

CHAPTER TWO

LITERATURE REVIEW

1.1. Introduction

Review of related literature in this chapter is organized according to six themes, namely; the right to housing and land, rapid urbanization and land, land prices, mining land, land reform, mining land dumps in Johannesburg and people's perception of housing on former mining lands. Reviewing literature in accordance with these identified themes, assist in outlining the nature of the barriers to the utilization of former mining land for the construction of affordable housing closer to the CBD.

2.2. Identified themes

2.2.1. The right to housing and land

Access to housing and land are rights enshrined in section 25 and 26 of the Constitution of South Africa. The right to access land refers to available land in general, including former mining land. The apartheid planning managed to exclude the majority of citizens from urban areas (Fabris, 1996). Fabris (1996) in her studies focuses specifically on the right to housing and the implications of the continued effect of apartheid planning. She argues that the planning profession should assume a central role in implementing this basic human right, and to facilitate access to adequate housing. So the implications here, argues Fabris, "stretch through all areas of civil life, from politics through socio-economic to spatial allocation of land" (Fabris, 1996:47). Her argument is that the planning profession, which was instrumental in apartheid planning, led to separate development plans, needs to take a central role in ensuring that there is a shift in resource

allocation, which include spatial allocation of land for housing in formerly white areas, in favour of the previously marginalized. Her emphasis is on the National Housing Department's Vision of "the establishment of viable, socially and economically integrated communities, situated in areas allowing convenient access to economic opportunities and social amenities..." (South African Country Report, 1996 in Fabris, 1996:44).

Wilkinson (1998) looks at the development of housing policy in South Africa since 1920s through to the post apartheid era. Wilkinson also challenges the attempt by the apartheid regime to "contain urbanization within the African population" (Wilkinson, 1998:215). He argues that it is the legacy of apartheid in the form of profound social polarization, extreme economic inequalities and spatially divided cities, which complicates the task of building a new society, and prevents people from enjoying their Constitutional right to access adequate housing. He is sceptical about the capability of the current housing policy to overcome some of the major problems inherited from apartheid. His main argument is that the housing policy's failure to address the fundamental social and spatial divisions which continue to characterize the country's cities, and to explicitly and systematically integrate housing policy into a coherent strategy of urban restructuring, turns out to be its most serious deficiency. He argues that the housing policy's degree of success in transformation of housing in general, and spatial divisions in particular, especially in cities, is questionable.

Wakely (1996) bases his argument on the right to housing on the success of Habitat II, which amongst others, came up with agreements such as adequate shelter for all and sustainable human settlements in an urbanizing world. He argues that the fact that countries (South Africa included) signed the Habitat Agenda, endorses their commitment in principle to its implementation. His emphasis is on the mandate given by Habitat II to local government to develop and manage cities and settlements. It is of course adequate shelter for all and sustainable human settlement in urban areas which are more relevant and significant to this theme.

Comment 4 of 1991 of the UN Habitat Agenda outlines the right to housing as meaning the right to live somewhere in peace and dignity, with adequate privacy, space, security, lightning, ventilation, basic infrastructure, all at an affordable cost and most importantly, within a reasonable distance from job opportunities and social services.

My position on the above-raised arguments is that adequate housing for all and the Constitutional right of every citizen to access adequate housing and land in South Africa as stipulated in the Constitution. Although I do not dispute the fact that the right to adequate housing implies that the planning profession should transform and align itself with change, I think what is more crucial is accessing land closer to cities on which such 'new' planning can take place. Contrary to Wilkinson's scepticism about the capability of the current housing policy to succeed in transforming housing, as well as social and spatial divisions, my concern is the whole question of implementation of such a policy. South Africa is known of developing acceptable and democratic policies, but seemingly,

the rate of policy development is not commensurate with the rate of implementation. Sustainable human settlements in urban areas, as well as densification and integration need new housing developments, and these new housing developments cannot be constructed in the air, more land is definitely needed. The availability of land and accessibility of the unoccupied land such as former mining land in the case of Johannesburg City needs to be explored, in order for human basic rights such as the right to access adequate housing to be fully enjoyed on land closer to economic opportunities and essential services.

2.2.2. Rapid urbanization and land

Rapid and consistent urbanization, unmatched by sufficient housing, land and delivery of basic services, entrenched the significance of informal and illegal informal housing and economic opportunities in both the urban and rural context of South Africa (Department of Agriculture, 2005). This led to severe land shortages and many people established informal houses on nominally state-owned land without any formal rights to such a land (*ibid*), and some invaded private land closer to cities and their working places. The link of this theme to the research topic is also unquestionable, in that as this study aimed at exploring barriers hampering the construction of affordable housing on former mining land located closer to the CBD of Johannesburg, the main reason behind this, was bringing the marginalized masses staying on the periphery of the city into the city, which has the potential of increasing rapid urbanization and congestion in the city. Dewar and Uytenbogaardt (1992) contend that rapid urban growth is posing severe problems in all the major cities of South Africa. They raise a concern about places on the periphery

which are increasingly poorly served by public transportation, and the major focal points of movement, the CBDs, becoming increasingly congested. They argue that the lives of people who found themselves living in these increasingly congested city centres, are devastating. Their argument is that there is a need "to promote urban management practices which impact positively on the lives of the majority of urban dwellers" (Dewar and Uytendogaardt, 1992:170). They further contend that failure to promote such urban management practices will render South African cities non-viable, with people likely to be unwilling to live there. Their belief is that it is urban management practices which will positively and constructively deal with the ever-increasing overcrowding/congestion in cities.

Coulsen (2001) compares the impact of congestion (overcrowding) between Sao Paulo, Brazil and Johannesburg, South Africa. Coulsen estimated the population of Sao Paulo City to 10 million, with 2 million living in favelas or shantytowns. In Johannesburg, an estimated of 3.2 million residents live in the city (Census, 2001), with about 37 000 illegal and improper dwelling units estimated to be existing in the CBD, of which 10 000 "are in varying degrees of disrepair" (Coulsen, 2000:4). The extent of the threat and severity of rapid urbanization is indicated by the increased occupation of Non-Residential Buildings (NRBs) in both cities, which indicate the difficulty of accessing not only proper housing in cities, but also suitable land on which these houses should be built. More often than not, reasons given for the occupation of these NRBs are, amongst others, 'nowhere else to stay', 'access to services, etc. Fernandes (1995) clearly depicts the impact of rapid urbanization in cities, in particular Brazil, and the problem of

unavailability of land in cities for the construction of low-income or affordable housing for those without proper housing. He indicates that more than 80% of the whole Brazilian population live in cities, which is undoubtedly a serious threat of congestion in cities. His argument is that the Brazilian state has failed in reforming laissez faire ideologies regarding the use and development of urban land. He argues that "most of Brazilian land is privately owned, which accounts for the existence of few public spaces in cities and elsewhere" (Fernandes, 1995:9). It is also for the same reason that there is not enough (empty) space for housing development in Brazilian cities. Overcrowding in Brazilian cities, argues Fernandes, impact negatively on service delivery and facilities, especially drainage and sewerage systems, health education equipment, public transport, etc.

The personal view and position that I have on the issue of rapid urbanization and the threat of congestion in cities, is that, it will definitely be very difficult if not impossible to stop rapid urbanization as long as rural areas and townships on the periphery of cities are not attractively and adequately developed. In the case of Johannesburg -which increasingly continues to be the city of attraction of rural residents and foreigners at large- unless more land in the form of former mining land -which is mostly privately owned- is developed and made available for the construction of low-income and generally affordable housing, Johannesburg will continue to be overcrowded, with congestion of both residents and traffic continuing to be a threat to the well-being and health of the city as a whole. I think that the former mining land, if well developed, rehabilitated and approved for residential housing, can bring a relief to the congestion being experienced in the city at the moment, in that some residents will prefer to reside

on former mining land, which happens to be closer to the CBD, rather than in overcrowded and/or congested city centre.

2.2.3. Land prices

Land that is closer to the CBD or cities is not only good to use for housing construction closer to economic opportunities, amongst others, but it also has a higher market value. Prices of land in South Africa are generally high, especially land closer to city centres (City of Johannesburg, 2001), as compared to land in townships and rural areas. It is basically for that reason that landowners have the tendency to delay selling their land until when prices are higher. Some private land owners seem to inflate prices deliberately, that's the reason President Mbeki (2006) believes that there is a possible manipulation of land prices. It is for that reason that land redistribution process is not going fast enough (Department of Land Affairs, 2004). In order to meet the target of redistributing 30% of land by 2015, delivery will have to be accelerated. The Land Claims Commission of South Africa lists exorbitant land prices, and landowners' opposition to restitution programme, amongst the problems it is facing (Finlay, 2004). While the land restitution programme aims to restore land rights lost during apartheid's discriminatory laws, the redistribution programme aims to provide the previously disadvantaged and the poor with access to land for residential and productive purposes (*ibid*). This undoubtedly includes prices of and residence on former mining lands.

The mission of the Department of Land Affairs (DLA) is "to provide access to land and to extend rights in land, with particular emphasis on the previously disadvantaged

communities, within a well-planned environment” (DLA, 2005). This research project also sought to address the plight of the previously disadvantaged residents of Soweto, by integrating them into the CBD through affordable housing on former mining lands. But it is a fact that land prices tend to have a negative effect on the whole process of undoing the legacy of apartheid, and it is for that reason that prices continue to be criticized for delaying the land reform process, as sellers’ prices are often high, negatively affecting the quantity of the land one wishes to buy, and as a result poor landless people suffer (Department of Land Affairs, 2005).

It is therefore clear that land is generally expensive, and in Johannesburg in particular, the reality is that land cost in well-located areas, closer to the city’s nodes and core, tend to be higher than the large tracts of land located on the periphery of the city (City of Johannesburg, 2001). Since former mining lands, south of Johannesburg and north of Soweto are closer to the CBD, and coupled with the costs of remediation processes that are usually executed in order to clean the contaminated lands, prices are usually high, which tend to complicate the accessibility of such lands especially for low to middle income citizens.

2.2.4. Mining land

Mining land is a type of land where digging of minerals such as gold, platinum, coal and diamond takes place. In South Africa there are a number of mining areas such as Kimberly, Rustenburg, Carltonville, Witbank and Johannesburg, which have large scale mining lands. Mining land is a type of land that naturally contains radioactive materials

such as uranium and radon. These radioactive materials are not only toxic, but they pose a serious health risk to people and the environment. It is for that reason that the National Nuclear Regulator (NNR) has been established in order to regulate mining and mineral processing facilities where there is a potential hazard available. The central objective of the NNR is “to ensure adequacy of the radiological protection regime and regulatory arrangements established for the protection of persons, property and the environment against possible damage from ionising radiation generated by mining and mining processing” (NNR, 2005).

It is the NNR that has the authority to approve any kind of project which is to take place on mining or former mining lands, guided by the National Nuclear Regulator’s Act, 47 of 1999. All projects intended for mining lands have to conform and be in line with the provisions of the Safety Standards and Regulatory Practices published in accordance with the requirements of the NNR' Act of 1999. In terms of section 4.1.2 of the Safety Standards and Regulatory Practices, exposure to radon should not exceed an action level of 6mSv/a. Housing construction on former mining lands can be allowed as long as, in terms of section 5.4.1, radioactive materials have been removed from the site, and the concentration of radon in homes is not more than 400Bq per cubic metre.

2.2.5. Land reform

The land reform process in South Africa consists of three distinct components, namely; restitution, tenure reform and redistribution programmes. Restitution seeks to have persons or communities dispossessed of land after 19 June 1913 as a result of past

discriminatory laws and practices, restored to their land or receive just an equitable redress (Department of Land Affairs, 2005). Restitution can also be referred to as litigating in order to establish precedents and representing clients to secure settlements outside court (Department of Agriculture, 2000). In short, this programme involves returning land or compensating victims who lost their land rights since June 1913 because of racially discriminatory laws. Tenure reform deals with securing tenure of persons and communities that are insecure as a result of past racial discriminatory laws and practices. This programme includes assisting communities that are moving to new land, and those already occupying land rights to secure tenure. Tenure reform seeks to legalize and regularize the illegal occupation of land by the poor and the landless (*ibid*). Redistribution programme involves assisting clients to access state support for land to be acquired by them or on their behalf. This programme makes it possible for the landless and the previously disadvantaged and marginalized people to buy land with assistance of the state. It emphasized the principle of willing buyer-willing seller, which received negative criticisms for failing to speed up land reform during the Land Summit held in Johannesburg in 2005. It is for that reason that the President Mbeki, in his State of the Nation Address 2006, requested the Ministry of Land Affairs to review it (Mbeki, 2006).

Land reform has a direct relation and an impact on land since there cannot be housing without land. The question of land reform includes all land taken illegally from the original owners, and this includes former mining lands which are available for housing development. Centre for Development and Enterprise (CDE) (2005) attempts to come up with a new view or lens from which the issue of land, which is both sensitive and

potentially explosive, should be looked from. Its argument is that, looked from a developmental point of view, the land issue should not be a higher priority than issues such as unemployment, macroeconomic policy, education, crime and HIV/AIDS. It argues that it is only when viewed as a political issue that the land issue becomes so vital and sensitive. It admits the fact that since the introduction of colonial legislation such as the 1913 and 1936 Land Acts, many Africans were dispossessed of their land and driven away to dry, semi-arid and hot areas. The CDE contends that it was the Group Areas Act of 1950 which saw many black South Africans forcefully removed from their land in urban areas, and dumped in congested townships situated far away from cities.

The CDE does not hide its dislike of the way the current land reform is being handled. It argues that the government has two choices namely; to continue with the current path of implementing an ambitious, restitution-oriented, and unrealistic concept of land reform or to make a choice to change the nature of South Africa's conversation about land, which incorporates market forces more fully and ensure sustainable development in urban and rural South Africa (CDE, 2005:7). The CDE argues that the government needs to reconceptualise and modernize the people's understanding of land reform at the beginning of the 21st century. The CDE's main argument is for South Africa to have a new perspective on land reform issues.

The CDE also argues that many black people would prefer to live in urban areas rather than go into farming. The CDE therefore recommends, amongst others, that the government should promote successful urban land release and housing in and around

South Africa's metropolitan cities and small towns; the development of low-income housing on infill sites so as to promote integration of urban areas and provide accommodation for less poor to middle income households; and the need for government to speed up land release programmes, especially for residential land in metropolitan and urban areas, so as to prevent unplanned informal settlements and illegal land occupations.

Doebele (1987) argues that the problem of adequate land for the urban poor is bleaker now than it was 25 years ago, and looks like it will only become bleaker in the future. Doebele argues that the land, by its very nature, is a public good, "a commodity that cries for public management and control" (Doebele, 1987:7). Doebele deals here with the issue of land in the face of the evolution of concepts of urban land tenure in developing countries. His emphasis is on land availability before land tenures can be dealt with. He refers to this as the relation of land supply to policies of land tenure. One of his main arguments is that commercialization of land has led to a stiff competition amongst land owners and other institutions in urban areas, which led to prices of land rocketing, which in turn, made land accessibility for low-income housing difficult even to the government, let alone the urban poor.

In engaging the arguments raised above, I share the sentiments made by CDE that the land reform issue is very sensitive and explosive, I do not believe that the current path of land reform taken by the government is unrealistic, ambitious and set to fail because the government tries to bring all stakeholders on board for democratic and fair negotiations. Similarly, I do not think that there is a need to reconfigure, reconceptualise and modernize the land reform programme. I think land restitution is a fair solution, not only

because it is Constitutional, but also because it attempts to redress the injustices of the past, by reversing the process of land dispossessions, which has the likelihood and potential of ensuring that the land goes back to its original rightful owners.

However, I concur with CDE recommendations on the question of urban land in relation to housing provision, in metropolitan and urban areas. However, this should not be done at the expense and in avoidance of rural land reform processes and to divert attention from agricultural land reform programmes. Urban land reform should be done for purposes of urban densification and integration, as requested by policies such as the Department of Housing's Breaking New Ground.

On the question of land prices rocketing due to commercialization of land, which tends to hamper access to land, I think the government has to intervene and make a meaningful contribution in the form of funding, so that land release programmes can be accelerated, for the development of low-income housing especially on urban areas. More progress in making urban land more accessible -such as seen in District Six in Cape Town, where it is assisting in bringing housing in well-located areas- needs to be made.

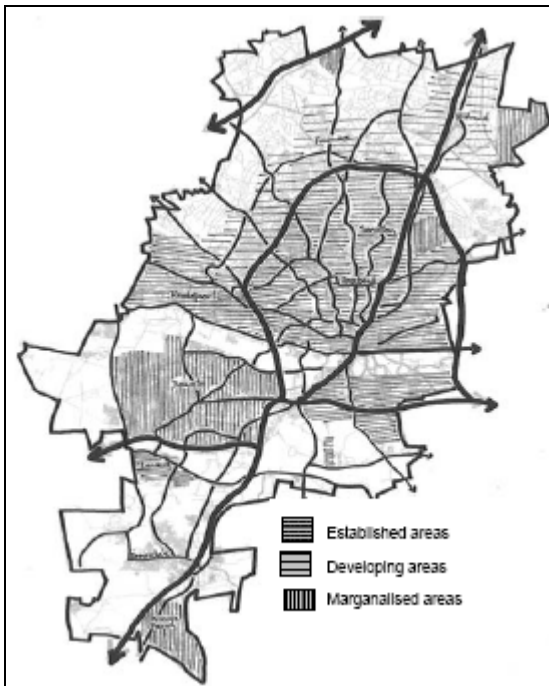
2.2.6. Mining land dumps in Johannesburg

Mining in Johannesburg started in 1886 when gold was discovered by, amongst others, the Struben brothers (City of Johannesburg, 2001). The city's infrastructure moved from tent to wood and iron shacks, and then to bricks and mortar. Johannesburg soon became one of the biggest gold producing mining areas in the world. The city was declared open for public digging (mining) by the then President Paul Kruger in 1886, and from then, massive scales of mining ensued. That's basically how mining developed in

Johannesburg, which included mining in the south of Johannesburg and north of Soweto, which is the study area of this project. Mining dumps in this area are an indication of massive digging of gold that took place. It is the digging and extraction of gold which led to mining dump lands as seen today around Johannesburg and in the study area of this project.

Former mining lands situated on the south of Johannesburg and north of Soweto are well-located, unoccupied and suitable to be used in integrating the CBD and the formerly excluded and marginalized Soweto communities, as seen in map-3 below. Soweto was formally set up in 1904, in Kliptown, about 25 km from Johannesburg, as a labour reserve to keep black workers, most of whom worked in the burgeoning mining industry, away from the predominantly white Johannesburg city. It is for that reason that the mayor of The Greater Johannesburg Metropolitan, Amos Masondo, refers to Soweto as “a product of segregation and apartheid zoning, a situation which has given rise to Johannesburg being a tale of two cities (City of Johannesburg, 2004). It is the integration of these two ‘cities’ –through the construction of affordable housing on former mining lands which divide the two ‘cities’- which is the focal point of this study. It is also for that reason that this study sought to establish possible barriers inhibiting the realization of this goal. Boden (1979) looked into necessary changes in design and planning needed to enhance the potential image of disused mining land. The study stresses the need to improve the quality of the image citizens have about the mining land. His argument is that the mining land should be developed by, amongst others, building facilities such as the conference centre, the greenway and the large dam, to increase the appeal and

Map-3: Residential patterns in Johannesburg



Source: www.joburg.org.za

magnetism of the mining land to a much greater sector of the population (Boden, 1979). His emphasis is on investigating the importance of the environment and its structure to man, as well as the problems and opportunities associated with the mining land, with the aim of “preserving the legibility of the mining land” (*ibid*: 3). The researcher’s findings, amongst others, indicate that some mining dumps should be retained as orientation elements, landmarks and as ties to the past, and also facilities of recreational nature need to be built, for the same reason.

Reeves (1998) studied the effects which apartheid had on South African cities. This study aimed at outlining elements of race and ethnic spatial segregation in the structure of the

South African City. Findings of this study indicates, amongst others, the impact which apartheid had on structure of South African cities, in terms of physical changes such as “buffer zones between white and black areas...and the intolerable distances that black people had to travel in order to get to work” (Reeves, 1998:77). He emphasizes the need for the apartheid mould to be broken and concerted efforts to be made to integrate the various societies of South Africa together, so that economic opportunities and services available in the CBD can be accessible to all citizens.

Fortman (1992) argues that the urban reconstruction of the post apartheid city needs to take advantage of the available buffer strip as an integrator between the previously deprived and marginalized, and the city. He argues that the buffers strip presents “a unique opportunity for gradual restructuring of the city land use pattern to make it more efficient and equitable” (Memoire, 1991 in Fortman, 1992:75). He also argues that “the inward development, as a solution for the South African city, can achieve physical restructuring and benefit lower income households” (*ibid*: 76). He sees the buffer strip as an important means of achieving such an inward development, and necessarily reconstruction. Fortman studied the buffer strip (an open, unutilized space) created by the apartheid spatial development between Midrand and Ivory Park. His main argument is that such a buffer strip, which was used by the apartheid government as a dividing zone between the marginalized black South African communities and the privileged white communities, can today be utilized to integrate such communities. The former mining lands are like buffer strips between the CBD and the communities of Soweto.

Star Business Report (2005) had an article which clearly outlined how the State President Thabo Mbeki feels about new housing development in cities. The president argues that new housing development in cities must “integrate communities so that parts of cities were no longer designated exclusively for the rich and others for the poor” (Star Business Report, 2005:2). President Mbeki sounds seriously concerned about the continued perpetuation of settlement patterns along racial and class divisions. He contends that there is an urgent challenge of “bringing to a stop the pro-rich housing development strategies that ensure that the best located land that is close to all the best facilities is always available to the rich; a situation where the best land is allocated especially to create gated communities and golf estates, while the poor can only access dusty semi-developed land from modern infrastructure” (ibid). This statement has an impact on this theme in that it indicates the continuing trend of unfair land allocation in urban housing development, and former mining land becomes is an ideal integrator which can be utilized to change this trend.

Tomlinson (1999) makes an assessment of South Africa’s housing policy in terms of lessons from four years of the new Housing Subsidy Scheme. She assesses the policy’s impacts on the country’s urban areas, where she argues that a central feature of apartheid rule was the attempt to curb African settlement in the urban area, which led to overcrowding in urban black communities, wherein residents were “very poorly housed and very poorly located far from economic opportunities and social services” Tomlinson, 1999:290). She further indicates that the new government aims at reintegrating the cities economically and socially, so as to increase the density of their housing (compact city). Tomlinson argues that the government is failing to implement such integration of cities,

in that between 1994 and 1997 it was found in Gauteng that the large majority of low-income housing projects were located on the urban periphery.

The Department of Housing in chapter three of the Housing Code deals with the provision of housing subsidy assistance. The main argument here in relation to land closer to the CBD is that, the 15% increase in subsidy assistance made available by the Department, for cost of land and geophysical conditions for developers, was done firstly, in order “to provide an incentive to developers to develop well-located land where people can live close to places of employment or at least close to transport routes” (Department of Housing, 2005:33). The Department argues that this is aimed at promoting densification of cities and large towns, in order to minimize urban sprawl. Secondly, the 15% increase aimed at providing compensation for difficult development conditions, including topographical and geotechnical conditions. The 15% increase was made in order for developers to deal with adverse land situations such as excessive slopes, sandy soil or medium dolomite land conditions, for the sake of developing housing on well located land.

Sihlongonyane and Karam (2003) indicate the fact that there is always a black township located at the periphery of colonial cities, which shows how geographically divided urban areas are, not only in South Africa, but in the whole African continent. The authors look specifically into the impact that the National Housing Capital Subsidy Scheme has on an apartheid city, in particular Johannesburg. They sound more concerned about the buffers of open space that separate the apartheid cities and often congested black townships. They argue that the post-apartheid city’s building principles which seek “to stitch

together apartheid's urban discontinuities to integrate the torn parts and peoples of Johannesburg" (Bollens, 1998 in Sihlongonyane and Karam, 2003:164), in order to push forward the post-apartheid city's densification approach which "would reverse the decades-long practice of apartheid policy-makers of developing vacant land far beyond the urban fringe and isolating non-white individuals and communities far from opportunities" (*ibid*). Thus they highlight the importance of the disused mining land in integrating the city.

One of Sihlongonyane and Karam's main arguments is that the implementation of the post-apartheid capital housing subsidy scheme does not seem to impact seriously and positively in changing the apartheid spatial and housing development, let alone the structure and set-up of the apartheid city. This, they argue, is evident in the fact that since 1994 housing development has seen the poorest communities of Gauteng remaining increasingly marginalized, and on the periphery of Johannesburg City. They argue that the signs of urban duality are still clearly visible in Johannesburg, and that the low-cost housing development projects have added to the perpetration and completion of the apartheid project of marginalizing and isolating black residents from the city. They, however, argue that the large belt of land running south of the Johannesburg CBD and North of Soweto, which is well-located, suitable for development and closer to the CBD and transportation nodes, should be utilized as an integrator between the two separated communities.

The Department of Housing's *Breaking New Ground* (2004) seeks to promote the achievement of a non-racial, integrated society through the development of sustainable human settlements and quality housing. This is a new housing policy that formalizes the post-apartheid's quest for densification and integration of apartheid cities, by amongst others, releasing government land to municipalities, and ensuring the acquisition of private land that is well-located for the construction of housing, especially for those previously marginalized. *Breaking New Ground* intends "breaking the barriers between the first economy residential property boom and the second economy slump" (Department of Housing, 2004:55). This policy also seeks to utilize housing as an instrument for the development of suitable human settlements, supporting spatial restructuring.

The post apartheid's intention, amongst others, is to develop more liveable, equitable and sustainable cities in pursuance of more compact urban form, facilitating higher densities, mixed land use development, integrating land use and public transport planning, aimed at ensuring more diverse and responsive environments while at the same time reducing travelling distances for working urban residents (Department of Housing). *Breaking New Ground* also seeks to facilitate the speedy release and servicing of land through land development projects, as outlined in the Development facilitation Act (DFA), no.67 of 1997. This has a direct link to my study in that it sought to encourage housing development towards the city on former mining lands located closer to the city, and the servicing and releasing of former mining lands for the construction of affordable housing, which will be closer to the CBD, will enhance the chances.

My personal view and position in relation to this theme -of utilizing the former mining land as an integrator of the privileged white and marginalized black communities- is clear. Where Boden (1979) thinks that the quality of the mining lands (dumps) should be improved in order to increase its appeal and magnetism, and my opinion on this is that there is a serious need to rehabilitate, clean and develop former mining lands with the intention of constructing low to middle or affordable housing. The former mining lands, which for decades-long have been acting as buffers between the city and (Soweto) townships, are well-located, suitable and an opportunity to restructure the apartheid spatial structure, and to integrate the divided urban communities.

On the issue of reconstructing the apartheid city and the general urban set-up, I feel that the time for that is long overdue. The democratic government needs to speed up the process, and to refrain from perpetuating the trend of apartheid housing development, which sought to locate housing for blacks on the periphery of the city. The government, through the National Housing Department, has to show commitment, resilience and seriousness by taking advantage of available open spaces closer to the CBD, in order to achieve its goal of densification and integration of different housing types in cities. Any available buffer strip closer to the CBD should be developed and utilized for the construction of affordable, low-income housing for the previously marginalized citizens of this country. I think it is consciously and morally incorrect for the urban rich residents to oppose the utilization of some less frequently used golf estates (land) closer to the CBD for housing development aimed at integrating different communities of our society. How does one convincingly and honestly justify a situation where one wants to continue keeping land which is less frequently utilized for golf - which is part of leisure and

entertainment- while other citizens desperately need land for housing, which happens to be one of the basic needs and fundamental human rights?

I am convinced that if the former mining land North of Soweto and South of Johannesburg can be cleared of most possible barriers, and developed to a usable and human friendly level, it could be a best suited and perfectly fitting land for the construction of the low to middle income housing, for the torn apart and economically designated residents of Johannesburg CBD and Soweto.

2.2.7. People's perception on former mining lands

Naturally, people have certain kind of perceptions about residential areas in general, and housing in particular. People's perceptions about residence in urban centres are determined by attributes such as the concentration of capital, people, power and functions, access, space, tenure shelter and on-site service (O'Raw, 1989). People have different perception and preference patterns when it comes to residence, and it is these patterns which determine aspects such as type, size, cost of housing, etc. (*ibid*). Usually, the main perception that people have about a new residential area, especially closer to the CBD as is the case in this study, is housing satisfaction, determined by factors such as size of the house, number of rooms, floor plan, facilities, site direction, quality of the neighbourhood and security of tenure (Crofton and Venter, 2000).

It is crucial to indicate that people's perceptions may be influenced by existing factors impacting on them at that moment, and such perceptions may not necessarily be correct.

The fact that during the day of the survey conducted in Orlando East, there was wind blowing mine dust towards people's houses, undoubtedly influenced people to have a negative attitude towards housing on former mining lands. This could be seen in some respondents' serious surprises on the mere mention of an idea of housing on former mining lands. The decrease in bidding for property on contaminated land, as depicted by scenarios A to D (Appendix 3.8) clearly indicates the negative perceptions that respondents attach to housing on former mining lands. A mere knowledge that there are toxic and health-threatening gases such as radon in former mining lands, irrespective of the extent of the severity, also built on the general dislike of housing on former mining lands by people. Recent reports in both electronic and print media about asbestos sufferers, which came about as a result of exposure to asbestos while working in mines, also led to people developing negative perception about housing on former mining.

It is this type of perception that people had developed about (former) mining areas in general, not necessarily the prevalent of radon and mine dust, which is largely responsible for people's dislike of housing on former mining areas, as clearly indicated by the decrease in bidding for houses on former mining lands, depicted by scenarios A to D in Appendix 3.8. The requirements by various policies such as the Nuclear Regulator Act, no. 47 of 1999, Safety Standards and Regulatory Practices and the Environment Conservation Act, no. 73 of 1989, as discussed in the next chapter, that certain steps need to be taken before development can be done on former mining lands, is an indication that housing former mining lands is possible, as long as it is done within the provisions of the laws.

2.3. Conclusion

The question of land in South Africa, sensitive and explosive as it is, has to be addressed soberly, amicably and urgently for the general benefit of all citizens, and in particular, the previously marginalized. Reconstruction, development and transformation of our country in general, and our cities and urban set-ups in particular, centre largely around the availability of land. There is no way in which the Constitutional right to access adequate housing can be enjoyed as long as land to build (those) houses is not made available. There is also no way in which densification and integration processes of housing closer to facilities and economic opportunities can be realized as long as accessing and utilization of well-located land remains difficult. Both the government and private owners of the unfilled and unutilized land closer to the CBD, have to understand that their land cannot remain unoccupied and unutilized any longer, while there is an increasing dire need of such a land for integrated housing development to house the masses of the residents intending to move closer to the CBD for a number of valid reasons. It is this dire need of land which put former mining land on the spotlight in this research project. It was for the same reason that barriers to accessing and utilization of former mining land became the focal point and the main research aim in this study.

In terms of section 26(2) of the Constitution of the RSA, the State has an obligation to take reasonable legislative and other measures within its available resources, to make sure that all citizens do access adequate housing. It also has an obligation, in terms of section 25(5) to foster conditions which enable citizens to gain access to land on an equitable basis. With rapid urbanization increasingly and continuously posing a serious

housing challenge, and the inevitable need to integrate previously marginalized townships into the city, the utilization of former mining land North of Soweto and South of Johannesburg, which seems suitable and well-located, becomes imperative. Reviewing literature related to this study, based on the identified themes as depicted above, assisted not only in unearthing arguments and counter arguments related to this research project, but it also depicted the extent to which related literature has unfolded thus far. The literature review chiefly assisted in clearing the air on the question of barriers this project aimed to explore. From the literature, it becomes clear that the factors that are considered to be barriers to accessing former mining land are, amongst others, people's perception, policies and high land pricing by owners