legislation may provide for a role for traditional leadership as an institution at local level on matters affecting local communities. The role of traditional leaders in governance and land development matters has unfortunately yet to be satisfactorily resolved. This thorny issue needs urgent attention as municipalities and tribal communities alike face the problem of environmental degradation and the "tragedy of the commons".

3.7 DISTRICT MUNICIPALITY AND LOCAL MUNICIPALITY

Municipal elections were held on 5 December 2000. New demarcations were done prior to this to create wall-to-wall municipal areas so as to ensure that all communities or settlements are part of the local government structure. In the past, many communities, especially rural and tribal communities, were neglected in terms of development and deprived of basic services and fair living standards or quality of life. The introduction of integrated development planning at the local level of governance is intended to address these past differences through the promotion of social and economic development in a sustainable manner. It also allows for community members to participate by having a say in the issues affecting them through partnerships with municipal authorities.

Local government is a key role-player in the development process of South Africa. The transformation process to establish non-racial and viable municipalities is a crucial strategic move towards enabling local government to fulfil its developmental role.

The IDP process therefore strives to arrive at decisions on issues such as municipal budgets, land management, promotion of local economic development and institutional transformation in a consultative, systematic and strategic manner. Integrated Development Plans, however, will not only inform the municipal management; they are also supposed to guide the activities of any agency from the other spheres of government, corporate service providers, NGOs and the private sector within the municipal area.

In the past, local government was nationally led, control orientated and focused on separate development. Transformation and law reform in the planning arena has, however, led to the emergence of the concept of the IDP as contained in the MSA. Through this, Municipalities are playing a developmental role. Recent developmental legislation such as the Less Formal Township Establishment Act, the Development Facilitation Act and the Land Use Bill which are facilitatory in nature, are enhancing the development of service delivery.

3.8 POLICY INTENTIONS OF IMPLEMENTING THE IDP PROCESS

Under the previous political dispensation, development planning in South Africa was primarily concerned with organization of spatial patterns of development, and the degree of cross-sectoral planning was low. Since the 1990s, a more holistic perspective has been promoted through the establishment of a legislative framework for integrated development planning.

The Integrated Development Planning (IDP) process is the South African developmental sectors' response to Local Agenda 21 (LA 21). LA 21, a United Nations Convention on Sustainable Development, was adopted by 180 nations at the 1992 Earth Summit in Rio de Janeiro, and forms an international guideline and action plan for addressing sustainable development at a local level. LA 21 proposes that development issues are best addressed through local participatory planning and development processes, suggesting that such processes be carried out at the local municipal level.

The Republic of South Africa (RSA) governmental IDP Guidelines state the purpose of Integrated Development Planning to be "a faster and more appropriate delivery of services and providing a framework for economic and social development in a municipality" (Department of Provincial and Local Government, 2000). The Department of Provincial and Local Government (DPLG) IDP Guideline document further identifies the national public policy objectives as promoted and being met in part by the IDP as shown in Table 3.

Elements of policy intentions underlying the adoption of Integrated Development Planning in South Africa are contained in the White Paper on Local Government (1998).

To summarise, the main policy intentions are that IDPs should act as a tool to secure:

- objective-oriented resource allocation;
- institutional transformation within municipalities;
- interaction with other spheres of government, and
- transparent interaction between municipalities and residents, in line with the principle of accountability.
- integrated Development Planning should follow a specific list of principles, including basic needs orientation, poverty alleviation and environmental sustainability.

Table 3: Social policy objective vs IDP process (Dept of Provincial and Local Government, 2000)

Social Policy Objective	How Objective is met through the IDP process
Improve basic needs satisfaction	 Basic needs orientation Consideration of issue in development approach Explicit provision in the IDP as to how and to what degree basic community needs will be satisfied by the municipality.
Poverty alleviation	Consideration of issue in development approach The IDP must provide explanations as to how and to what extent the plans will meet the objective of poverty alleviation.
Gender equity	 Consideration of issue in development approach The IDP must provide explanations as to how and to what extent the plans will meet the objective of gender equality.
Environmental soundness and sustainability	 Identification of environmental degradation and risks during the analysis Involvement of competent stakeholders and/or resource persons in charge of environmental concerns in the public participation process Making sure that major environmental problems and threats are reflected in the objectives Assessing alternative strategies by considering their environmental impact Considering environmental aspects when designing project Proposals
Economic growth, income and employment generation	Inclusion of a local economic development strategy (LED)
Community consultation	Involvement of residents, communities and stakeholders in all municipal processes
Sustainability of services, settlements and municipalities	 Specify feasibility and funding arrangements for projects. i.e.: not avoid the compilation of mere wish lists Be explicit as to how the municipality will make services as cost-effective as possible, and thereby affordable and sustainable.
Integrated, liveable and compact towns and cities	Inclusion of spatial plans and considerations Be explicit as to how to promote development in line with basic spatial development principles (as outlined in the DFA)
Equal consideration of formal and informal settlements	 Inclusion of spatial plans and considerations Be explicit as to how to promote development in line with basic spatial development principles

3.9 LEGAL REQUIREMENTS AND GUIDELINES

3.9.1 Legislative requirements

The legal requirements of the IDP process and report have their origin in sections 152 and 153 of the Constitution, which describe the objectives and duties of local government as being to:

- ensure sustainable provision of services;
- promote social and economic development;
- promote a safe and healthy environment;
- give priority to the basic needs of communities;
- encourage involvement of communities, and
- participate in national and provincial development programs.

The IDP framework is also built on the principle of co-operative government, as contained in section 41 of the Constitution. Section 156 (1) of the Constitution specifies that "a municipality has executive authority in respect of and has the right to administer":

- (a) the local government matters listed in Part B of Schedules 4 and 5 of Municipal Systems Act 32; and
- (b) any other matter assigned to it by the National or Provincial legislature.

The legal requirements of the IDP process and report are specified in the Municipal Systems Act 32 of 2000 (MSA).

CHAPTER 4: DATA COLLECTION, ANALYSIS AND RESULTS

4.1 INTRODUCTION TO THE STUDY AREA

The Hanipark informal settlement is situated in the east of the Welkom city, shown in red as an inverted pentagon on the topographic map in. Welkom is the mining hub of the Free State Province. The extensive Free State gold fields comprise the southern part of the same reef that is mined on the Witwatersrand. Coal is also mined. Other important towns of the province include Virginia, Kroonstad, Parys and Bethlehem. The Free State, covering an area of 129,480 square kilometres is situated in the centre of the country (South Africa), bordered in the north and south by the Vaal and Orange Rivers, and on the west of Lesotho.

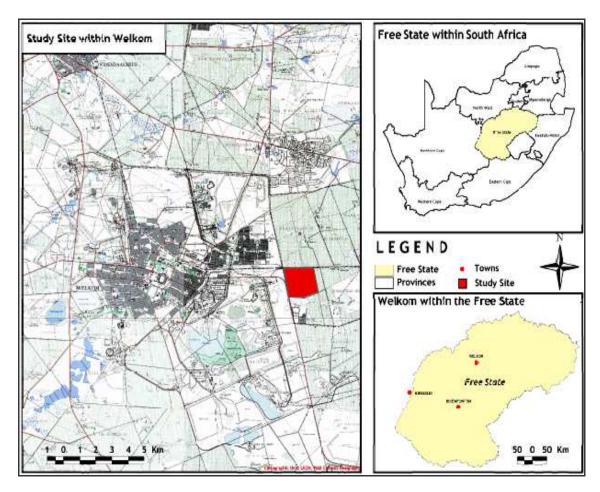


Figure 1: Hanipark informal settlement within the local, provincial and national reference.

Except for the lovely mountainous Eastern Highlands area, its landscape is flat, with a mixture of grazing land and extensive fields. Maize, sunflowers, Soya, sorghum and wheat are cultivated, with cherries and asparagus in the Ficksburg area in the east.

The capital of the Free State province is Bloemfontein, an important educational and judicial centre which, as the country's most central city, is the meeting place of major north—south routes, including the N1 from Johannesburg to Cape Town, which runs diagonally through the centre of the Free State.

Hanipark Informal Settlement is situated on the farm De Bron 649/R in the Northern Free State town of Welkom. The Matjhabeng Local Municipality established the farm De Bron 649/R as a "holding" area while a permanent re-settlement programme was organized. The settlement lies on the South East of Welkom CBD between Bronville and Thabong townships and consists of approximately 4,700 households. Most of the residents are retrenched mineworkers or farm workers. Some of the residents were removed from the nearby Thabong Township early in the year 2000 during the so-called "Operation Clean Out" of the Local Municipality. The intention was to reduce the so-called "backyard" tenants as they were affecting the rates and taxes policy. A small percentage of the Hanipark residents are employed in the Welkom CBD, some are self-employed while the larger percentage is unemployed. Only water and limited sanitation services are available. The residents of the informal settlement have an urgent need for permanent settlement with secure tenure and services, schools, churches, shopping facilities etc.

The number of new settlers in this area is ever increasing and therefore an overcrowding problem common to informal settlements has arisen. Environmental concerns have developed as a consequence. Part of this settlement is a wetland and has also been occupied. Furthermore, the informal settlement has extended beyond the designated farm boundary to nearby mining slime dams which pose a health hazard. Whilst the municipality is looking for suitable land, the residents are developing a sense of belonging and sentiment. Some are erecting permanent structures that might make relocation difficult.

4.2 MAT, HABENG LOCAL MUNICIPALITY AS AN ECONOMIC ATTRACTION

Matjhabeng Local Municipality is located in the northern part of the Free State Province, and it is well known for its rich soil (Minerals and Agriculture). This has attracted lot of investors

in the past years, hence there is much mining and farming. As most mining activities could not be sustained due to various factors, people had to be retrenched and left jobless, this has encouraged mushrooming of informal settlements in the area. As the name Matshabeng indicates, it consists of a combination of different racial and ethnic groups and otherwise people from various neighbouring countries. Most of the workers come from different countries like Lesotho, Zimbabwe, Mozambique, and Swaziland, and cannot bear the fact of going back home as they had high hopes to work in South African mines; this applies also to South Africans from other provinces. The word Matjhabeng means an "assembly of diverse people".

4.3 POPULATION STATISTICS OF MATJHABENG LOCAL MUNICIPALITY

Matjhabeng is home to almost half a million people. The bulk of the population is concentrated in three main nodes as shown in Figure 2, namely Welkom (44%), Virginia (23%) and Odendaalsrus (19%). Smaller towns of the region make up the remaining 14%. The pie chart in Figure 2 shows that Welkom is most populated, indicating it as an attraction for urban migration.

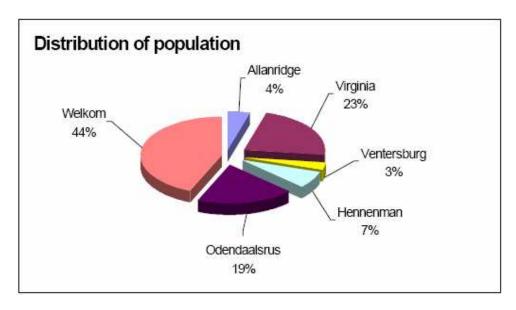


Figure 2: Population distribution by urban centre in the Free State (Source: IDP).

4.4 LEVEL OF EDUCATION IN MATJHABENG LOCAL MUNICIPALITY

Educational level statistics of Matjhabeng Local Municipality provided in Figure 3 show that over 10% of the population have no formal education. Just over 30% of the population have

primary education and about 35% have secondary education. Less than 5% of the population have tertiary and other higher education.

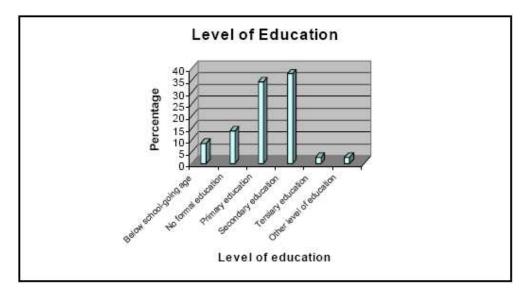


Figure 3: Level of education in Matjhabeng Local Municipality.

The low literacy and very low skills level education rate are indicative of the neglect of the majority of the population with respect to education. This correlates with the household income levels provided in Figure 4 with the majority of household in the low to no income region and a small number with comparatively high income.

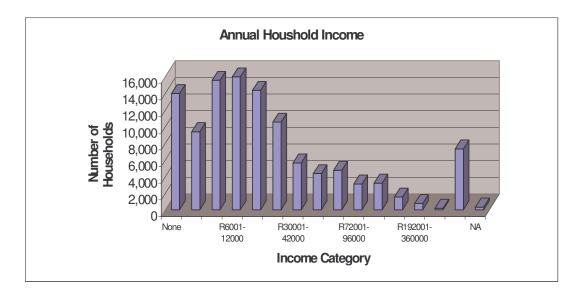


Figure 4: Annual household income levels (Source: IDP).

4.5 DATA ANALYSIS AND RESULTS

4.5.1 Analysis of the informal settlement expansion trend

As discussed earlier in the methodology, an ortho-rectified digital panchromatic aerial photograph of 2000 was visually analyzed with a laser image of 2003 in order to detect changes in the settlement patterns of Hanipark.

The panchromatic aerial photograph (Figure 5) shows the settlement pattern of the informal settlement in 2000 when the municipality estimated the area to be settled by 4,700 households. A polygon shown in white on Figure 5 was digitized on-screen to form a boundary of the informal settlement extent. Aerial photography shows a pattern of housing structures and a street network of unpaved roads.

A smaller portion along the southern boundary displays a marked difference in that the household structures are smaller and have no trees around them. The structures in this portion also seem to be spread irregularly with no street arrangement. This indicates that these settlements are more recent with households showing a progression of incoming settlers, having not yet consolidated and expanded their dwellings as well as having not planted fruit and shade trees. In contrast, the northern and larger part of the informal settlement seems have larger dwellings characterized by solid structures and fruit and shade trees typical of an established homestead.

Comparison between the aerial photograph of 2000 and the laser image of 2003 over the study area revealed an increase in the extent of informal dwellings. The analysis was first made by overlaying the laser image over the aerial photograph in ArcGISTM 9.0 GIS software and made 50% transparent. This allowed a qualitative inference of the spatial changes over the three-year period (2000–2003).



Figure 5: An ortho-rectified aerial photograph showing the Hanipark informal settlement in 2000. Note a recently settled portion in the south-west.

A new boundary marking the extent of the Hanipark informal settlement as inferred from the 2003 laser image was digitized on-screen as a polygon. Figure 6 shows the 2003 laser image overlain with the 2000 (white) and 2003 (red) informal settlement boundary polygons. The two lines shown in Figure 6 show a significant increase in the spatial extent of the informal settlement between the two dates. Between 2000 and 2003, informal dwellings were established along the eastern boundary marked by a tarred main road and by a cadastral boundary in the west.

The area extent of Hanipark informal settlement as inferred from the 2000 aerial photograph was calculated in the ArcGISTM 9.0 from the digitized polygon at 137.1655 ha. The area extend based on the 2003 laser image was similarly calculated at 147.2986 ha, indicating an increase in informal settlement area of 10.1331 ha. The increased settlement area corresponds with trend demonstrated by an estimated increase of 1,021 household dwellings (from 4,700 in 2000 to 5,721 in 2005).

4.5.2 Spatial manifestation of conventional planning failure

The Matjhabeng Local Municipality in its IDP adopted a business plan for upgrading Hanipark into a formal township through the following activities:

- Planning, surveying, and opening a township register
- Provision of bulk municipal services
- Provision of rudimentary internal municipal services

The 2006/07 progress report indicated that a layout plan had been completed and pegging which is a last step towards establishing a township register after surveying of individual stands or parcels was 50% complete.

Bulk water supply was completed in 2004 with 12 km of water lines at an average walking distance for resident of 100 m. A main storm water draining system to allow the construction of internal roads was also completed in 2004. The report also stated that a new clinic was under construction and was 70% complete.

In view of the reported achievements, it cannot be maintained that planning for the upgrade of Hanipark informal settlement has failed. However, there is evidence of enormous challenges mainly due to the "top down" conventional planning approaches. Although the community is

consulted by municipal planners as stipulated in the IDP, there is no practical participation in planning at all levels but rather some kind of community involvement in form of public comment on the plans and implementation through employment in construction activities. Community involvement is mainly left to contractors who in the case of Hanipark bulk water provision employed a "community liaison officer" elected by the community. This seems to be common practice as "the community liaison officer" features in budget items of IDP projects.

The current planning and implementation of informal settlement upgrading approaches seem to be inadequate and unsustainable according to best practice discussed in the literature review. One of the problems of "top down" layout planning as opposed to that driven by residents and other stakeholders of the informal settlement is the continuous inflow of new settlers as demonstrated by the mapped change in spatial extent as shown in Figure 6.

The other problem of "top down" layout planning is that settlers usually do not respect them, either because they cannot wait for the layout planning process to be completed, because they are not convinced of relocating to in conformance with the layout plan if they are already settled or because new settlers have established dwellings oblivious of the layout plan.

The problem of unmatched layouts plans to settlements is clearly demonstrated in Figure 7, where the layout plan map is overlaid on the laser image of 2003. As can be seen in Figure 7, the layout plan is not related to the settlement reality on the ground. Road reserves, open spaces and community service amenities such as schools and clinics shown in the layout plan have all been filled by settlement structures ranging from reasonably good houses to makeshift shacks.

The planning programme for in-situ upgrading the Hanipark informal settlement speaks of relocations to give effect for the layout plan. It is however doubtful whether the relocation will be successful given the "top down" approach. In the next chapter, a more consultative and participatory approach based on the UN-HABITAT (2004) best practice is proposed for the upgrade of Hanipark and other informal settlements with similar characteristics in South Africa.



Figure 6: Boundary polygons based on 2000 air photo (white) and 2003 (red) against the laser image backdrop showing the increased area extent.



Figure 7: Layout plan for Hanipark as prepared by municipal planners; old and new area extents overlaid on the laser image of 2003.

4.5.3 Key informant interviews

Key informants composed of stakeholder representatives in the Hanipark upgrade planning were identified and interviewed in order to gain insight on causes of the migration and the priority needs that determine the location of settlement. Questions asked to the Key Informants and the responses obtained are provided in the appendix. Table 4 shows a list of Key Informants interviewed and their respective stakeholder affiliations:

Table 4: Details of Key Informants and their respective affiliations as stakeholders.

Name of Key Informant	Type of Stakeholder	Affiliation	Position
Ivy Mavuso	Local Authority	Matjabeng Local Municipality	Director (Local Development and Housing)
Moses Leemisa	Private Sector	Laubsher, Slabbert and Brinks (Pty) Ltd	Engineer
Monkoe Mamaregane	Govt Dept	DLA	Principal Planner
Vuyani Mnyamane	NGO	(Free State Rural Development Association)	Rural Development Advisor
Motlogelwa Mautse	СВО	Community Feeding Scheme	Community Facilitator

4.5.4 Origin of Hanipark settlers

The interviews revealed that most of the residents of Hanipark came from the neighbouring Thabong informal settlement as so-called "backyard" tenants who squatted within the compound or parcels that were allocated to earlier arrivals. Thabong was attempting to undergo in-situ upgrade hence the evictions of the backyard (late comer) tenants in the so-called "operation clean out". A large number of settlers were evicted from commercial farms, where they had been farm labourers with skills including farm equipment operation, packaging and loading as well as crop and livestock care. Many settlers came from neighbouring towns while others came from neighbouring countries the majority of whom are former migrant workers retrenched by local gold mines.

4.5.5 Priority needs of Hanipark settlers

Key informants revealed that priority needs that Hanipark settlers sought included housing and proper roads; electricity, water and sanitation; health clinics and schools.

CHAPTER 5: CONCLUSION AND RECOMMENDATION

This research has revealed that conventional urban planning currently practiced as a "top down" approach has not succeeded in resettling migrants with security of land tenure and basic municipal services. The research has shown a continuous in-flow of settlers, mainly evictees and retrenched workers from commercial farms and mines that seem to be oblivious of the planning processes making it impossible to implement the plans. The research hypothesis that the failure of the upgrade is due to lack of community participation was validated by the clear contradiction between the plans and the actual settlement patterns revealed in the image and layout plan analysis. The analysis showed that settler set up homes and continue to do so independent of the developed plans showing a lack of cooperation, conscious or otherwise.

Current best practices advocate that stakeholder driven participatory planning approaches are more successful in sustainable upgrade of informal settlements in-situ. The stakeholder driven approach for in-situ upgrading of informal settlements emphasizes the identification of all stakeholders and the creation of a stakeholder forum composed of representatives of the respective stakeholders including those of the informal dwellers, local and national government departments and agencies, NGO, CBOs and the private sector. The stakeholder forum then drives the entire in-situ upgrading process in collaboration with the statutory mandated agencies for land and services delivery.

A phased stakeholder driven approach is recommended in Table 5, for the in-situ upgrade of the Hanipark informal settlement based on the UN-HABITAT (2004) best practice. The recommended procedure shown in Table 5 is characterized by three-phase each one with specific functions, outputs and the implementer described.

Table 5: Proposed approach for upgrading Hanipark and similar informal settlements in-situ, based on UN-HABITAT (2004) best practice.

PHASE	FUNCTIONS	OUTPUTS	IMPLEMENTER
Phase 1: Identification of Stakeholders e.g. Informal settlement reps (elected Councillors) Reps from Govt Depts (Land Affairs, Local Govt and Housing, Public Works, Health, Education, Social Dev) Political: ANC Constituency Office Private sector: Sedibeng Water NGOs CBOs Religious groups Creation of Stakeholder Forum	 Conduct a land audit (legal/ownership status of occupied lands) Identify policy instruments, resources and processes Secure partnerships with funding sources including private sector and community saving schemes 	 Stakeholders Forum created Participation Clarified land ownership Clarified policy instruments (SLAG/IDP) for integration 	Local Municipality
 Phase 2: Land Zoning and Establishing Tenure Framework Create land use zones (Settlement, schools, Clinics, roads and other infrastructure) Negotiate boundaries Record boundaries Outline minimum planning requirements Build capacity of those to do land administration 	 Create and designate zones that allow special tenure and development appropriate for the poor Negotiate with land owners for legalizing tenure of zoned lands by sell, swap, share, lease or other creative methods (using SLAG/IDP funds) 	Land affected clearly identified for type of land use Improved security of land tenure for informal dwellers Increased capacity to manage the new land administration system	Stakeholder Forum
Phase 3: Detailed Planning and Implementation Defining infrastructure networks and funding sources Participatory planning (relocation, connection, costs) Upgrading land tenure Reform land information systems and management Clarifying private sector/NGOs roles in land delivery	 Securing tenure rights to land for families of informal settlement dwellers Implementing the land administration system that will record the upgraded rights Developing an integrated infrastructural plan with due consideration to sustainability in terms of long-term maintenance and affordability 	 Upgraded tenure and services Appropriate land information system Integrated infrastructure plan Participation Lessons for reviewing legal frameworks 	Stakeholder Forum and Local Municipality

The first phase involves the establishment of a Stakeholder Forum whereby key stakeholders (examples shown in Table 5) are identified and co-opted to form the forum. In this phase the Stakeholder Forum then seeks and secures partnerships with stakeholder entities that can contribute funding for some aspects of the upgrading. The Stakeholder Forum also promotes community saving schemes to enable dwellers to pay for some services which in turn provides a sense of ownership.

Phase 2 involves the creation of re-designation of land into zones for settled and for social amenities such as schools, clinics, roads and other infrastructure. The main function of the zoning is to allow special tenure and development arrangements appropriate for the poor. The Stakeholder Forum pursues and reaches negotiated arrangements for sell, swap, sharing or lease of land with owners using the identified funding mechanisms that would have been identified in Phase 1. Specific outcomes of Phase 2 include clear land zones designated for specific uses, improved land tenure security for dwellers and increased capacity to manage the newly designed land administration system.

Phase 3 involves detailed participatory planning lead by the Stakeholder Forum for an integrated infrastructural plan with sustainability features regarding affordability of services by the poor residents as well as long-term maintenance. This phase also involves the implementation of the negotiated tenure arrangements and the newly adopted land administration system for recording the upgraded land rights. One of the important outcomes recommended in this best practice method, is the use of the lessons learned to review prevailing legal frameworks.

It is envisaged that the proposed Stakeholders driven upgrading approach is bound to be more successful as the residents are actively participating in the planning and implementation. Active participation ensures that no newcomers to continue settle on land designated for other use or where tenure rights have been secured for other families, a main problem for in-situ upgrading. Greater participation also ensures a more complete infrastructural network for service provision and affordability as well as long-term maintenance essential for sustainability.

REFERENCES

- ABBOTT, J. 1996. Sharing the City: Community Participation in Urban Management. London: Earthscan Publications Ltd. ISBN 1-85383-323-1.
- ABBOTT, J. 2000. Upgrading Informal Settlements for integration into the formal city. Conference on Formal and the Informal City What Happens at the Interface? The Nordic Africa Institute, Uppsala, Centre for Development Research, Copenhagen and the Department of Human Settlements, Copenhagen in Copenhagen, Denmark, 15–18 June 2000.
- ABBOTT, J. 2001. The use of Spatial Data to Support the Integration of Informal Settlements into the Formal City. *International Journal of Applied Earth Observation and Geoinformation* 3 (3): 267–277.
- ABBOTT, J. 2002a. An Analysis Of Informal Settlement Upgrading And Critique Of Existing Methodological Approaches. *Habitat International* 26 (3): 303–315.
- ABBOTT, J. 2002b. The Development Of A Generic Integrated Approach To Informal Settlement Upgrading. *Habitat International* 26 (3): 317–333.
- ABBOTT, J. and DOUGLAS, D. 2001. A Methodological Approach to the Upgrading, InSitu, of Informal Settlements In South Africa. Pretoria: Water Research Commission. WRC Report No 786/2/01. ISBN 1 86845 796 6.
- ALFONSIN, B. 1999. Instruments, Experiences and Trends in Tenure Regularization in Brazil. Paper presented at "Tenure Security Policies in South African, Brazilian, Indian and Sub-Saharan African Cities: A Comparative Analysis", Centre of Applied Legal Studies, 27–28 July 1999, Johannesburg.
- AZUELA, A. and DUHAU, E. 1998. Tenure Regularization, Private Property and Public Order in Mexico. In: E. Fernandes and A.Varley (eds.), *Illegal Cities: Law and Urban Change in Developing Countries*. Zed Books, London.
- BANERJEE, B. 1999a. The role of researchers and practitioners in setting up a concerted urban management approach: lessons from South Asian municipalities. Paper presented at N-aerus International workshop on Concepts and Paradigms of Urban Management in the Context of Developing Countries, Venice, 11–12 March 1999
- BANERJEE, B.1999b. Security of Tenure in Indian Cities: Overview of Policy and Practice. Paper presented at "Tenure Security Policies in South African, Brazilian, Indian and Sub-Saharan African Cities: A Comparative Analysis", Centre of Applied Legal Studies, 27–28 July 1999, Johannesburg.
- BEAVON, K.S.O. 1989. Mexico City and Colonias Populares: hints for a South African squatter policy. *South African Geographical Journal* 71: 142-156.
- BERNSTEIN, A. 1989. Focus on the cities: towards a new national agenda. Africa Insight 19: 65-71.
- BEUKMAN R. 1999. Land Rights and the Environment: Issues in "urban" settlements in the Former Homelands of South Africa. Paper presented at the International Conference, "South to South: urban-environmental policies and politics in Brazil and South Africa" Institute of Commonwealth Studies, London 25–26 March 1999.
- CHRISTENSEN, S.F., WOLFGANG, W. and HOJGAARD, P.D. 1999. *Innovative Land Surveying and Land Registration in Namibia*. The Development Planning Unit, University College, London.
- DAVIES, C. and FOURIE, C. 1999. A land management approach for informal settlement in South Africa. Paper presented at "Tenure Security Policies in South African, Brazilian, Indian and Sub-Saharan African Cities: A Comparative Analysis", Centre of Applied Legal Studies, 27–28 July 1999, Johannesburg.
- DE BEER, F. 1989. Informal settlements in African cities. Africa Insight 19: 72-81.

- DE CASTRO, S. 1999b. Favela Bairro Programme: A brief institutional analysis of its land aspects. Paper presented at "Tenure Security Policies in South African, Brazilian, Indian and Sub-Saharan African Cities: A Comparative Analysis", Centre of Applied Legal Studies, 27–28 July 1999, Johannesburg.
- DIACON, D. 1997. Slum Networking. An Innovative Approach to Urban Development, Building and Social Housing. Foundation, London.
- DURAND LASSERVE, A. 1998. Trends and Issues. In: E. Fernandes and A. Varley (eds.), *Illegal Cities:* Law and Urban Change in Developing Countries. Zed Books, London.
- EL-BATRAN, M. 1999a. Tenure Upgrading and Security of Tenure Policies in the Cairo Metropolitan Region. Paper presented at "Tenure Security Policies in South African, Brazilian, Indian and Sub-Saharan African Cities: A Comparative Analysis", Centre of Applied Legal Studies, 27–28 July 1999, Johannesburg.
- EL-BATRAN, M. 1999b. The Egyptian Experience of redefining property rights in the age of liberalization and privatization: a review. Paper presented at "Law and Urban Space Facing the paradox: Redefining Property Rights in the age of Liberalisation and Privatisation", International Research Group on Law and Urban Space (IRGLUS), and Centre for Applied Legal Studies (CALS), Johannesburg, South Africa, 29–30 July 1999.
- INTERNATIONAL FEDERATION OF SURVEYORS FIG Commission 3. 2002. Land Information Management for Sustainable Development of Cities. Best Practice Guidelines in City-wide Land Information Management. FIG. PUBLICATION 31.
- GAUTENG DEPARTMENT OF DEVELOPMENT PLANNING AND LOCAL GOVERNMENT. 1998. Gauteng urbanisation trends status quo investigation. Gauteng Department of Development Planning and Local Government, Johannesburg.
- HARRISON, B. 1994. Lean and Mean: The Changing Landscape for Corporate Power in the Age of Flexibility. New York: Basic Books, Inc.
- HARRISON, P. 1992. The policies and politics of informal settlement in South Africa: a historical perspective. *Africa Insight* 22: 14-22.
- HENDLER, P. 1991. The housing crisis. In: M. Swilling, R. Humphries and K. Shubane (eds.), *The apartheid city in transition*. Oxford University Press, Cape Town.
- HUCHZERMEYER, M. 1999. Tenure questions as understood in the debates in South African informal settlement and intervention literature of the 1990s a critical review. Paper presented at "Tenure Security Policies in South African, Brazilian, Indian and Sub-Saharan African Cities: A Comparative Analysis", Centre of Applied Legal Studies, 27–28 July 1999, Johannesburg.
- HUCHZERMEYER, M. 1999. The exploration of appropriate informal settlement intervention in South Africa: Contributions from a comparison with Brazil. Ph.D. thesis (unpublished), University of Cape Town, South Africa.
- HUCHZERMEYER, M. 2003. A legacy of control? The capital subsidy and informal settlement intervention in South Africa. *International Journal of Urban and Regional Research* 27 (3): 591–612.
- LI, J., MASON, S. and RÜTHER, H. 1997. Experiences in automated shack extraction using multispectral image classification. Proceedings of CONSAS'97, 24–28 August 1997, Durban.
- LI, J., MASON, S. and RÜTHER, H. 1998. *Multiple cue fusion in GIS for shack extraction from digital small format imagery*. Department of Geomatics, University of Cape Town.
- LU, D., MAUSEL, P., BRONDIZIO, E. and MORAN, E. 2004. Change detection techniques. *International Journal of Remote Sensing* 25 (12): 2365–2407.
- MACOLOO, G.C. 1996. The interaction between urbanisation and housing policies in Kenya: any lessons for South Africa? In: R.J. Davies (ed.), *Contemporary City Structuring, International Geographical Insights*. International Geographical Union Commission on Urban Development and Urban Life, Cape Town.
- MACOLOO, G.C. 1998. The relevance of Kenya's urban settlement policies for independent South Africa. *South African Geographical Journal* 80: 81-85.
- MARAIS, L. 1997. Botshabelo's changing housing landscape. Africa Insight 27: 171-177.

- MAZUR, RE and QANGULE, V.N. 1995. African Migration and Appropriate Housing Responses in Metropolitan Cape Town. Western Cape Community-based Housing Trust, Draft Report.
- MCCARTHY, J. and BERNSTEIN, A. 1996. *Durban South Africa's global competitor?* Big Cities Series, Centre for Development and Enterprise, Johannesburg.
- METROPOLITAN SPATIAL DEVELOPMENT FRAMEWORK: A GUIDE FOR SPATIAL DEVELOPMENT IN THE CAPE METROPOLITAN REGION. 1995. Draft for Discussion. Western Cape Economic Development Forum, Urban Development Commission.
- PAYNE, G. 1991. Urban Land Tenure and Property Rights in Developing Countries. A Review. ODA Publication.
- PARNELL, S. 1997. South African cities from the ivory tower of urban studies. *Urban Studies 34 (5-6): 891-906.*
- PILLAY, U. 1995. The spontaneous settlement question in South Africa: insights from international experience. *South African Geographical Journal* 77: 45-50.
- ROGERSON, C.M. 1989a. Managing the decolonizing city in southern Africa, *South African Geographical Journal* 71: 201-208.
- ROGERSON, C.M. 1989b. Malaysian urbanization: policy lessons for South Africa. *South African Geographical Journal* 71: 174-181.
- SAPIRE, H. 1992. Politics and Protest in Shack Settlements of the Pretoria–Witwatersrand–Vereeniging Region, South Africa, 1980–1990. *Journal of Southern African Studies* 18: 670-697.
- SEFATLHE, M.N. 1998. Informal settlements summit charts the way forward, Houses for Gauteng. *Official newspaper of the Department of Housing and Land Affairs*, Issue 2, Johannesburg.
- SAFF, G. 1996. Claiming a Space in a Changing South Africa: The "Squatters" of Marconi Beam, Cape Town. *Annals of the Association of American Geographers*. Blackwell, Cambridge, Massachusetts.
- STEVENS, L. and RULE, S. 1997. *Upgrading Gauteng's informal settlements Volume 1: a baseline study of Eatonside and Albertina (Etwatwa extension 30)*. Community Agency for Social Enquiry, Johannesburg.
- STEVENS, L. and RULE, S. 1998. *Upgrading Gauteng's informal settlements Volume 2: a baseline study of Soshanguve South Ext. 4 and Johandeo*. Community Agency for Social Enquiry, Johannesburg.
- STEVENS, L., MARSHALL, S., MORRISON, M. and RULE, S. 1998. *Upgrading Gauteng's informal settlements Volume 3: First follow-up surveys at Eatonside, Albertina, Soshanguve South Ext. 4 and Johandeo*. Community Agency for Social Enquiry, Johannesburg.
- PARNELL, S. 1997. Changes in the Racial Division of Labour During the Apartheid Era. *Journal of Southern African Studies* 22(4): 633-656.
- SOUTH AFRICA DEPARTMENT OF HOUSING, 1994. White paper. A new housing policy and strategy for South Africa, Department of Housing, Pretoria.
- SOUTH AFRICAN DEPARTMENT OF LAND AFFAIRS. 1998. White Paper on South African Land Policy, April 1997. ISBN 0-621-273-42-2 Government Printer, Pretoria.
- SOUTH AFRICAN INSTITUTE OF RACE RELATIONS. 1994. *Race Relations Survey 1993/1994*. Johannesburg, South African Institute of Race Relations.
- SOUTH AFRICAN INSTITUTE OF RACE RELATIONS. 1996. South Africa Survey 1995/1996. Johannesburg, South African Institute of Race Relations.
- THE SATURDAY STAR, 21/2/98, Johannesburg.
- THIRKELL, A.J. 1996. Players in urban informal land markets; who wins? who loses? A case study of Cebu City. *Environment and Urbanization* 8 (2): 71-90.
- TOMLINSON, M.R. 1998. South Africa's New Housing Policy: An Assessment of the First Two Years, 1994–96. *International Journal of Urban and Regional Research* 22: 137-146.
- TOMLINSON, R. 1988. South Africa's Urban Policy: A New Form of Influx Control. *Urban Affairs Quarterly* 23: 487-510.

- UNCHS (Habitat). 1996. *Urban poverty: A world challenge The recife declaration, March 1996*. Habitat II, Recife International Meeting on Urban Poverty, Recife, Brazil, 17–21 March 1996.
- UNCHS. 1997. Indicators Programme, UNCHS (Habitat) 20 September 1997. United Nations Centre for Human Settlement, 1999.
- UNITED NATIONS CENTER FOR HUMAN SETTLEMENT (HABITAT). 1998. Informal Settlements, Security of Tenure, Urban Land Management and Local Governance, Experiences in Implementing the Habitat Agenda, Land management Series No. 7 (Draft version: Nairobi, June 1998).
- UNITED NATIONS CENTRE FOR HUMAN SETTLEMENT (HABITAT). 1996b. New Delhi Declaration, Global conference on access to land and security of tenure as a condition for sustainable shelter and urban development. New Delhi, 17–19 January 1996. Preparation document for Habitat II, Istanbul.
- UNITED NATIONS HUMAN SETTLEMENT PROGRAMME (UN-HABITAT). 2004. *Pro poor land management. Integrating slums into city planning*. UN_HABITAT, Nairobi.
- URBAN PROBLEMS RESEARCH UNIT. 1990. An Overview of Development Problems in the Cape Town Metropolitan Area. Working Paper No 40, University of Cape Town.
- VARLEY, A. 1999. New models of urban land regularisation in Mexico: Decentralisation and democracy vs. clientilism. Paper presented at N-aerus International workshop on Concepts and Paradigms of Urban Management in the Context of Developing Countries, Venice, 11–12 March 1999.
- YOUSRY, M. and ABOUL ATTA, T.A. 1997. The challenge of urban growth in Cairo. In: C. Rakodi (ed.), *The Urban Challenge in Africa: growth and management of its large cities*. United Nations University Press, Tokyo.

INTERNET SITES:

- www.unhabitat.org/pmss/getElectronicVersion.asp?nr=2133&alt=1. Law, Land Tenure and Gender Review Series: Southern Africa United Nations Human Settlements Programme (UN-HABITAT), 2005 ISBN Number (Series): 92-1-131768-1 [Access date 29 September 2005]
- www.bestpractices.org. 1999. An Urbanizing World: Global Report on Human Settlements 1996 (Executive Summary) ISBN: 92-1-131309-0 [Access date 20 November 2005]
- www.gisdevelopment.net/proceedings/gisdeco/sessions/abbottpf.htm. The use of GIS in informal settlement upgrading: Its role and impact on the community and on local government [Access date 10 March 2006]
- www.unchs.org. An Urbanizing World: Global Report on Human Settlements 1996 (Executive Summary) ISBN: 92-1-131309-0 [Access date 29 September 2005
- www.fig.net/commission3/publications/publication_index.htm. INTERNATIONAL FEDERATION OF SURVEYORS; FIG Commission 3 Spatial Information Management in co-operation with the UN-HABITAT. [Access date 10 April 2006]

APPENDIX:

UNSTRUCTURED INTERVIEW QUESTIONNAIRE

1. Where did Hanipark settlers migrate from?

- Thabong informal settlement
- Commercial farms
- Neighbouring towns (mainly indigenous citizens)
- Neighbouring countries (mainly migrant workers)

2. What were the reasons for leaving?

- Evicted from Thabong backyards during operation "clean out"
- Evicted from commercial farms where they were employed as farm workers
- Retrenched from gold mines of Welkom and neighbouring towns

3. What skills do they hold?

- Farm equipment operation
- Farm produce packaging and loading
- Crop and livestock care

4. What are their priority needs?

- Proper housing
- Proper roads
- Electricity
- Water and sanitation
- Health clinics
- Schools