

**AN EVALUATION OF URBAN AND RURAL LAND USE CHANGE,
CONFLICT AND COMPETITION: POLOKWANE CITY AND RURAL
LAND RESTITUTION AREAS OF LIMPOPO PROVINCE,
SOUTH AFRICA**

by

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**Submitted in fulfilment of the requirements for the degree of Doctor of Philosophy
in Geography at the University of Venda, School of Environmental Sciences, Department of
Geography and Geo-Information Sciences**

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August 2014



DECLARATION

I Nkhangweleni Lennox Nemukula hereby declare that the thesis for the PhD degree at the University of Venda, hereby submitted by me, has not previously been submitted for a degree at this or any other university, and that it is my own work in design and execution and that all reference materials contained therein has been duly acknowledged.

Signature.....Date.....



DEDICATION

This thesis is dedicated first and foremost to God the Father, God the Son and God the Holy Spirit. 'Eye has not seen, nor ear heard, nor have entered into the heart of man the things which God has prepared for those who love Him' (1 Corinthians 2:9). May my life forever bring You praise!

I also dedicate this work to the memory of my late dear mother and father Masindi Tryphinah and Swetani Solomon Nemukula.

ACKNOWLEDGEMENTS

It is a great pleasure to acknowledge the assistance I have received in conducting this research and which now culminates in the writing of this dissertation.

I wish to express my indebtedness and appreciation to Professor A. Musyoki, my study supervisor, for her untiring guidance, constructive criticism and invaluable supervision, during the preparation of this dissertation. Her motherly love, expertise, patience and wise counsel enabled me to complete this challenging task. I greatly appreciate the guidance and encouragement received from Dr. N.S. Nethengwe, my co-supervisor and head of Department of Geography and Geo-Information Science.

My sincere thanks are extended to the School of Environmental Science, for allowing me to register for the degree. Special thanks are also extended to Prof. J. S. Ogola and Prof J. O. Odiyo - the former dean and current dean of the school for their leadership roles. I also thank all members of staff in the School of Environmental Sciences of the University of Venda for their support.

My thanks go to Mr Madima Tshisamphiri, for sharing his expertise in urban planning and making available many sources of information relevant to this research. Further gratitude is extended to Mr Mudzielwana Tshilidzi, Senior Town Planner, Polokwane Municipality, for sharing his knowledge on land use issues in Polokwane. Further gratitude is extended to Mr T.V. Mabuza, Deputy Director for Spatial Information, Department of Land Affairs, Limpopo SPI, for providing cartographic assistance.

I thank all government officials, members of the Polokwane Municipality for the useful information they provided. Many thanks to the business people and the residents of Polokwane for their participation in, and positive reaction to, the questions posed throughout my fieldwork studies.

Words fail me as I seek to express a word of gratitude to Mrs Caroline Mashudu Mulaudzi, Senior Geologist, and a Professional Natural Scientist, who typed and technically edited this work. I also thank Mr. Thilivhali Tshinyani, Senior Planner, National Spatial Information Framework (NSIF) who collected a great deal of information from various



departments and introduced me to government officials who gave valuable input into this work.

I owe my gratitude to Professor U. J. Fairhurst, for assistance with language edition of an earlier version of this document.

I wish to give a special word of thanks to my wife, Lufuno, and my children, Vhugala, Vhutali, Vhutsila, Ndidzulafhi and Livhuwani for all the support and encouragement they gave to me.

Finally, I wish to thank and to praise God Almighty, for giving me strength, courage and confidence that enabled me to bring this task to fruition.

The financial assistance of the National Research Foundation for this research is appreciatively acknowledged. Opinions expressed, and conclusions arrived at, are those of the author and are not necessarily attributed to National Research Foundation.

ABSTRACT

This study set out to evaluate the extent of land use change, competition and conflict in Polokwane city and in selected land restitution areas of Limpopo province. The methods of data collection and analysis included document analysis, triangulation of quantitative and qualitative survey methods, use of Geographical Information Systems (GIS) techniques and field observations. The restitution studies relied on information from the regional land claims commission regarding land dispossessions, land claims and post settlement activities which were analysed using content analysis. Land use maps and data from department of land affairs were obtained covering different time periods from 1994 to 2002 and GIS analysis was used to document land use change, competition and conflicts. A questionnaire survey involving a sample of 240 residents, 164 business people and 16 government officials was conducted and analysed quantitatively to establish perceptions and experiences with land use changes. In-depth interviews with key informants were also conducted and information analysed qualitatively. The researcher also engaged in extensive field observations in the city and surrounding land restitution areas. The study found that both Polokwane city and the surrounding land reform areas were characterised by rapid land use change, competing interests, conflict, disputes and tensions related to access, control and use of land resources historically and currently. Other key findings include the fact that the structure of Polokwane area is a result of apartheid planning. It has a distorted spatial pattern, the result of political factors that can be identified as: a legacy of apartheid; land use policy; competition among potential users; inadequate legislation and planning; low provisions for land use control and rezoning; land use speculation and lack of adequate public participation in the planning processes. Polokwane interaction with the rural areas is inadequate and does not support development of these areas leading to persistent service delivery issues. A management strategy is recommended with the following features: Capacity building, Conflict resolution, Stakeholders participation and Governance. Adequate land use control mechanism need to be put in place; public policies should minimise conflicts between alternative land development strategies; existing policies and procedures applicable to land management should be reviewed. An effective national land reform programme is required to drive development; public participation is key in all planning activities. Mediation is essential because it is a more efficient and less costly means of concluding land use conflicts. Polokwane needs to play a greater role in managing land use, changes, competition and conflicts both in the capital city and in the surrounding rural areas.

Key words: Land use competition, conflict, land use change, land restitution and mediation.

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LIST OF ACRONYMS

ABM:	Agent Based Model
ACM:	Alternative Conflict Management
ADR:	Alternative Dispute Resolution
ACTS:	African Centre for Technology Studies
AGES:	African Geo-Environmental Services
ANC:	African National Congress
ARDC:	Agricultural and Rural Development Corporation
BATNA:	Best Alternative to a Negotiated Agreement
CASE:	Community Agency for Service Enquiry
CASP:	Comprehensive Agricultural Support Programme
CBD:	Central Business District
CEDAW:	Convention on the Elimination of all Forms of Discrimination against Women
CLC:	Community Land Conference
CLRB:	Communal Land Rights Bill
CRLR:	Commission on Restitution of Land rights
CRM:	Collaborative Resolution
CPA:	Communal Property Association
CSIR:	Council for Scientific and Industrial Research
DBSA:	Development Bank of Southern Africa
DFA	Development Facilitation Act
DLA:	Department of Land Affairs
DIDP:	Draft Integrated Development Plan
EPZ:	Export Processing Zone
ERIM:	Erasmus Research Institute of Management
FAO:	Food and Agricultural Organization
FIFA:	Federation of International Football Association
GDP:	Gross Domestic Product
GIS:	Geographic Information System
HSRC:	Human Science Research Council
JP:	Justice of Peace
IDP:	Integrated Development Programmes

LARP:	Land and Agrarian Reform Project
LAPC:	Land and Agricultural Policy Centre
LCC:	Land Claims Commission
SLCCC:	Strategy to deal with Land use Change, Competition and Conflict
LED:	Local Economic Development
LDO:	Land Development Objectives
LRAD:	Land Redistribution for Agricultural Development
LPDA:	Limpopo Province Department of Agriculture
LTBP:	Limpopo Tourism and Parks Board
LULCC:	Land Use and Land Use Change
MEC:	Member of Executive Council
NGO:	Non-Governmental Organisation
NPP:	Net Primary Production
NSIF:	National Spatial Information Framework
PATA:	Primary Agriculture Training Authority
PMPR:	Polokwane Municipality Performance Report
RDP:	Reconstruction and Development Programme
RIDP:	Regional Industrial Development Programme
RLCC:	Regional Land Claims Commission
RLCCL:	Regional Land Claims commission- Limpopo
RSA:	Republic of South Africa
SAAPAWU:	South African Agricultural, Platinum and Allied Workers Union
SABC:	South African Broadcasting Corporation
SADC:	Southern Africa Development Community
SAFM:	South African Farm Management
SANDF:	South African National Defence Force
SARS:	South African Revenue Services
SDF:	Spatial Development Framework
SIS:	Settlement and Implementation Support
SPI:	Spatial Planning and Information
SPLUMA:	Spatial Planning and Land Use Management Act
SPSS:	Statistical Package for Social Sciences
SSDU:	Settlement Support and Development Unit
SSO:	Standard Settlement



TLC:	Transitional Local Council
TRC:	Truth and Reconciliation Commission
UK:	United Kingdom
UNHSP:	United Nations Human Settlement Programme
UNO:	United Nations Organisation
USA:	United States of America
USAID:	United State Agency for International Development
UYF:	Umsobomvu Youth Fund

CHAPTER 1: INTRODUCTION

1.1 BACKGROUND

This thesis addresses two key sources of change, conflict and competition in Limpopo Province. They are first, urbanisation and urban change involving its city, Polokwane and its environs; and second, rural conflict over land resulting from land restitution which directly and indirectly affects land issues in Polokwane.

Land is a key factor of means of production as it is the basis of our existence. It is a store of wealth for individuals, groups and communities and the source of production of food, fibre, fuel and other biotic materials for human consumption (Anafo, 2013). The importance of land should never be underestimated. In many societies, land is an important socio-economic asset, since access to it is often linked to wealth and survival (Theron, 2009). Land is a precious and a finite resource which binds people together in a common destiny. It forms the basis of our security, wealth, pride and history. It is an indispensable part of development and socio-political reconstruction in a post-apartheid South African context. It sustains animal and plant life, contains mineral wealth, provides us with water, houses our population and is a means of investment in the economy of a country (Department of Land Affairs, 2006:5). Land is fixed in supply and is inelastic, but the demand placed upon it is always increasing as human population numbers and the economy grow (Dawson, 1984). Rosch *et al.* (2010) state that land is an archive for cultural and natural history. Land is a commodity that should be protected by the community. It has unique qualities and cannot be sold or used without impacting on others (De Neuville, 1981, Kirk, 1980, Bowman & Pagano, 2000).

Land represents about 29% of the earth's surface, and is a spatially fixed commodity; its use requires efficient management to enhance its utility (Bromley, 1995). Land, its ownership and use, has always played an important role in shaping the political, economic and social processes in a country, and South Africa is no exception. South African blacks view the land in which their forefathers lie buried as sacred. Land is the basis for community life for them and part of their cultural good. Being robbed of one's

land and alienated from it, becomes a violation of human identity and dignity and brings with it a disruption of human life. In Africa an individual's fatherland is more than just a patch of the earth. Africans believe that if you take away everything that belongs to the land, a person remains a disembodied spirit (Mather, 1986). The whole existence of people is interwoven with the land. History provides a long tale of struggle and bloody wars that were fought for land and land ownership. Apartheid policies pushed millions of black South Africans into overcrowded and impoverished reserves, homelands and townships (Department of Land Affairs, 2006:6).

Land use morphology, the use to which land is put, differs considerably from place to place. Increasing pressure to use land for economic development leads to conflict. The morphology of cities is the consequence of struggle and conflict, negotiation and compromise between the countless elements that together constitute a society. Urban space has always been contested and manipulated. The widening gap between the growing population and the rapidly shrinking land resources leads to conflict (Wang *et al.*, 2012). Land use zoning is the outcome of competition among potential land users. A city is a growth machine that alters not only the pattern of land use and land values, but its intensity (Oxford & Pinch, 1994). In South Africa, land use is one of the most pressing issues on the agenda of the political and economic meetings (ANC, 1991).

Past land use policies in South Africa resulted in a fragmented system of land administration. This has severely restricted effective resource utilisation and development. Current land ownership and land development patterns strongly reflect the political and economic condition of the apartheid era. Under the ideology of apartheid, the state exerted far-reaching control over the rate and pattern of urban growth. Land distribution inequality, which was a result of planning according to apartheid and segregation policies, has to be redressed. Land use changes and conflicts have had direct bearing on the morphology of a city and are consequently of great interest to geographers. Conflict studies developed from a perception that cities are experiencing a crisis created by tensions arising from the impact of various decisions concerning different types of land use in urban areas. A city can be read as a multi-layered text, a narrative of signs and symbols. Several disciplines have focused their attention on land

use issues, because land is important to humanity. Lorencova *et al.*, (2013) argue that land use change and climate change are among the greatest global environmental pressures.

Land may be used for agriculture, industries, housing, commercial sector activities and recreation. People use land to a degree unmatched by any other species. They have modified the landscape to suit their own purposes. Land occupied by plantations, pasture and farms is also associated with human activity. Leaving the land in its natural form is yet another form of human land use because it satisfies a demand for recreation. The development of urban areas requires a change in the use of land, the provision of efficient physical services, the creation of buildings, the establishment of administrative control and the provision of amenities for the social and development needs of a living community. Different land uses will always compete for the most accessible and more valuable land. Urban land is far more valuable and in higher demand than agricultural land (Mather, 1986). Harvey and Pilgim (2011) argue that during the 21st century land, as a global resource, is likely to become the focus of intensified competition from a variety of uses. They further maintain that competing uses are likely to become subject to increasing controversy in terms of the claims made by those promoting those uses, and in terms of potentially conflicting national, regional and global interests.

Nowhere is the competition for land use greater or more noticeable than in cities (Maxwell, 1996). Increased landlessness is a growing problem and is more evident in the peri-urban fringe (Swindell & Mamman, 1990). There is always intense competition between residential and agricultural use (Francisco & Boucher, 1995). In African cities, sizable areas of high value urban land are utilised for low-value agricultural production. Economic theory maintains that low value land use will be forced out by market competition (Maxwell, 1996). Developing areas also witness a natural conflict between potential land users for the most accessible and valuable sites. They too are experiencing land use change. This is what is usually called reclamation issues of land use. Reclamation is a corrective measure or change of land use from undesirable or less desirable to appropriate land use. Certain incorrect land uses or land management practices must be changed in order to make an area more useful (Mather, 1986). Human

life has always been sustained by the earth's terrestrial and marine ecosystems and man has always modified and transformed landscapes according to his current capabilities (Smith, 2007).

The origin of many conflicts in parts of the developing world can be traced to disputes over land ownership, rights, access, use and degradation. The intensity of conflict and the means adopted to resolve differences vary depending on location and the specific land use involved. In developing countries, cities are experiencing a real demographic explosion. The urban fringe contains a large number of competing actors whose interests both overlap and diverge. Where they diverge, land use conflict frequently develops. This is particularly so in the case of agricultural production, where the economic interests of farmers often differ from the manner in which amenities and services to the neighbouring communities are provided. Greater attention needs to be given to assessing whether government structures can effectively manage amenity conflict or whether alternative forms of regulation are required. Metropolitan areas have been growing and expanding, pushing development into rural areas. Rural-urban conflicts often arise. Thus, rural-urban land use issues continue to generate controversy. People in these areas experience growth in their personal income and wealth and often want to buy new homes and improve their quality of life. These pressures contribute to the creation of urban sprawl (Dandelin, 1999), a situation in which land is withdrawn for urban use, but is not actually used for urban purposes. Suburban developments can have significant negative impacts on neighbourhood vitality and the accessibility of the recreational land surrounding urban areas (Schrenk *et al.*, 2013). Strategies to minimise conflict over land should be accompanied by comprehensive land reform and redistribution that does not give some groups or individuals power over the others (Simelane, 2012).

Land is a site of perpetual disagreement since land is the most fundamental resource (Bongale *et al.*, 2006). Land use conflict occurs when the same land can support different uses and those with interest in the land disagree as to which use is best. Political and economic, cultural and legal struggles intertwine, when local power and less localised power structures interact, and when political and cultural symbols of power and authority are brought into play concerning land use. Conflict is not just an obstacle to be dealt with

so that development can take place, because too often tension can result in or be aggravated by development policies and the practices (Dandelin, 1999). Odgaard (2009:1) states that people in Africa are now increasingly competing to get access to arable land and pastures, and open land conflicts are becoming more and more common across the continent.

In South Africa issues of access to land, distribution of land and inequality contribute to land use conflicts. Bob *et al.* (2008) note that inequality is often a consequence of political, economic and social processes that concentrate resources in certain areas to benefit some people at the expense of others. Several factors make land use conflicts unique from other disputes. Land use disputes almost always involve multiple parties that have less common ground as to how to resolve disputes. These disputes, which require significant attention, involve complex environmental and technical factors, property rights, high stakes and potentially irreversible consequences (Peltonen & Sairinen, 2010).

Conflicts arise fundamentally because of competing demands for a limited resource; because of the uneven distribution of costs and benefits that result from the development; and because of environmental impacts that arise when the use of land changes (Peltonen & Sairinen, 2010). Land use disputes transcend community scales and involve national and global actors alongside local ones, making them what Ostrom, (2010) and Sovacool, (2011) call “polycentric”.

“The vital importance of land issues to social and economic development in Africa is unquestionable. The fact that land is becoming an increasingly scarce commodity in many parts of the continent, and also a more and more conflict ridden resource, has implied that issues related to land rights and land conflicts now range high on the policy agendas both in African countries and among international donors” (Odgaard, 2006:5).

With the persistent increase in population, together with ever increasing industrialization and urbanization, the pressure on land in urban areas is always increasing (Wang *et al.*, (2012). According to Bogale *et al.* (2006) and Rugege *et al.* (2007) many black people in

Sub-Saharan Africa have limited access to land ownership and related natural resources, and this results in high levels of vulnerability and conflicts over the land. Bob (2010) notes that land use control and use is a highly complex and contested issue amongst various stakeholders, including large scale farmers, local communities, traditional authorities and democratically elected institutions, each of which often have different interests (Bob, 2010). Stakeholders using land in different ways can come into conflict with each other if they target the same area at the same time. Competition for land typically arises in urban areas, between settlement and agriculture and, in rural areas, between agriculture and nature conservation. Agricultural land use can compete with recreational land uses because the type of cultivation used on the agricultural land has a strong impact on the aesthetic value of open spaces for leisure and tourism (Rosch *et al.*, 2010).

The competition to get access to arable land is increasing in Africa, and open land conflicts are becoming more and more common across the continent. Market development and population growth are important factors that influence this phenomenon (Quan *et al.*, 2004). Land has intrinsic value and is embedded in social relations and therefore it is more than an economic asset. In Africa disputes and conflicts over land occur at all levels: such as conflicts between neighbours about field boundaries; between men, women, and generations about their respective land rights, between pastoralists and farmers; between states and indigenous people; between companies and local populations about rights to exploit mineral and other resources. The question about rights to land and territories has been the source of civil wars as well as wars between nations (Odgaard, 2006). Anafo (2013) argues that land is held under different tenure regimes in different regions, countries and communities.

In South Africa, there is contestation between traditional institutions and democratically elected local government structures to allocate and manage land. This has in some cases resulted in outright conflicts in certain areas, de-stabilising communities and impending prospects for peace and development (Bob, 2010). Chellan and Khan, (2008) show that wildlife conservation has often competed with rural indigenous communities for land, water and forests. In many cases communities were forcefully removed from areas to

make way for conservation areas leading to environmental and social conflicts which have often been worsened by the slow pace of land restitution and redistribution (Bob, 2010).

Conflict often emerges from seemingly routine circumstances and is usually brought about by a perceivably significant impediment to a person's quality of life, which may be both a financial and an emotional strain. There is often the opportunity to manage conflict at an early stage or to avoid it all together (Caldwell, 2001). However, proposed change to the physical space of a community can spark multi-party conflicts. These conflicts often escalate beyond the specific proposed change in existing locally unwanted land uses (Kaufma & Smith, 1997). The rapid expansion of any city into the rural urban fringe will lead to an occupation of areas for agriculture, illegal settlements, and lack of necessary infrastructure and service of the land. Land issues in most countries tend to be strongly associated with landlessness, environmental degradation, loss of land to peri-urban settlement, high use and weak systems of land administration. Most environmental disputes are either resolved through litigation, legislative bodies, or never enter formal resolution because one of the disputing parties cannot meet the costs of resolution. Environmental disputes are increasing in prevalence and complication, which highlights a need for procedures to settle these conflicts quickly, efficiently and less expensively. Mediation seems well positioned to resolve many of these conflicts. However, it is noted that empirical analysis comparing mediation and litigation is lacking (Duke & Ryan, 2001).

Residents of urban areas use land as an investment and as a site for residence, with benefits such as nearby parks, schools and neighbours (Parcell, 2000). Land use conflicts in urban politics reflect this tension between land as a commodity to be bought, sold, developed, or otherwise, to support economic activities, and land as a setting for daily life and social relations. The meaning attached to land is complex and the perspectives of commercial and residential uses are not easily categorised. Business may have a commercial interest in land, and residents may value quality of life amenities in their local environment. Handling land use issues can be a direct interaction between public officials and neighbourhoods (Borton, 2004).

Rapid urban growth makes a major contribution to the economy of a country but also places a burden on its physical environment and social infrastructure. The efforts by individuals and communities to exclude or expel undesired land uses have various terms: land-use, its location and environmental concern, exclusionary sitting, noxious facility, locally unwanted land use, and ‘not in my backyard’ conflict, are among the most common. Whatever term is preferred for them, they command the attention of decision makers and scholars alike since they are a social force of considerable significance (Dear, 1992; Lake, 1993; Piller, 1995). Accessibility is considered one of the most important driving factors of land use and land use change. The ability that people have to reach a desired location can influence both the extent and location of land use conversions (Chamitz & Grey, 1996; Angelsen & Keimowitz, 1999; Geist & Lambin, 2002). Rapid population growth means an increasing demand for urban land. This land is not in the city but in the rural urban fringe for various reasons. This is partly due to low land prices, high rents at the core of cities and legal flexibility in land use planning in the rural urban fringe (Thuo, 2010).

The very existence of public land virtually opens the door to disagreement. Land is regarded as an equivalent to culture and life. Land holds a special place in all societies, whether they are westernized or less developed. Land use planning for urban development can result in pressure being exerted on peri-urban and rural areas. The morphology of cities is the consequence of struggle and conflict, negotiation and compromise between the many components of societal organisation. Forced removals, as well as various forms of violence have been a part of South African history for more than 300 years. Proposed change to the physical space of a community, whether choosing a site for a waste processing facility, or developing a neighbourhood, or building a community centre, can spark multi-party conflicts. The aims and activities of stakeholders are often in opposition to each other. World-wide, conflict over natural resources is intensifying, among individual producers fighting for local land and water, between individuals and their communities, among competing nations and at a global level, between North and South. Land use conflicts reveal the contemporary evolution of rural areas. They illustrate the rising popularity of the countryside among an urbanized

population which might be in conflict with traditional ideas of rural land uses and living (Mann & Jeanneaux, 2009).

As farm size expands, as specialisation increases, as agricultural technology changes take place and more people move to the countryside, conflict and misunderstandings between farmers and their neighbours are likely to increase. The use of land within a community affects the amount of taxes its citizens have to pay and their quality of life. By identifying the impact of different types of land use certain types of land use should be encouraged in a municipality, and others should be treated with caution. Part of the transformation of South Africa as a country, and as a society, requires that the fundamental restructuring of settlement patterns takes place in order to ensure greater equity and efficiency. The influence of colonialism, apartheid and the “modernist” approach to planning has left acute anomalies in the form and function of settlement patterns. Among these challenges are racially segregated settlements, urban sprawl, disintegrated land use systems and unsustainable service costs. In addressing these challenges, spatial planning, land use management and spatial information have become very important (DLA, 2006).

For centuries, struggles over territory, land and region have been major factors influencing social and political upheaval throughout the world. Regions are sites of human drama, creatures of history and products of contemporary changes (Markusen, 1987). The restructuring and transformation of South African urban systems will be fraught with on-going conflict, tensions and power struggles (Swilling, 1997). Polokwane, which is the capital city of Limpopo, and consequently the seat of the provincial government, developed as an industrial development point in the 1970s (Devilries, 1981). Polokwane, whose precious countryside will be completely submerged beneath bricks and concrete before long, is experiencing land use conflict, and land use change is evident in many locations. Moreover, it is taking place at an alarming rate. The change of land use type is the result of land conversion (Wang *et al.*, 2012). This study documents the nature and extent of these changes and their associated land use conflicts in order to contribute to a better understanding of the planning imperatives for the cities and rural areas.

Certain types of land use distribution and regulation are common to most governments in the developing world, more especially in countries with a colonial past. This is true to South Africa, where controlling the access, use, allocation, spatial distribution and ownership of land was an essential part of enforcing apartheid policies (Donaldson *et al.*, 2002). The unequal distribution of land ownership and forced removals in South Africa is what led to the struggle against apartheid. Since its inception in 1994, the South African land reform programme has aimed to achieve multiple objectives, including redressing the historical racial imbalance in land holding; alleviating poverty and developing a rural economy; and developing a more equitable pattern of land holdings. A number of policies have been developed to deal with restitution of historical land rights, redistribution of agricultural land and protection of the rights of people living in communal areas and on commercial farms (CASE, 2006). Restitution and redistribution programmes aim to transfer land to the previously disadvantaged as a means of redressing specific instances of dispossession and shifting the racial imbalance in land holding in general. Despite broad agreement over its ends, the means towards land reform are frequently coloured in ideological hues, which manifest themselves in overlapping and sometimes confounding binaries like market state and equity efficiency (Logan *et al.*, 2012).

The availability of land is an essential precondition for satisfying the existential needs of human beings. Land cannot be literally consumed in the proper sense of the word; but it can be used in such a way that the spectrum of possible future uses is significantly restricted. Since the supply of land is limited and cannot be augmented, a continued increase in claims to land is neither possible in the long term nor ethical in the interest of future generations. The continued loss of high-quality arable land can jeopardize the ability to feed the world's population and to produce renewable materials and energy. In some regions the limited availability of land already results in competition between different land uses (Rosch *et al.*, 2010). The most common conflicts for developing economies and rural areas occur over mining, agriculture, environmentally protected areas (Kallampakos *et al.*, (2011). In contrast, the most common conflicts for developed economies and urban areas occur on the encroachment of residential spaces and community spaces, such as parks and gardens (Magigi & Drescher, 2010).

As reflected in the literature reference, most studies on land use change in Geography have concentrated on urban areas and the urban fringe. This study gives attention to both urban and rural sources of land use change, conflict and competition. It incorporates the historical and contemporary urbanisation effects and demand for land in post-apartheid South Africa. The key contributions of this study include tracing and documenting land use change in the study area from 1994 to 2002. This period is significant because most changes occurred as a result of the new dispensation in South Africa. The land reform process and land restitution are also creating conflicting interests and contestations that require careful study.

This research looks at these aspects in both urban (represented by the capital city, Polokwane) and the rural (represented by 5 case studies of land restitution) contexts because of rural urban dynamics that are currently influencing land use change which in turn creates conflicts and competition. In urban areas land use changes are associated with land conflicts between various users as well as competition as urban land encroaches on other land uses with implications for development and further growth. Of great significance for this study and in relation to rural land dynamics is the nature and impacts of changes both historical and current. Land restitution cases are discussed with reference to dispossession; hardship endured; land use rights lost and land use change at the time; the settlement package and impact on land use change; and emerging land use conflict and competition.

1.2 PROBLEM STATEMENT

Land Restitution is one of the pillars of Land Reform in South Africa to address the historical land alienation of indigenous South Africa by colonial and apartheid policies. Land is not just a commodity, it has intrinsic value i.e. land is embedded in social relations and is more than an economic asset. The extent to which land restitution is creating land use change, competition and conflict is relatively unknown particularly in Limpopo, South Africa.

At the inception of the new democracy in 1994, Polokwane changed from being just a town in South Africa into the capital city of a newly reorganised spatial land scape gaining different status in the new urban land space. With this status, various dynamics emerged. The so called “homelands” lost their status and were attached to Polokwane. People moved from rural areas to the towns. The extent and the impact of that status both in Polokwane and the surrounding rural areas are not adequately researched.

In all these, residents, business people and government officials are responding to the new spatial dynamics. There is a new breed of business because of the status of the city. As a result of what is taking place in Polokwane, people may act differently. If people think that land is going, land grabbing may take place. People are looking at the new South Africa (new dispensation) with high expectation with varied impacts which have not been previously studied. The extent and the impact of the status of Polokwane in both the city and the surrounding rural areas remain problematic.

In view of the status of Polokwane, we need a strategic framework to deal with land use change, competition and conflict for the town and its surroundings.

This study therefore investigates land use change, competition and conflict in Polokwane and the surrounding rural areas. The research questions for this study’s investigation are as follows:

- To what extent is the land restitution process creating land use change, conflict and competition in Polokwane and in land restitution areas?
- What are the key characteristics of changing land use patterns in Polokwane?
- How may prevailing perceptions of competition and conflict bring about new changes?
- What strategies may be employed to minimise conflict and provide access for competing uses?

1.3 RESEARCH AIM, OBJECTIVES AND PREMISES

1.3.1 Aim

The aim of the research is to investigate urban and rural land use change and associated competition and conflict in order to come up with recommendations for future management strategies that would accommodate growth and development of Limpopo. The study covers both changes arising from urbanisation as well as conflict and change that have resulted from land restitution in selected cases in rural Limpopo which are found in the vicinity of Polokwane.

1.3.2 Research objectives

Specific objectives of the research are to:

- Evaluate the changes and conflicts arising from land restitution and the land reform process in land restitution areas.
- evaluate trends in land use change, competition and conflicts in the city of Polokwane;
- Assess impacts of land use change, conflict and competition on residents, business and governance.
- Develop and recommend a strategic framework for coping with change, conflict and competition in urban and rural areas.

1.3.3 Research Premises

Based on the above objectives, the following research premises are formulated:

- The land restitution process and spatial reorganisation of urban areas incorporating rural areas are creating new forms of land use change, conflict and competition with impacts on both rural and urban areas.

- Polokwane and the surrounding rural areas are characterised by land use changes including competing interests, conflicts, disputes and tensions concerning the access, control and use of land and resources.
- The pattern of land use in Polokwane has resulted in urban sprawl through which physical and social resources are not optimally utilised, and this leads to inefficient exploitation of land, a source of conflict and competition.
- The structure of the Polokwane area represents that of an ‘apartheid’ city. The area has a distorted spatial pattern and this is a result of political factors, the legacy of apartheid, land use policy, competition among potential users, out dated and inadequate legislation, lack of planning, absence of an urbanisation development strategy, non-provision for land use control and rezoning, land speculation and lack of public participation in the planning system.

1.4 OPERATIONAL DEFINITIONS

Concepts that are frequently used need to be explained in order to remove ambiguity. In this section the key terms and concepts are defined and described as applied in this study.

1.4.1 Land

Land is a delineable area of the earth’s surface, encompassing all attributes of the biosphere immediately above or below this surface, including those near the surface such as climate, the soil and terrain forms, the surface hydrology (including shallow lakes, rivers, marshes and swamps), the near surface sedimentary layers and associated groundwater reserve, the plant and animal populations, the human settlement pattern and physical results of past and present human activity (terracing, water storage or drainage structures, roads, buildings) (Fisher, 1987). Land is an important and sensitive issue to all South Africans. It is a finite resource which binds all together in a common destiny (DLA, 2006). Hoover and Giarratani (1996:131) state that land “first and foremost

denotes space. The qualities of land include, in addition, such attributes as the topographic, structural, agricultural and mineral properties of the site; the climate; the availability of clean water and finally, a host of immediate environmental characteristics such as quiet, privacy, aesthetic appearance, and so on”. Land is also a conflict-ridden resource and a sensitive issue in Africa, due to its many meanings (Odgaard, 2006). Land is considered the most fundamental resource to the poor and is essential to generate income, accumulate wealth and transfer it between generations, and enable them to avoid human insecurity (Bogale *et al.*, 2005). Land is by definition an emotional issue, and linked to cultural and other values. Land issues may be embedded within other struggles such as, over mining and control over natural resources (ACTS, 2005). In this study all the above definitions are to be used interchangeably.

1.4.2 Land use

Land use is a more complicated term. Natural scientists define land use in terms of syndromes of human activities such as agriculture, forestry and building construction that alter land surface processes including biochemistry, hydrology and biodiversity. Social scientists (economist, political scientists, sociologists and social psychologists) and land managers define land use more broadly to include the social and economic purposes and contexts for and within which land is managed or left unmanaged, like subsistence versus commercial agriculture, rented versus owned or private versus public land. Human use of land resources gives rise to “land use”. “Land use involves both the manner in which the biophysical attributes of the land are manipulated and the intent underlying that manipulation – the purpose to which the land is used” (Turner & Bay, 1995:20). Land use is also considered a central part of the functioning of the earth system as well as reflecting human interactions with the environment at scales from local to global (Aspinall, 2008). Land use is the interaction between humans and the biophysical environment with cumulative impacts on the structure, function and dynamics of the ecosystems at the local, regional and global levels of ecological organization (Walsh, & Crews-Mayer, 2002). Land use is the way in which, and the purpose for which, human beings employ the land and its resources. Meyer (1995:25) cites that land use “denotes the human employment of land”. According to Skole (1994:438) “land use itself is the

human employment of land cover type, the means by which human activity appropriates the results of net primary production (NNP) as determined by a complex of socio-economic factors”. Land use concerns the function or purpose for which the land is used by the local human population and can be defined as the human activities which are directly related to land, making use of its resources or having an impact on them. Chapin and Kaiser (1974:4) state that “at territorial scales involving large land areas, there is a strong predisposition to think of land in terms of yields of raw materials required to sustain people and their activities. At this scale, ‘land’ is a resource and ‘land use’ means ‘resource use’. In contrast, at the urban scale, instead of characterising land in terms of the production potential of its sub-mineral content, the emphasis is more on the use of various activities” A definition by Chapin and Kaiser (1979) was adopted as a working definition for this research study, as it defines land use as human interaction with the environment.

1.4.3 Land Reform

The government’s land reform programme is made up of the following principal sub-programmes: Land Redistribution, Land Restitution and Land Tenure Reform. Land Redistribution makes it possible for poor and disadvantaged people to buy land with the help of Settlement/Land Acquisition Grants. Land Restitution involves returning land to, or compensating victims for land rights they have lost due to racially discriminating laws, passed since June 1913. Land Tenure Reform aims to bring all people occupying land under a unitary legally validated system of land holding together. It will provide for secure forms of land tenure, help resolve tenure disputes and provide people with secure tenure (DLA, 2006:29). The central thrust of land policy in South Africa is the land reform programme. It deals with the reallocation to rights in land for the poor and the historically disadvantaged. A national land reform programme is the central and driving force of a programme of rural development. This programme aims to redress effectively the injustices of forced removals and the historical denial of access to land. It aims at ensuring security of tenure for rural dwellers. Land reform can make a major contribution towards addressing unemployment, particularly in rural areas and small towns and have important favourable environmental impacts in both urban and rural areas. Land reform is

strategically important for the redressing of apartheid injustices reducing poverty and contributing to the government's growth, employment and redistribution strategy (DLA, 2006:6). The definition by the White Paper on Land Policy (DLA 2006) was adopted as it encompasses what this research was looking for.

1.4.4 Land Restitution

Restitution involves returning land, or compensating victims for land rights lost because of racially discriminatory laws passed since 19 June 1913. The purpose of the restitution programme is to restore land and provide other remedies to people dispossessed by racially discriminatory legislation and practice. This is done in such a way as to provide support to the process of reconciliation, reconstruction and development, and with regard to the over-arching consideration of fairness and justice for individuals, communities and the country as a whole. The government's policy and procedure for land claims are based on the Constitution and the Restitution of Land Rights Act (Act 22 of 1994). The Restitution Act provides for the restitution of rights in land in respect of which persons or communities were dispossessed under, or for the purpose of furthering, the object of racially based discriminatory legislation after 1913. The restitution programme provides the opportunity to initiate a process of healing, re-integrating and reconstructing the cities and towns that still bear the scars of racial zoning. Restitution promises to restore land to specific groups within the broader fabric of society as it often represents a stage, but not necessarily the final stage, in a long-term set of struggles waged by such groups (ANC, 1994).

The restitution process is one of the three features which make up the Department of Land Affairs' Land Reform Programme. The Restitution of Land Rights act (Act 22 of 1994) was one of the first laws passed by the democratic government in 1994. Forced removals in support of racial segregation have caused enormous suffering and hardship in South Africa and no settlement of land issues can be reached without addressing such historical injustices (DLA, 2006: 23). Following the promulgation of the Land Right Act, the Commission on Restitution of Land rights was established with the mandate to investigate and settle land claims lodged against the state by victims of racially motivated

land dispossessions that took place under the previous regime. Land restitution is aimed at enabling former landholders to reclaim spaces and territories which formed the basis of earlier identities and livelihoods. It also forces the moral principles of restoration and justice to confront the difficult practice of determining ownership, defining legitimate claimants and establishing evidence for claims. It brings the past into the present and may produce unintended consequences: spatial patterns may be consolidated or reinstated and local bureaucracies may be entrenched. Land restitution on the other hand may have unofficial purpose like, quelling popular discontent, establishing the legitimacy of a new regime or attracting donor funds (Fay & James, 2008). According to DLA (2006:41) restitution is about the restoration of land and the provision of other restitutionary remedies to people who were dispossessed by racially discriminatory legislation and price, in a way that provide support to the vital process of reconciliation and development. This definition was adopted as a working definition for this research study.

1.4.5 Land Redistribution

Land redistribution forms one part of the government's land reform programme, alongside restitution and tenure reforms. All three aspects of land reform programmes are derived from the Constitution of South Africa. Section 25 (5) of the Constitution states: "The state must take reasonable legislative and other measures, within its available resources, to foster conditions which enable citizens to gain access to land in an equitable basis (RSA, 1996). The purpose of land redistribution programme is to provide the poor with access to land for residential and productive uses, in order to improve their income and quality of life. The programme aims to assist the poor, labour tenants, farm workers, women, as well as emergent farmers. Redistributive land reform will be largely based on willing-buyer willing-seller arrangement (DLA, 2006:29). This generally implies the redistribution of land from White to Black owners or occupiers. Land redistribution is intended to redress the racial imbalance in land holding in South Africa, create livelihood for the rural poor and develop the cultural sector. Redistribution is still effected by means of discretionary grants provided by the DLA for the purchase of land on the open market. The introduction of PLAS in 2006, has led to a growing proportion of land being directly purchased by the state. A worrying trend is for land to be purchased by the state without

first identifying the intended owners of the land (Lahiff, 2008). The definition by the White Paper on Land Policy (DLA 2006) was adopted because it is relevant for this research study.

1.4.6 Land tenure reform

Land tenure may be defined as the terms and conditions on which land is held, used or transacted. Land tenure reform refers to a planned change in the terms and conditions. A fundamental goal is to enhance and to secure people's land rights. It involves interests in land and the form that these interests should take. The solution to these problems may entail new systems of land holding, land rights and forms of ownership, and therefore have far reaching results (DLA, 2006:49). This is necessary to avoid arbitrary evictions and landlessness. In South Africa, tenure reform must address a range of problems arising from settler colonisation and dispossession. Tenure reform is, in most cases, a complex and uncertain undertaking. The economic and other benefits from it are difficult to predict, and the necessary administrative costs difficult to justify. It threatens powerful vested interests like land owners and commercial farmers on private land and traditional leaders or other structures in the CAs. Land is held under different tenure regimes in different regions, countries and communities (Anafo, 2013). According to the DLA (2007:58) the objectives of Land redistribution and Tenure Reform Programmes are as follows: Redistribution of 30% of white owned agricultural land by 2014 for sustainable agricultural development; Provision of long- term tenure security for farm dwellers and other vulnerable groups; Contribute to poverty reduction; Contribute to economic growth; and promotion of social behaviour and economic inclusion. Land tenure is the terms and conditions on which land is held, used and transacted.

1.4.7 Land use conflict

Von der Dunk *et al.* (2011) define land use conflict as when land use stakeholders (conflicting parties) have incompatible interests related to certain land use units. Conflict is a situation involving struggling between two or more protagonists. Within the geography discipline, the study of conflict is directed to the use of environment and land,

and to the class conflict that underlines the creation and the recreation of spatial structure. In rural areas the type of farming to be developed in an area has attracted attention, as has the exploitation of natural resources. The issue of conservation and prevention are central to many environmental conflicts. Land use conflict occurs when the same land can support different uses and those with interest in the land disagree as to which use is the best. A conflict is a serious difference between two or more beliefs, ideas or interests. If ideas, interests or beliefs are very different from each other it seems impossible for them to exist together (Collins, 1998:17). Conflict often emerges over what appears to be routine circumstances and is usually brought about by what is perceived to be significant change. If not positively managed, it can become a major impediment to people's quality of life. There is often the opportunity to manage conflict at an early stage or to avoid it all together (Caldwell, 2001). The definition by Von der Dunk *et al.* (2011) was adopted as a working definition for this research study.

1.4.8 Land use change

Land use change is a general term for the human modification of the earth's terrestrial surface. Although people have been modifying land to obtain food and other essentials for many years, historically the current rate, extent and intensity of land use and land cover change are far greater than ever before, driving unprecedented changes in ecosystem and environmental processes at local, regional and global scale. These changes present the greatest environmental concerns to the human population today. Land cover refers to the physical and biological cover over the surface of land including water, vegetation, bare soil, and/or artificial structures. While land cover may be observed directly in the field or by remote sensing, observations of land use and its changes generally require the integration of natural and social scientific data collection methods. This means that expert knowledge and interviews with land managers are needed to determine which human activities are occurring in different parts of the landscape even when land cover appears to be the same. Land use and land cover changes are inherently spatial and dynamic. The magnitude and impact of changes in land use and land cover are such that land use change is recognized as a change that is global in extent and impact (Foley, 2005).

A new discipline of land-change science has emerged. Changes in land use and land cover date back to prehistory and are due to the effect of direct and indirect human action executed in order to secure essential resources. Changes in land use and cover occurred with the burning of the vegetation in some areas to encourage the availability of wild game. This was accelerated with the birth of agriculture resulting in the extensive clearing of vegetation especially deforestation. Land use and land cover change are inherently spatial and dynamic (Aspinall, 2008). For this research study, the definition by Foley (2005) was adopted because it covers what this research was looking for.

1.4.9 Land use competition

Land use competition is the principle according to which land is allocated to a particular use rather than any alternative use because it will yield the highest and financial return. Various uses are said to compete for land in that each will provide different average returns over a given period. A landowner or decision maker will evaluate these uses and adopt the use that will maximize financial returns (Johnston, 1986). Johnston's definition was adopted for this research.

1.5 ORGANISATION OF THESIS

This thesis is divided into eight chapters. *Chapter 1* provides the background to the study, the problem statement, the research aim, objectives and premises, exposition of working definitions and presents the organisation of the chapters.

In Chapter 2, observations from the literature review are documented giving a global, continental and South African perspective. Theoretical land use models are also presented.

In Chapter 3, the study area is placed in the South African context with regard to its spatial, environmental, social and economic resources. Land use patterns and trends and the status of Polokwane as a provincial capital are noted. Land claim areas represented by five claims are introduced.

Chapter 4 discusses the research design used with particular reference to methods of data collection and analysis.

Chapter 5 presents results and discussion on land use change and conflict in restitution areas.

Chapter 6 discusses trends in land use change and perceptions on land use competition and conflict in Polokwane.

Chapter 7 discusses results, strategies and proposes a model for addressing land use change and conflict in urban and rural areas of Polokwane.

The final *Chapter 8* provides summary of findings, conclusions and recommendations resulting from the study.

South Africa's urban and rural areas entered the 1990s with a legacy of segregational planning and a racially imbalanced occupancy relationship. Land ownership in South Africa has long been a source of conflict (DLA, 2006). Land issues readily lend themselves to conflict. Where there is conflict, land and natural resources are often major contributing factors. Conflicts have been a common occurrence in Africa irrespective of the historical period under review (Simelane, 2012). Ostrom (2010) and Sovacool (2011) argue that land disputes occur at local, national and global levels. Knowledge of land use and land cover is important for many planning and management activities concerned with the surface of the earth (Elof, 2006). This study focuses on the investigation and documentation of the extent of land use competition, conflict and change in Polokwane city and in selected land restitution areas in Limpopo. Having given the background to the study in which the research problem has been placed in context, the aim, objectives and premises of the study were spelt out and an outline of the structure of the thesis presented. The next chapter reviews relevant literature to place the issues under investigation in a theoretical and conceptual context.

CHAPTER 2: LITERATURE REVIEW

2.1 INTRODUCTION

The purpose of this chapter is to review published literature on land use change, competition, conflict and restitution. Previously, scholarly work concerned itself with changes in the urban fringe with urban land encroaching on agricultural and traditional land use leading to conflict and competition. The growth of urban areas, the increased importance of urbanisation and the growing crisis in the urban fringe therefore led to an increased study of urban land use patterns and land use change worldwide. Land use change is regarded as one of the greatest global environmental problems (Lorencova *et al.*, 2013).

2.2 LAND USE CHANGE AND CONFLICTS: GLOBAL PERSPECTIVES

‘Conflicts arise fundamentally because of competing demands for a limited resource; because of the uneven distribution of costs and benefits that result from the development; and because of environmental impacts that arise when the use of land changes` (Peltonen & Sairinen, 2010:28).

Land use disputes transcend community scales and involve national and global actors alongside local ones, making them polycentric (Ostrom, 2010; Sovacool, 2011). Conflicts develop due to perceptions of incompatibility of values and goals and have been a common occurrence in Africa irrespective of historical period under review.

The issue of land use conflict has been the focus of many urban studies. Hite (1998) has indicated at the global scale that land use conflicts emerge frequently as political controversies which are associated with and the historic process of globalisation of a market economy. Land use conflict in the rural-urban fringe can be reduced but cannot be stopped. Trying to protect rural land use in the face of an encroaching urban frontier is like trying to protect beaches from a relentless ocean. The conflicts seem to be intensifying into the next decade, not dissipating (Hite, 1998).

Lampe and Kaplan (1999), in their studies conducted in the United States of America on conflict over land use, presented eight case studies concerning mediation and efforts to resolve disagreements that arose over land issues. All these were land use and boundary conflicts between two or more parties. In all eight case studies, mediation efforts were put in place. Disinterested, third party mediation was critical to dispute settlement. The case studies illustrate that mediation is an alternative to intense conflict and was able to resolve all the conflicts in all cases. Involvement of experienced and knowledgeable teams is a key to a favourable outcome. Conflicts can even have an impact at global level because they illustrate that there is always competition for land and any land use change will always lead to conflict. The recent land grabbing phenomena particularly in Africa is a good case in point (Peluso & Lund, 2011; Zoomers, 2010).

In his study in Sumaco in the Ecuadorian Amazon, Long (1992) discovered that the area was affected by different land use schemes that were in conflict. The cause of conflict in this area was poor communication and co-ordination between the various agencies of the Ecuadorian government and individuals namely settlers, USAID and residents. The conflict stemmed from differing and competing conceptions of appropriate land use. For the settlers, the site represented a solution to their dilemma of being landless and presented an opportunity for economic survival and advancement but the scheme proponents had a different vision. For the United States Agency for International Development (USAID), the Sumaco site and surrounding territory represented a small portion of a threatened and rapidly disappearing ecosystem that had to be preserved for the collective good of humankind. The residents were proceeding with their own land use schemes knowing that one way or another the developers would eventually have to abandon or severely alter the plans for the region (Long, 1992). The result is a myriad of legal conflicts caused by a conflicting jurisdiction, ill-defined policies, unclear objectives and the failure to systematically apply even the best environmental laws.

A study conducted in Alaska by Thomas (1988) reveals that land use conflict in Alaska emerged from multiple ownership of land as various interest groups had a conflicting desires for the land such as traditional use, wilderness protection and economic development, land exchange, surveys and land transfers, different rules on different lands

and conflicting claims. Thomas (1988) recommended amelioration as the solution to land conflicts in Alaska. A study carried out in Recife-Brazil by Maia (1995) concluded that land use conflict between the dwellers and the landowners was accompanied by a rise in illegal occupation of public land. It also revealed that the concentration of land in the hands of a few owners and the fact that Recife is located between the Atlantic Ocean and rivers, and swamp areas, created a shortage of land and made the access to it difficult, especially for low-income groups (Maia, 1995).

A study conducted in Singapore on the utilisation of urban residential land concluded that the insatiable desire for more land for residential use would only weaken if residential land was economically priced and utilised to optimum capacity (Addea-Dapaar, 1999). Urbanisation is an inevitable process globally, and an important topic for the planners, managers and environmentalists. The extent of urbanisation or its growth is one such phenomenon that drives the changes in land use pattern. These changes may have an adverse impact on ecology, especially on hydro-geomorphology, water resources and vegetation (Jati *et al.*, 2008).

Urban agriculture is a dominant land use form in cities and their environs worldwide. Most of the research on the topic portrays urban agriculture as a household survival strategy and one of the many ways in which urban families have redeployed their labour, and other resources, in the struggle to survive in an increasingly hostile urban economic environment. Many of these studies note that the constraint of access to land for urban cultivation is mostly land that is not owned or even legally obtained by the urban farmer. Recent research on land use conflict concentrates on development that is not monitored and the impact it has on land use is documented. Most environmental disputes are either resolved through litigation, legislative bodies or never subjected to formal resolution since often one of the disputing parties cannot meet the costs of resolution (Duke & Ryan, 2000). Conflicts between squatters and conservationists are a common outcome when they encroach on the protected areas, leading to destruction or loss of livelihoods (Treves *et al.*, 2006).

Another example from the literature reviewed helps to explain the context of the conflict. In this case a hospital authority, with the power to condemn and use land, clashed with local residents over the meaning and purpose of neighbourhood space (Martin, 2003). Research on decision making in large cities suggests that residents and business are united in an “urban growth regime” that governs decision-making (Laura, 1992). However, work on the concept of growth regime recognises that business, unions and government would tend to unite and function as a force in relatively large cities with diverse economies.

Sometimes conflicts arise as existing populations around a particular piece of land change their opinion or values. In other cases new people can enter existing space and clash with how those already there view geographic space (Henderson, 2005). Conflicts often revolves on who is to maintain control on a particular area of land, who possesses the right to participate in decision making about its management and the social and environmental impacts of its development or use (Andrew, 2003). Conflicts always occur when land use stakeholders have the same interest on a particular land use (Von der Dunk *et al.*, 2011).

The centrality of land to the human race means that there must always be alternative ways of allocating land resources in a manner that is equitable and efficient (Anafo, 2013). Competing demands for a limited resource leads to conflicts (Peltonen & Sairinen, 2010). Von der Dunk *et al.* (2011) argue that land use conflict occurs whenever land- use stakeholders have compatible interests related to certain land-use units. People have fought over land since the beginning of recorded history (Wang *et al.*, 2010).

Land use conflict is also influenced by social structures such as race, caste and class. A case in point is that of the Kamaiya conflict. The Thara people of Nepal were stripped of their land by money lenders and landlords who had migrated from the hills targeted their conflict against the government and the landlords. The conflict has not yet been resolved nor will it ever be resolved unless the landless people get land on which to settle. The main barrier to reconciliation is lack of political commitment by the government to resolve the conflict surrounding the caste system, the class system and racism. A review

of the literature about rural–urban fringe reveals a remarkable absence of research exploring the intensity of conflict experienced by farmers. Inadequate attention has been given to the policies adopted by the government to manage conflict. Little is known about the management of amenity conflict in the urban fringe, and therefore, it offers various avenues of research. The literature about urban fringe has a long tradition of focusing on planning techniques to protect agricultural land. A detailed investigation of the regulatory system has tended not to occur. The government of British Columbia, Canada, since 1990, has embraced the idea of a consensus-based public involvement process in resource management and planning, as a way of managing growing conflict (Jackson, 2002). Since 1990, a great deal has been written in popular literature and in government reports extolling the advantages of the use of consensus in land use planning as a method of mitigating land use conflict. However, very little empirical research has been done and reports of such endeavours are few (Ness, 1992). Ness (1992) suggested that public participation leads to sound conflict resolution because plans for land use and resource allocation affect conflicting, and at times competing, interests over scarce resources. O’Riordan and O’Riordan (1993) indicated that the process is now seen as important as the decision itself is significant in reducing conflict.

Caldwell (2001) concluded that one might gain a strong advantage for solving land use conflict by taking time to understand both sides of the story. He also discovered that in many areas, the intensification and specialisation of agriculture in combination with a number of trends, including an increasing number of non-farm neighbours has contributed to farm and non-farm conflict as well as conflict between farmers. According to him, there is often no right or wrong outcome when it comes to conflict and therefore concluded that conflict could not always be resolved to everyone’s satisfaction. It is necessary to try to resolve or manage it.

Creighton (1992) concluded that although consensus is not always reached, people still feel consulted and valued as long as they are at the table throughout the discussion. A study was conducted in River Raisin watershed, United States of America (USA) by Erickson (1995). Changes in land use and cover over twenty years were studied focusing on changing forest cover and its distribution. The hypothesis was that as the urbanised

area increased and agricultural area decreased forest areas would decline. An analysis of the land use/cover change data showed a fairly consistent pattern of change over twenty years' time in the River Raisin watershed (Erickson, 1995).

The environmental justice research movement pursues a wide range of agendas that have significant implications for politics, legislation and social activism. Generally, existing academic literature does not address the political and historical complexity of environmental justice, simplifying activism within a dichotomous framework of environmental racism and or its focus on supernatural distribution and hazards. Moreover, the notion of environmental racism requires a critical clarification (Dobson, 1998). Dobson (1998: 20) observed that environmental justice scholarship within the framework of distributive justice reduced the concept of environment to be “no more and certainly no less than a particular form of codes and bids that society must divide among members”. Numerous studies underscore the importance of women having access to commercial resources. Allen *et al.* (2007) argue that the gender gap is more pronounced in high-income countries than in low and middle-income countries.

Research conducted by Cambridge economist, Partha Dasgupta, shows that women who lack paid employment have less decision making authority in their families, weak authority, combined with usefulness of children for labour in subsistence conditions for collecting firewood, water and for herding animals - leading to a high fertility rate (Homer 1995). Wenhua and Yanhua (1994) conducted a study on land use and land use change in China. They concluded that in the history of China, many factors contributed to land use change either in a positive or a negative manner. Four major factors contributed to land use cover change, namely, climate change, social transformation and turbulence, technology improvement and international trade competition.

As noted by several prominent scholars, urban land issues are experienced in different parts of the world and are well documented (Piacone, 1990; Davidson, 1992; Kivell, 1993; Maia, 1995; Addae-Dapaah, 1999). One of the key drivers of land cover change in tropical regions is human migration (Wardell *et al.*, 2003). Recent studies have indicated that intensifying climate change is likely to lead to more people being displaced in the

poorest areas of the world, requiring new responses to immigration (Biermann & Boas, 2010), and rural migration is set to become more important in global environment change than previously thought (Carr, 2009). Migration can promote conflict in areas receiving migrants, the intensity of which may vary in cases. The arrival of migrants can burden the economic and resource base of the receiving area promoting native- migrant contest over resources. Conflict may follow existing socioeconomic fault lines; migration from rural to urban area presents competing effects (Reuveny, 2007).

Mansfield (1993) studied traditional disputes resolution mechanisms of the Coast Salish nations of British Columbia and concluded that their decision-making process, which focused on respect, consensus, ceremonial meetings and on-going relationships, were still relevant and should be recognised as viable options for today's world. A study on land use change was conducted in the Bodia Transition Zone in Jordan using aerial photography and satellite imagery. This study was done by Al-Bakri & Taylor, (2001). The results of this study indicate that land use changes altered the character of the selected study sites. The important land use changes were from range land to rain-fed cultivation, irrigated fields and urban settlements. The increased agricultural activities were shown.

Land use change occurs mainly at a local level; however it has the potential to determine ecological processes and accordingly the provision of ecosystem services across local, regional and even global scale (Li *et al.*, 2007). Land use changes are a result of a variety of drivers and pressures in a particular population group. Wang *et al.* (2012) argue that conversion causes land use change. In particular, worldwide, the extent of land-use change is phenomenal. Changes in land use are linked to population growth, economic development, environmental change and technology and are significantly related to the worldwide increase in the need for agricultural land. Changes in land use reflect the history and, perhaps, the future of humankind. The purpose of the deliberate land use change is to increase the local capacity of land to support human enterprise, but many land use practices instead reduce this capacity. Several studies have identified major socio-economic drives of land use change based on a variety of socio-economic data (Ameztegui *et al.*, 2010; Baumann *et al.*, 2011).

2.3 AFRICAN CASE STUDIES

Huggins *et al.* (2005) indicate that several studies demonstrate that changes in land use and land access have been significant factors in a number of high-intensity conflicts in Africa. Maxwell (1996) conducted a study in Kampala from 1992 to 1993, the capital and the largest city of Uganda. In this study he analysed the access to land for urban farming in Kampala. Most of this research portrays agriculture as a household survival strategy (Maxwell, 1996). Many studies note the constraint of insufficient land for urban farming and observe that the land used for urban cultivation is mostly not owned or even legally accessed by the urban farmer. Lado (1990) states that ‘squatting’, or the use of land for urban agriculture without permission in Nairobi is seasonal and ephemeral. Evidence from other studies suggests that squatting is also a long-term strategy of land use.

Freeman (1991) is of the opinion that squatting as a land access strategy amounts to a form of moral economy. He concluded his research by stating that informal access practices will continue as long as incentives for private land ownership and weak administration of public land exist. Research by South Bank University and African partners in the Urban and Peri-urban Research Network, shows that resource-based conflicts are critically significant in peri-urban transformation, whether in Kampala, Lusaka, Nairobi, Durban or Johannesburg (Lampe & Kaplan, 1999).

Land reform in Kenya was aimed at facilitating faster economic growth and raising the standards of living. Policies and statutory instruments included; land consolidation, land adjudication, group ranch registration, land claims, subdivision of cooperatives and company firms, and land settlement programme. The end result was registration and issues of land titles. These measures seemed positive initially, in the long run it led to landlessness as poor people sold their land, leaving nothing for their dependents to inherit (Tshatsinde, 2009). Negative impacts included unemployment, land conflicts and weaker customary systems. Peterse (2004) indicated that competition over land for different purposes intensifies due to growing population and movements of people looking for better or more land. Despite their importance, rural immigrants have received

considerably less scientific attention compared to labour immigrants, refugees and rural to urban migrants (Muriuki *et al.*, 2010).

Land is a conflict-ridden resource due to its many meanings. People in Africa are now increasingly competing to get access to land (Odgaard, 2006). Another method of reducing conflict by focusing more on process has been with the application of consensus planning. Land use change is primarily caused by the high population growth rate. Huggins *et al.* (2005) cited that various studies reveal that changes in land use and land access have caused a number of high-intensity conflicts in Africa. The settlements of squatters are usually associated with rapid land use change for a short period. Where such rapid changes occur close to protected areas, there can be significant negative impacts such as illegal harvesting of natural resources and wildlife from the parks as well as transformation of the ecosystem (Homewood *et al.*, 2001). The settlements of squatters and spontaneous migration have been shown to play a role on patterns of land cover change (Brimoh & Vlek, 2006 & Unruh *et al.*, 2005).

Bongale *et al.* (2006) argue that land is a site of perpetual disagreement since land is the most fundamental resource. The most common conflict for developed economies and urban areas centre occurs on the encroachment of residential spaces and community spaces (Magigi & Drescher, 2010).

2.4 SOUTH AFRICAN LAND ISSUE STUDIES

Shongwe (1997) conducted research on the issue of land use conflict in the Matsamo Tribal Area in Mpumalanga Province. This study revealed that land use conflict here was a function of a historical process of invasion and conquest, conflicting interests between community organisations and the government, political parties, tribal leaders and individuals. A study in Thohoyandou in the Limpopo Province on land use competition, conflict and change found that land use conflict was specifically between the Thohoyandou Transitional Local Council (TLC) and the traditional leaders; between investors and squatters; between residents and the government; and between the TLC and hawkers (Nemukula, 1998).

Kotze and Donaldson (1998) conducted a comparative study of Bloemfontein and Polokwane. The study concentrated on residential segregation and brought to light the fact that the abolition of the Group Areas Act in 1991 had contributed to major changes taking place in the former apartheid cities of South Africa. A study conducted in District Six, Cape Town, demonstrated how urban space could become a symbol and focus for struggle. The struggle, which commenced in February 1966 when District Six was proclaimed a white Group Area, was brought to a closure in November 2000 through land restitution procedures. In Nonati, a tiny rural area located at about 100 km north of Durban, a land dispute case is being finalised that could have implications for land reform in South Africa. The affected farmers got a court order to evict the illegal occupants from their land but the authorities did not carry out the order. The affected farmers decided to sell the land to the Department, in order to get compensation, thinking that the land would be given to the municipality. The communities themselves resolved land use conflicts through committees representing all the affected groups (Dewar, 2001).

The Baphalane-Ba-Sesope community is a tribe that was forcefully moved from Vleischfontein to Nooitgedacht and Ongegund Farms in Rustenburg. The land claimed by this tribe is inside the Madikwe Game Reserve. In terms of the agreement reached with other stakeholders they would build a lodge in the game reserve as a Communal Property Association (Sonjica, 2003). Alternative Dispute Resolution (ADR) and alternative conflict management (ACM) approaches have emerged in the literature to describe win-win alternatives that basically belong to the collaborative approach which implies joint decision-making. The relative absence of comparative urban fringe research makes it difficult to assess the effectiveness of different regulatory systems. Conflict and violence have become primary preoccupations for researchers and policy makers because of their impact on development levels and prospects. Christopher's work (1986) traces the growth of racial segregation in Port Elizabeth statistically and broadly considers the effect that apartheid planning policy had on the pattern of settlement in the city and the implications this may have on future urban planning. Studies have shown that chieftaincy structures tend to be steeped in patriarchy (Levin, 1977). Little research has been done in South Africa about the nature of informal land markets, neither the kind of land holding in these markets nor the possible implications of the blanket application of free land. Research to

date indicates that, in general, framing in land use change conflicts does affect the predictability of outcomes. However, more information is needed to inform planning design practice in specific contexts. The level of predictability necessary for intervention requires learning more about the precise nature of frame effects in various types of space change solution. Research can help establish to what extent knowledge about frames improves planning and architecture practice in a physical change dispute (Kaufma & Smith, 1997). South African land reform programme has been documented by several scholars (Turner and Ibsen, 2000; Hall, 2003; Jacobs *et al.*, 2003; Bannister, 2003; Hall, 2004; Didiza, 2006).

The Restitution of Land Rights Act of November 1994 was the first major piece of legislation to be passed by the Government of National Unity to redress the injustices of the apartheid era in South Africa. Christopher (1995) indicated in his study of land restitution that the racially based imbalances in access to land rights created during the colonial era were intensified during the apartheid era in South Africa. He further advised that there was an urgent need to redress those legislation inequalities, where by 80% of the population had access to only 13% of the land (Christopher, 1995). Maluleke and Small (1994) discovered in their study on land claims in the Bushbuck Ridge area, that white farmers evicted their labourers before they could formerly state claims. Nel (1988) in his studies in Port Elizabeth, indicated that some 3 300 claims could be lodged under the Group Areas Act and very few would be considered.

The land restitution programme was introduced in democratic South Africa as a programme to reverse the pattern of land ownership in the country as it was skewed. It is a policy that is used to address the inequality in land distribution through facilitation of access to land with the mandate of reducing poverty and income inequality (Hall, 2007). Hall (2007) sees the failure to define and enforce post-settlement arrangements on land reform projects and the roles of different institutions, as having direct consequences for livelihoods. Improvements in beneficiary livelihoods depend not only on the amount of support, but the degree to which this is integrated and strongly managed by a lead institution. One of the most striking findings in a research conducted by Hall (2007) is that the majority of beneficiaries from the restitution projects have not received any

material benefit whether in terms of money or access to land. There are some members who have benefited through access to employment and more highly educated men are most likely to reap the benefits of the projects that are in place, women are not benefiting on this land restitution process, those that are benefiting, are benefiting on a small scale.

Various initiatives have been undertaken to address the challenge of post-settlement support with the latest strategy of the CAPS. This initiative has been designed to assist black farmers to participate in a market dominated by established white producers and agribusinesses, but to alter the logic of the market or production system (Greenberg, 2010). It has been limited to grants for farm infrastructure and it fails to give out other support systems such as infrastructural support and training which is essential for this initiative to meet its targets. As a result, land reform projects remain without the support that they need to use their land productively.

International land reform has been successful in alleviating poverty in cases where the programmes targeting the poor deliberately, legislation prevented individuals from owning land beyond a given acreage, beneficiaries were provided with marketing opportunities to sell their products, post settlement support and agricultural extension was provided, programmes and projects were well planned and were sustained for at least 10 years, the programme was flexible and lessons were learnt and adaptation took place where necessary. The flexible design allowed for learning from experience and adaptation as the process unfolded (Tshatsinde, 2005). This is what is lacking in the South Africa land reform programme, flexibility of the legislation.

Recent studies have revealed the limited impact of most land reform projects in terms of productive land use and household survival (CASE, 2006). This has been attributed to many factors, but the most widely cited are inadequate or inappropriate planning, a general lack of capital and skills among intended beneficiaries, a lack of post-settlement support from state agencies and poor dynamics within beneficiary groups. Large numbers of restitution claimants have opted for cash compensation rather than land, and it appears likely that many who regain their land will end up leasing it to established white producers, possibly in the form of joint ventures. In South Africa the land restitution

programme is plagued by some challenges such as the slow pace of the programme, unscrupulous strategic partners, lack of post settlement support, and the failure of communal property associations. This is because the government gives back the land without any proper backing or assistance given to the beneficiaries of the restitution claims (Bollig & Werner, 2008). This programme had shortcomings before its implementation as institutions and programmes that were supposed to drive this initiative were not well articulated.

Challenges still remain with regard to livelihoods in South Africa's Land Reform programme. This is further supported by the quality of life studies that were done by the old DLA on the livelihoods of land reform beneficiaries before and after processing of claims. Subsequent surveys have shown a snapshot of people's livelihoods, but cannot explain how these challenges have occurred as a result of the land reform process (Hall, 2007). The Programme for Lands and Agrarian Studies (PLAAS) conducted a study entitled 'Evaluating Land and Agrarian Reform in South Africa from 2002 to 2003'. This study came up with the first comprehensive review of the land reform policy and its implementation and highlighted a number of gaps and weaknesses in the current approach (Hall, 2003). The market-based approach to land reform has been criticised by scholars indicating that it contributes to the slow pace of reform, the high costs of the programme, inappropriate targeting of beneficiaries and inadequate post settlement support (Lahiff *et al.*, 2008).

Although progress in resolving restitution cases was slow initially, South Africa can point to impressive progress if measured in terms of the number of restitution claims where land has been returned or claimants have been compensated financially. Of the 79,696 restitution claims lodged with the state, some 75,400 cases (95.5%) had been resolved by March 2009 (CRLR, 2009). Researchers and some people who have worked in the restitution programme are however, critical of the state's success claims. They argue that the state's responsibilities extend beyond restoring material loss. A number of embarrassing failures and serious problems for new land owners (315000) households had been resolved by March 2009 (CRLR, 2009). This was caused by the government's lack of post-settlement support. Other so-called failures have been crippled by internal

conflict, in some instances violent and even deadly conflict (Walker, 2008; Pienaar, 2009). Institutional development support, technical support, training, access to markets, and access to infrastructure were lacking in the restitution programme (Hall *et al.*, 2003; Walker, 2008; Bradstock, 2005).

Pienaar (2008) and Hall (2009) cited that there is a lack of coordination at the pace required to fast track a restitution project between the hierarchies of government institutions (national, provincial, local) that are involved in providing support to new landholders. In South Africa the land restitution programme is plagued by some challenges such as the slow pace of the programme, post settlement support, unscrupulous strategic partners and the failure of communal property associations. This is because the government gives back the land without proper backing or assistance to the beneficiaries of the restitution claims (Ellis, 2000). In Limpopo Province the number of restitution claims is considerably higher than in any other province of South Africa. This is due to the fact that dispossession of land was an on-going process well into the 1970s. This is further influenced by the well watered soils in the eastern part of the country, highly fertile soils and traditional authorities which are still of considerable importance in this province. All these factors contribute to high economic value of the land (Bollig & Werner, 2008).

Botha (2006) argues about the importance of putting gender equity in its proper perspective as she highlights that gains by women do not necessarily mean loss by men. She further cited that countries that have given equal access to men and women into the economic sphere have progressed much faster than those that have denied such access. Encouraging women entrepreneurship can be a valuable tool for promoting gender equity and empowering women. Having a gender approach to entrepreneurship can increase economic diversity. This study confirms that South Africa is putting itself in a disadvantaged position by not utilizing its existing human capital.

According to Verheul *et al.* (2010), most studies investigating gender effects in entrepreneurship treat gender as a dummy variable. The business arena is typically considered predominantly male territory, requiring male qualities such as strength and

assertiveness. This approach has negative consequences on the extent and nature of women entrepreneurship. According to World Bank (2008) the low levels of women participation in entrepreneurship can be attributed to the prevailing attitudes about the value of work, working women and gender equality which affects women's economic participation and entrepreneurship globally. Women entrepreneurs make a significant contribution to the development of the world economy especially in the low and middle-income countries (Bosma *et al.*, 2009).

According to Verheul *et al.* (2010), the lower entrepreneurial preference of women may, to some extent, explain their lower entrepreneurial activity rate. Studies of the relationship between gender and entrepreneurship have shown that men are significantly more likely to start a new business than women. These results have emphasised how men perceive themselves as more capable of pursuing entrepreneurial opportunities than women. Differences between gender in actual skills and abilities may be negligible, but differences in perceptions of these skills and abilities seem to be substantial (Amstrong, 2011). Strategies to minimise conflict over land should be accompanied by comprehensive land reform and redistribution that does not give some groups or individuals power over the others (Simelane, 2012).

2.5 THEORIES AND MODELS OF LAND USE CHANGE AND CONFLICT

2.5.1 Theories and models in general

The Greek word “theory” means, literally, “looking at something”, “observing something”. It denotes: “knowledge”, the result of observation. A theory is “a set of connected statements used in a process of explanation” (Johnston, 1986: 622). Theory is “a system of thought which, through logical constructs, supplies an explanation of a process, behaviour, or other phenomenon of interest as it exists in reality”(Chapin & Kaiser, 1979:27).

“Within positivism, a theory comprises a set of hypotheses and constraining conditions which, if validated empirically, assumes the status of law, so that

theory structures understanding of the relevant portion of the empirical world through its system of interrelated laws. Whereas within positivism, a theory is assumed to be universal in its application, within idealism, on the other hand, there are no universals, only individual theories resident in each individual's mind, which are used to guide action" (Chapin & Kaiser, 1979).

"In realism, a theory is a means of conceptualising reality, and thus provides a mental framework for its apprehension; the test of a theory is not its validation against empirical evidence, but, rather its coherence and, especially, its practical adequacy. Realists argue that because societies are open systems in which the same conditions are rarely reproduced, predict the future, they can only illuminate the past and the present, and provide guidance to appreciation of the future" (Johnston, 1986: 623).

Land is used to meet various human needs. Land use change occurs when those who use the land employ its resources for different purposes resulting in desirable and undesirable impacts. The analysis of land use change is in fact the analysis of the relationship between people and land. The question arises as to why, when, how and where do land use change and conflicts happen? A theory of land use change and conflict is a set of propositions used to understand the "what" and the "why" of land use change and conflict. Theories have been developed and models have been built in order to provide answers to these interrelated questions (Johnston, 1986). At lower levels, theories tend to concentrate on realistic accounts and at higher levels they are more abstract. Some theories are more realistic, while others are more abstract. Some theories concentrate on the environment, others on economic and still others on socio-political determinants of land use change and conflicts. Very few theories have filtered down to models of land use change. There is a distinction between theories that deal with land, land use and land use change and those where land use change is indirect. There are theories in which land is reduced to a point or completely absent (Johnston, 1986).

Theories related to the dynamics of urban and regional spatial structure are relevant to land use change. Although these theories treat land and land use as points in space, their

importance is that they analyse the broader spatial process that results in land use change. Most of these theories are agent-based. Aspatial theories are those theories that do not directly refer to land use change. They are usually concerned with the economic, social and other determinants of land use change and include, amongst others, economic base theory, input-output analysis, economic development and growth theories, international trade theories and social theories. The level of functional and spatial aggregation of the models varies with their purpose and object of study. Models which concentrate on few land uses have been the norm up till recently. Difficulties with building real dynamic models are both technical and theoretical. Some models are based on theory while others are not. The gravity model was criticised because it reflected a social physics conception of human behaviour and lacked grounded theories of urban system behaviour. The most common role played by theories of land use change and conflict in a study is the need to have a vehicle to structure the conception and explanation of reality. Moreover, theory is a guide to policy formulation. Knowing the “why” is of crucial importance if we expect to change “what” we do. The majority of models are devoid of a theoretical foundation and several theories are without modelling counterparts and the reverse is also true. Some theories and models were conceived simultaneously, which is why the terms “theory” and “models” can be used interchangeably (Johnston, 1986).

The urban and regional economic theorisation tradition adopts a way of thinking from economics. Reality is represented using concepts and procedures of an economic nature. Real world phenomena are analysed either from a micro-economic or from a macro-economic perspective thus theories under this category are generally grouped into macro-economic theory based and micro-economic theory based for the analysis of land use patterns and their changes (Johnston, 1986). The following sections present some theories of land use competition, conflict and change.

2.5.2 Agricultural Land Rent Theory

Economists and geographers have developed various models of urban land use, most of which are described as bid-rent models. Essentially the bid-rent model is based on the assumption that different activities will have bid rent curves that differ in form according

to their need to be at the centre of the city. This depends on the type of activities, their ability to bid for expensive sites at the centre and how sensitive they are to transport costs. A number of commercial activities are prepared to pay high prices and will have a steep rent gradient. Industrial activities cannot compete for central sites and their rent gradient is less steep. Residential activities cannot outbid commercial and industrial activities. The lowest level of bid-rent curve lies at locations furthest away from the centre. This theory offers the rationale for the arrangement of land use types and values (Kivell, 1993) (Figure 2.1).

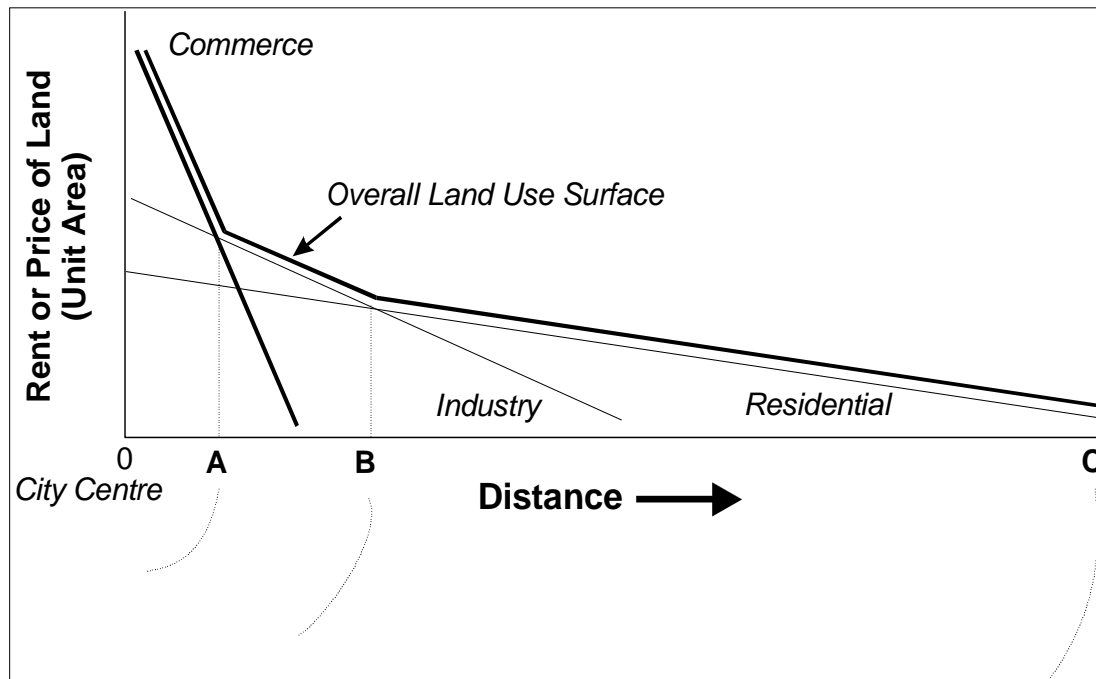


Figure 1.1: Urban land use and bid-rent model. Source: Adapted from Kivell, 1993

The agricultural land rent theory cited in urban geography (Clark, 1982) has strongly influenced the analysis of land use patterns and their changes in the micro-economic theorisation tradition. The aim of Von Thünen was to prescribe the optimum distribution of rural land users around the market town. He made use of the concept of land rent, which is defined as the price for use of a piece of land. There is an isotropic flat plain where movement is possible in all directions and land rent varies only with distance from the centre. Each crop has a rent gradient that extends in all directions from the centre (Figure 2.2). This is a static theory that makes no reference to land use change or land use conflict. The Von Thünen theory is the predecessor of location theory and the

analysis of urban and regional spatial structure (Kivell, 1993). Location is very important for the success of any business (Rogerson, 2000). Ehlers (2000) also cited that `location, location and location` still remains the three most important aspects for the survival and success of a business. The best locations are always associated with high land values, and are therefore very expensive. Prosperous and large businesses afford to locate on expensive sites (Naude & Havenga, 2004).

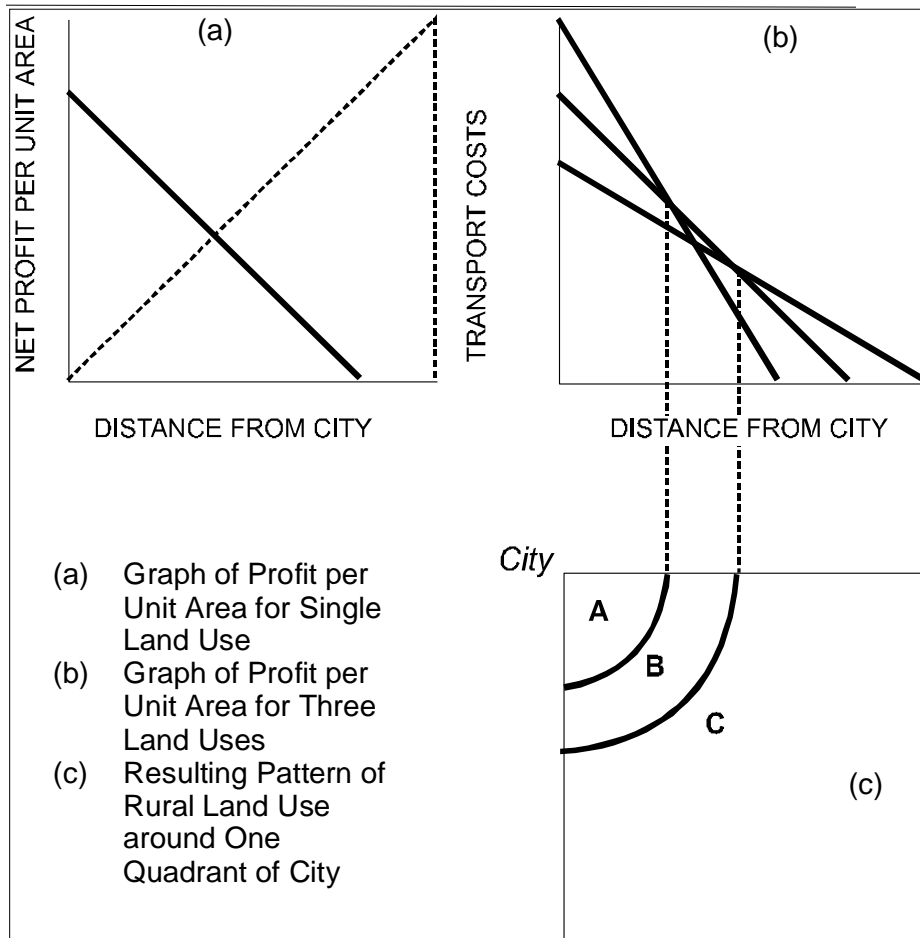


Figure 2.2: Von Thünen, land use analysis and pattern model. Source: Adapted from Kivell, 1993

- *Alonso's theory*

Two stages in the residential location process are identified in Alonso's theory. Households locate themselves on sites that maximize their utility subject to their budget constraints, which is the point where the lowest bid-rent curves meet. The highest bidders

occupy the most central locations. The remaining available land will go to the next bidder until the last user is located at the edge of the city. This theory does not provide an equilibrium market solution as the outcomes on Thünen's theory does. Additional assumptions should be made about the level of utility of the bidders in order to derive equilibrium land use patterns. Alonso's urban land use theory applies more to residential land use (Kivell, 1993).

The bidding process is a realistic account of the way land is allocated to various competing users and it has been used in theoretical and modelling exercises that maintained its original premises. This theory has been used to analyse urban spatial structure. It has some shortcomings which limit its usefulness, like ignoring the existence of more than one centre in metropolitan areas which is a common feature today, accommodating increasing returns to scale, imperfect markets and externalities like air pollution and traffic congestion (Kivell, 1993).

2.5.3 Macro-economic theoretical approaches

Macro-economic approaches operate at an aggregate level employing aggregate concepts, measures and forms of behaviour. In this section, two macro approaches are discussed: the spatial and the aspatial macro-economic theories. They are regional development theories based on the Keynesian macro-economic theoretical framework using the Harrod Domar models, export- based models and factor-export models. Urban and Regional Mathematical Ecology is a theoretical stream that focuses on the study of patterns and processes of urban and regional growth. The emphasis of this group of theories is on the macroscopic feature of urban and regional phenomena and it maintains that these can be analysed by focusing on the most important qualitative features of urban evolution that is observed at specific time periods. These theories analyse the dynamic behaviour of urban and regional systems like the formation of slums, growth and disappearance of urban settlements and suburbanisation (Johnston, 1986).

- ***Sociological and Political Economy Theorisation Tradition***

Theories in this field stress the importance of human agency and social relationships, social networks and socio-cultural changes in bringing about political, economic and spatial change (Johnston, 1986). Theories under this category share a common set of concepts about spatial structure and its change. An example is the *functionalist-behaviourist* group that includes human ecological theories that propound the idea that cities are the outward manifestation of processes of spatial competition and adaptation by social groups which correspond to the ecological struggle for environmental adaptation found in nature. Important ecological concepts used to describe social groupings and processes are “community”, “dominance”, “invasion”, “succession”, “adaptation”, “disturbance”, “competition”, and “climax equilibrium” (Johnston, 1986).

2.5.4 Models of urban structure

The three theories presented in this section are static descriptive devices of urban land use structure and are all concerned with residential land use. They are useful if one wants to understand the patterns of land use and structure in any urban settlement. Moreover, they fruitfully shape one`s perception of patterns of urban land use and structure.

- ***Concentric zone theory***

The American sociologist, Burgess designed the Concentric Zone Model (Figure 2.3) in 1925. Burgess (1925) maintained that the outward growth of a city takes place in concentric circles. Five zones or concentric rings can be identified in the city`s functional structure. First, the CBD is occupied by commercial, administrative, financial and residential facilities. Second, poor and old residential property occupies the land in the transition zone and most of the houses are in a dilapidated condition, and slum conditions are common. Then the zone of low-income dwellings follows, which accommodates mostly second generation immigrants who have migrated from the zone of decay but still wish to remain close to their place of work in the CBD. Third, the zone of better housing is the residential area of the middle and higher income groups where single family home

dominate the scene with blocks of flats here and there. The fourth is the zone of commuters devoted to suburban and satellite development. This last zone lies outside the continuously built-up area of the city and stretches for anything up to an hour's travelling time from the CBD. Each inner zone displays a tendency to develop outwards, encroaching on the area of the following zone in the process of invasion and succession. The concentric zone model does not explain the "why" of the city growth (Clark, 1982).

- ***Radial sector theory***

This theory was introduced by Hoyt in 1939 (Figure 2.3) and was based on research done on 204 American cities. This should be regarded as a modification rather than a complete rejection of the concentric zone theory. This model conceptualises the city as sectors that develop along transport routes. According to it, the direction and the distance from the CBD are important factors in determining land use. Hoyt paid particular attention to the upper income residential area because he maintained that the other land uses arrange themselves in relation to these areas. The outward growth of the upper-income residential areas usually takes place along the fastest traffic routes, next to waterfronts, or in the direction of high-lying areas, the homes of community leaders or existing urban nuclei. The middle-income sector usually lies on both sides of the upper-income sector. The lower-income areas are situated away from the upper-income area usually closer to the industrial areas. This theory has been criticised for its many defects. The distribution of factories and residential areas in sectors is much more realistic than in concentric zone. In reality, an upper-income residential area can develop close to the city centre. The model does not make provision for the development of isolated shopping centres in the suburbs and industrial concentrations in the outlying areas (Clark, 1982).

- ***Multiple nuclei theory of urban land use structure***

This theory was formulated by Harris & Ullman in 1945 (Figure 2.3). These models are concerned specifically with land use in cities and take all types of urban land use into consideration. Harris & Ullman (1945) disputed the fact that a city centre is the only nucleus around which a city can expand. They maintained that a city does not only

develop around one core but around several cores. The location and number of such nuclei or growth points vary from one city to another. They, therefore, suggested that a city has a cellular structure (Kivell, 1993).

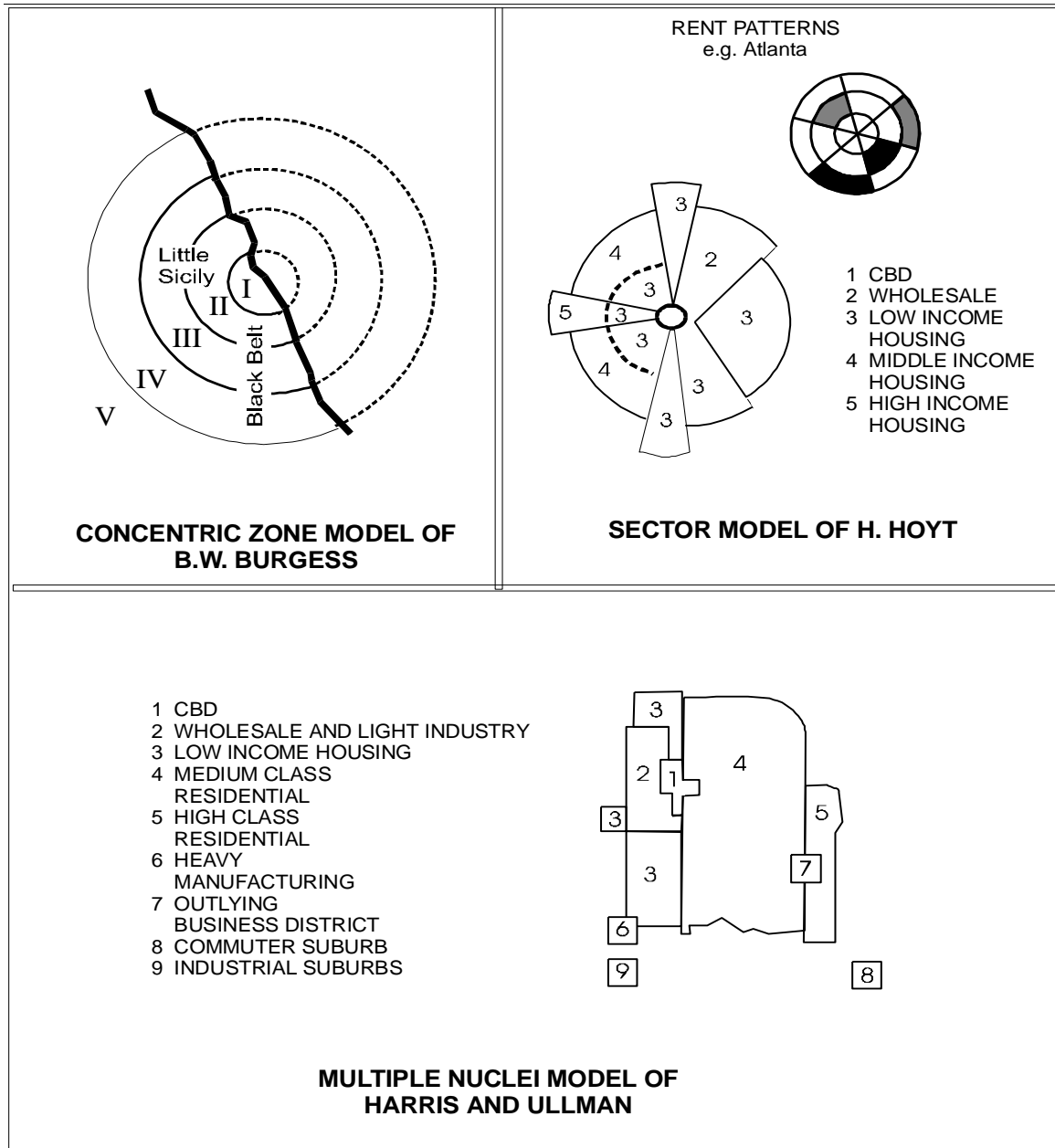


Figure 2.3: Models of urban structure. Source: Adapted from Kivell, 1993

2.5.5 Planning Theories

This is another group of urban and regional spatial structure theories that has originated from planning circles. They emphasise that spatial structure is a reflection of social

structure and that new social norms give rise to changing spatial forms. As a theory, the structuralist-institutionalist approach originated as a reaction to the idealism of the functionalist-behaviourist approaches. The most common theme of these theories is urban development in the late capitalist societies. A key idea is that of conflict between unequal manifestations that are based on class differences. Since they are relevant to capitalist societies they cannot be transferred with ease to the analysis of spatial development although they provide valuable insights and analyses of the political and institutional determinants of land use and its change in urban areas of developed, capitalist countries. The main focus of these theories is not on the land *per se* but on the forces that impinge on the uses of land (Kivell, 1993).

Core-periphery theories describe and explain the spatial organisation of human activities. They provide general theoretical schemata about the uses of land and changes of land use resulting from the relations of dependence that develop between the core area of economic activity and the surrounding periphery. It subscribes to the goal of spatial equilibrium and ignores the uneven development of the division of labour in capitalist societies (Johnston, 1986). The central idea is that development spreads out or diffuses from a core region, which contains the most modern economic sectors, towards the periphery. The Nature–Society theorisation tradition accommodates both the social and natural science theories in that it shares a common interest by focusing on the analysis of land use change within the broader area on global environment (Johnston, 1986).

Sufficient relationships exist among the Von Thunen theory, Alonso's theory, the concentric zone model, the radial sector theory, the multiple-nuclei theory of urban land structure and the spatial pattern of land use in Polokwane.

2.6 CONCEPTUAL FRAMEWORK

Based on the literature, a conceptual framework is developed here to guide the study. It is represented by a network or plane of interlinked concepts that together provide a comprehensive understanding of the land use phenomenon in Polokwane Municipality and the surrounding rural area. The researcher is in agreement with Jabareen (2009)

who's exposition of a conceptual frame work is logical and rational. It provides basis of an interpretive approach to the understanding of concepts and the relationships among them, which is developed through interactive qualitative analysis. The concepts that constitute a conceptual framework support one another, articulate their respective phenomena, and establish a framework. Each concept possesses its own attributes, characteristics, assumptions, limitations and specific function within the conceptual framework. It is the current vision of the researcher's map of the territory being investigated. It provides a theoretical overview of intended research and order within that process (Jabareen, 2009). In this study Limpopo's land use is the territory under investigation.

The Conceptual framework (Figure 2.4) presented in the study deals with land use in Polokwane Municipality; it has a rural and urban dimension where conflict features lead to competition and land speculation. Government intervention occurs through the planning process and land restitution policies. Where control is lost, land invasion is inevitable; a smooth planning process results in harmonious land use change such as change from rural to urban land use and from residential to business. The conceptual framework is not one directional, but a dynamic hierarchical structure of processes involving human and structural agents. A movement in one direction in the process can evoke a counter movement in return.

On conflict, as depicted in the conceptual framework, Barry *et al.* (2007) offer an agent-based framework for understanding land conflict in the context of urban informal settlements in South Africa, focusing on the identity of the actors involved. In this setting, land related conflicts occurred between residents and government authorities; between residents themselves and between different government authorities. Land is an important economic asset and source of livelihood. It is also closely linked to community identity, history and culture. Huggings (2010) argues that land is a key cause of structural conflict in developing societies. Communities can readily mobilize around land issues, making land a central object of conflict. Conflict is a dispute or incompatibility caused by the actual or perceived opposition of needs, values and interests.

From careful observation, the urban and rural land use in Polokwane and surrounding areas is changing rapidly. There is notable competition between urban and rural land use where urban spaces are encroaching into rural space. This is a result of land use competition. Competition and land speculation concerns the locational conflict as an inherent consequence of competition for land in the city. One cannot use land independently because what is in the interest of some is detrimental to others (Von der Dunk *et al*, 2011). This leads to tension and friction. There will be competition between business and residential areas. This gives rise to conflict and a need for more land. Land speculation also brings about conflict because if land remains unused for a long time invasion will take place.

The land restitution gave effect to the constitutional provision that people unfairly dispossessed after the 1913 Land Act are entitled to either restitution of that property or to compensation. The aim of restitution was to redress the injustices bestowed upon the nation by the Land Act of 1913. Land restitution will take place both on urban and rural land. This will also result in land use conflict. Rapid urbanization will increase pressure on limited social services and infrastructure. The current population growth rate of 2.1% per annum (Statistics South Africa, 2011) might present an enormous management challenge to Polokwane in that issues on urbanization might take first preference to land management issue of the restitution areas which might need support for effective land management.

Urban conflict is an issue of increasing concern, and conflict over land is seen as a particularly acute form. This is linked to processes of urban growth and particularly to urban informal settlement which develop as a result of informal urban growth. Conflict is often seen as inherent to urban life, especially modern cities prone to urban growth (Watson, 2011). Rural areas are also affected by land use conflict. Development research suggests that land use conflict is widespread in rural setting (Huggings, 2010). Recent concerns focus on land grabs involving illegal or unjust acquisition of land by international interests (Zegema, (2011).

The study area became the capital city of Limpopo Province in 1994. It is also the industrial, educational, mining, agricultural and medical center of Limpopo. It is the largest and economically the most important existing urban concentration in the Province. Most national and provincial regional offices of departments are housed in the study area. The study area has a potential to become a logistics hub and freight interchange within the Southern African Development Community (SADC) region. These provide employment for many people. The relaxation of the Group Areas Act and the establishment of the democratic government in 1994 would enable the migration of many disadvantaged communities into urban areas for both residential and business purposes. These movements would lead to urban growth and urban expansion (Chatterton, 2010). Population growth will put more pressure on land and urban infrastructure. Migrant labour with its associated problems such as the provision of insufficient housing and crime will also affect the study area. Competition over land for different purposes would be intensified due to the growing population and movement of people looking for better or more land.

On the other hand the government loses control over some sites and invasion of land occurs e.g. open parks and other recreational areas taken over by informal settlers. Change in land use subsequently occurs. Consequently, small local tradesmen, residents and other interest groups would express their concern to the government. The government would respond by using the following planning alternatives:

- Changes from Residential to Commercial Sites: Areas that were initially planned for residence would be changed into commercial areas in order to accommodate the small business sector. Residents would be forced to move to other areas and this creates tension between the government and the people.
- Consolidation of Sites: The government would also respond by consolidating sites. Three sites would be combined and be divided into two and therefore the size of sites is increased.
- Creation of High Class Residential Areas: In order to respond to the upper class, the government would create a residential area suitable to people of high rank.

- Redressing the inequality of the past. Millions of black people were evicted from residential areas where white people lived, and a majority of them was dumped in the Bantustans. The loss of land led to homelessness, overcrowding, and a sense of lack of security, soil degradation, unstable families and rural urban migration. The triumph in 1994 of national democracy over the apartheid regime left the new Government of South Africa with an inheritance that would take years to reconstruct in order to develop the country into the international community of normal societies (LARP, 2008). The government introduces policies and passed Acts that would allow Black people to claim their original land back. This further leads to land use competition, change and conflict.
- Creation of Bigger Sites: Another alternative would be to create bigger sites in unplanned areas. Unplanned areas were either covered by natural vegetation or building structures. All these factors would give rise to land use change which in turn would create or alter the land use pattern. The urban structure would then be the outcome of tension and friction inherent in the competition for space in the city. Other factors which determine land use patterns are locational factors, poor planning or lack of it, economic factors, historical factors, industrialization or a change from agriculture to an industrial economy. Significant in South Africa and in the fringes of some urban areas are rural areas that are impacted by changes brought about by government policies such as land reform and land restitution. Changes, competition and conflicts occurring in these areas have a direct impact on the urban areas adjacent to them. If mismanaged, conflict will foment, high expectation of a democratic state will be dashed. It will be irreparable flaw in the history of the country. All these factors will give rise to a new land use pattern.

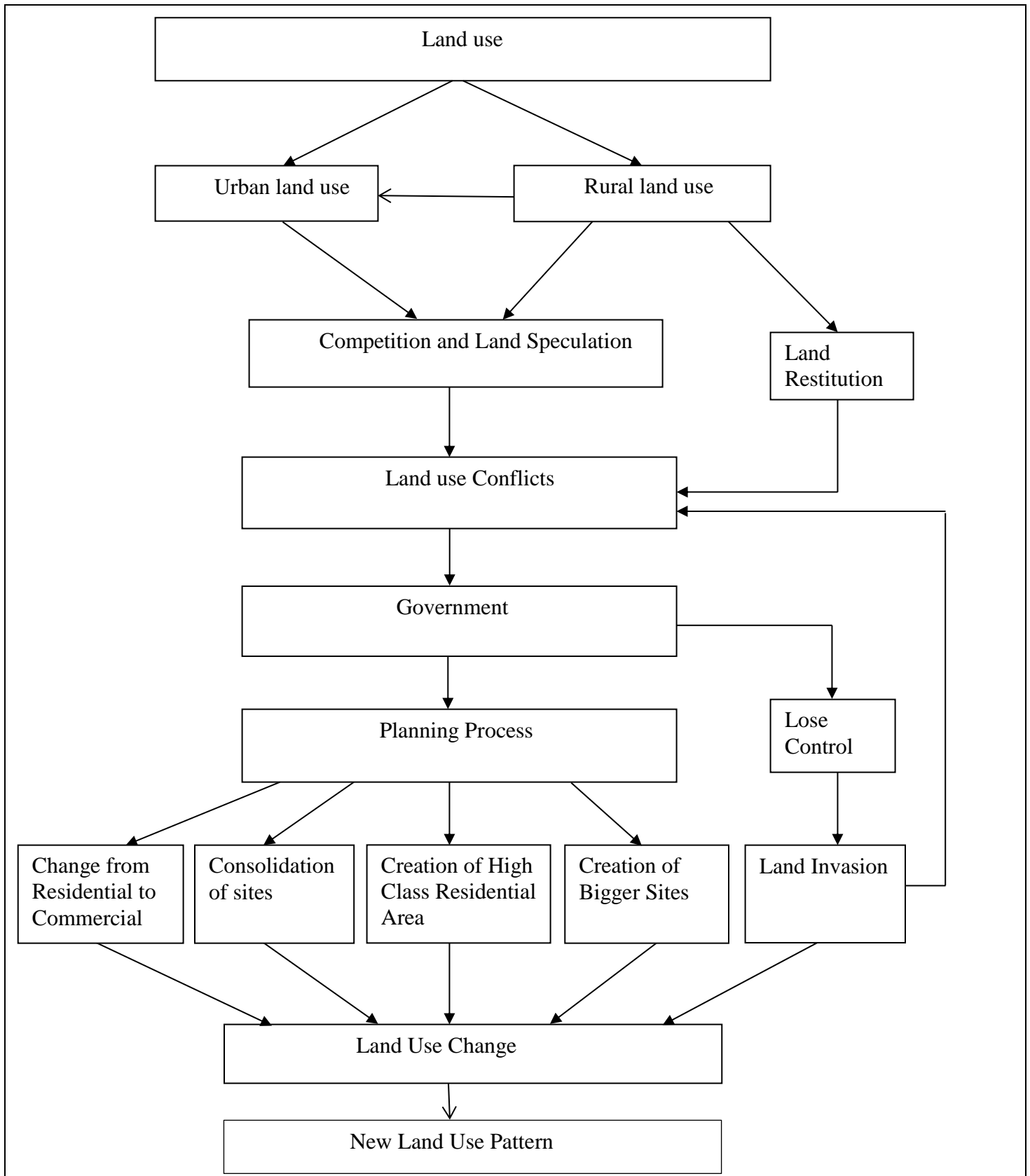


Figure 2.4: Conceptual framework of Land Use Competition, Conflict and Change
Source: Own compilation

2.7 CONCLUSION

The literature review has given examples of land use change, competition and conflict in many parts of the world, focusing particularly on South Africa and the African continent, drawing attention to the mitigating and controlling factors that create land use patterns and trends. Basic tenets of significant and relevant theories were documented as a precursor to an exposition and understanding of the spatial characteristics of land use in Polokwane. There is little literature that documents land use studies in Polokwane apart from Kotze and Donaldson's work (1998) comparing Bloemfontein and Polokwane. Some information could be found from the Integrated Development Plan-Land Development Objectives. Change, competition and conflict is therefore a fresh research approach to land use in this study area.

Polokwane Municipality is the economic, political and administrative capital of Limpopo Province. The jurisdiction of the study area is not entirely covered by Town Planning Schemes. Agricultural Holding and farms around Polokwane Municipality are experiencing pressure for alternative land use. As the capital city, Polokwane is responsible for land use management in the study area. Land development is regarded as one of the most important facets, which will contribute towards the growth of Polokwane into a world class African city with a prosperous community (DIDP, 2010/2011).

Restitution areas are part of the study area and fall under the jurisdiction of Polokwane Municipality. Restitution links to change, conflict and competition. The capital city, therefore, has the responsibility to manage land use change, competition and conflicts in these restitution areas. It is proposed that the Municipality liaise with the Land Claims Commissioner in order to identify possible leapfrog developments which may occur as a result from the awarding of land claims. This leads to the next chapter that draws attention to the main geographical features of the study area.

CHAPTER 3: THE STUDY AREA: POLOKWANE AND SELECTED LAND RESTITUTION AREAS IN LIMPOPO, SOUTH AFRICA

3.1 INTRODUCTION

The Republic of South Africa occupies the southernmost part of the African continent, stretching from 22° to 35° south and 17° to 33° east. Its surface area is 1 219 090 km². It has common boundaries with Namibia, the Republics of Botswana and Zimbabwe, while the Republic of Mozambique and the Kingdom of Swaziland lie to the north east. To the West, South and East, South Africa borders on the Atlantic and southern Indian Oceans (Burger, 2011). In terms of its Constitution, the Republic of South Africa is divided into nine provinces, each with its own legislature, Premier and Ministers. The provinces are the Western Cape, Eastern Cape, KwaZulu-Natal, Northern Cape, Free State, North-West, Gauteng, Mpumalanga and Limpopo (Figure 3.1). It is the same constitution that has provided guidelines for the process of land reform and restitution within the country. Limpopo, covering 10% of the country's total land area (123 910 km²) is the most rural province in the country. It has an overall unemployment rate of 32.4% (Statistics South Africa, 2011).

Polokwane is described as the acknowledged industrial, commercial, military, educational, mining, agricultural and medical centre of Limpopo province. This is by no means an overstatement as the study area houses all these official administrative departments within its confines. It has regional offices of most national government and provincial departments, and these provide employment for a large section of the city's population. The city is experiencing both urban growth and urban expansion because cities are not static. Chatterton (2010) cited that a city is an unfinished, expansive and unbounded story.

Limpopo is situated in the northernmost part of South Africa (Figure 3.1). Polokwane Municipality is the economic, political and administrative capital of the Limpopo

Province (Figure 3.2). It is well situated and readily accessible to all regional markets and is a three-hour drive from Gauteng`s urban conglomerate which is the financial hub of South Africa. It is located in the central part of the province along the N1 route which links major cities in southern Africa like Cape Town, Bloemfontein, Johannesburg and Pretoria and Harare together. It is the only true city within the province which has an advanced and diversified infrastructure. It received its ‘city’ status on 23 April 1992 (DLA, 1998). Polokwane serves as the economic hub of Limpopo and has the highest population density in the Capricorn district. However, the majority of the population resides in tribal villages that are to a large extent unplanned and informal. The municipality is located within the Capricorn District Municipality and borders the municipalities of Molemole, Greater Tzaneen, Lepelle-Nkumpi, Mogalakwena and Aganang (DLA, 2007). The Municipal area has experienced phenomenal growth in recent years and this has resulted in the municipality adopting a new IDP (Integrated Development Plan) that reflects a paradigm shift from the previous IDPs.

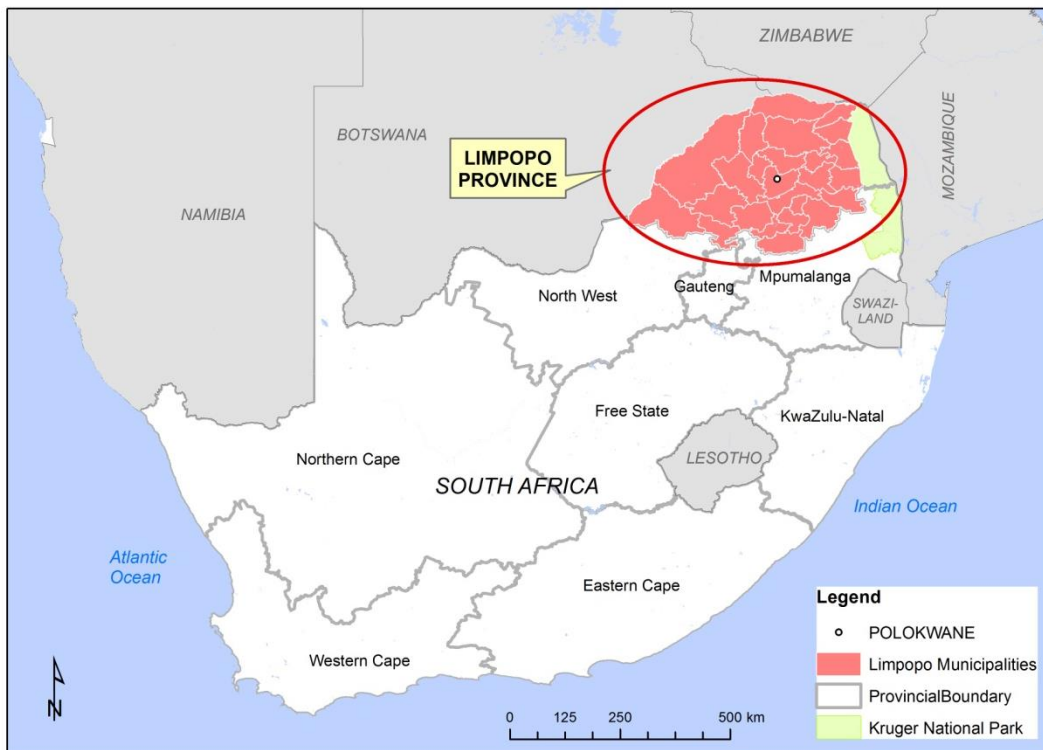


Figure 3.1: Location of Limpopo province

Source: Adapted from the Department Land Affairs (2007), Limpopo Province, South Africa

3.2 JUSTIFICATION FOR CHOICE OF STUDY AND STUDY AREA

The study area delimited for this investigation consists of Polokwane city and such selected land restitution areas as Matokolo, Rita, Mamahule, Mokgoba and Bjatladi. The latter are rural community areas which are represented and discussed in chapter 5. Land use change, competition and conflict are characteristics of both urban and rural areas. There is always competition for the most accessible and valuable land in both urban and rural areas. The most apparent difference is that urban areas are more endowed than rural areas; with financial, legal and administrative resources that can help them better manage such land change, competition and conflict. Rural areas surrounding these urban areas are also centres of contestation but they perceive the cities as having the mandate and capability to deal with these contestations. Cities on the other hand usually regard themselves as victims in this context.

Polokwane as a capital city of Limpopo is supposed to be the manager of these conflict related dynamics. The city often fails to carry out this responsibility and usually leaves it at the mercy of the local Municipalities. Polokwane is not only the provincial capital city of Limpopo, but also the largest and economically the most important existing urban concentration in the province. Moreover, it is also regarded as the centre in South Africa with the most balanced growth, because its set of development patterns is not dependent on one factor only but has to also accommodate a myriad of interrelated socio-economic facts and circumstances. Most of the large South African chain stores have branches in this city. This is because it has developed into the retail hub of the entire province and even beyond its immediate municipal, provincial and national borders.

It is also well located on the export route to Africa and could be described as the 'springboard into Africa. It is located 275 km from Pretoria on the N1 highway. The main railway line links it with all parts of the country as well as countries further north. The N1 road also connects the study area with major cities in South Africa like Cape Town, Bloemfontein, Johannesburg, and Pretoria to the south and with Harare and Zimbabwean cities to the north. The area thus boasts easy access to national and international African centres (DLA, 1998).

Polokwane International Airport, formerly known as Pietersburg International Airport or Gateway International Airport serves the city. It is located 5km north of the city and was opened in 1996 on the site of the former air force base. The airport has scheduled flights to Johannesburg with four flights on a weekly basis, one flight on Saturday and two on Sunday. This is an important asset to business people and tourists. Within the study area, population growth is also very high which also puts more pressure on the land as there is demand for more land. The structure of the Polokwane area is essentially that of an 'apartheid city'. Moreover, the area is also currently undergoing fundamental institutional reforms. For example, the integration of existing townships and local urban, peri-urban and rural settlements into one single functional urban unit already characterised and affected by the effects of informal urbanisation. Urbanisation is a process of concentration and intensification of human life and activity (Magigi & Drescher, 2009).

With the rapid expansion of population, there is increasing demand for the provision of urban infrastructure. There is also increasing stress on the natural environment and the volume of pollution also increases. Rapid population growth and the influx of migrant labours have induced great social problems such as insufficient housing provision and increasing crime rate. The city government should pay more attention to social services and sustainability in addition to urban growth (Shen, 2008). Competition over land for different purposes intensifies due to the growing populations and movement of people looking for better or more land. Some of the most intense competition and conflict over landed resources and patterns are found in the most densely populated areas (Peterse, 2004).

Land use change and resultant competition and conflicts is a critically important area of research, particularly in the South African context given the complex and rapid nature of the changes experienced. Investigations of this nature are significant in a transforming South Africa because they contribute towards a greater understanding of the rapidly changing nature of South African cities, land reform processes and its impact on urban and rural communities.

Polokwane as the capital city of Limpopo which is characterised by rapid urban growth offers a rich ground for the study of land use change, competition and conflict; no previous similar study has been conducted in this area before; the area is also selected because the researcher is familiar with the dynamics in the area. Five restitution areas were selected out of twenty three based on proximity to the city of Polokwane and the extent to which land use conflict was evident,

3.3. DESCRIPTION OF THE STUDY AREA

3.3.1 Polokwane City

- **Demographic and socio-economic characteristics of Polokwane Municipality**

Polokwane is located within the Capricorn District in the Limpopo Province (Figure 3.2). It covers a surface area of 3775 km² and accounts for 3% of the Province's total surface area of ±124 000 km². In terms of its physical composition, the Polokwane Municipality is 23% urbanised and 71% still rural. The remaining area (6%) comprises small holdings and institutional, industrial and recreational land. It is strategically located to be the administrative and economic capital of the Province. It is situated at the cross roads of important national and provincial roads which radiate out into the hinterland providing good access to other areas of the province. There is an opportunity for Polokwane to become a logistics hub and freight interchange within the region, also given its proximity to the neighbouring countries of Botswana, Zimbabwe, Mozambique and Swaziland (DIDP, 2010/2011).

With a provincial population of about 5.2 million people; one would venture to conclude that Polokwane houses over 10% of the province's population on 3% of the province's surface area. This is significant and underlines the City capital status and shows that it is an area of confluence. Population growth in the study area is significant. Growth figures from 1996 to 2001 show that the population increased by 16.39%, which means an annual average population growth rate of 3.27%. Much of this growth is ascribed to an

influx of people from other more rural municipal areas into the city where the perception of more employment and greater economic wealth exist. Since 2001 the population has increased from 508 280 to 628999 (2.13% growth p.a.) (Statistics South Africa, 2011). The number of houses has also increased from 124 980 (2001 Census) to 130 360 in 2007 (DIDP, 2010/2011).

Most of the industrial areas are located on the western, northern, north-east side of the CBD. Laboria, Magna via Industrial, Superbia and Ladanna are in these industrial areas. The areas immediately surrounding the CBD are fairly densely developed and, as a result, there is a limited space for expansion of the CBD without intruding on other land use precincts. This might lead to land use competition. Several motorcar showrooms, warehouses and dealerships have developed on the area adjacent to the west of Grobller Street at the southern entrance to the town. The Polokwane Expo Centre is located to the south-west of Nirvana. The CBD covers an area of approximately 221 hectares and this is relatively large when compared to other important towns and cities in South Africa. Johannesburg's CBD is 420 hectares in extent; Pretoria's is 435 hectares, Mbombela (Nelspruit) 80 hectares and Rustenburg, 60 hectares. Most of the retail and service industries and financial institutions are located in the area from Biccard Street in the east, between Thabo Mbeki and Grobller Streets, stretching in a general north-westerly direction towards the Indian Plaza and the Game Shopping Complex.

The banks in the CBD have relocated eastwards from their historical location in and around Landros Mare Street towards Hans van Rensburg Street in the area between Janssen and Thabo Mbeki streets. Office buildings have sprung up in the southern part of the CBD to the south of Thabo Mbeki Street. Many provincial offices are found in this area. This area has developed very well over the past 10 years. A large number of houses have been built to the east and the south of the CBD. Land use change is evident since several houses in this area have been converted into offices. Changes in land use are the end result of many forces that drive millions of separate choices made by home owners, farmers, business and government. The ultimate drivers are population growth and household formation. Urbanisation changes land use, and in most cases negatively and

also has a detrimental effect on the environment (Ningala *et al.*, 2008 & Weijun *et al.*, 2008).

Vacant stands and homes are still found in this area. Development in this area was at a slower rate than in the southern part of the CBD. In this area, offices were allowed in 1995. Another area occupied by offices is the north-eastern section of the CBD. This is the area north of Grobller Street between Biccard and Schoeman Streets stretching to Excelsior Street that was incorporated into the CBD in 1996 as new businesses and office complexes were established. Here former houses were converted into offices and this has led to land use change. The western section of the CBD around President Kruger Street has a number of business activities like services, the motor industry, retail trade and offices. Few areas are still used for residential purposes. Some dwellings serve as boarding houses. The northern part of this area is dominated by various retail facilities dealing with building materials. The southern part between Thabo Mbeki and Grobller Streets as well as the area north of Grobller Street between Church and Dahl Streets has developed predominantly as a motor town with some land being used for motor industry-related businesses. Growth does not appear everywhere at the same time; it becomes manifest at points or poles of growth, with variable intensity; it spreads through different channels, with variable terminal effects on the whole of economy (Campbell, 2006).

It is the economic hub of Limpopo Province and is strategically located to be the administrative and economic capital of the Province. It is situated at the cross roads of important national and provincial roads which radiate out into the hinterland providing good access. There is a definite opportunity for Polokwane to become a logistics hub and freight interchange within the region, also given its proximity to the neighbouring countries of Botswana, Zimbabwe, Mozambique and Swaziland. Three of the four Spatial Development Initiatives pass through the study area, which reiterates the City's strategic location and its importance as far as the economy of the Provinces concerned. The Municipal spatial pattern reflects that of the historic apartheid city model characterised by segregated settlement. At the centre of the area is the Polokwane economic hub, which comprises the CBD, industrial area, and range of social services and well established formal urban areas servicing the more affluent residents of the area. Situated on the

outskirts in several clusters are less formal settlement areas which are experiencing enormous influx from rural urban migration trends. These areas are in dire need of upgraded services and infrastructure, both social and engineering, and are struggling to cope with the informal influx of more people who want access to an improved quality and standard of living (DIDP, 2010/2011).

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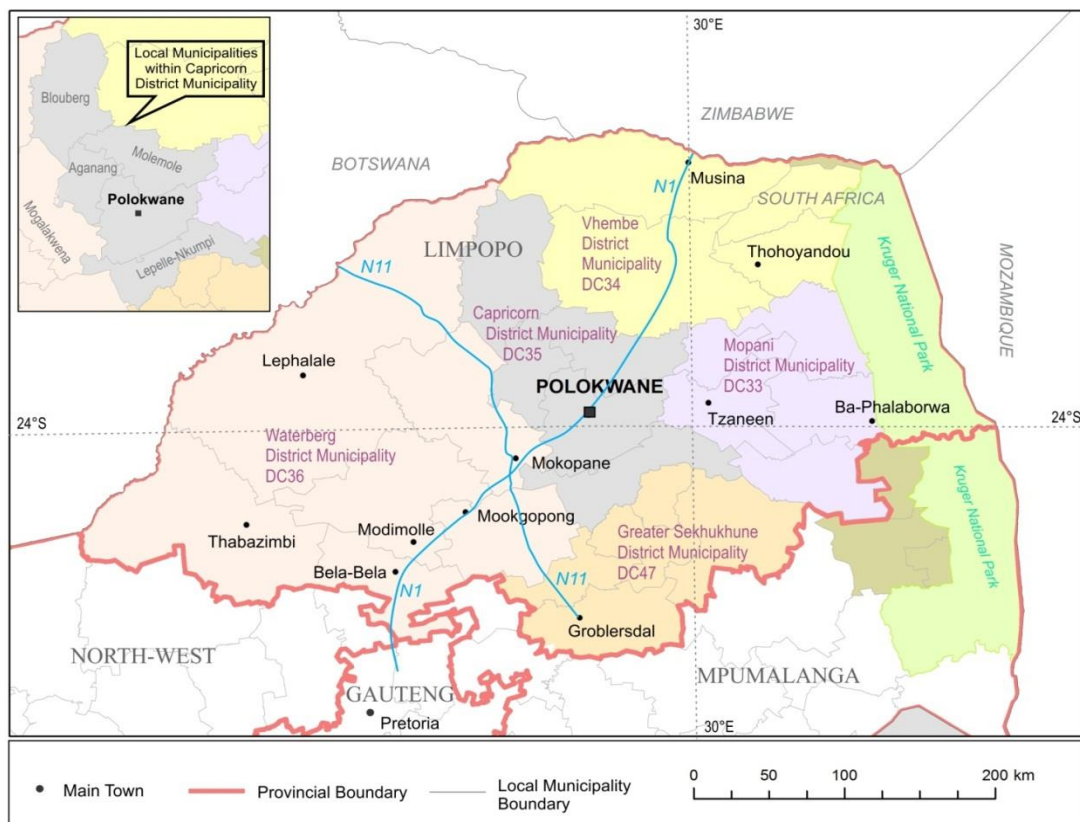


Figure 3.2: Location of Polokwane in Limpopo province

Source: Adapted from the Department Land Affairs (2007), Limpopo Province, South Africa

- **Climate**

Polokwane (Figure 3.3), some 350 km north of Johannesburg, is situated on a plateau, 1 312 m above sea level. Its elevation ensures enjoyable, mild weather day and night. It probably has the finest climate in South Africa. Despite its proximity to the Tropic of Capricorn, the town enjoys a temperate climate with an average summer temperature of approximately 25°C. In winter, its temperature seldom falls below freezing point; its average rainfall is 520 mm per annum (DLA, 1998).

Polokwane lies in the summer rainfall region of South Africa and has a warm climate. The main rainfall period is between November and March, with occasional showers during the winter months. Frost is rare. The highest temperatures occur in December and January. The daily average high is 28.1° C in January and the highest recorded temperature is 36.8° C. The average minimum winter temperature is 4.4° C in July with a

record low of -3.5°C in 1964. The mean annual evaporation for the area is in the order of 1 919 mm per year. Mean annual temperatures for January are approximately 28°C and those in July 17°C . The mean annual daily variation is 15°C (Table 3.1). The mean annual precipitation for the region is 478mm. Most precipitation falls between October and March with the peak period being December/January. Rainfall between the months of May and September is generally low with the average precipitation rate for the period June to August being 4,6mm. Large-scale surface airflow over the region is dominated throughout the year by easterly and north-easterly winds. October and November are typically windy with wind speeds up to 13.8m/s. The frequency of southerly winds increases during June and July (DIDP, 2010/2011). The Polokwane area maximum and minimum temperature can be summarized as follows:

Table 3.1: Average maximum and minimum temperature for Polokwane

Month	Average maximum temperature ($^{\circ}\text{C}$)	Average minimum (%)
January	31	18
February	29	17
March	28	17
April	25	13
May	23	8
June	21	5
July	21	5
August	22	8
September	27	11
October	28	13
November	29	15
December	31	19

Source: Adapted from Stats SA, (2011)

A massive variance between 151 and 869 mm per annum of rainfall was experienced during these 11 years. This indicates that certain practices like dry land farming are not advisable in the area. The recent droughts over the past few years also indicated that a water shortage is a very real factor during dry cycles and contingency plans are needed to curb this challenge. Irrigation of crops, gardens and sport fields should be carefully planned and sustainable yields of water resources determined to ensure that water resources are not over exploited (DIDP, 2010/2011).

- **The Physical Setting**

The healthy and invigorating climate makes it not only ideal place to live in, but also enhances sport and recreation. In such an area, land for settlement is highly sought after, expensive and the potential for modern development abounds. A point in case is the construction of the multi-million Rand, Peter Mokaba stadium, which hosted some of the 2010 FIFA World Cup soccer matches. The city's name changed to Polokwane in 1999, eradicating another symbolic layer of the colonial and apartheid past. The name means 'place of rest'. The main vein feeding the city with its unskilled low paid black sojourners living in the former homeland border township of Seshego and other dumping grounds is symbolically named after the first democratically elected president of South Africa, Mr Nelson Mandela. An important intra-city development axis is named after the world's icon successor, Thabo Mbeki. Names of places indicate that things have changed and that integration is irreversible (Donaldson, 2005).

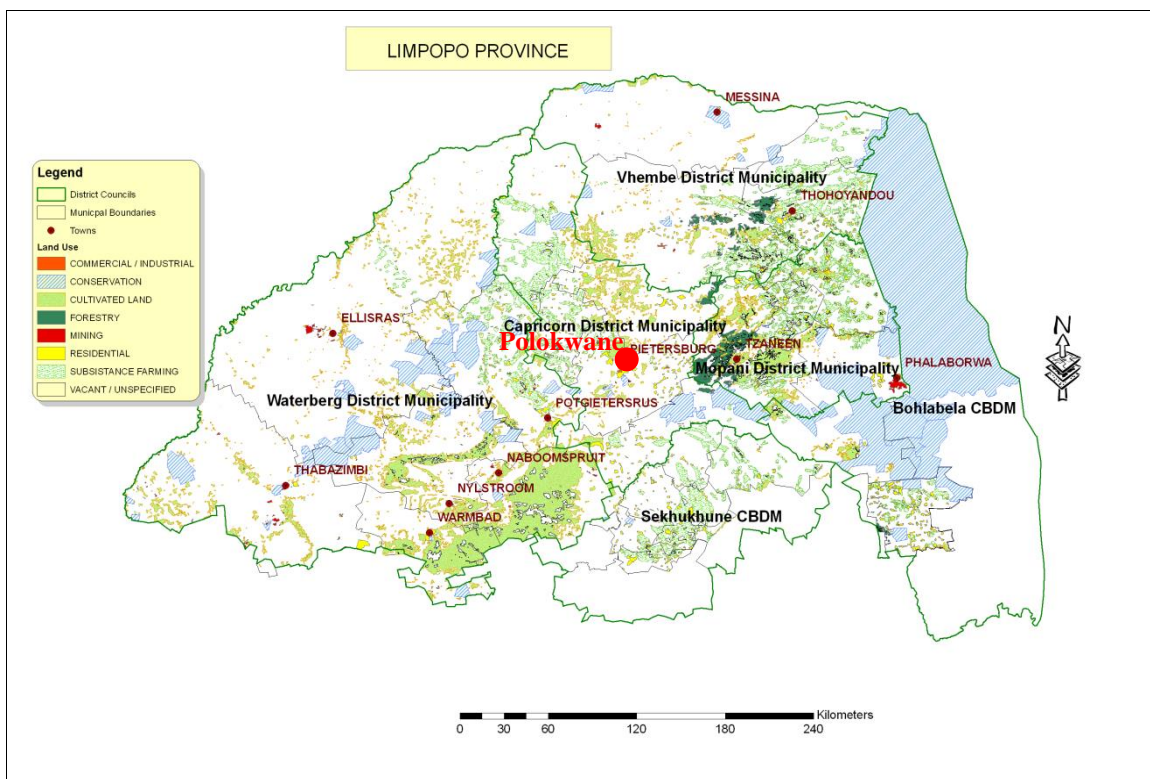


Figure 3.3: Land use map: Limpopo province

Source: Adapted from the Department Land Affairs (2007), Limpopo Province, South Africa

The contestation over space in South African cities has undergone a number of periods of intensity since political transformation swept through South Africa since 1994. This has had a complex mesh of spatial outcomes impacting on inner cities (Dewar, 2004, Donaldson *et al.*, 2002; Rogerson, 2001; 2002; Billard, 2004).

The study area had functioned as an administrative centre for the Northern Transvaal region since its inception in 1986 when the colonial town was founded as a Boer settlement. In a survey conducted in 2003 (Donaldson and Kotze, 2005), the majority of the respondents stated that they use the new name, Polokwane (65%), and a smaller percentage (32%) using the old name, Pietersburg. About half of the respondents related the name change to the idea of creating a unified town that represents all people. Almost half (45%) of the respondents indicated that they do not agree that, by renaming “Polokwane” the city has taken on an African identity. The question concerning a good

co-existence between white and black people in the city received a high neutral (45%) response from the respondents. The study area is not perceived as a city for white conservative people and the respondents believe that racial attitudes have improved since 1991 (Donaldson, 2005).

- **Topography**

The Polokwane area forms part of the Pietersburg Plateau or Plain and is situated to the south of the Soutpansberg and to the east of the Waterberg plateau (Figure 3.4). Structurally it is unlike either of the two Waterberg areas, for it is almost entirely a gneiss surface, similar in rock structure to the greater part of the Limpopo valley and the eastern Lowveld. It is separated from these areas, however, by the Waterberg features on the west and north and by the Great Escarpment on the east (Fig. 3.4). It is thus essentially a region forming part of the great South African plateau, but it lies at a lower level than the adjacent highlands, and so can hardly be termed a plateau, as it is often called. The southern portion of the plain is Highveld in nature and, largely on account of its higher rainfall and lower temperatures, is the best farming land of the plain. There are a number of ridges which form constraints on development due to their visual exposure (DIDP, 2010/2011).

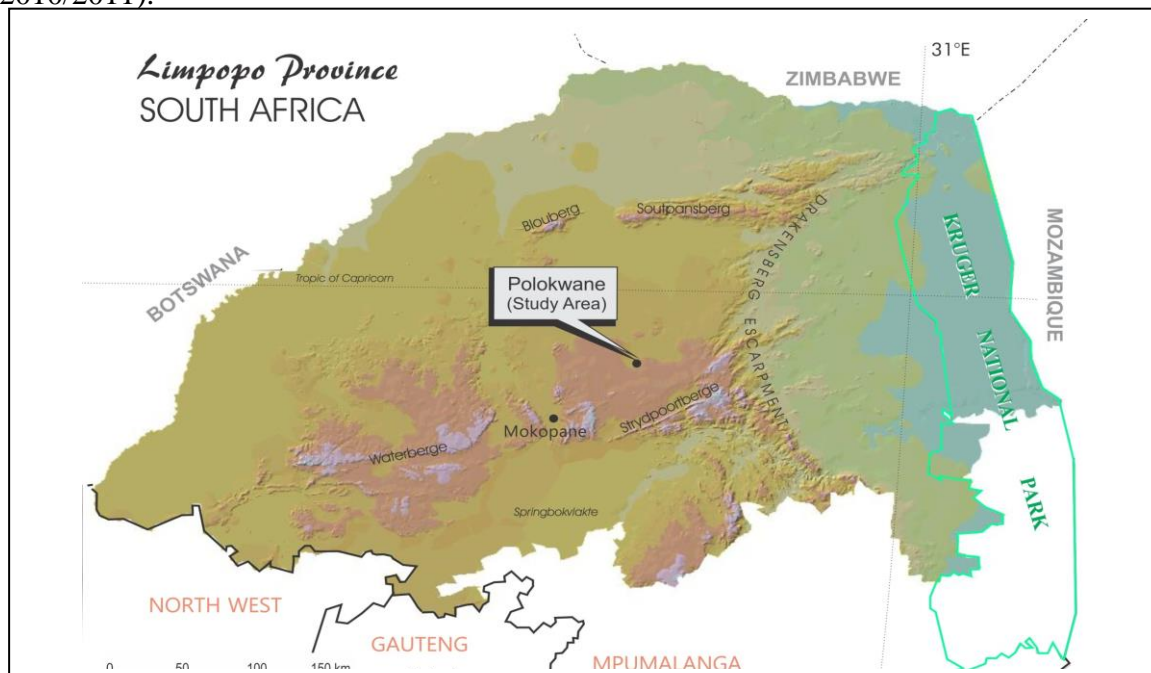


Figure 3.4: Topography of Limpopo and Polokwane’s location: Source: Adapted from the Department Land Affairs (2007), Limpopo Province, South Africa

This produces a rain-shadow effect, which condemns the greater part of the plain to a rainfall of less than 380mm. In the absence of rivers large enough to form important storage dams the plain is therefore suited for cultivation only in the southern portion, and even as pasture land the rest of the area is climatically handicapped. The general topography of the area is slightly too moderately undulating plains and the landscape slopes towards the Sand River in the east of the site. The area has a number of storm water retention dams and storm water channels that eventually discharge into the sand River (DIDP, 2010/2011).

- **Hydrology**

There are 19 catchment areas represented in the municipal area. This includes nine small portions of larger catchments outside the Municipal boundaries and the remaining 10 catchment areas are within the municipal boundary. The Sand river catchment is drained by the Sand and the Blood rivers. These are indicated as perennial streams but are often dry in the winter. The Blood river has its origin in the west of the Municipal area, and flows eastward between Blood river and Seshego. It is impounded in the Seshego dam, after which it joins the Sand River just north of the City. The study area has a number of storm water retention dams and storm water channels that eventually discharge into the Sand River via the Sterkloop spruit and open storm water channels. There are a number of important wetland areas in the catchment. These areas support rare or endangered frog species and plant and red data bird species. The utilization of water in the catchment is mainly underground water abstraction via boreholes. There are a multitude of boreholes pumping ground water into a number of reservoirs and tanks of various sizes in the Municipal area. This aquifer is under threat from two major pollution sources, namely the Polokwane Cemetery and the Seshego Sewerage Works (DIDP, 2010/2011).

- **Geological Structure**

The study area is drained mainly by means of surface run-off (sheet flow) with storm water from the area collecting along the tarred roads. The landscape drains in an easterly direction towards the Sand River. The available geological information indicates the presence of several roughly northeast-southwestwardly striking dolerite dyke intrusions

throughout the area in which the site is located. These dykes may be visible on the surface as thin, roughly linear, discontinuous bands of rounded dolerite boulders. An east-west trending, discontinuous linear feature deemed to represent a shear zone along which crustal displacement has taken place occurs to the south of the site. The underlying geology is characterized by granite, biotite granite-gneiss, pegmatite, lava and pyroclasts (DIDP, 2010/2011).

- **The People**

Polokwane has a total population of about 628999 people of whom about 60% lives in Seshego and the remainder within the city itself. Its functional area is much larger than its institutional area (area of jurisdiction) with a population in excess of 1 million people living in the surrounding restitution areas and making use of the city as their primary service centre. The population of the province increased from 508277 in 2001 to 628999 in 2011. The proportion of households living in formal dwellings increased from 99138 in 2001 to 159082 in 2011, while the population living in informal dwellings decreased from 19476 in 2001 to 16044 in 2007. The African (Blacks) population group accounts for about 94% of the total population, followed by the White population with 5% while the Coloureds constitute 1% and Asians less than 1% (Statistics South Africa, 2011).

The proximity of the black township, Seshego, as well as restitution areas within its proximity, provide ample labour for the approximately 90 light industries within the city, and 1 large mine, the Anglo Platinum Mine, just outside the city. Labour relations between blacks and whites is of the most cordial in the country, and with most of their earnings ploughed back into Polokwane, a sound basis of mutual understanding is created, with gain for all. This labour force, together with other resources such as sufficient power and water supplies, auger well for the continued growth and prosperity of the town and the surrounding areas. The population is currently estimated at 628999 people living in the central urban zone and the surrounding areas (Statistics South Africa 2011). The population distribution (Figure 3.5) (excluding the surrounding restitution areas) is as follows:

- North-eastern area: 44 000 (estimation is that 6% are urbanised);

- Eastern area: 75 000 (estimation is that 24% are urbanised);
- South-western area: 60 500 (estimation is that 7% are urbanised);
- North-western area: 77 000 (estimation is that 6% are urbanised); and
- Central area: 110 000 (estimation is that 85% are urbanised).

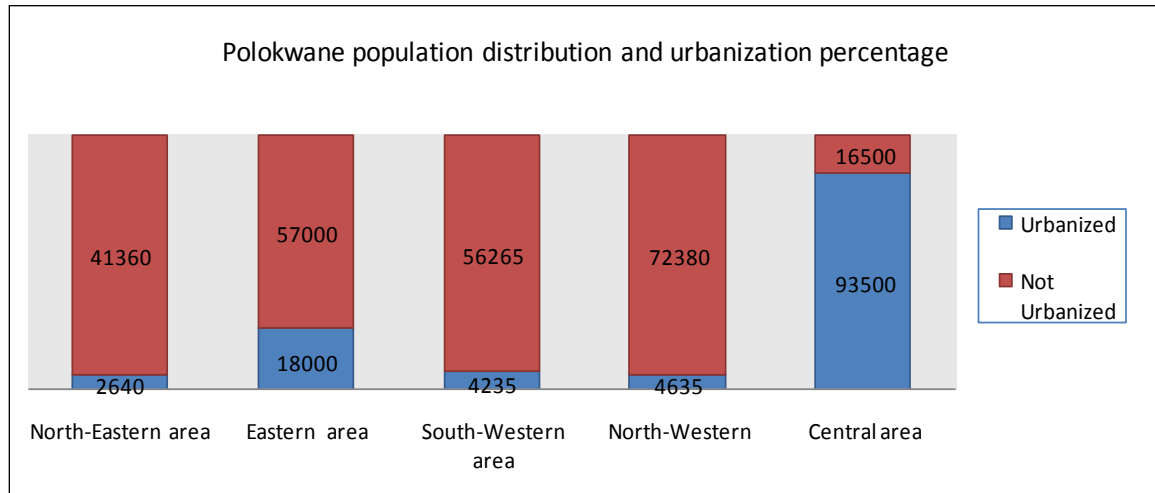


Figure 3.5: Population distribution in Polokwane (2007)

Based on the above figures, it is deduced that the Polokwane area is currently experiencing rapid urbanisation which in turn might increase pressures on limited social services and infrastructure; and a growing need for equitable access to development opportunities by all its inhabitants, including those in the surrounding restitution areas who rely on agricultural activities as a basis for development. The existing population growth rate of 2.1% per annum is expected to continue as the trend towards accelerated urbanisation continues (Statistics South Africa, 2011).

This might present an enormous management challenge to Polokwane in that issues on urbanisation might take first preference to land management issues of the restitution areas which might need financial or logistical support for effective land management. The study area has undergone fundamental institutional reform. An important original move was the integration of Seshego with Polokwane into one Transitional Local Council

(TLC)¹ area. Parts of the former Lebowa and former Northern Transvaal (later the Northern Province and now Limpopo Province) surrounding the capital city were grouped to form several rural TLCs. Together these form the Polokwane complex. Underlying these changes is a profound shift in the development programme of the “new” local authorities towards the satisfaction of the legitimate needs and demands of the hitherto disadvantaged sections of the population. In relative terms, there are positive overall development trends in the study area such as those reflected in the intensification of urban development. Economic output and income trends often obscure the serious social differences within the city and its surrounding rural areas. For historical reasons, these are especially prominent between the former homeland areas and former Northern Transvaal areas. The rapid urbanisation over the past decade has substantially increased the incidence of social deprivation in and around the population concentration nodes. Rapid urbanisation causes big cities to grow bigger (Karaburun *et al.*, 2010).

- **The Built Environment**

The mission of Polokwane municipality is to build prosperity, eradicate poverty and inequality, and promote the social, political and economic empowerment of all people through delivery of quality services, community participation, promotion of local economic development and smart administration. The key performance area strives to achieve the provision of reliable and sustainable water, sanitation, electricity, refuse removal, roads and storm water infrastructure to the community. This includes the provision of integrated and sustainable housing to the communities. Several structures and organisations cater for the social and cultural needs of the people of the area. It is the responsibility of local government to make sure that adequate and appropriate investments are made to ensure the progressive realization of the right of all people in its area of jurisdiction to receive basic level of services (DIDP, 2010/2011).

¹ TLC" means a Transitional Local Council as defined in the Transitional Local Government Act, 1993 (Act No. 209 of 1993).

¹ A [National Party](#) politician for many years, he served as Minister of Posts and Telegraphs from [1950](#) to

- Service Buildings

Housing standards compare well with those of other towns and cities, and all the residential streets are lined with indigenous trees planted by the Department of Parks and Estates. No matter what the season, there is something in bloom in the area. The Department of estate and Parks encourage residents to beautify their city and they take pride in their gardens and pavements, and this has led to Polokwane often being referred to as the “garden town”. Churches of every denomination cater to the spiritual needs of the people. These buildings are predominantly of modern and attractive design, but do not detract from older churches, which have their own particular beauty and grace. It is an important education centre in the province and the educational ‘home’ of hundreds of scholars who travel great distances to enjoy their schooling and post-school education and training in this pretty and important centre. Polokwane Municipality is experiencing population growth which results in the influx of people from the rural areas into the urban parts of the Municipality. This influx has necessitated an increase in the provision of housing and other basic services that promote integrated sustainable settlement (DIDP, 2010/2011).

They come from as far as Zimbabwe, Zambia, Malawi, Mozambique, Botswana and the Caprivi Strip in Namibia. Many more come from the Witwatersrand area. High schools include a Technical High School, a Commercial High School and an Agricultural High School. A High School for special needs opened its doors to 262 scholars at the beginning of 1975. There are also 5 primary schools in the city. Institutions for the physically and mentally handicapped provide schooling and modern accommodation facilities. All these developments have led to urban expansion which is a remarkable characteristic of urban development (Leichenko & Solecki, 2005; Catalan *et al.*, 2008).

- Art and Aesthetics

During the past few years a meaningful art collection has been accumulated for Polokwane at virtually no cost whatsoever to the ratepayer. More than 280 paintings and other works of art by well-known artists make up a collection, which will serve as a

lasting monument for many civic-conscious people of the city. Apart from these artworks, artists throughout South Africa and even Zimbabwe have also donated art works to this impressive collection. A unique innovation is a collection of industrial sculptures situated along the Makhado town road and at other strategic positions in the city. These sculptures are different in that they were placed there, not only for the enjoyment of the public and tourists, but also because children are allowed to play and sit on them. They are made from ordinary, everyday materials arranged in artistic forms by well-known artists. The materials used include steel pipes, culvert sections, railway sleepers and sheet metal. This unusual collection is the brainchild of the former Town Clerk, Mr Jack Botes, who has steadily turned the city into a very arty and trendy town. There are heritage sites such as the Bakone Malapa site and Mankweng Rock Art site (DIDP, 2010/2011). Also along the Makhado town road, another feature, which sets Polokwane apart from other towns in the Republic of South Africa, is its collection of historical relics, which the Council has placed on the wide pavements. “Jackie”, a locomotive named after the Town Clerk, is one of the best-known landmarks on the northern outlet of the city. There is a stamp battery used in one of the gold mines with an ancient Ruston engine that was used in the old asbestos mine. There is also one of the first animal-drawn roads graders, as well as one of the first engine-powered road graders on view. These, and other artefacts, provide visitors to the study area with a glimpse of the city’s fascinating past. Cities are living, organic, conflictual entities that are constantly remade and recast in thousand ways through everyday encounters many of which are local and others are extra-local (Chatterton, 2010).

Two of the largest citrus estates in the world, Zebediela and Letaba, are within easy reach of Polokwane. There are also three monuments in the vicinity of the city. One, at Marabastad (Eerstegoud), is the old English Fort where in 1880 the Boers under Barend J. Vorster, besieged 140 soldiers, Khoisan and civilians for 105 days. The other two monuments are the Eersteling, the first gold-ore crushing site where in 1872 prospectors Pigg and Button used a boulder to crush quartz, and the site where the two men operated the first gold ore crushing installation. The chimney can still be viewed there. In and around Limpopo cities and towns there are also several historical monuments commemorating the Great Trek (DLA, 1998). Considerably more than half a million

visitors pass through Polokwane each year. They come from, or go to, the north, south, east and west. More and more Zimbabweans do their shopping in the city where shops cater for the most discriminating buyer. Shoppers also come from districts within the province. While urbanisation also brings benefits, it has, at the same time, led to pollution of natural resources and the formation of a slum population in and around many cities in the world (UNHSP, 2002). To the south of the city, a modern and attractive sport stadium was built at a cost of R750 000. The main pavilion seats about 3 500 spectators and there is room for thousands more on the sides. Not far from the sport stadium, a caravan park is situated in Union Park. The R85 000 ablution blocks, which is regarded as the ultimate in luxury as far as caravan owners are concerned, ensures the comfort of visitors while they stay over in Polokwane. Bordering on the caravan park grounds, the Municipal Game Reserve provides interesting viewing of game to visitors. Here, more than a thousand animals roam at will, undisturbed by the many vehicles, which drive through the reserve. Over weekends horses are available to those who prefer to view the game in this manner. Besides the many species of game, which includes rhino, eland, kudu, zebra, impala and many others, a vast bird community has established itself in the reserve's boundaries. Here too, is the gravesite of the late senator 'Oom' Tom Naude², whose last resting place overlooks Polokwane, a few kilometres to the north. This is the city he loved and served so well (DLA, 1998). There is a wide range of sporting facilities in the area including rugby fields and soccer fields.

- **Land Use Types**

Land in Polokwane is used for a wide range of purposes. Sewerage purification works, the Gateway international airport, military base and industrial areas such as Laboria, Futura and Magna Via that house the Eskom materials depot, Coca-Cola and South African Breweries which are situated in the northern side. The New Pietersburg area to the northwest is currently undeveloped and is characterised by informal settlements. Nirvana (a former Indian residential area), Ivy Park and Westernburg (a former Coloured residential area) are located to the south and southwest. The CBD is in the central part of

² A [National Party](#) politician for many years, he served as Minister of Posts and Telegraphs from [1950](#) to [1954](#), as Minister of Health from 1954 to [1958](#), and as Minister of Finance from 1958 to [1961](#). He was then appointed President of the Senate and was acting SA State President in 1967 and 1968.

Polokwane. Residential suburbs such as Bendor, Fauna Park and Flora Park are situated in the eastern areas of the CBD. The southern areas of the study area comprise of a civil aviation airport, a residential area (Penina Park), a proclaimed nature reserve and a sport precinct that includes a golf course and a rugby stadium. The Edupark precinct and the silicon smelting mine are also located in the south-eastern areas of Polokwane. The sport precinct is located in the southern part of the city, adjacent and to the north of the N1-Eastern By-pass and Dorp Street intersection. Sport amenities which serve both a local and regional/ national function are located within this precinct, e.g. the Peter Mokaba Sport Stadium, the golf course, Virgin Active Gym, Cricket fields and other ancillary land uses (Table 3.2). The Polokwane Motor Cross track, go-cart track and 4X4 track is located to the south of the Sport Precinct, opposite the Polokwane Game Reserve, along the Dorp Street Extension (DLA, 1998).

Table 3.2: Sports facilities

FACILITY	POLOKWANE	WESTERNBURG	NIVARNA
Athletics track	Synthetic		Grass
Rugby fields	4		
Soccer fields	3	1	1
Hockey fields	1		
Squash courts	12		1
Golf course	1		
Bowling greens	3		
Korfbal courts	6	1	2
Netball courts	6	1	2
Ring tennis	6		
Tennis courts	16	1	2
Cricket fields	3		1
Basketball courts			1
Volleyball courts	2		
Action soccer courts			1
Cricket practice nets	8		3
Radio controlled aeroplane facility	1		
Motor cross track	1		
Oval racing track	1		
Go-cart track	1		
Shooting range	1		
Gymnastic halls	2		
Badminton courts	1		
Karate hall	2		
Swimming pool complex	1 Olympic	Half Olympic	Half Olympic
Recreation facility	1		

Source: Field Survey (2009)

Apart from the CBD (which is the major commercial activity node in the area), several other minor activity centres lie predominantly to the east of the CBD such as two nodes in the Annadale area, Edupark, Welelegen, Moregloed X4, Capricorn, Marshall street, Flora Park, Savannah, Bendor, Ivy Park, Nirvana and Westerburg. Agricultural holdings surround the Polokwane area with the major agricultural holdings in the area being the Ivydale Agricultural Holdings. There is one provincial hospital, two municipal clinics and two private clinics. There is a telecommunication services provided by Telkom, MTN and Vodacom. No area is excluded from network coverage. The four public libraries in the area are in Polokwane, Westernburg, Nirvana and Seshego. The two library service points are linked to the old age homes in the surrounding Polokwane area, namely Vergeet-my-nie and Koral House. Library facilities are also linked to schools. There are three museums, some archaeological sites and the Eerteling monument in the surrounding area. The city is growing rapidly, and the Municipality has to manage urbanisation, which is a continuing activity (Yuen, 2011).

- **The Economy**

- **Economic trends**

Polokwane has a diversified economy. The strongest sectors, in terms of the GGP contribution are community services (36.9%), trade and catering (15.3%), manufacturing (12.7%), finance and real estate (10.8%), agriculture (8.2%) and transport and communication (8.1%). On a sector basis, the prominence of the Polokwane area in the overall economy of the province is illustrated by the fact that it is responsible for no less than 41.4% of the transport and communication income; and 35.7% of the manufacturing. Also significant are the contributions to the total GDP generated within the province from the construction (27.8%), trade and catering (26.1%) and community service (24.0%) sectors, although an urban area, 13.1% of the province's agricultural production comes from the study area. In fact it is only the mining (15%) and electricity (3.7%) sectors that do not contribute substantially. The economic strength of the area within a provincial context is reflected by the fact that it produced 18.3% of the province's GGP and from 1980 to 1991 with a recorded growth rate of 4.2% per annum, which is much higher than the national averages but slightly lower than the provincial averages of 6.5%. The

high growth rate of the province was due to the strong community services (government) sector which grew at a rate of 9.5% per annum (DLA, 1998).

Within the study area the central area is responsible for almost 80% of the GDP, and it grew over the period 1980-1991 at a rate of almost 4% per annum. As a result, the GDP per capita in the central area is almost 10 times higher than the average for the other areas. Approximately, only 30% of the total Polokwane's population lives in the central area, giving an indication of the large socio-economic discrepancies between the central area and the other parts of the province. Within the whole of Limpopo, the city of Polokwane is the major economic force since most of the development activities are located there. Economic growth is also responsible for urban growth (Almeida *et al.*, 2005), assuming that there is a definite relationship between people's economic status, available area to be built-up and expansion of built-up area (Bhatta, 2009).

The city provides a wide range of goods and services to the communities and is also responsible for the greatest concentration of employment opportunities in the area. These factors cause large numbers of people to commute on a daily basis from the surrounding areas and to a lesser extent to Seshego. The current labour and employment situation can be described as generally stable and peaceful. It is estimated that almost 30% of the labour force is currently employed. The formal sector with a current absorption capacity of 50% does not have the potential to absorb the total labour force. The high level of unemployment together with the young age structure of the population 47% are 14 years and younger, increases the pressure on the local economy (including the informal sector) to provide job opportunities. The overall feature of Polokwane's economy is that of general diversity, with five economic sectors (after community services) almost evenly driving the local economy (DLA, 1998).

The moderate growth and stability of the industrial sector needs to be seen against the fact that local industries in the study area have received substantial government support since the 1960s. There are three distinctive trends concerning Polokwane's local economy. First, the local economy is more diversified and hence more stable than that of most other urban areas, not only in Limpopo, but also in the rest of the country. This area

plays a particularly important provincial role administratively and in terms of its service functions. The local economy will be positively influenced, to a considerable extent, by its continual administrative role as the provincial capital, by the emergence of significant trade linkages with countries to the north, and the socio-economic fate of the province itself. Improvement in trade and industry increases migration from rural to urban areas (Karaburun *et al.*, 2010).

Local industrial development in the area has received large incentives from government over the past three decades. Prior to the Regional Industrial Development Programme (RIDP) schemes amendment in 1991, incentives worth R204 million were provided to 233 industries in the study area (R107 million to 137 industries in the city of Polokwane and R97 million to 96 industries in Seshego). These industries were said to create 10 400 job opportunities. Under the revised RIDP, industries in the area can qualify for full incentive benefits. A few projects were approved for support during the first few years of operation. Noteworthy is the fact that the Polokwane Council has devised local incentives in an attempt to fill the gap left by state incentives, and the Gateway International initiative (i.e. the change of the military airbase into an export processing zone) is attempting to promote local export manufacturing through the formation of an Export Processing Zone (EPZ). It is the capital and main servicing centre for Limpopo, as well as servicing the neighbouring countries of Botswana and Zimbabwe, to a greater or lesser degree.

Historically, Polokwane's regional role relates to the fact that many government administrative functions were located in the city. This administrative role remains important as the single largest contributor to Gross Domestic Product (GDP), and might even become more important since it became the official capital of Limpopo. So far, the study area has never experienced any particular local economic crisis or decline, partly due to the economic diversity of the area. The future of Polokwane is closely linked to the part it plays in a regional context (DLA, 1998).

- **Economic Sustainability**

The Polokwane economic sustainability is derived from both the socio and economic analysis. The climate and the strategic location of the city give it an intermediate comparative advantage in tourism. Combined with soil conditions, the climate also provides a comparative advantage for vegetables production, provided that sufficient water is available. The strategic location of the city once again is a major advantage. The city is located in Capricorn District in the heart of Limpopo Province. Good road connectivity with National and Provincial road networks is a positive advantage. It is a gateway for both Southern African and East African tourist markets. It is also within reasonable proximity to the famous Kruger National Park which many tourists commonly access via Polokwane. It boasts a bustling shopping and retail sector which attracts shoppers and tourists alike. The presence of a strong government sector which is located in the area continues to drive trade and property development in the city. There is also a game reserve with a variety of wild species just a stone-throw away from the central business district (DIDP, 2010/2011). The economic investment is widely spread across mining, commerce, agriculture and manufacturing. In a provincial context the city's dominant land use is categorised as commercial and industrial (DIDP, 2010/2011).

- **Tourism**

Tourist-wise, Polokwane is the hub around which the vital tourism industry revolves in Limpopo province, impacting directly and indirectly on the local economy. With Mozambique periodically and unexpectedly closed to South Africa, and Zimbabwe no longer the attraction it used to be, the northern and eastern resorts and tourist attractions have come in for closer scrutiny from the travelling public. Because of speed and petrol restrictions, they now look to the northern part of Limpopo with its mineral baths and game reserves for their shorter holidays and long weekend breaks. Polokwane is favoured in that it serves as a gateway to a kaleidoscope of contrasting country and scenery. To the east the road leads the traveller to indigenous forests, mountains, lakes and waterfalls. From the magnificent Magoebaskloof the road winds down the escarpment through emerald-green tea plantations, to lush bush and lands brim-full of subtropical fruit. Here

too, is the enormous new dam where soon many visiting tourists will change the once uneventful rural lifestyle of the people (DIDP, 2010/2011).

From a spatial viewpoint, one of the greatest challenges that the local Polokwane government will face, will be to improve, from a socio-economic viewpoint, the spatial distribution of urban activities and, over time, create an economically, institutionally, financially integrated urban area with a sound distribution of activities (DLA, 1998). By achieving this, it would be possible to provide urban infrastructure more cost-effectively. Within the study area four urban zones (some mainly densely populated areas) were identified. They are Polokwane, Seshego, Mankweng and Solomondale, purely based on densities (people per stands, stands per ha, and people per ha). Mankweng has the greatest need for urban service provision, and now need facilities to promote a better quality of life. The people of these areas are in the greatest need for better urban facilities. However, it is expected that the attractiveness of Polokwane and Seshego and, to a lesser extent, Mankweng, in terms of aspects such as infrastructure (physical and social), employment and economic activities, is likely to significantly increase the future pressure for urban expansion on these three centres. To create a more socio-economically viable situation for Polokwane from a spatial viewpoint, it is necessary to integrate all inhabitants closer to their places of employment, social facilities and economic activities. To the colonial state urban planning was a tool for the manipulation of space as a means of segregating the local communities from the whites (Yuen, 2011).

After 15 years of liberating the country, it is clear that the reconstruction of the spatial disparities and distortions that moulded the settlement patterns during the apartheid era remains perhaps one of the main challenges still to be addressed. Experience learned is that regional changes due to government intervention could take some time. However, the lack of commitment to address rural spatial distortions on a local level and the prevailing situation in especially former Bantustans regarding landownership and management might hamper and delay this process even further (DLA, 1998). There is an increasing realisation that if urban planning is to play a role in addressing the major development issues, then planning systems and current approaches to planning will have to change

(UN-HAITAT, 2009). The study area includes 5 land restitution areas in Polokwane and the surrounding rural areas (Figure 3.6).

3.4 RESTITUTION STUDY AREA

3.4.1 Context

Land reform remains high on the list of national priorities in South Africa. The land reform programme started between 1991 and 1994. In 1994, the Abolition of Racially based Land Measures Act (Act 108 of 1992) was passed. This was a turning point in redressing apartheid injustices. It repealed the National Land Act (1913), the Native Trust and Land Act (1936) and the Group Areas Act (1950). In 1993, the Provision of Certain Land for Settlement Act (Act 126 of 1993) was passed and the Restitution for Land Rights Act (Act 22 of 1994) was passed. The Department of Land Affairs has used the standard settlement offer (SSO) to settle most of the land claims in urban areas. The SSO is not effective in settling restitution in rural areas. Restitution is a mechanism employed to address South Africa's unequal distribution of land. The acquisition of land through the willing-buyer willing-seller framework has been haphazard and slow in Limpopo Province (McCusker, 2002; 2004).

One of the challenges facing the democratic government since 1994 has been and remains the urgent redress of the centuries-old legacy of land dispossession. Understanding the importance of the land question, the democratic government passed the Restitution of Land Rights Act 22 of 1994. This offered a legal framework to address and resolve land claims through negotiation (Mbeki, 2003). The Limpopo Land Claim Commission had settled 86.3% of rural land claim cases in March 2007. This shows that the municipality has managed to resolve land use conflicts within its jurisdiction. Polokwane, as the capital city of Limpopo, is responsible for land use change management in the city and the surrounding rural areas and has established the Regional Land Claims Commission to deal with all land claims related cases in the Province. This was done in an attempt to solve land use conflicts related to restitution, although there are still outstanding cases.

3.4.2 Description of the dynamics in the restitution areas

The other study site consists of Matokolo, Rita, Mamahule, Mokgoba and Bjatladi as selected land restitution areas. Recent years have witnessed dramatic increases in the number of restitution claims that are settled and equally important, the amount of land actually restored to claimants. These communities were not an exception. While earlier phases of the restitution process were dominated by cash compensation and the restoration of state-owned land, their restitution is firmly focused on claims affecting privately owned land where these claimant communities are demanding restoration of their ancestral land to them. Many of these claims are on relatively high-value agricultural land and face resistance from current owners, which has contributed to the slow pace of settlement. Addressing these complex claims and the various deadlines for settlement of all restitution claims has seen much attention focused on the prospect of expropriation.

Another important recent development has been the attention given to the needs of claimants who have had their land restored to them and wish to use it productively, generally referred to under the heading of ‘post-settlement support’. This issue has been forced onto the public agenda by the multiple problems reported around high-profile restitution settlements. There is a growing awareness that beneficiaries across the spectrum of land reform are receiving little in the way of training, finance or support beyond the transfer of land (Lahiff, 2008). Table 3.3 indicates the names of farms claimed by the communities that were relocated. The existing dynamics in terms of land use competition, conflict and change are discussed in Chapter 5.

Table 3.3: Communities and their claimed farms

COMMUNITY	CLAIMED FARMS
Matokolo community	Kleinfontein 172 KS
Rita community	Bethesda 208 LS
Mamahule community	Kalkfontein 1001 LS
Makgoba community	Rooikopies 545 LT, Grenshoek 544 LT and Middelkop 552 LT
Bjatladi community	Zebediela 101 KS

Source: Field survey (2009)

3.5 CONCLUSION

Land use changes are evident on urban and rural areas and are taking place rapidly, making Polokwane and its surrounding areas suitable for this study of land use change, competition and conflict. Another reason this study area was selected is that no similar study on this theme has been previously conducted in this area before. Against the background of a description of its location, physical setting and people, its built environment, land use patterns, economy and history, the study area is identified as a growing urban area, thwart with challenges of land use competition, change and concomitant conflict. Furthermore, its choice as an appropriate site for an investigation into the research theme in a South African context was justified. The next chapter provides a description of the research methodology.

CHAPTER 4: RESEARCH DESIGN AND METHODOLOGY

4.1 INTRODUCTION

“In virtually every subject area, our knowledge is incomplete and problems are waiting to be solved. We can address the holes in our knowledge and those unresolved problems by asking relevant questions and then seeking answers through systematic research” (Leedy & Ormrod, 2010:1).

The purpose of this chapter is to present the overall research design, methodology and specific methods that were used to achieve the objectives of this study as stated in the first chapter. The chapter further describes methods for data collection and analysis.

4.2 THE RESEARCH DESIGN

4.2.1 Type of design

Research is a systematic process of collecting information (data) in order to increase our understanding of a phenomenon about which we are interested or concerned. Its aim is to turn the research question into a testing project (Leedy & Ormrod, 2010). The research design refers to the practical way in which the research was conducted according to a systematic attempt to generate evidence to answer the research question. Hence, the general strategy or design for solving the research problem for this study is the case study approach. This approach provides the overall structure for the procedures followed, data collected and analysis that was conducted. Research methodology is a system through which a researcher is able to collect, analyse and interpret data in order that the research aims and objectives may be achieved. This system must be seen as an outline of procedures which may be used by other researchers (Nkatini, 2005).

In a case study a particular individual, programme or event is studied in-depth for a defined period of time. In this research, the case of Polokwane city and selected rural land restitution areas of Limpopo, one of South Africa's Provinces, were investigated, because of their exceptional qualities to offer comparisons between rural and urban contexts with regard to issues of land reform and land restitution. In addition, no formal evaluation of the urban and rural land use change, conflict and competition has ever been carried out in the Polokwane area and its surrounding rural hinterland. A triangulation of both qualitative and quantitative research designs were adopted in the methods of data collection, analysis and interpretation.

4.2.2 Sampling method and sample size

The unit of analysis for this study is Polokwane city and the surrounding restitution areas. This section shows how sampling was done.

4.3.1 Polokwane City

- **Residential Areas and Household**

Sampling involves the statistical practice of selecting a subset of individuals within a population, where the subset of individuals is intended to yield some knowledge about population of interest or concern for the purpose of making predictions based on statistical inference (Bless *et al.*, 2006). Two methods of sampling were used in different contexts namely, random sampling and criterion-based purposive sampling. As is evident in Figure 4.1, a random sampling method was used to select households and participants in the Polokwane city area while criterion-based purposive sampling was used to select five restitution areas.

To select a sample of urban households, a two-stage cluster sampling frame consisting of a list of all residential units in Polokwane was created. Using simple random sampling, nine (9) residential areas (Ivy Park, Lisedi, Bendor, Madiba Park, Ladanna, Westernburg, Flora Park, Nirvana and Penina Park) were selected from this list of nine, based on the

two prescribed criteria. From each of the nine selected units, twenty seven households were selected to obtain the final sample of two hundred and forty (240) households.

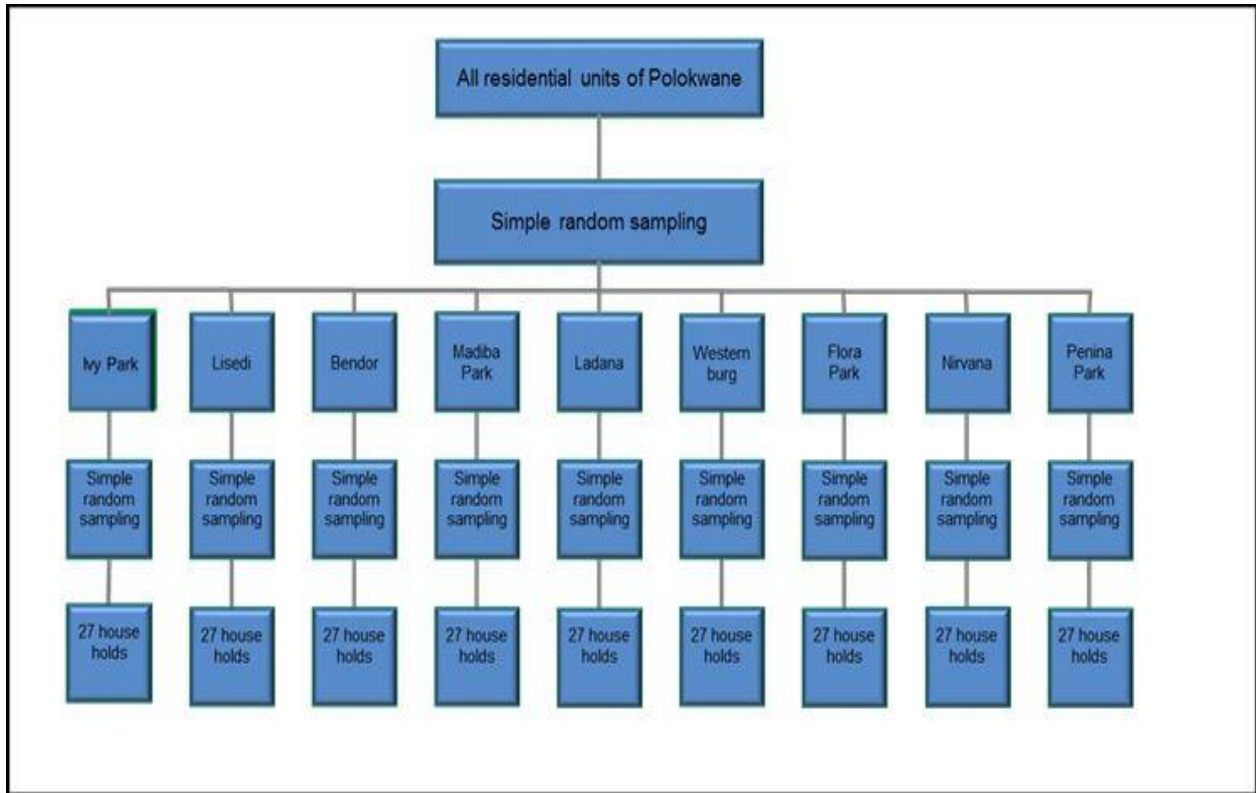


Figure 4.1: A two-stage cluster sampling procedure for obtaining a random sample of 240 households in Polokwane

Source: Field survey (2009)

- **Sampling for Business**

Purposive sampling was used to select business people as many as were willing to answer questionnaires and 164 of them responded positively.

- **Sampling for Government Officials**

Criterion-based purposive sampling was used to select 16 government officials.

4.3.2 Sampling for Restitution Areas

Criterion-based purposive sampling was used to select five restitution areas. The five restitution cases were selected out of twenty three based on two specific criteria: proximity to the city of Polokwane and the extent to which conflict was evident. Hence they were not representative of the total population. As a result the Matokolo, Mamahule, Bjatladi, Makgoba and Rita communities were selected.

Five cases of land claims are evaluated and discussed under this section in order to give a clear perspective of land use conflict and the management of these conflicts in land restitution areas with emphasis on rural land. Restitution areas that are located within the Polokwane Municipality and those that are located on or near the borders of the Municipality were chosen on the basis of their proximity to the Polokwane Municipality. Zebediela was given more attention since it is the biggest citrus estate in the southern hemisphere (Tilley & Lahiff, 2007). The fact that it is located on high-value agricultural land also adds value to this restitution area.

4.4 RESEARCH METHODOLOGY

4.4.1 Methods of Data Collection

- **Document Analysis for land restitution areas**

Five cases of land restitution were reviewed based on secondary sources lodged with the Department of Land Affairs. These were Matokolo, Mamahule, Bjatladi, Makgoba and Rita. A lot of information has been collected in the lodging and land claim processes including post settlement life histories but they have not been used and analysed to shed light on land use changes, competition and conflicts. This study therefore utilised this resource. Permission to access this information was requested from the Regional Land Claims Commissioner in Limpopo, and granted. Several visits were paid to the Regional Land Claims Office, Limpopo, in order to collect information from various documents and officials. Several files on land restitution for selected restitution areas were studied

and information relating to land use change and conflict was obtained and documented. Land use conflicts in various land claims were identified as were the previous, current and future uses of the land. Issues that led to land use change were documented. The collected data was analysed qualitatively using document analysis methods.

- **Aerial photography and GIS Mapping**

The research was conducted in the city of Polokwane and the surrounding areas. For this study, secondary and primary sources of data and information were used. Secondary data collection was through a literature review where available secondary data sources were consulted to collect historical information. Sources of secondary data included results from research of government archives, policy documents, newspapers and other documentary materials.

Literature on land use competition, conflict and change was consulted with a view to providing a theoretical perspective for the research topic. Data from the Department of Land Affairs, Polokwane Municipality, Department of Urban Planning and Land Survey were collected and consulted. The literature review gave a clear overview of the background and the present situation of the study area. The main objective for collecting information from newspapers was to obtain more and recent information on land use conflicts. Data was also obtained from periodicals, as documented in the thesis.

In order to identify and account for the distribution of different land use types, secondary data was obtained from the Department of Land Affairs. Maps, policy documents, research papers, literature and government publications were the secondary data sources used. Aerial photographs of 1994 and 2004 were interpreted and land use maps for these dates were derived. The most recent aerial photographs of the site were studied first and four field checks were made to verify the interpretations.

The documents of a multi-disciplinary professional team of technical advisors who conducted the process of formulating the land development policy objectives, such as minutes of their meetings, reports, publicity material and newsletters were consulted.

Planning departments were approached directly and requested to provide comments and information. The Department of Land Affairs was also contacted. Personal observation has played a vital role in data collection more especially, with regard to the qualitative assessment of the physical conditions and the socio-economic status of the study area. Such observation was done by means of a preliminary survey followed by many other visits to the Polokwane area. During these visits the researcher had studied the different land uses present in the study area, what is being done (activities) and the physical appearance of the land (Leedy & Omrod, 2010). Aerial photographs were analysed. Current photographic data were compared to previous surveys and any change in land use was assessed and documented.

Aerial photographs, orthophoto maps, topographic maps and land use maps were obtained from the Polokwane Municipality and the Department of Land Affairs: Survey and Mapping. Some topographic maps and aerial photographs were procured from the Air Craft Operating Company in Johannesburg. The Department of Local Government also made land use maps available. These photographs and maps were used to identify land use cover in the study area at various periods. Changing administrative boundary differences did not present any problems although they were a useful source of information about land use disputes.

- **Questionnaire Survey, Interviews (Household, Businesses and Governance) and Field observations:**

Interviews were conducted with residents, men and women in business, government officials, landowners, landless people and expert planning consultants. Conversations and discussions with selected key informants were also valuable sources of information. Semi- structured interviews were used because they are flexible and allowed for new questions to be brought up during the interview as a result of what the interviewee says as the interviewer had a framework of themes to be explored (Leedy & Ormrod, 2010). Empirical observation was also used to collect data. Several visits were paid to the study area and field observations were made. Preliminary work undertaken included preparation of a checklist for questionnaire compilation; a reconnaissance survey to verify the information from secondary data, pre-questionnaire interviewing and the

adjustment of the questionnaire. A land use survey was carried out in Polokwane city and the surrounding area. Leedy and Ormrod (2010) assert that it is necessary to use both secondary and primary data in order to provide adequate information and the comparability required.

Three sets of questionnaires were used. The first one (Appendix 1) was directed to government officials and planners in Polokwane city. The second one (Appendix 2) was directed to the businessmen and women. The third one (Appendix 3) was directed to selected residents of Polokwane. Sixteen government officials were interviewed (Appendix 1). They were from the Department of Land Affairs, Department of Local Government and Housing, Department of Water Affairs and the Department of Agriculture. Only 16 government officials (n=16) were in a position to answer the questionnaire because the questionnaire was designed specifically for government officials who have knowledge of town planning. Appointments were made beforehand. Government officials were interviewed in their offices. Many of the questions asked were open-ended. In cases where the government officials did not have enough time for personal interviews, questionnaires were left with them for completion at their convenience. Both males and females were interviewed in order to make the responses more gender representative.

One hundred and sixty-four business people (n=164) were consulted (Appendix 2). Appointments were made beforehand, and they were interviewed at their business premises. Where the owner or manager did not have enough time for a personal interview, they were given a chance to complete the questionnaires in their spare time. Both closed-ended and open-ended questions were used. The sample included both male and female respondents in order to make the survey more representative and all population groups were represented as Blacks, Whites, Coloureds and Indians were interviewed. Two hundred and forty residents (n=240) completed a questionnaire (Appendix 3). A face-to-face household survey was conducted in most cases. If the householder was busy with other business or not at home, the questionnaire was left for completion. Both open-ended and closed-ended questions were incorporated in the

structure of the questionnaire. Blacks, Coloureds and Indians were interviewed as were both males and females.

In the questionnaires (Appendices 1, 2 and 3), questions were grouped in sections. The first section comprised personal particulars. The second section was on the nature of land use conflict and competition and the key factors contributing to land use conflict situations. The next section was on gender-specific land issues. The fourth section was devoted to the role of Polokwane as a capital city of Limpopo and its role in the management of change and conflict. The last section was on strategies for land use planning for Polokwane and the surrounding rural areas that would address the social and economic needs of people.

Data received from responses to both open-ended and closed-ended questions were very useful. In order to get more information about the study area, in-depth interviews and discussions with key informants were held. Valuable information regarding the spatial characteristics of land use in the study area was obtained.

- **Major constraints in data collection**

Some people were reluctant to respond to the questionnaires despite the fact that they were informed that they could respond anonymously and that the researcher would not keep a record of names or identification. Others thought it was an assessment or an evaluation tool. There were those who could not be interviewed face-to-face because they had indicated that they were busy with other business. For them questionnaire completion took a long time and the researcher had to visit them several times, often without getting fruitful results. It was disappointing that there were those who ended up not completing their questionnaires at all. Another serious constraint was the lack of knowledge on planning issues among the selected participants. Only sixteen government officials were able to answer the questions set for them. Other respondents who attempted to respond to the questionnaires did not answer all the questions. Some business people were suspicious and did not feel free to participate in the survey. Although the purpose of the research was explained to them, they were still reluctant to answer the questions. Despite

these shortcomings the researcher was able to collect sufficient and reliable data that formed the basis of this study.

4.4.2 Methods of Data Analysis

Data analysis is a process of inspecting and modeling data with the goal of highlighting useful information, suggesting conclusions and supporting decision-making in order to discern meaning to the collected data (Bless et al., 2006). Analysis of land use and land use change was carried out using Geographic Information System software, namely the Arc View 3.2 and Arc GIS 9.1 versions. Aerial photographs were also analyzed. Current photographic data were compared to previous surveys and any change in land use was assessed and documented. Aerial photographs were also used to provide recent information on land use change. Land use types, which are discussed in Chapter 6, were presented in a form of diagrams showing land use composition in Polokwane. Maps were used to show land use changes in different years from 1994 to 2002. These include changes in urban land use, focusing on residential, commercial and industrial land use changes.

Aerial photographs, orthophoto and topographic maps were studied and analysed in order to come up with land use maps for the study area.

Collected data from the questionnaire survey was captured in Microsoft Excel spreadsheet and transferred into Statistical Package for Social Sciences (SPSS) for analysis. Thereafter, collected data was analysed quantitatively using Descriptive statistics and obtained frequency distribution, Chi square tests were employed to show the degree of independence between cross tabulations as well as to show responses to open-ended questions in the completed questionnaires, comments from interviews and unstructured discussions that were conducted were assigned values and coded with strings as texts and then analysed qualitatively. Other numerical data from both interviews and questionnaires were assessed and coded as numeric and then analysed quantitatively using descriptive statistical analyses. Some interview data was also analysed inductively by making inferences that were supported by quoting respondents' remarks. Thereafter, analysed data was presented as frequency tables and graphs.

Early forms of research originated in the natural sciences such as geology, biology, physics, chemistry etc. This research was concerned with investigating things which we could observe and measure in some way. Such observations and measurements can be made objectively and repeated by other researchers. Quantitative research is more concerned with questions about: “How much? How many? How often? And to what extent?” Quantitative research involves looking at the amounts or quantities of one or more variables of interest. A quantitative researcher typically tries to measure variables in some way (Leedy & Ormrod, 2010). Much later, along came researchers working in the social sciences such as sociology, anthropology, psychology etc. These were interested in studying human behaviour and the social world inhabited by human beings. They found it difficult to explain human behaviour in measurable terms. Measurements tell us how often or how many times people behave in a certain way but they do not adequately answer the `why` and `how` questions.

Research which attempts to increase our understanding of why things are the way they are in our social world and why people act the way they do is `quantitative` research. Qualitative research is concerned with developing explanations of social phenomena. It aims to help us understand the world in which we live and why things are the way they are. It is concerned with the social aspects of our world and seeks to answer questions about: Why people behave the way they do; How opinions and attitudes are formed; How people are affected by events that go around them and how and why cultures have developed the way they have. Leedy and Ormrod (2010) assert that qualitative research involves looking at characteristics or qualities that cannot easily be reduced to numerical values.

Data analysis of quantitative data involves the production and interpretation of frequencies, tables, graphs, etc., that describe the data. From the data master sheets, simple tables were made with frequency counts for each variable. A frequency count is an enumeration of how often a certain measurement or answer to a specific question occurs. Frequency distribution has been calculated in percentages (relative frequencies). This makes it easier to compare groups than when only absolute numbers are given.

Percentages standardise the data. Quantitative techniques were employed in this study when analysing number, age, gender, race, period living in Polokwane, marital status, work experience, population groups, etc. Qualitative data may be collected through open-ended questions in self-administered questionnaires, in individual interviews or focus group discussions or through observations during fieldwork. Solicited data in open-ended questions usually include: opinion of respondents on a certain issue; reasons for certain behaviour; and descriptions of certain procedures, practices or perceptions with which the researcher is not familiar. Quantitative researcher tend to rely more heavily on deductive reasoning, beginning with certain premises and then drawing logical conclusions from them whereas qualitative researchers make considerable use of inductive reasoning (Leedy & Ormrod, 2010). Qualitative techniques were used in most cases in Chapter 6 which deals with `Perceptions on land use competition and conflicts`.

4.5 CONCLUSION

Research is a systematic process of collecting, analysing and interpreting of data to generate new knowledge and answer a certain question or solve a problem. Research methodology is a way to systematically solve the research problem. It may be understood as a science of studying how research is scientifically done. In it we study the various steps that are generally adopted by a researcher in studying his research problem along with the logic behind them (Leedy & Ormrod, 2010).

In this chapter the methods used to obtain and to analyse the information were discussed. The constraints encountered in the data collection process were noted and the attributes of the sample populations, namely the residents, the business people and the government officials, were described and graphically illustrated. The next chapter is one of the two analytical chapters that follow the review of literature in this thesis. The following chapter therefore presents and interprets the results in five case studies drawn from areas surrounding Polokwane which include Matokolo, Mamahule, Bjatladi, Makgoba and Rita communities.

CHAPTER 5: LAND USE CHANGE AND CONFLICT IN RESTITUTION AREAS

5.1 INTRODUCTION

The previous chapter reviewed literature on land use change, conflict and change. This chapter looks at the changes and conflicts in rural areas in the vicinity of Polokwane- as represented by land restitution areas. A total of 5 cases of restitution areas (Matokolo, Mamahule, Bjtatladi, Makgoba and Rita communities) are analysed and key themes that emerge are identified and discussed (Fig. 5.1).

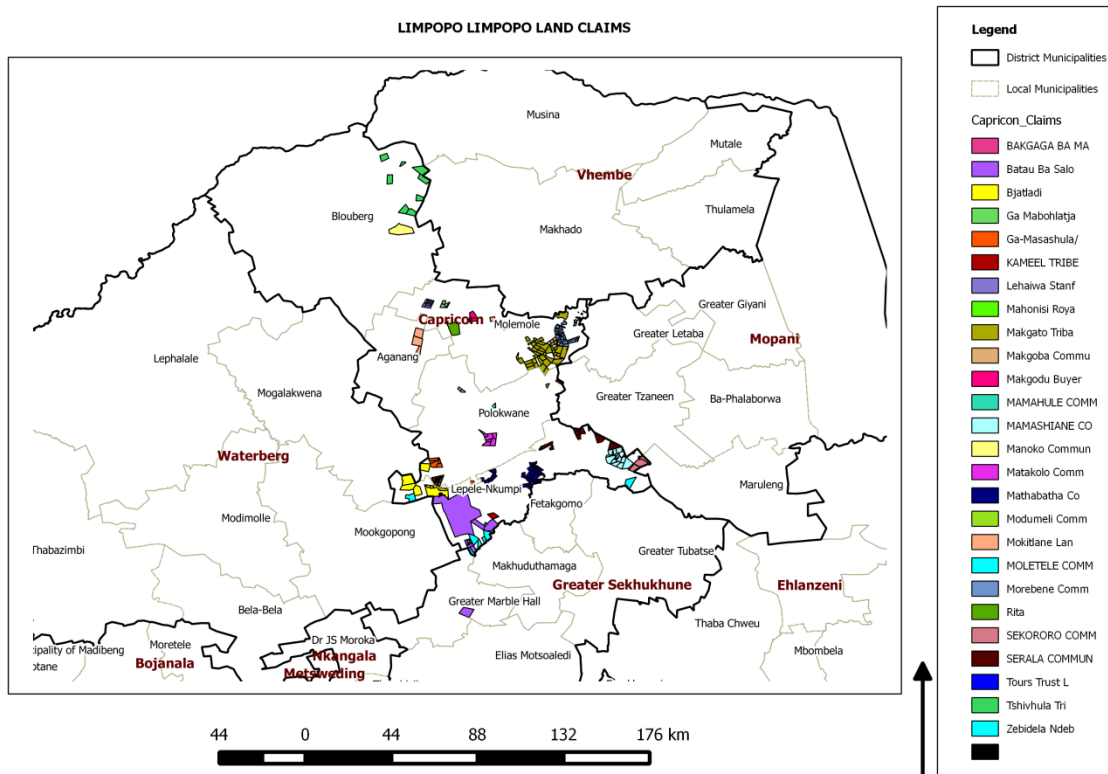


Figure 5.1: Location of claimed farm portions in relation to Polokwane

Source: Adapted from the Department Land Affairs (2007), Limpopo Province, South Africa

5.2. MATOKOLO COMMUNITY

This case shows how the delay in finalising claims is creating stresses and conflicts on the part of claimants and uncertainty on the part of the commercial farmers. The land under claim is R/E of portion 2, portion 4, of farm Kleinfontein 172 KS in the Polokwane Municipality in the Capricorn District of Limpopo Province. The total extent of the properties under claim is 1005.4329 hectares. Private individuals presently own the said properties. On the eastern side, the farm is bordered by the farm Klipspruit 178 KS and the farm Palmietfontein 24KS on the western side. On the northern side the farm is bordered by the farm Palmietfontein 1049 KS and the farm Tweefontein 173 KS on the South (Fig.5.2). The Motokolo Community was dispossessed of their land gradually from 1962 to 1964. The claimants comprise the children of the dispossessed and their direct descendants. The community is composed of 134 households and the total number of beneficiaries is estimated at 1050. The community alleges that they stayed on the farm from 1900 and had customary ownership rights which would also be defined as beneficial occupants in terms of the Restitution Act, 1994 (Act No. 22 of 1994) as amended, and as they had stayed on the farm for more than 10 years. Struggles over, and for, land are widespread across contemporary South Africa today with all their specificities and variation, in different conditions, to different degrees and in different ways (Ntsebeza & Hall, 2007).

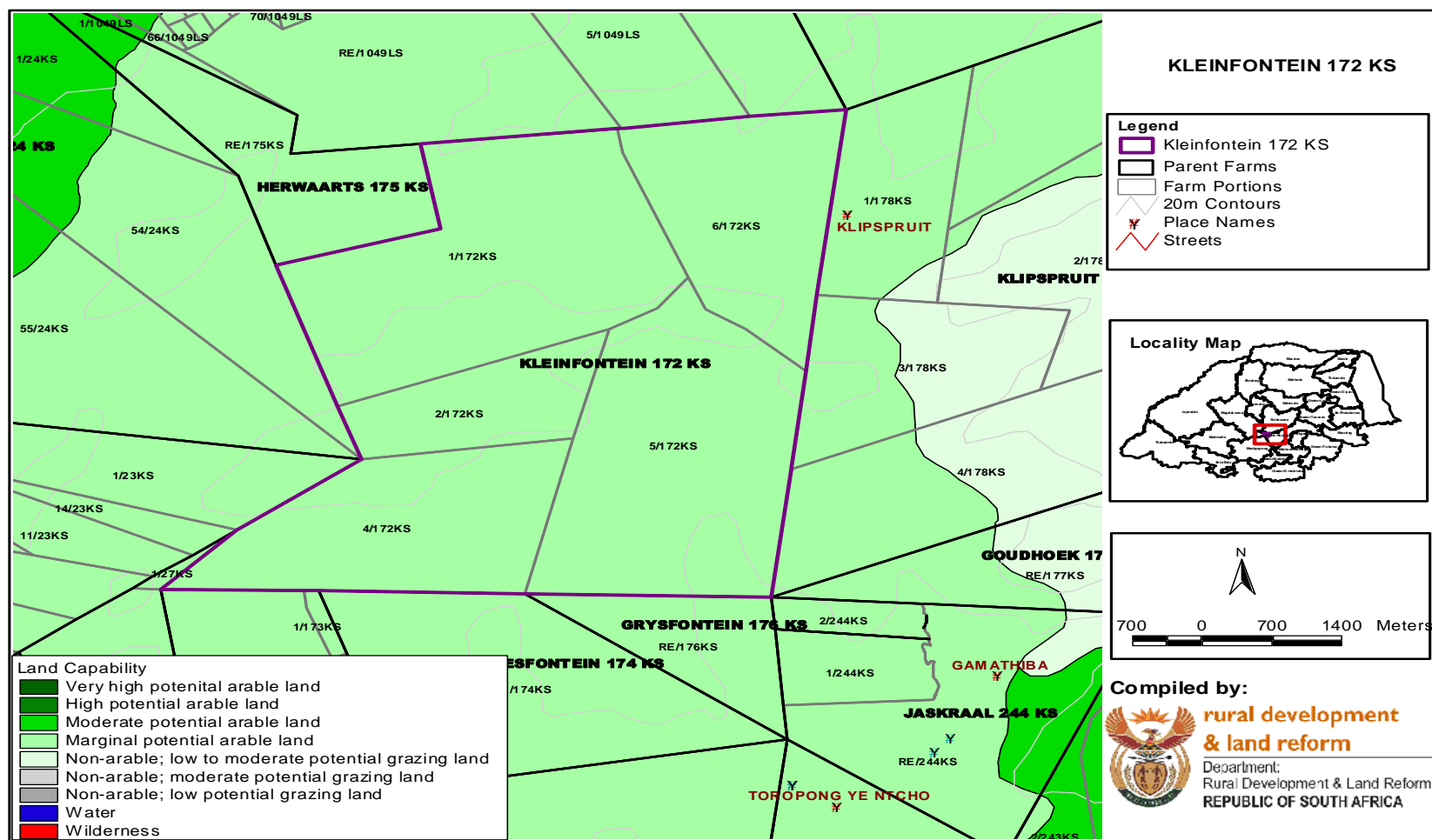


Figure 5.2: Matokolo community land claim

Source: Rural Development and Land Reform (2009)

The claimants maintain significant contact with the land through the practice of rituals at the ancestral graves. Moreover they have a strong emotional attachment to the land as most of them do not stay far from the land. There are also enough visible ruins to show that people used to stay on the property that is now under claim. They were evicted between 1962 and 1964. Eviction has a drastic effect on people's social, economic, physical and psychological well-being (Chenwi, 2008). The purpose of the dispossession was to further the objectives of racially discriminatory laws as contemplated in Section 2.1 of the Restitution of Land Rights Act, 1994 as amended. Restitution of land rights in South Africa balances the imperative to restore land to the dispossessed with concerns to minimise disruption to agricultural production and political stability (Ntsebeza & Hall, 2007).

The claimants opted for the restoration of the original land. During the in-loco inspection, the Regional Land Claims Commission-Limpopo (RLCC-L) indicated that the land was available for restoration as it was used for grazing, ploughing and on the R/F portion 2 of Kleinfontein 172 KS, a motel was constructed and 4x4 racing field for Mitsubishi has been established. Two portions of the farm were restored to the claimants and land owners of 4 properties that lie within this area refused to sell the land. In the Matokolo case, land use conflict was brought about between stakeholders. The land was originally used for subsistence farming and residence by indigenous communities. After the dispossession of the land, land use was changed into commercial farming - livestock farming and crop agriculture. Currently, the land is used for agricultural activities by the commercial farmers. Land use changed from one land use to another in the past. Bob (2010) observes that land reform programmes identify beneficiaries that are to be targeted in particular projects. This often results in conflicts because some people feel that they are disadvantaged and do not benefit from land reform processes as is the case in this community. The transfer of land in this case did not consider the paradigm shift from traditional land use such as spiritual or ancestral attachment of people to grave sites for African religious worship, to commercial land use.

5.3 MAMAHULE COMMUNITY

This represents a case where land was restored to the communities and shows how conflicts have arisen at different times in the process of dispossession, claiming and restitution.

The farm is located in Polokwane, Capricorn District Municipality. The portion under claim is a portion of the farm Kalkfontein. The farm Kalkfontein 1001 LS is divided by the road R71, bounded by farm Geluk 998LS and 1000 LS on the west Mynaenogen 1048 LS and Palietfontein 1049 LS on the south, Majebaskraal 1005 on the east and Mooifontein is to the north (Fig.5.3). The community occupied the land from time immemorial and enjoyed de facto rights of ownership of the land until the arrival of whites. It was composed of 1278 households. The dispossession of the community was affected through a systematic downgrading of rights on the land in question. Since the arrival of whites on the farm blacks had to provide labour or pay annual rent of £2 to guarantee their stay on the land, failing which they were forced to leave the farm (Tilley & Lahiff, 2007).

These actions led to several land use conflicts. In 1964 the community was finally removed from the land. There are graves on the farm, which the community used to bury their families, which are still being visited for rituals. There are still some ruins of houses, and a place where they used to grind their mealies (maize; corn). The claimants indicated that they needed the restoration of the land and the handing over of the title deed. The RLCC-L established that the land was available for restoration as it was used for grazing, growing vegetables, and citrus farming (Lahiff, 2007a). When the farms were returned they were viable commercial agricultural enterprises growing a number of crops, such as lemons, bananas, mangoes, peanuts and macadamia. The actual or promised redistribution of land from the weaker to stronger parties can fuel conflicts (Hugins *et al.*, 2005). The transfer of land to this community restored their rights to land.

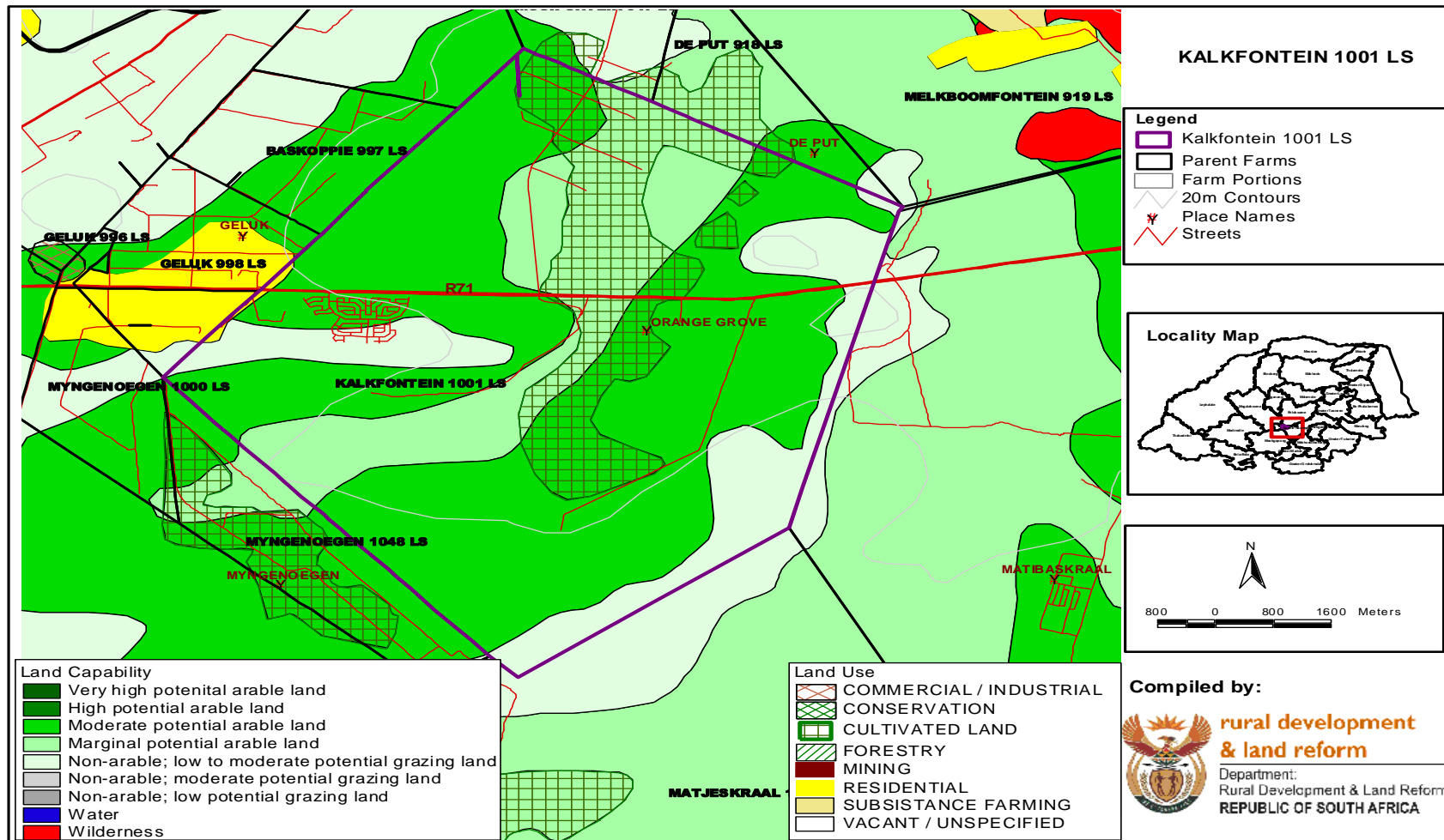


Figure 5.3: The Mamahule community land claim

Source: Rural Development and Land Reform (2009)

The Communal Property Association (CPA) took possession of the farms and appointed members of the CPA committee to manage farming operations. Within a year after transfer, problems with production on the farms started to emerge. Allegations of mismanagement and corruption were levelled against the management committee. An interim management committee was appointed by the Department of Land Affairs, but members of the CPA committee who had been responsible for management of the farm refused to co-operate. As a result, the manager and two CPA members were dismissed. Eventually an eviction order had to be obtained to force the CPA chairperson, who was the manager, to vacate a house on one of the farms. The South African Farm Management (SAFM) Company was called in to take over the management of the properties in a caretaker capacity with a view to a future joint venture arrangement. This has also resulted in conflict over the use of the land. The original land was used for subsistence farming and place of residence for the indigenous people. The land use changed to citrus farming, vegetable production and grazing became the dominant activities under commercial farmers. The land is now used as a settlement for the claimants, for grazing and for citrus and vegetable production (Lahiff, 2007). In all cases restitution brought about land use change.

This project highlights the immense problems which can arise if the claim settlement process is poorly conducted and Post Settlement Support is not addressed upfront. Inadequate support to the beneficiaries of land reform has been a recurring complaint since the inception of the land reform policy (Lahiff *et al.*, 2008). Initiatives to address challenges of post-settlement support such as Comprehensive Agricultural Support Programmes (CASP) have been taken, although it does not give out other support like training and infrastructural support (Greenberg, 2010). The question of joint management did not work in this case.

5.4 BJATLADI COMMUNITY-ZEBEDIELA FARM 101 KS

This case represents a state owned farm which was returned through a tripartite model of shareholding agreement. It also represents a claim on high valuable agricultural land. Zebediela is the biggest citrus estate in Southern Africa.

The farm Zebediela 101 KS in the Capricorn district was claimed in terms of the Restitution of Land Rights Act 22 of 1994 (Restitution Act) by the Bjatladi community in December 1998 and settled in September 2003. It involved 331 households who were verified rightful claimants. Almost all claimants live off-site, scattered in several villages. No comprehensive beneficiary profile was available. It could be argued that the workers are de facto the principal beneficiaries. Zebediela Estates has been presented as a restitution success story where an increasingly defunct state-owned citrus estate has been turned around through a tripartite partnership between the Bjatladi community, a private sector partner and a workers' trust with a hands-on role being played by the Limpopo Department of Agriculture (Figure 5.4). This tripartite partnership had the potential for conflict arising among these three entities over the use of the land. The establishment of Zebediela's location was followed by an imposition of a tribal levy in 1933 on the Bjatladi community.

In this way the community would be forced to work and earn a living on the Zebediela Estates to enable them to pay their tribal dues. Part of the community did oblige because of the fear of being expelled and went to stay at the location because of the constant harassment that they were faced with from white farmers. Some refused to be subjected to either this arrangement of paying allegiance to chief Kekana or to working on the estate; a land they rightfully believed should be theirs. Others remained (Tilley & Lahiff, 2007).

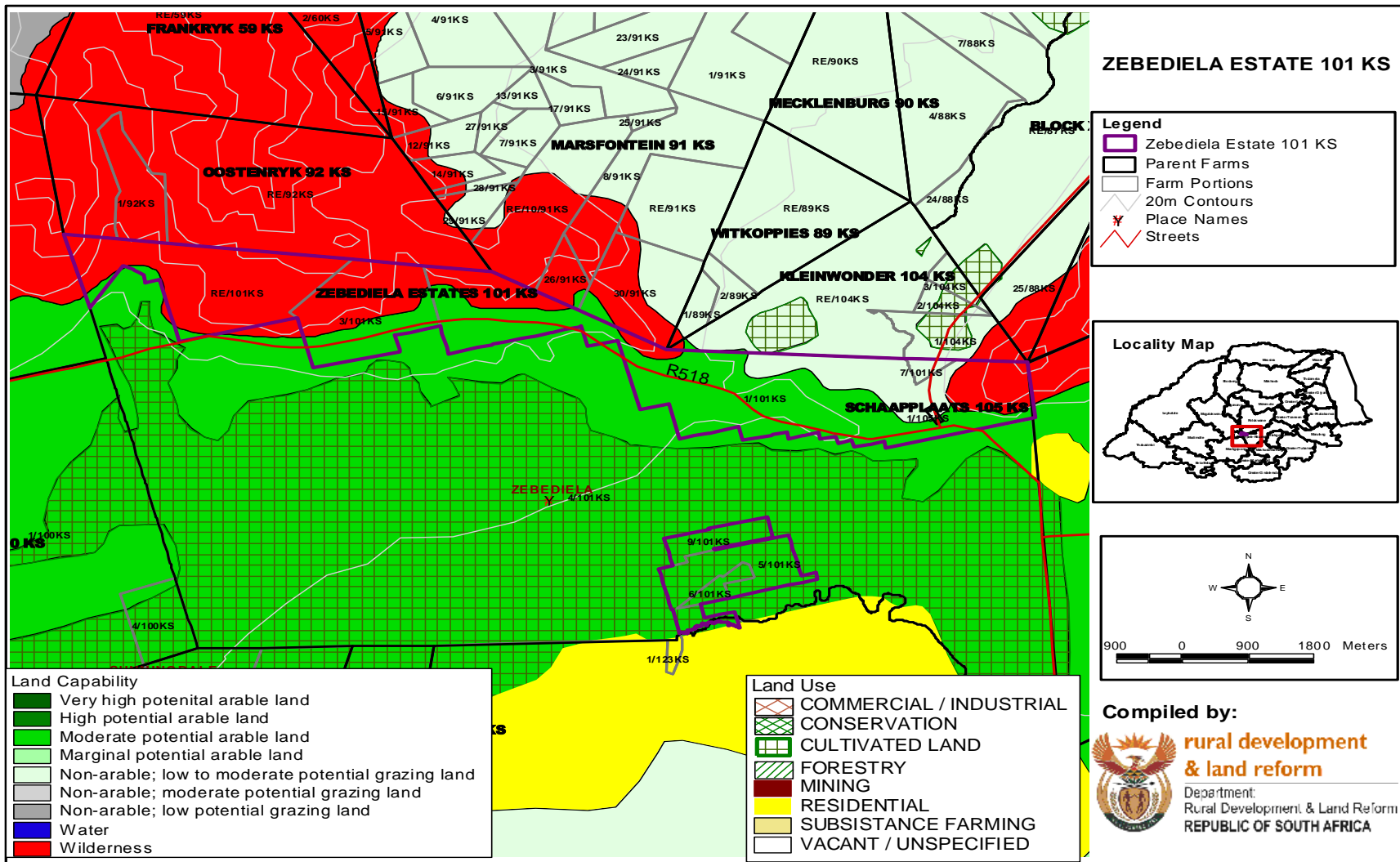


Figure 5.4: Bjatladi community land claim. Source: Rural Development and Land Reform (2009)

Child labour was rife on the estate as some of the children over the age of 11 years were forced to abandon school to work on the farm. A case in point is that of Lesetja Tlolane whose parents had to leave the farm because he was required to suspend his studies indefinitely and work on the farm. Lesetja's parents, like many others under similar circumstances reluctantly left the farm to other areas, which would allow their children to go to school. The hardships experienced by blacks from white farmers led to several intense conflicts and racial tensions. The policy makers operating at the political level too were whites but at Zebediela the whites had a different role. It was conflict due to policy implementation. The hardships were due to attitudes. It was the treatment and conditions around the use of land in the apartheid era in which individuals were a function of policy implementation. The community had beneficial occupation rights in that they stayed on the land for many years before being removed. They utilised the land for residential purposes and for ploughing and grazing of livestock. They also used the land for collecting firewood, herbs, burying the dead and also performing ritual and ceremonial acts. Over and above this, the community was dispossessed of agriculturally potential land which contained numerous important natural resources. This provides a fertile ground for land use change and land use conflict (DLA, 2007).

At present, the Bjatladi community has a 10 year management and shareholding agreement with a private agribusiness company which promises revenue for the community through dividends and land rental, plus opportunities for employment, training and participation in management. Commercial enterprises on the land include citrus, farming a beef herd, running a dairy and a shop. Significant underutilised potential appears to still exist as there has been an over-reliance on the strategic partner to build capacity, resulting in a very limited investment in human capital at the strategic management level. The land under claim is currently home to the Zebediela Estates citrus plantation, which is 100% owned by the Agriculture and Rural Development Corporation (ARDC) and falls under the Limpopo Provincial Department of Agriculture as the biggest citrus estate in the southern hemisphere or SADC region (Tilley & Lahiff, 2007). This led to the establishment of a strategic partnership between the Bjatladi CPA, the claimant and now the owner of the 5903ha property, the Zebediela worker's trust and a strategic

partner called Hanley Farm Properties (Pty) Ltd. Together these three comprise the operating company, in which the Bجاتلادي CPA owns 30% of shares while the worker's trust and the strategic partner own 15% and 55% respectively (Hall, 2004).

This inequality of ownership has the potential for land use conflicts among the potential users. The land was transferred to the claimant community but, as part of the settlement agreement, was subject to a 15-year lease agreement. When the 15-year lease expires, the strategic partner will transfer all its shares to the CPA. However, the community's use of the restored land is limited by the terms of agreement. The settlement agreement states that the activities entered into with the strategic partner constitute the only permissible use to which the land can be put, and that access to land by members for other purposes such as cultivation, grazing rights or residential purposes fall outside the scope of the settlement agreement, and therefore, outside the terms of the restitution award (Lahiff, 2008).

This will also contribute to land use conflict. Land is considered the most fundamental resource to the poor and is essential to generate income, accumulate wealth and transfer it between generations, and enable them to prevaricate from human insecurity. The use of land resources is often a source of conflict. The land resource is embedded in an environment that is so interconnected in space that action by one individual or group may generate effects at far off-sites (Bogale *et al.*, 2006). Land conflicts do not only cause social problems, but they affect productivity of land use and reduce the scope for future growth. Even if eventually somebody involved in a land conflict will be allowed to keep the land, the conflict will have a negative impact on welfare and productivity through a number of channels (Deiniger & Kastagnini 2006). All parties involved are likely to have spent a significant amount of time (that otherwise could have been used in productive activities) in attempts to resolve land conflicts (Berry, 1997).

Apart from rental income, which is set well below a likely market rate, the principal benefit to the community will be in the form of a share of profits, which implies a considerable degree of risk. Like most commercial farms, Zebediela does not have a

profit history; at best, it has a break-even history. The settlement agreement and subsequent developments have focused only on the citrus estate and the related activities, all of which fall under the effective control of the strategic partner. As a result, little or no attention has been paid to the wider land needs of the community, such as land for housing and for small scale food production and this could also lead to land use conflict. Then the use of the land changed from its original use to citrus farming, mining and residential development for whites became dominant. The land is currently used for commercial citrus farming. There were 5 land owners who refused to sell their land, which led to land use conflict. Some black people also refused to leave the land which also led to conflict as they were determined to use land in a customary manner. The shareholding arrangement and the associated payment of dividends have the potential to generate conflict amongst the various groupings in the settlement, more especially between the workers' trust and the CPA (Tilley & Lahiff, 2007).

Land restitution thus led to both land use change and land use conflict (Lahiff, 2008). Villagers usually protested against planning interventions. These protests manifest as conflicts, which led into residents appealing in a court of law, seeking help for their land that has been changed from agricultural to residential. These conflicts became obstacles to the development and the management of land use (Magigi & Drescher, 2009). The outcomes are widespread complains and conflicts over land. Intense competition has developed over valued resources, such as land, and is coming under intensified use, and generating increased social competition and conflict among farmers, and between agriculturalists and cattle-keepers (Gebre-Mariam, 1994; Woodhouse *et al.*, 2000). The Bjatladi claim can be considered a relatively successful restitution project in that a sizeable area of land has been restored to its rightful owners, the commercial operations on the land have been maintained and greatly improved, and a flow of benefits is set to potentially flow to both workers and community members (Tilley & Lahiff, 2007).

Uneven distribution of land accentuates social tensions between have and have-nots. The land owners controlled the politics and were organized to protect their properties. The landless had to rent land and organized themselves to re-occupy their land. Many black

people in Sub-Saharan Africa have limited access to land ownership and related natural resources and these results in conflicts over land (Bob *et al.*, 2008).

There is neither a land use plan nor a written business plan at Zebediela Estate. Resource degradation in the riparian zone and the shortage of grazing on adjacent communal land has implications for the people on the farm. There is no visible environmental governance in the communal area that has significantly been impacted on environmentally. This provides further fertile ground for land use competition and land use conflict. In essence, the community has been granted a valuable asset that is unlikely to generate significant benefits in the short term. Benefits, if they are to materialise, are likely to do so after the expiry of the current 15-year contract with the strategic partner. Although this case has many unusual features – notably the fact that it was owned by the State, and the strategic partner was already involved in running the estate on a contract basis prior to the settlement of the claim, a similar model of strategic partnership, with no direct access to land for community members, has been proposed for other claims on high-value agricultural land. CPA received initial support from the RLCC, but no sustained institutional development plan is in place.

There is no strategy in place to invest in the creation of senior management with capacity to take over the management of the estate. There is no visible environmental governance in the communal area; significant environmental impacts and inadequate support to the beneficiaries has been a serious problem (Hall, 2004b; Wegeriff, 2004; Bradstock, 2005; Lahiff *et al.*, 2007). The training of people to manage the farm was compromised by appointing mentors who had vested interest. They did not identify young people to be trained in Agricultural skills at universities and technikons. The new farm owners should have been mentored by neutral farm managers who did not have interest in the land.

5.5 THE MAKGOBA COMMUNITY

This case represents a claim that is on the land that contributes massively to the agricultural economy of the Province with major operations being forestry, tea and

tropical fruits. The area is also an important tourist destination and has been targeted by the provincial government for further tourism investments.

The land under claim is in the Makgobaskloof area and can best be described as the land that is to the west of Tzaneen, and the east of Polokwane. It is bordered by Ramotiale Mountain (Thaba ea Kgopa) on the south of Haenertzburg. It moves across Ramashala, currently known as Randfontein on the west of Haenertzburg and is bordered by Masialama river on the north of Haenertzburg. The land is bordered by Setsiatshetshi River to the north. The area was occupied by the Maredi, the Maponya, the Masetlta and the Taung people (Figure 5.5). The whites started to demarcate the Makgoba's land to suit their needs. Although farms such as Grenshoek 544 LT, Helpmekaar 944 LS and Kolkbosch 961 LS had been demarcated earlier before 1913, the Makgoba community was gradually removed from their ancestral land between 1924 and 1974 by the former government. They settled in various areas such as Hammanskraal, Malepisi around Lebowakgomo, Ga-Modjadji, Ga-Mathabatha, Ga-Molepo and Mankweng (Lahiff, 2007).

Whites forced people to work on their farms and later removed them. Most of the people were turned into labour tenants on their own land which resulted in conflict over the use of land. These are general conflicts over land use and appropriation of benefits. Forced evictions threaten a range of human rights and have resulted in homelessness. In most cases they occur in a manner that is incompatible with fundamental human rights contained in the constitution (Chenwi, 2008).

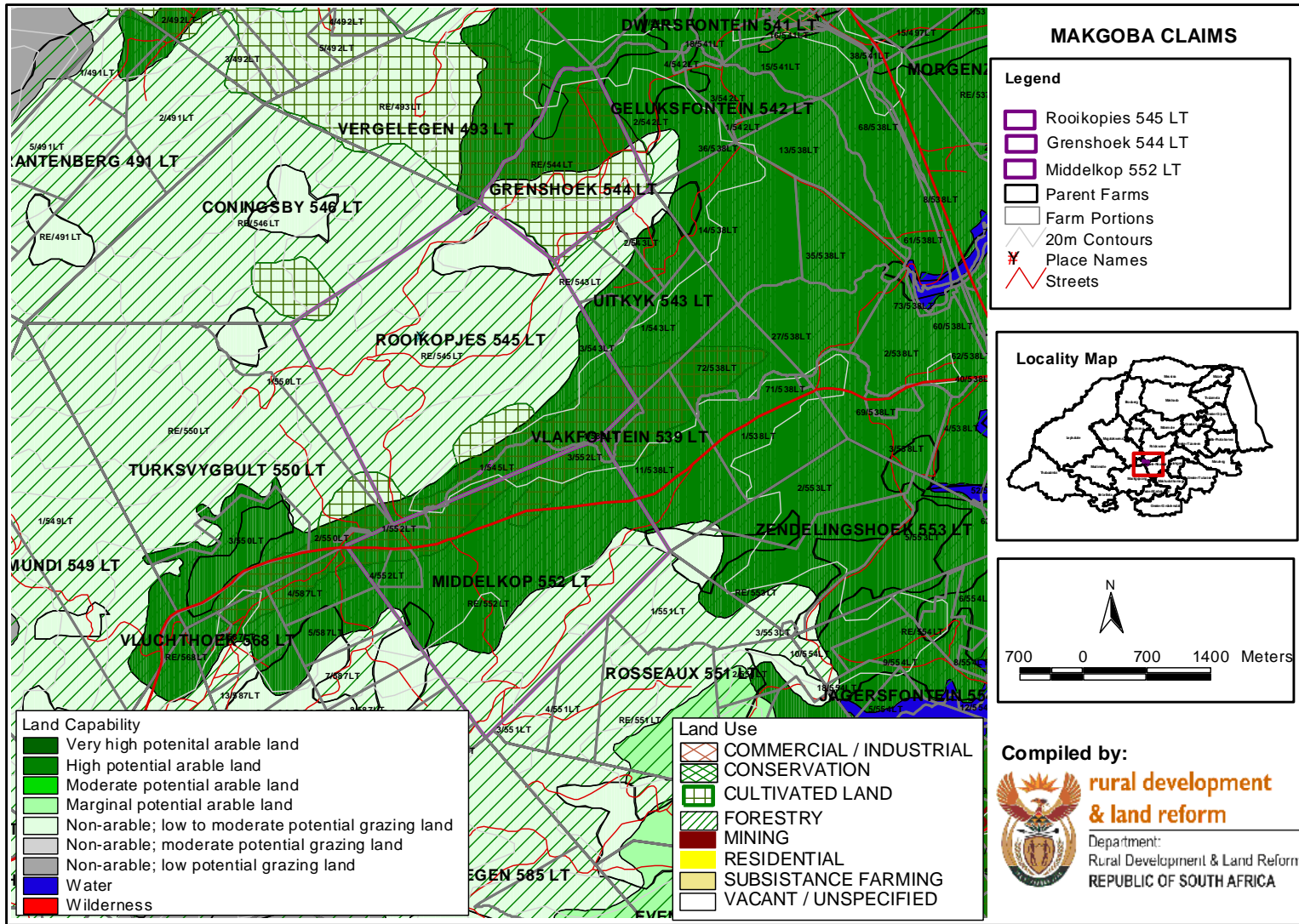


Figure 5.5: Makgoba community land claim

Source: Rural Development and Land Reform (2009)

Originally the community used the land for collecting firewood, herbs, burying the dead, for performing ritual and ceremonial acts as well as benefiting from its agricultural potential. When forced to move they lost all these advantages and this dispossession gave rise to conflict particularly as there was constant harassment from white farmers. Land use patterns had to change to accommodate the demands of the newcomers. The local blacks now found that their cattle did not have enough grazing land. If they entered the white farmer's land they were charged with trespassing and had their cattle impounded. Most of the people lost their livestock in this way. This also led to further conflict as the land could no longer be used as they wished. Equally distressing was the fact that the community lost its solidarity as its members scattered all over the area when they were relocated in new areas. The traditional authority has been at logger heads with the Mampoku-Makgoba Community Trust over the control of 35 farms that were returned to the clan (Molefe, 2012). This has led to land use conflict.

The National Department of Public Works owns the property under claim. The Department of Water and Forestry and Sapekoe are the land users. The claimants' indicated that they needed to restore the land to its natural state. The land use in this case was changed from subsistence farming to commercial farming. The land is currently used for large tea plantations and forestry. Land use conflict is evident as the local people want to engage in subsistence farming and the provincial and national economies need tea and timber products for the local market and export. The Makgoba Tea estate has been lying unproductive for over 6 years. This is wasteful use of scarce resources. Land is an asset that needs to be developed and maintained. The impetus of restitution came from people who were forcibly removed from 'black spots' into the so called 'homelands', but the programme has come to encompass a much wider range of claimants, including those evicted in urban areas and former labour tenants on commercial farms (Ntsebeza & Hall, 2007).

The motive of those to whom the land has been reinstated is a spiritual infirmity, to be in touch with their forbearers. Current owners neglect the production of crops and stock and allow the land and invested capital to lie in waste. The general expectation is of using

land surrounding the city as a food basket. This expectation is compromised. As a result people lost jobs and started moving to the city in search of employment. This increases pressure on land in the urban area because rapid urban population growth means an increasing demand for urban land (Thuo, 2010). The question should be raised: “Were the commercial and spiritual motives ever discussed to avert wasteful land use?”

5.6 THE RITA COMMUNITY

This shows a case which in land was claimed from a faith organisation and where people were not compensated for their improvement on the missions by the state. No arrangements were made to accommodate the people evicted from Bethesda.

The Rita community/claimants lodged a claim in 1995 on the farm Bethesda 208 LS (Fig. 5.6). The Dutch Reformed church, the owners of the land, opposed the claim on the farm Bethesda 208 LS. Iron and Steel Industry Corporation (Iskor) indicated that they wanted to mine and use the water from the farm because they had a prospecting lease on the land. As a result land use conflict was inevitable. In many cases restrictions were enforced by the new landlords regarding the number of livestock the community members could keep. In many instances, child labour was introduced and children were forced to abandon school and work on the farm (Tilley & Lahiff, 2007).

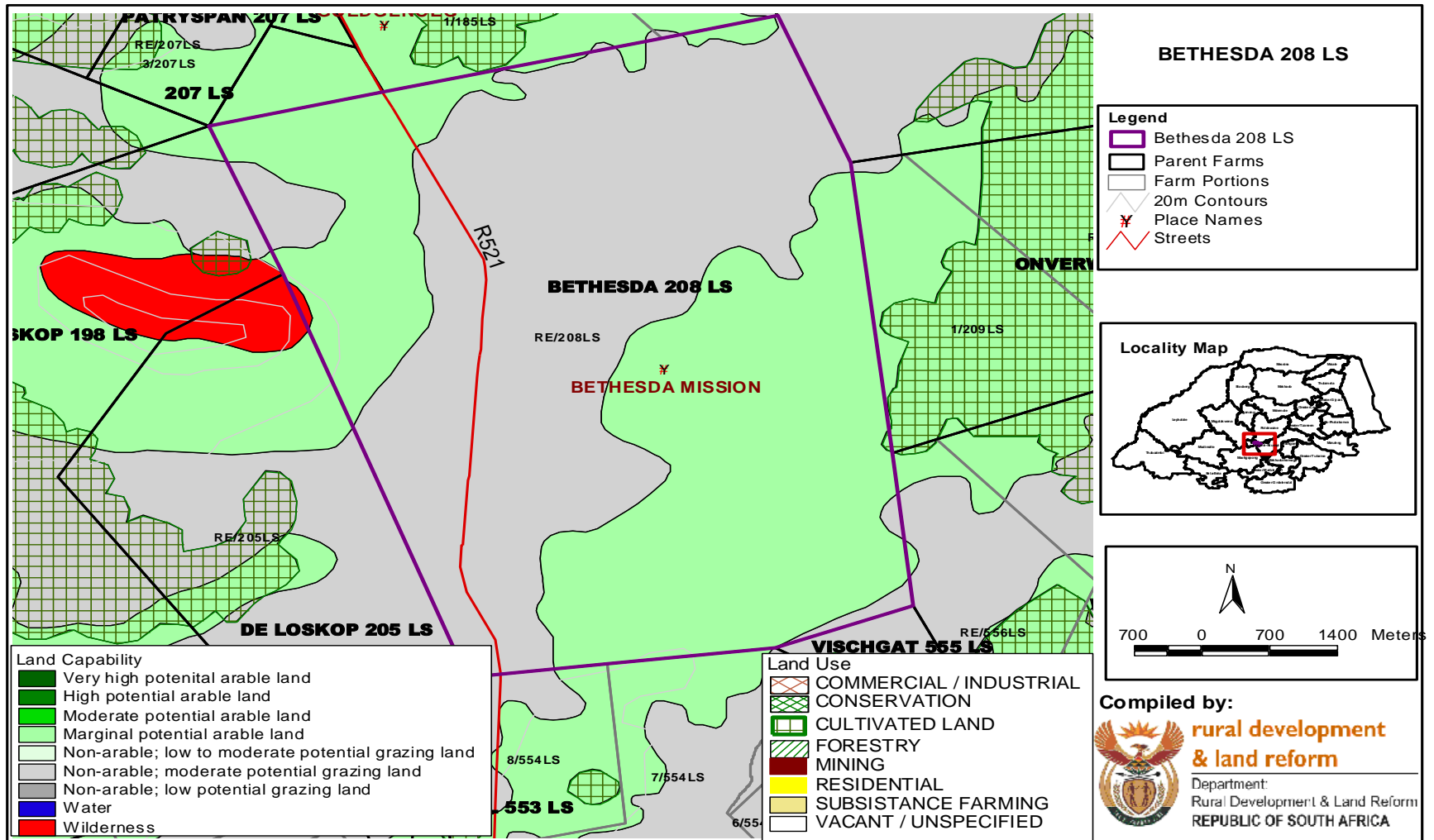


Figure 5.6: The Rita community land claim
Source: Rural Development and Land Reform (2009)

No compensation was received and no arrangements were made for housing or land on which they could settle. In other similar cases, dealing with removals from mission stations, people were compensated for their improvement on the missions by the state as they were removed in terms of government policy. In this case it seems as though this basic act of assistance did not even take place. Nothing was paid for losses suffered. Land use change occurred from subsistence farming to mining as the land is currently used for agriculture and mining. The Dutch Reformed Church opposed the claim, which further contributed to conflict as they are the legal owners. The land was ultimately restored to beneficiaries (574 households).

All land under claim is officially recognized as having at least a moderate capability. There is little enough of this type in South Africa as a whole so this good and useful land should be preserved and worked to maximum advantage and yet allowing occupation of people who would and need to care for it. Land restitution may also have unofficial purposes: establishing the legitimacy of a new regime, quelling popular discontent, or attracting donor funds. Likewise, it may produce unintended consequences. Notions of property and ownership may be transformed, local bureaucracies may be entrenched, spatial patterns of land use that replicate older patterns of racial and economic segregation may be reinstated or consolidated. Moral discourses about past injustice through restitution may obscure its exclusionary aspects or its tendency to reinforce existing forms of social differentiation (Fay & James, 2008).

This case is an example of a settlement or agreement that was reached outside the Land Claims Court. The commercial owners were expected to train the new land owners in commercial practice, to transfer skills so that commercial farming could continue in the area.

The primary need for settlement land when farms were restored was another source of conflict. The new owners felt that that need was met and began to attract people to obtain residential sites on the farm land rather than continuing farming. They wanted to re-establish their fallen family dynasties or kingdoms. When there is no longer production, the work force is rendered jobless and unemployment rises. This leads to new urban migration and the creation of squatter camps in the urban fringes. This new

settlements are a concern to urban municipalities because they put more pressure for land in urban areas. Land use change and land use conflict arise. It is interesting to note the utter disregard the white nationalist government had for the rights of black people to land. The abolition of Land Acts cannot redress the highly unequal distribution of land because very few black people can afford land on the free market (DLA, 2006). The following section discusses hardships experienced by claimants during the eviction process.

5.7 HUMAN RELATIONS ON FARMS

Human relationships on farms in South Africa were notoriously bedevilled by apartheid in its most immediate and violent form. A convergence of white minority interests resulted in the dispossession of the land from blacks. Some removals occurred when people were about to harvest their crops and it caused untold suffering to the community because this meant leaving behind their means of livelihood. They were not given a chance to harvest their crops. These removals uprooted people from their land and land use conflict was inevitable in all cases. People were made squatters in their own land. The communities were told to use the land that did not belong to whites. They could not buy land in an open market since black people were only able to buy land in designated reserved areas where markets were non-existent. They were forced to work as labour tenants on white farms without remuneration. People who wanted to stay on the farm had to pay tenancy rights to the farm owner in the form of a cow. This was a costly requirement. Black people who were residents in the mission areas were regarded as squatters in accordance with the provisions of the Development Trust and Land Act of 1936 (Act No. 18 of 1936) because they were neither labour tenants nor employees of the owners. Community members were constantly harassed by the new landlord and their stay on the farm was made uncomfortable (Tilley & Lahiff, 2007).

In 1960 the authorities decided that black people were no longer to be permitted to remain in the so-called “white” areas and had to be resettled in the released areas as defined by the Development Trust and Land Act of 1936. People were moved by government trucks to new places which were not of their choice. The claimants experienced a sense of social disruption and lost attachment to their ancestral graves

through the removals. Restrictions were enforced regarding the number of livestock that the community members could keep (Tilley & Lahiff, 2007). This was a potential source of conflict over land use. They were also not allowed to have registered rights and this created an atmosphere that they were open for abuse. Community members were distressed when they were told to leave the farms. They were instructed to leave their houses in a good condition. Along the journey to the place of relocation their possessions got damaged by rain. Some people were compelled to sell their livestock in order to get money to buy building materials for their new location. All these experiences led to discontent and hardship and there was conflict in a number of areas of land use. The justification which was always advanced was that forced removals were explained in the context of defence of betterment planning. The contention was that the grouping of black rural people in planned settlements was necessary in order to facilitate the provision of services although this point of view was never applied to white farmers who remained scattered over vast tracts of land. White farmers, dispersed as they were, were nevertheless provided with services such as electricity on the farms and such discrimination based on race also led to conflict that was fundamentally a land issue. Both black and white farmers wanted to use the land as they saw fit according to their own custom and decision. In many cases beneficiaries have experienced severe problems accessing services such as credit, training, extension advice, transport and ploughing services (Lahiff, 2007a).

Chiefs and their subjects were loaded into trucks and dumped on the farms. The removal of the chiefs was a final blow to a tribe in terms of the erosion of its rights to the land it had occupied for more than a century. The impact of forced removals upon individual families included, among other hardships, psychological trauma, fear, bitterness, stress, dislocation of families, loss of community life and contending with new social problems such as crime, violence, vice, prostitution, alcoholism, drug-taking and addiction, spouse and infant abuse. In all these cases lies evidence of the need for land restitution as the land use conflict that had arisen was inevitable. Division created by the forced removal of the original inhabitants resulted in disputes. There were conflicts due to overlapping of claims. Conflict also arose as a result of a lack of communication between groups. Some claimants invited international NGOs to campaign on their behalf. Others were even arrested and their offence was protest, fraud and theft. The forced 3 months labour system, which was only applied to black

people, dehumanised and downgraded the rights to land of all those who were subjected to the system. No form of compensation was given to those dispossessed (Tilley & Lahiff, 2007). Blacks were made foreigners in their own land and, as a result; they had no choice but to leave. This was endorsed by the Native Commissioners of the day. Private owners disputed the validity of claims. There were disputes and delays with several cases. Land use conflict was inevitable. Redistribution of land after eviction can lead to conflicts (Huggins *et al.*, 2005).

Hardship experienced during forced removals thus took many forms. Those who were left behind had to face and get accustomed to changing circumstances. For instance, in Zebediela, there was some agricultural expansion. Apart from citrus production, grapes, mangoes and olives were also grown and cattle and game farming expanded. Land use change thus created impact because areas covered by natural vegetation would now become denuded, being used for commercial agriculture and game farming. More than 8500 houses were built which too had an impact on land use. Livestock and arable agriculture may increase land use conflict and competition between community needs and wild life. In some cases, new land owners refused to sell their land and this led to conflict as was the case of the Matokola community. Ownership of five privately owned properties was not yet resolved of which Zebediela is a case in point. This claim was on land of high agricultural value (Lahiff, 2008).

All these brought about conflict associated with the use of land. Central to the problems surrounding post-settlement support are a lack of co-ordination and communication between the key departments of agriculture and land affairs and other institutions such as the Department of Housing, the Department of Water Affairs and Forestry and Local Government Structures (Lahiff *et al.*, 2008). The Limpopo government is faced with a number of challenges about land reform such as massive land claims that make huge contribution to the economy of the country, as discussed below.

5.8 CURRENT CHALLENGES

Recent years have witnessed a dramatic increase in the number of restitution claims settled and, equally important, the amount of land actually restored to the claimants. While earlier phases of the restitution process were dominated by cash compensation and the restitution of state owned land, restitution is now firmly focused on claims affecting privately owned land where claimant communities are demanding restoration of their rights. Most claims settled to date have been settled by means of cash compensation, rather than restoration of title to the land, and such compensation has been particularly prevalent in case of urban claims. Many of these claims are on relatively high-value agricultural land and face resistance from current owners, which has contributed to the slow pace of settlement. Another important recent development has been the attention being given to the needs of claimants who have had their land restored to them and wish to use it productively, generally referred to under the heading of 'post settlement support'. The growing awareness that beneficiaries across the spectrum of land reform are receiving little in the way of training, finance or support beyond the transfer of land, and the difficulties experienced by many successful claimants in launching productive enterprises too are being noted. Recent studies have revealed the limited impact of most land reform projects in terms of productive land use and household livelihoods (CASE, 2006).

This has been attributed to many factors, but the most widely cited are inadequate or inappropriate planning, a general lack of capital and skills among intended beneficiaries and a lack of post settlement support from state agencies (Lahiff, 2008). Many beneficiaries from the restitution projects have not received any material benefits (Hall, 2007).

Many significant challenges confront the RLCC Limpopo. Settling land claims in a sustainable way, on vast tracts of land that are characterised by huge commercial agricultural enterprises that play an indispensable role in both the regional and national economies, can be difficult. Most of the land claims in Limpopo are in rural areas and cover huge commercial productive farms and sometimes there are delays in the process when gathering information because rural claims lack archival information. On occasion there are cases of disputes over tribal jurisdiction between

claimants and communities. A major challenge is processing ‘massive land claims’. These are claims that need extra attention because they make a huge contribution to the economic growth of the country by their type of produce such as Makgobaskloof. Such claims create media excitement. Alarmist and biased media reporting coverage that generates anxiety rather than informed discussion for stakeholders and the broader public can be problematic. It is preferred that the media stimulates acquisition of a knowledgeable approach and appreciation for a meaningful historical process. Further challenges are the prolonged and difficult negotiation proceedings with landowners; the lack of understanding and impatience from land claimants; and the lack of co-operation from some claimants and private landowners. Restitution claims were plagued by corrupt officials, fraudulent and ghost claimants (Lahiff, 2006).

The Land Claims Commissioner may not be able to settle some more complex or difficult claims which then have to be referred to the Land Claims Court for adjudication. Other difficult cases are those of conflict with traditional leaders on issues such as jurisdiction, land ownership and boundary disputes. There are also those that are involved in disputes with current land owners on issues such as land prices or the validity of the claim and those that are involved in completing the claimant verification list (Lahiff, 2008). The concept of strategic partnership has become increasingly important in large restitution settlements, especially those involving high-value lands. Under this model, successful claimant communities, organised in a CPA or trust, form a joint venture with a private entrepreneur in whom the entrepreneur (strategic partner) invests working capital and takes control of all farm management decisions for a period of 10 years or more, with the option of renewal for a further period. The potential benefit for the claimant communities include receiving rent for use of land, a share of operating profits, preferential employment opportunities, training and the promise that they will receive profitable and functioning enterprises at the termination of the contracts and lease agreements. A notable example is the Zebediela Estates in Limpopo. Strategic partnership represents an important new departure for land restitution in South Africa (Lahiff, 2008).

The key policy shift is away from an emphasis on land access by claimants and towards maintenance of agricultural productivity. While this has potential benefits for claimants, and for the wider economy in terms of employment and trade, it also

carries considerable risks for all parties involved (Derman *et al.*, 2006). Creating acceptable contractual arrangements is a major challenge. Further potential problems of the strategic partnership model include lack of direct access to the restored land, with the result that community members may be no better off in terms of land for housing and their own small scale farming, which are clearly expressed needs in many claimant communities. The strategic partnership idea presents high risk for claimants where only livelihood benefits come from a combination of rental and dividend payments, which often are not forthcoming. Widespread failure to implement development plans impact on members' livelihoods. Pushing people into joint initiatives contributes to tensions arising and even project failure. On many projects there are often conflicting ideas among the claimants. Many municipalities are ignorant about the restitution process and its obligations. Some municipalities are not informed about claims within their boundaries and this creates problems for spatial development and Local Economic Development (LED) planning. Other municipalities have already developed plans for the land under claim (Lahiff *et al.*, 2006).

Farm workers on commercial farms are largely poor, and only a minority has either the resources or the inclination to engage in agricultural production on their own. Direct access to land to allow beneficiaries to graze their own cattle and to cultivate for them where this is alongside commercial production is the most secure source of improved livelihoods. Land use conflicts are taking place all over South Africa in all provinces. Black people occupied the land before the arrival of the white people. The communities, in most cases, allocated their land appropriately for residential, ploughing and grazing purposes. Grazing was communal and each family had separate ploughing fields. They did not have a communal cemetery, and therefore, they buried their dead next to their dwellings. When white people came to their land, they introduced themselves as farm owners. The local inhabitants who wanted to stay on the farms had to pay tenancy rights by giving a cow to the so-called 'new owner' or work on the farm for 3 months without pay. Those who were not willing to cooperate with the new owners were compelled to leave the farms (LARP, 2008).

In all 5 case studies, land was being used at well below its full potential. The most striking finding from these case studies is that the majority of beneficiaries in all

restitution projects have received no material benefit from restitution in the form of cash income or access to land. It is important that the restitution process be as speedy as possible because many of those dispossessed are in a desperate position and need urgent relief. Those dispossessed by apartheid must now receive justice without delay. After 20 years of democracy in South Africa, there is agreement across political and social systems that land reform programme is in severe difficulties. The programme has been criticised for failing to deliver on its multiple objectives of historical redress, redistribution of wealth and opportunities and economic growth.

Other weaknesses of the programme include the slow pace of land redistribution, the failure to impact significantly on the land tenure systems prevailing on commercial farms and the perception that what redistribution of land has done has not been translated into improvements in agricultural productivity or livelihood benefits for the majority of participants. Land reform in general, and land restitution in particular, must lead to the improvement of the quality of life for all citizens and free the potential of each person. These processes have opened other avenues of thought and research. The output for plots affected by conflict is lower than for those not affected; therefore, plots without conflicts are characterized by higher production (Deininger, & Castagnini, 2006).

New communities emerge and old ones disintegrate during rapid social change, and defining a community (for the purposes of land restitution and reform) is likely to stimulate conflict (Kepe, 1999). Defining the boundaries of a community is of critical importance in formalised communal land systems (Cousins, 2008). Aggravating the challenge for those tasked with establishing these social boundaries is that at the political level ‘community’ has often been romantically portrayed as a coherent, unitary social entity (Walker, 2005).

Some people were not willing to be settled on land that was not near infrastructure, so they would favour land that was near towns or at least schools for their families. Farmers, being aware of these factors, took advantage of them, and that was one of the reasons why the prices soared. There was also the problem of high land prices, capacity problems and inadequate funding- exorbitant land prices that the farmers were charging. Restitution has turned out to be a gradual and bureaucratically

mediated process of returning land to the disposed and its pace has been frustratingly slow (Ntsebeza & Hall, 2007).

Those who once suffered the loss of a material, territorial basis of identity and livelihood demand that past wrongs are set right. Deriving from the experience of being wronged and from the gravity of things long past, restitution claims acquire a moral weight. The right to have the land restored is claimed on the basis both of grievance and of a shared memory of that grievance (Rowlands, 2004). Injustice, grievance, shared memory and community are closely linked ingredients in the restitution package. The impact caused by alternating the purpose of land use can be seen all over the world. This is a complex problem of allocating limited land to satisfy unlimited needs (Gallagher, 2008).

The main problem in the restitution process in South Africa has turned out to be, not a state or current landowners who are intent on opportunistically challenging the claimants' right to claim, but the practical problems that follow after that right has been assented to (du Toit 2000). The post-transfer phase has some challenges. After the land claim has been 'won', the hard work begins. The then Vice-President of South Africa, Jacob Zuma told an audience at the Dwesa-Cwebe handover ceremony in 2001 'prepare yourselves people of Dwesa and Cwebe, development is coming your way!' (Palmer *et al.*, 2002: 275), but 4 years later virtually none had arrived. Transfer ceremonies may be full of pomp and circumstance, but after the dust has cleared and the politicians have all gone home, claimants are confronted with the question of what to do with the land. This may engender 'the loss of the loss' (cited in du Toit, 2000: 82), as the experience or memory of dispossession loses its salience as a rallying point for unity, and the imagined past is confronted with the practical realities of the present. Acquiring land is not a roadmap to wealth. Land, as any other production input, is an asset that needs to be developed and maintained. A lesson from the case studies is that restitution cases are not land hand-over's to be engineered speedily and then forgotten. Social change occurs in the period between loss of land and the restoration of the land, in the process of reoccupying the land, and in the long-term settlement of the land.

Costly support effort and commitment over a long time are required in many cases (May, & Lahiff, 2007). While significant progress has been made in settling restitution claims, considerable challenges remain for those who have regained their land and for the state bodies responsible for providing support. Successful claimants, especially those organised in large community groups, require substantial support over a prolonged period, both in terms of their productive activities and the effective administration of the land. Role players such as Local Municipalities, Provincial Departments of Agriculture and the Provincial officers of the national Department of Land Affairs have not been as active in the area of post-settlement support as might have been expected and need to show greater commitment to the restitution process. The restitution question is further complicated because people who are part of a community when a restitution case is considered may not have any historical link to the land from which that community was evicted (Pienaar, 2008). One of the state's flawed strategies has been to define a claimant community as the individuals and their descendants through lineage who were dispossessed rather than what constitutes that community today (Pienaar, 2009). Hall (2003) argues that it is not practical to attempt to reconstruct fragmented communities many years after they were driven off their land.

In the South African cases, the gap is evident in the contrast between the 'constitutional priority' of land restitution and the unrealistically small budgets available to put it into practice (Walker, 2000). As long as there are insufficient funds to administer and settle the thousands of land claims, the 'promise of the constitution' will remain unfulfilled. Disputes over responsibility for post-settlement support in land reform have characterized the land reform programme as a whole since its inception. The CRLR report notes that: "Institutions playing a role in restitution have passed the buck to the CRLR, which is itself constrained by limited staff capacity, high staff turnover and dependence on outside service providers" (Hall, 2003:33).

Polokwane, as the capital city of Limpopo, is an administration-based conflict settlement institution. Because the state acts as the arbitrator and implementer of land claims, land restitution is a site where both the authority of the state and the language and notion of property gain currency (Nadasdy, 2002). Diverse experiences have shown that restitution is no panacea for rural poverty or underdevelopment; claimants

are all too likely to face disappointment without other kinds of support to make land rights effective for production and livelihoods.

That restitution may disappoint seems almost inevitable, given the symbolic weight ascribed to it by claimants and activists alike. Nevertheless, it is a persistent source of hope, a hope that may entrench a state bureaucracy's hope-generating machine. It has also been the case in South Africa's highly development-oriented restitution process, where there have been many misunderstandings over the nature of community identity and community ownership. The state and its agents, basing their approach on a 'communalist discourse, imagined community to be egalitarian and inclusive. Claimants, in contrast, often thought of it as exclusive and definitively bounded. In the case of District Six, exclusivist and inclusivist versions of community co-existed and were in contention within the ranks of claimants themselves. In any event, the state's suppositions about the communal character of African landholding arrangements led to attempts to transfer ownership of farms to groups. The effect of this was to privatize responsibility for development, social services and the adjudication of disputes. The result has been lack of clarity on the nature of rights and responsibilities, on how disputes between communal owners are to be resolved, and on exactly who is entitled to make decisions about land use.

Many rural land restitution cases were thus wrecked because of this failure to specify precise rights and obligations after properties were given back (Pienaar, 2008). Without understanding the past and without attempts to level the playing field, the South African National Land Reform Programme will not achieve its objectives. Taking note of the influence and the injustices of the past is crucial. When the significant of the past is acknowledged it becomes apparent that the mere equalisation of opportunities (access to land markets) cannot adequately address the inequalities in economic and political power.

5.9 CONCLUSION

All these challenges, such as lack of post settlement support, inadequate planning, lack of training, paradigm shift from commercial land use to spiritual attachment of people to land and the thwarting of the idea of using the land surrounding the city as a

food basket have led to unproductive farms, which leads to unemployment. The rate of unemployment in the surrounding farms will always have an impact in the city. People start migrating to the city in search of better opportunities. This results in squatters in the rural urban fringe which creates more pressure for land in urban areas. Land use change, competition and conflict will occur in the urban area due to these movements.

Polokwane has been promoted from a town to a city and as a result the responsibility given to her is now broader. We expect the city to manage all land use changes, competition and conflicts in the surrounding rural areas, but the city does not want to play its role as a manager of these contestations. Trends in Land use Change` in Polokwane, the capital city of Limpopo and perceptions on land use competition and conflict in Polokwane since 1994 is the theme for the next chapter.

CHAPTER 6: TRENDS IN LAND USE CHANGE AND PERCEPTIONS ON LAND USE COMPETITION AND CONFLICT IN POLOKWANE SINCE 1994

6.1 INTRODUCTION

The previous chapter provided an analysis of the land use change and conflicts in the restitution areas. It showed how the land reform process has contributed to historical and new forms of competition and conflicts which in turn shape and contribute to the changes and conflicts in Polokwane. Land reform affects both urban and rural areas directly and indirectly. While in rural areas conflicts and change is associated with a government policy to address past land injustices, this process further creates new forms of conflicts and change which have impacts even for urban areas. In urban areas as is shown in this chapter the transformation and spatial reorganisation of society and the urban landscape has been the main catalyst for change, competition and conflict which in turn has direct impact on urban development and future growth of city. The first section of this chapter therefore examines trends that have impinged on the spatial planning and land use of the study area and the surrounding peri-urban areas, since 1994. Data used in creating tables and maps were provided by the DLA officials during the survey and discussion with key informants. Since 1994, rapid land use change has continued in Polokwane Municipality. This change has at times beneficial and detrimental impacts and effects. The second section of this chapter provides results from the data collected during the surveys conducted in Polokwane.

6.2 LAND USE TYPES IN THE CITY

The distinctive use of land in the study area can be described with reference to eight identifiable land use zones. The main activities within each zone are associated with retail trade, office development, the motor industry and the city's residential function. The allocation of floor space and characteristics of the land use zones in Polokwane are discussed in the following subsections.

6.2.1 Land Use Composition and Distribution

Table 6.1 shows land use composition in Polokwane. Retail floor space covers approximately 382 200m², which makes 32% of total floor space. Offices cover about 565 250m², which is 47% of the total floor space. The motor industry covers about 72 500m², which makes 6% of total floor space. More than half (80% of all retail in the CBD is found in zone 3 and the remaining 20% or less is evenly distributed in other zones. Zone 3 holds the largest number (42%) and zone 2 holds 35% and zones 1 4.7%. More than 90% of the office space in the CBD lies in these four zones.

Table 6.1: Land use composition in Polokwane in 2007

	Percentage
Office floor space	47
Retail floor space	32
Motor industry	6
Other	15
Total	100

Table 6.2 shows dwelling floor space in different zones. Zone 7 holds the largest percentage (60%) of motor industry services because of the motor trading that takes place in the north-eastern part of this zone. Zone 5 has the second largest motor trade floor area (22%). Most of the floor space allocated to dwellings is found in zone 7 (60%); and the second largest is zone 6 (19%), followed by zone 2 (7%).

Table 6.2: Dwelling floor space in different zones

Zone	Percentage
Zone 7	60
Zone 6	19
Zone 2	7
Other	14
Total	100

Table 6.3 shows floor space allocation to flats in different zones. Zone 4 has the largest amount of the floor space of flats (58%) in the CBD followed by zone 2 (30%). Zones 1 and 3 hold small percentages of the floor space used for flats. Sites under construction were recorded in zones 3 (90%) and 5 (10 %) (Figure 6.1).

Table 6.3: Floor space allocation to flats in different zones

Zone	Percentage
Zone 4	58
Zone 2	30
Other	12
Total	100

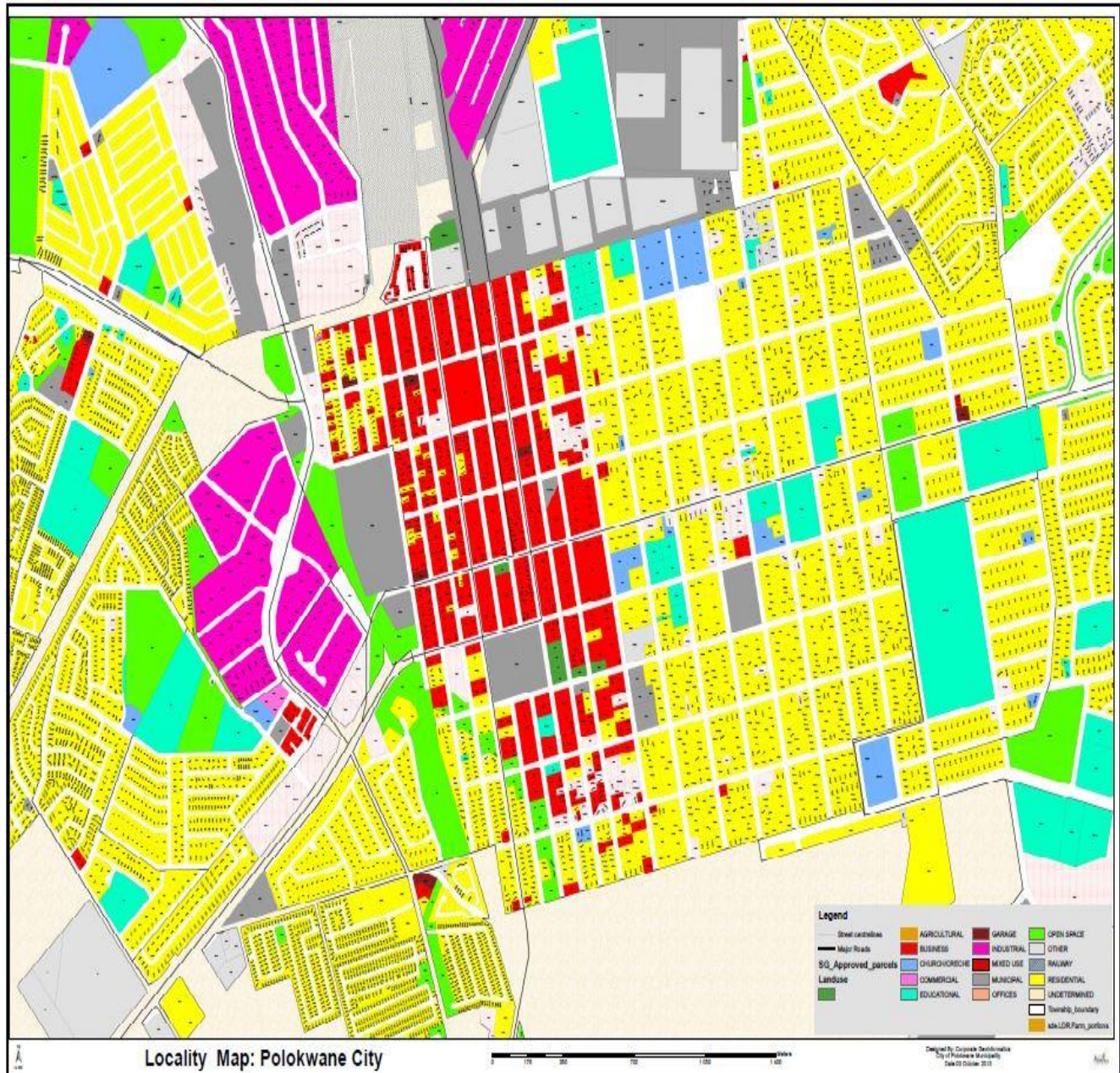


Figure 6.1: Land use map: Polokwane City (2013)

Adapted from the Department Land Affairs (2013), Limpopo Province, South Africa

6.2.2 Characteristics of Land Use Zones

Zone 1: Low Density Office Zone

This zone is characterised by a large number of houses being used as offices. Office complexes are also seen in this zone. Offices cover about 86% of the floor space in this zone. Most of the area is relatively small and most of the buildings have been

converted into houses and offices. A small section of the CBD, north-west of this zone, functionally forms part of zone 1 because it is also a low density office area. Only a small number of residential properties are still found in this area. Developmental pressure is mounting and movement towards the adjacent strip of residential development to the south and the south-west of zone 1 is taking place fast.

Table 6.4 shows land use composition in zone 2. A large number of government institutions occupy this zone, hence the name, Institutional Zone. The Polokwane Municipal offices, the Premier's office and many government departments have been established in the area over the years giving rise to land use change. TELKOM and ESKOM are parastatals that have offices in this zone. Offices cover about 81% of the total floor area in this zone. Retail holds 5% and flats cover about 8% as indicated in Table 6.4.

Table 6.4: Zone 2 Land use composition

Zone	Percentage
Office floor space	81
Retail floor space	5
Flats	8
Other	6
Total	100

Zone 3: Trading Zone

Table 6.5 reveals zone 3 land use composition. This is dominated by retail services with offices, motor related industries and service industries. It is the core retail zone of the CBD and of Polokwane as a whole. Retail is the dominant land use, covering 49% followed by offices (38%) and the motor trade (6%).

Table 6.5: Zone 3 land use composition

Zone	Percentage
Office floor space	38
Retail floor space	49
Motor trade	6
Other	7
Total	100

Zone 4: Trading/Office Zone

Table 6.6 reveals zone 4 land use composition. This zone has various business activities that are dominated by retail trade, offices and motor industry-related businesses as well as some flats. Offices and financial institutions lie along Hans van Rensburg Street, from Devenish Street to Grobblers Street. Office development is the dominant land use in zone 4 covering 43%, followed by flats, 33%, retail, 12%; motor trade and services, 4% each. The area has a potential for land use competition.

Table 6.6: Zone 4 Land use composition

Zone	Percentage
Office floor space	43
Flats	33
Retail floor space	12
Motor trade	4
Service	4
Other	4
Total	100

Zone 5: Motor Town Zone

Table 6.7 reveals land use composition in zone 5. Zone 5 was identified as the Motor Town Zone due to the dominance of various motor industries related activities. There are also accommodation facilities, including a hotel and overnight accommodation

facilities. The motor trade covers 36% of floor space in this zone, followed by hotel and overnight accommodation, 30%, retail, 17% and office, 11%.

Table 6.7: Zone 5 Land use composition

	Percentage
Office floor space	11
Overnight accommodation	30
Retail	17
Motor Trade	36
Other	6
Total	100

Zone 6: Office/Trading Zone

Table 6.8 shows land use composition in zone 6. The appearance of this area and land use types found in this zone reflect a transitional character. Retail businesses and offices exist in this area. Most of the offices in this area are dwelling house offices. Approximately 30% of the land in this zone is either vacant (this might cause land use conflict) or used for residential purposes. This land is therefore potentially available for development. Offices hold 35% of the total floor space; retail covers 40%, the motor industry, 8% and dwellings use about 8% of the floor area. Land use competition is inevitable in this area.

Table 6.8: Zone 6 Land use composition

	Percentage
Office floor space	35
Dwelling	8
Retail	40
Motor Trade	8
Other	9
Total	100

Zone 7: Transition Zone

This zone is part of Polokwane CBD and it is still predominantly a residential area. Retail, offices and motor related businesses use about 60% of the land in this area. Most of the buildings are still residence. Almost all the houses in this zone are illegally used as boarding houses. The uncontrolled accommodation of people in this zone is a serious problem because it causes major health and safety risks. It also has a negative impact on future business development in the area. Table 6.9 shows land use composition in zone 7. Residences utilise about 39% of the floor space in this zone, retail uses 40% and offices only 7%. This area has the potential to experience land use competition, conflict and change.

Table 6.9: Zone 7 Land use composition

	Percentage
Office floor space	7
Dwelling	39
Retail	40
Other	14
Total	100

Zone 8: Infill Zone

Table 6.10 reveals land use composition in zone 8. Zone eight comprises four street blocks situated on the northern side of the CBD. A street block used for public open space is found in this zone. Most of the other properties belong to the state such as the South African Broadcasting Corporation (SABC), the Department of Education and the Tshwane University of Technology. The motor trade and retail industry are also found in this area. Offices use 35% of the floor space, retail approximately 21%, motor industry 21% and education 17%. There are two secondary areas besides the CBD and this shows that the study area exemplifies the multiple nuclei model of city structure (Figure 4.3). The first one is an area dominated by residences located on the southern side of the CBD. This area is experiencing increasing development pressure from the CBD in the form of home office establishments and leads to a change in land use. The second area is situated to the north-west of the CBD. This area belongs to the

municipality. The bus depot and long distance taxi rank fall in this zone. The Municipality has developed an overall LED strategy which aims at promoting economic growth and redistribution (DIDP, 2010/2011).

Table 6.10: Zone 8 Land use composition

	Percentage
Office floor space	35
Motor Trade	21
Retail	21
Education	17
Other	6
Total	100

6.2.3 Spatial Growth Trends

- **Urban Growth**

Polokwane Municipality is made up of 35 wards and the city is made up of the old Pietersburg and Seshego. These wards apart from those in which Seshego fell in, were previously exclusively reserved for the white population during the apartheid era and had no form of racial integration because other races were situated outside the periphery areas of Pietersburg separated with buffers. The rest of the Municipality is dominated by the black population and no form of racial integration has occurred in these areas. This could be as a result of the poor infrastructural activities and service delivery that exist in these areas which have not been able to attract other racial groups to move into these wards. The urban area is experiencing racial integration. The reason for the racial integration in these wards is the continuous influx of people from the rural wards to the city in the bid to secure white collar jobs and also the presence of high level infrastructural facilities and municipal service delivery. The former group areas have not only become spaces of desegregation but also of class-based segregation or social exclusion. Residential desegregation directly contributed to and influenced the social transformation process in Polokwane from being a white conservative city to one of the most integrated cities (Donaldson, 2005).

Growth trends in the study area generate land use change, competition and conflict. The presence of agriculture and non-rural land use in the one location can often generate conflict due to their potential incompatibility. Agriculture can affect adjoining small rural lots which are used mostly for residential purposes. On the other hand, the presence of small rural lots creates an adverse influence on the continued operation of the agricultural enterprise. Rapid urbanisation in the world is quiet alarming, especially in developing countries (Kumar *et al.*, 2007). The study area is undergoing dynamic urbanisation transformation, which has inadvertently affected the growth pattern of the city.

Conflicts are also caused by inter alia individual occupation of private land, the group invasion of private land and occasional building extension on state land. Land use conflicts between private and public utilisation due to general disregard of land use regulations by majority of people also occur. Land use conflicts occur at both interpersonal and inner-societal levels. Micro-social, meso-social and macro-social dimensions of conflicts are all found in the study area. Land is not just a commodity or a means of subsistence. It is a capital asset and a source of cultural identity as well as a factor of production. Land is a conflict-ridden resource, and due to its many meanings, it is a sensitive issue in Africa. Disputes and conflicts about land occur at all levels (Odgaard, 2006). For the purpose of this section, the study area is divided into 3 regions viz. Region A (the city), region B (Seshego, former homeland area) and region C (Blood River and Ga-Mabotsa area, former homeland area). This section will focus on urban growth coverage, informal and formal residential land use change, commercial and industrial growth for the period 1994 to 2002.

Polokwane Urban Growth Dynamics:

1994 Period:

The following mapping series (Figures 6.2–6.24) highlight the consequent urban growth dynamics in the study area between 1994 and 2002. These dynamics are addressed in terms of urban coverage (industrial, commercial and residential); and formal and informal residential land use changes. The data was obtained from various secondary resources. Figure 6.2 shows urban growth coverage in the study area in

1994. There was little development in and around the CBD (region A). Growth in regions B and C is not remarkable.

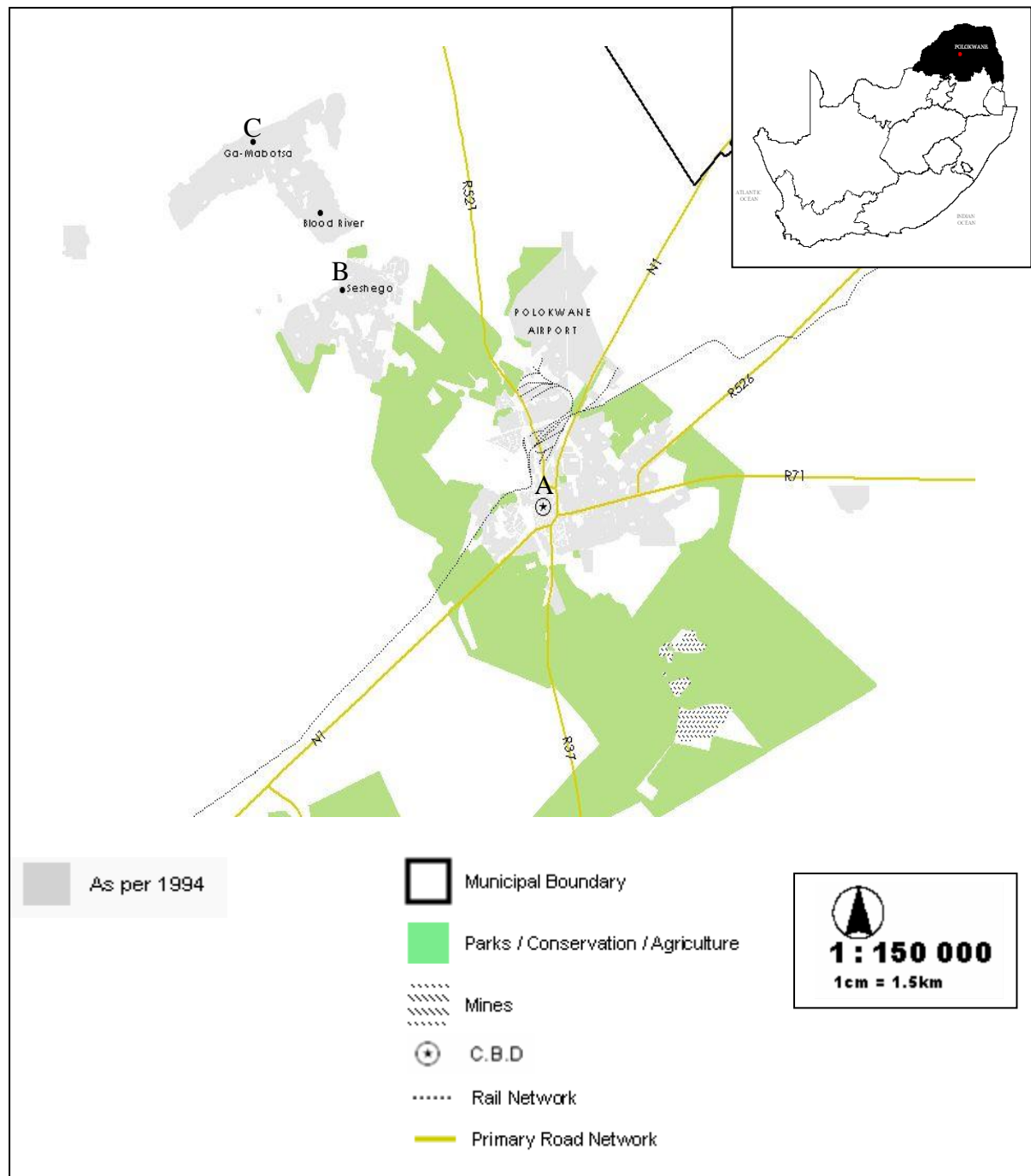


Figure 6.2: Urban coverage (1994)

Source: Adapted from the Department of Land Affairs (2009)

- **1994 – 1996 Period**

Urban growth has occurred in the city of Polokwane between 1994 and 1996 both within the city and in the suburbs around it (region A). There was an expansionary

and fill-in growth in the Flora Park, Penina Park, Bendor, Westernburg and Ladanna areas. The growth within the Bendor, Flora and Penina Parks can be attributed to the construction of single stand houses and townhouse complexes and security villages by the private developers. However, the growth in Westernburg, Ladanna and Laboria is linked to the expansion of industrial activities within these areas (region A). All these developments contributed to land use change which is evident in the area (Figure 6.3). The emergence of expansionary developments in the Makgofo, Perskebult

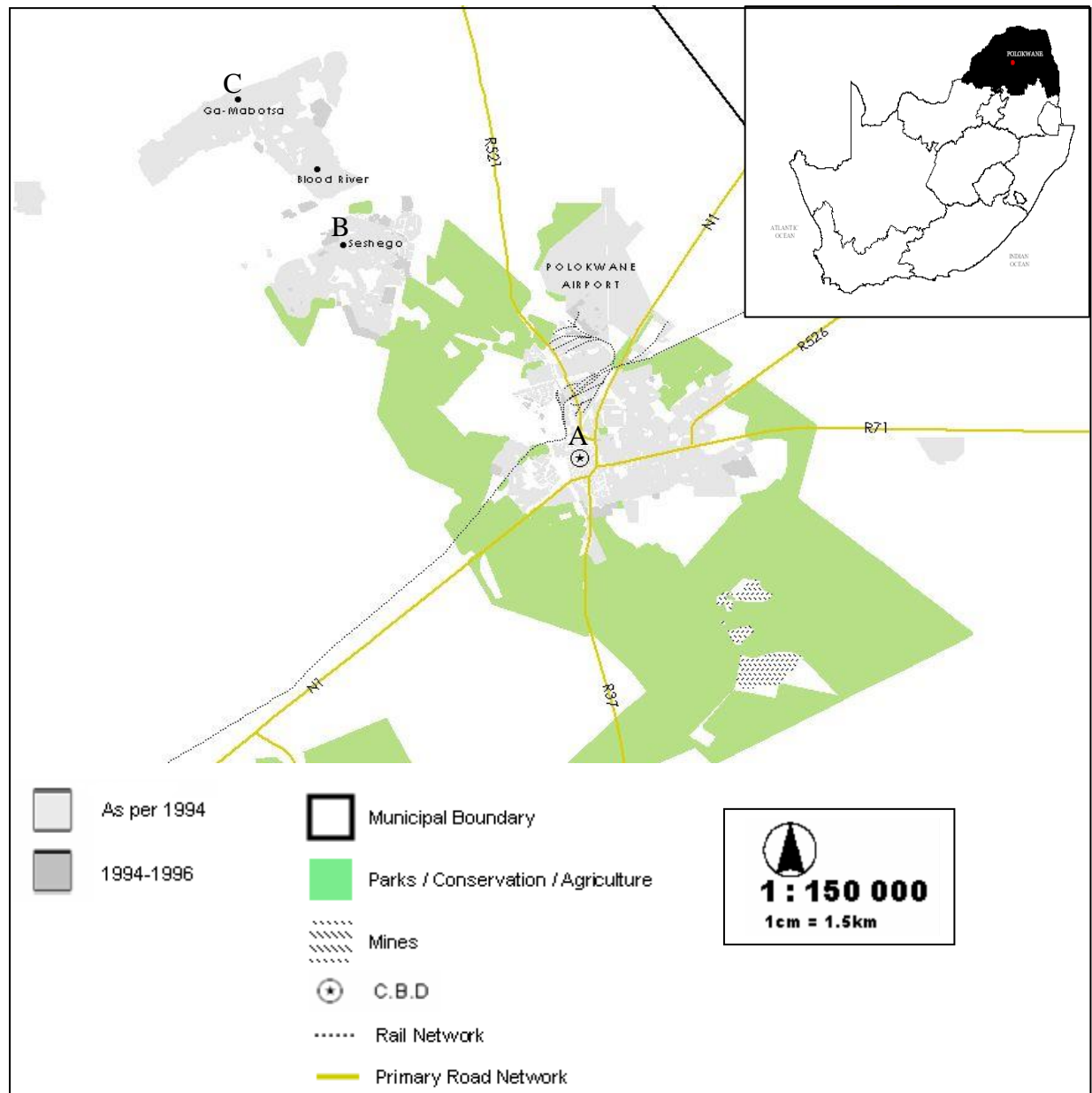


Figure 6.3: Urban land-use change (1994-1996).
Source: Adapted from the Department of Land Affairs (2009)

(Region C) and Seshego Zones A and F (region B) occurred during this period. The growth in the Makgofo and Seshego Zone A areas is a reflection of the delivery of

affordable and low-cost housing for the lower income groups by the Municipality and the private developers. However, the growth within Perskebult and Seshego zone F is linked to the expansion of informal settlements. The spatial pattern of the study area shows the implications of the pre-1994 spatial initiatives which included a displaced urbanisation and settlement pattern that was distorted, fragmented, unequal, incoherent and inefficient (Pieterse, 2004 & Boshoff, 2003). The philosophy of racial segregation underpinned the spatial development planning in the study area. Urban planning became a tool for the manipulation of space as a means of segregating the local communities from the whites, serving the needs of trade and administration and providing whites with an acceptable living environment (Yuen, 2011). The study area is a fertile ground for land use conflict.

- **1996 – 1998 Period**

During this period there was expansionary and infill growth in some existing areas that had experienced growth between 1996 and 1998, as well as in some new areas. High and middle class areas like Flora Park, Nirvana and Bendor (region A) continued to experience tremendous growth as private investors bought land to develop townhouses and security villages as a form of private investment. This period also witnessed infill growth in the Superbia and Lithuli areas that is due to the increase in industrial activities along the industrial belt between Westernburg and Laboria. Seshego Zone F, Perskebult (region B) and New Pietersburg developed as a result of the emergence of informal settlements, which, in the case of Seshego Zone F, was eventually formalised by the Council, thereby causing the continuous growth of the area. New infill growth emerged in Makgofe in region C and Seshego Zone B, which are actually residential areas for the lower income class (Figure 6.4). This was caused by the provision of low-cost and affordable houses by private developers and the municipality and has caused rapid land use change. Region B and C developed due to apartheid planning where most of the poor are located far away from places of economic, cultural, recreational and educational opportunities (Pieterse, 2004).

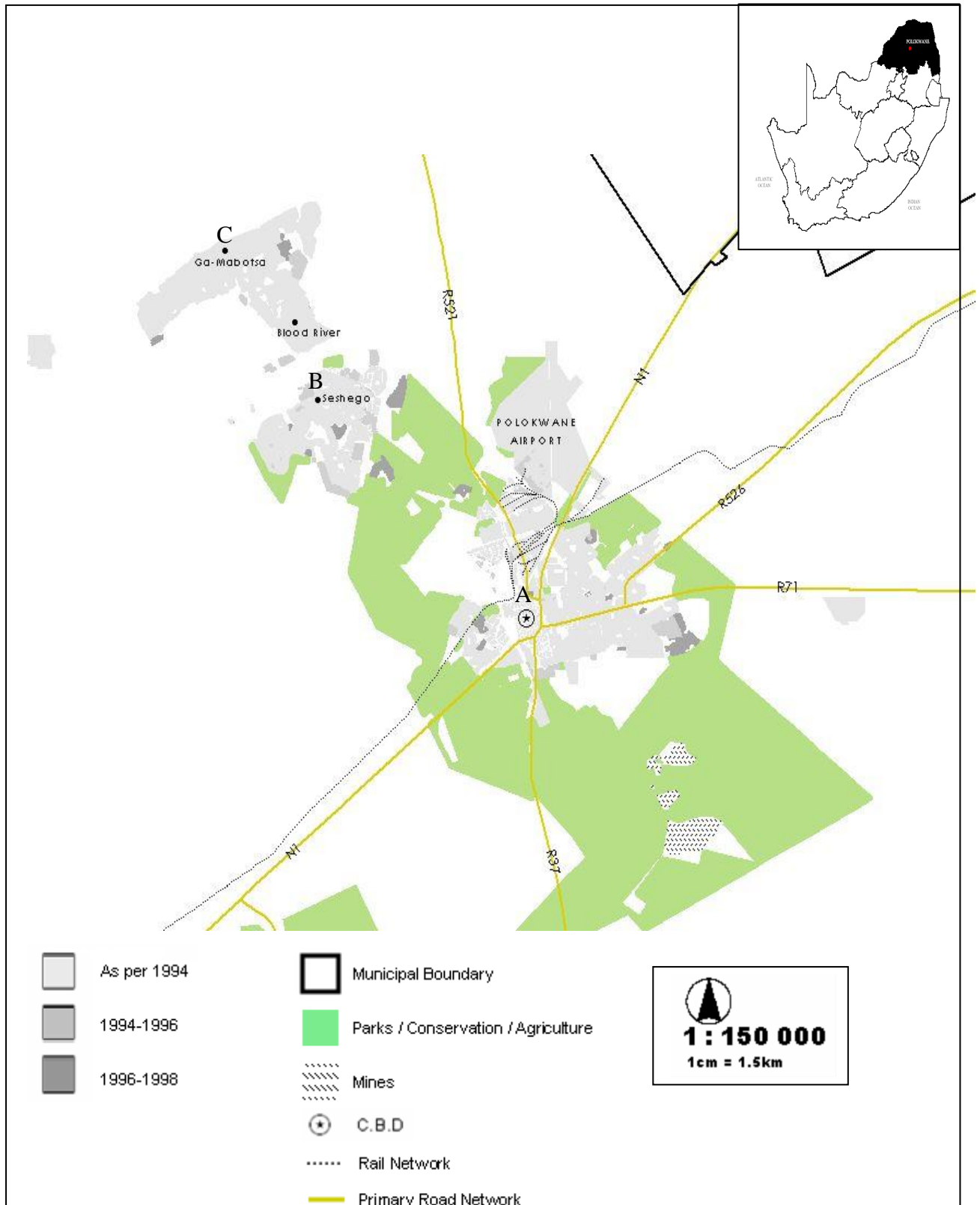


Figure 6.4: Urban land-use change (1996-1998)

Source: Adapted from the Department of Land Affairs (2009)

- **1998 – 2000 Period**

This period saw the continuous expansion of the high-income residential areas like Bendor and Penina Parks in region A. This can be attributed to huge investments in townhouse and security village developments by the private developers. The trend of high-income residential developments spread into the Fauna Park area demonstrating the emergence of some infill growth. An immense isolated linear branch of growth emerged in Ivy Park (region A), a relatively middle-income residential area within the Ivydale agricultural holdings, which could be attributed to the opportunities that lie along the N1 motorway into the city, as well as to the development of the Meropa Casino. There were pockets of infill growth along the industrial belt of Westernburg, Ladanna and Laboria in region A, due to the unique character of the southern access routes that led to the continuous increase in industrial activities within the region as well as to the introduction of municipal intervention policy to give the area a facelift. Another linear branch of development noticed within the period is to the Blood River area in region C that can be attributed to the development of private housing projects by the lower income groups who took advantage of cheap land within the area (Figure 6.5). All these trends have led to land use change. Huge expansion growth continued to occur in Seshego Zone F (region B), previously an informal settlement until it was formalised. Within this period, there was an unexplained influx of squatters into other informal settlements such as Persebult and New Pietersburg whose inhabitants are mostly immigrants who illegally establish residence in areas deemed unsettled or with poorly defined tenure (Muriuki *et al.*, 2010).

This period also saw the evolution of huge growth in Seshego Zone E, which is directly linked to the delivery of low-cost housing. Land use conflict arises where there is no separation between incompatible uses, let alone the misunderstanding which may exist about the purpose and the character of the land. Land use conflicts may arise in such situations through noise, odour, farm chemicals, stock damage, lack of understanding and lack of communication.

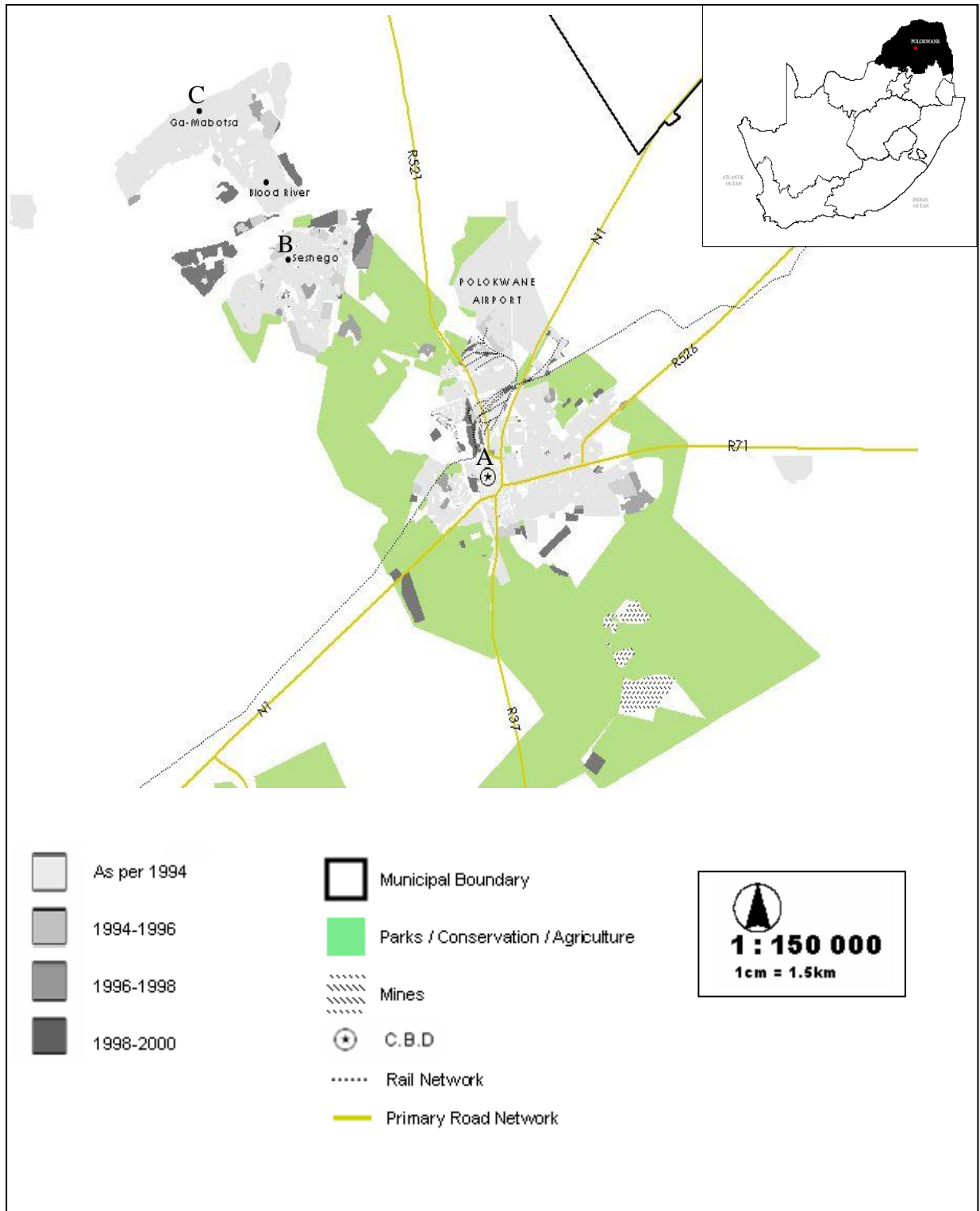


Figure 6.5: Urban Land-use change 1998-2000

Source: Adapted from the Department of Land Affairs (2009)

- **2000 – 2002 Period.**

The dominant type of growth during this period was caused by building on existing vacant land within the area except in Perskebult and Blood River in region C. There was noticeable infill growth in the high income areas, like Fauna Park, Penina Park and Bendor in region A, which emanated from the continuous construction of single stand houses and townhouse complexes within these areas. There was also noticeable infill growth along the industrial belt running along the Westernburg, Ladanna and Laboria (region A) axis as a result of the increased industrial activities within the city and due to the fact that manufacturers were taking advantage of the city's proximity to the international border thereby making exportation of goods to other southern African countries easier. Infill growth also continued in Perskebult, Blood river (region C), Seshego Zone A, E and F (region B) due to the construction and development of residential houses for the informal settlers and lower income groups. Kgothwane and Ga-Mabotsa, in region C, which were formerly part of the homelands, experienced some linear growth that can be attributed to low income housing provision by private individuals (Figure 6.6). Urbanisation is one of the most significant phenomena currently affecting all of humanity. Many current environmental problems are directly or indirectly related to rapid urban growth. Urbanisation has significant effects on our natural environment and the services it can supply to humanity (Forman, 2008).

The world is in the throes of sweeping population shift from the country side to the city. Underpinning this transformation are the economies of scale that make concentrated urban centres more productive. This productivity improvement from urbanisation has delivered substantial economic growth and reduced poverty in many countries. Managing the opportunities and development challenges of cities is both vital and urgent as global urbanization rushes ahead on a dramatic scale. Urbanisation has been a cornerstone in the economic development of countries. Urban centres foster the growth of higher productivity jobs and industries and reduce the cost of delivery services. The decline in rural population as a result of urban migration allows rural areas to improve productivity, which in turn raises rural income. The growth of most urban centres is bound by an inability to manage their size in a way that maximizes scale opportunities and costs. Large urban centres are highly complex,

demanding environments that require long planning horizon and extraordinary managerial skills. Many governments are not prepared to cope with speed, at which their populations are expanding and this urbanization brings about land use conflict (Wang *et al.*, 2010).

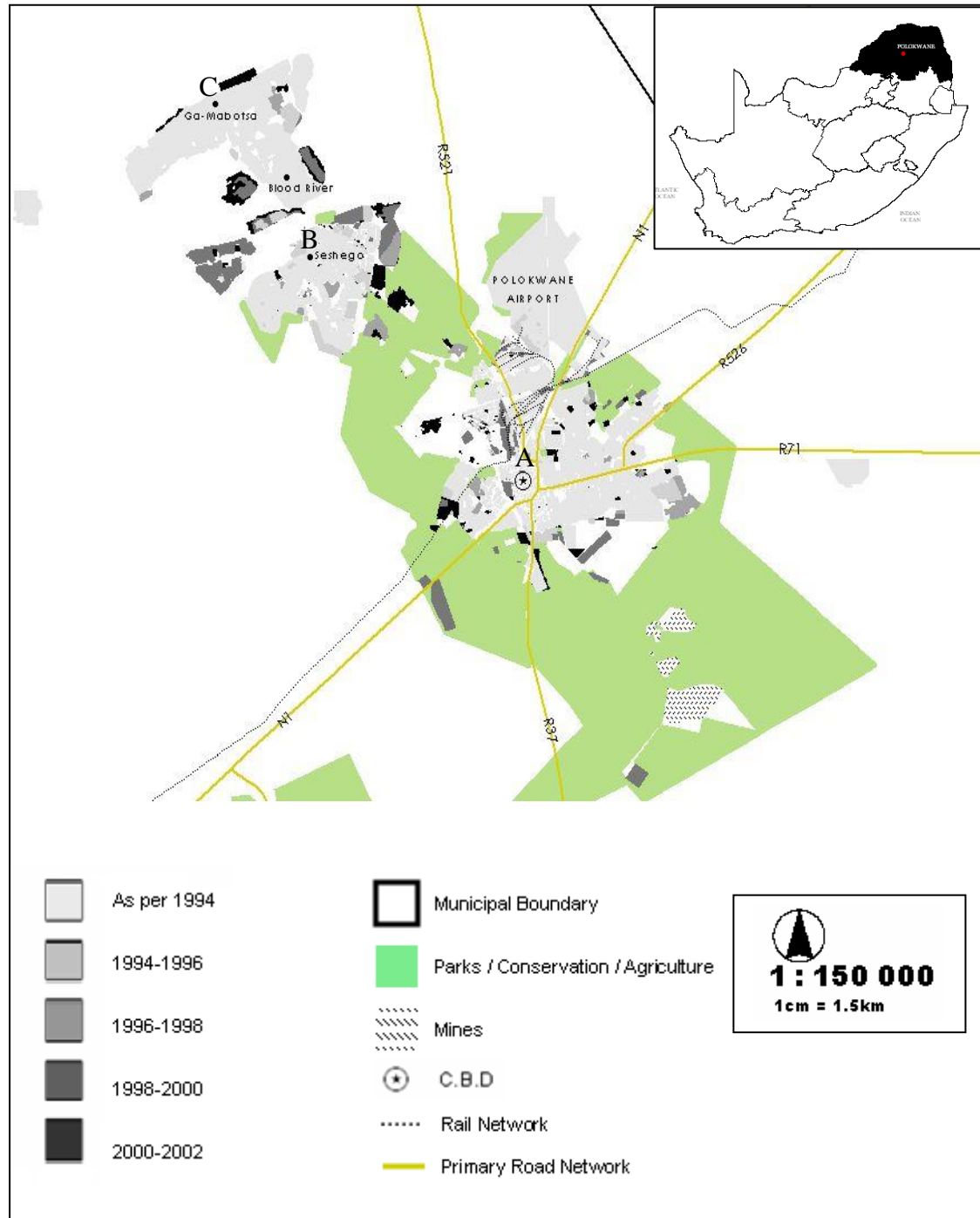


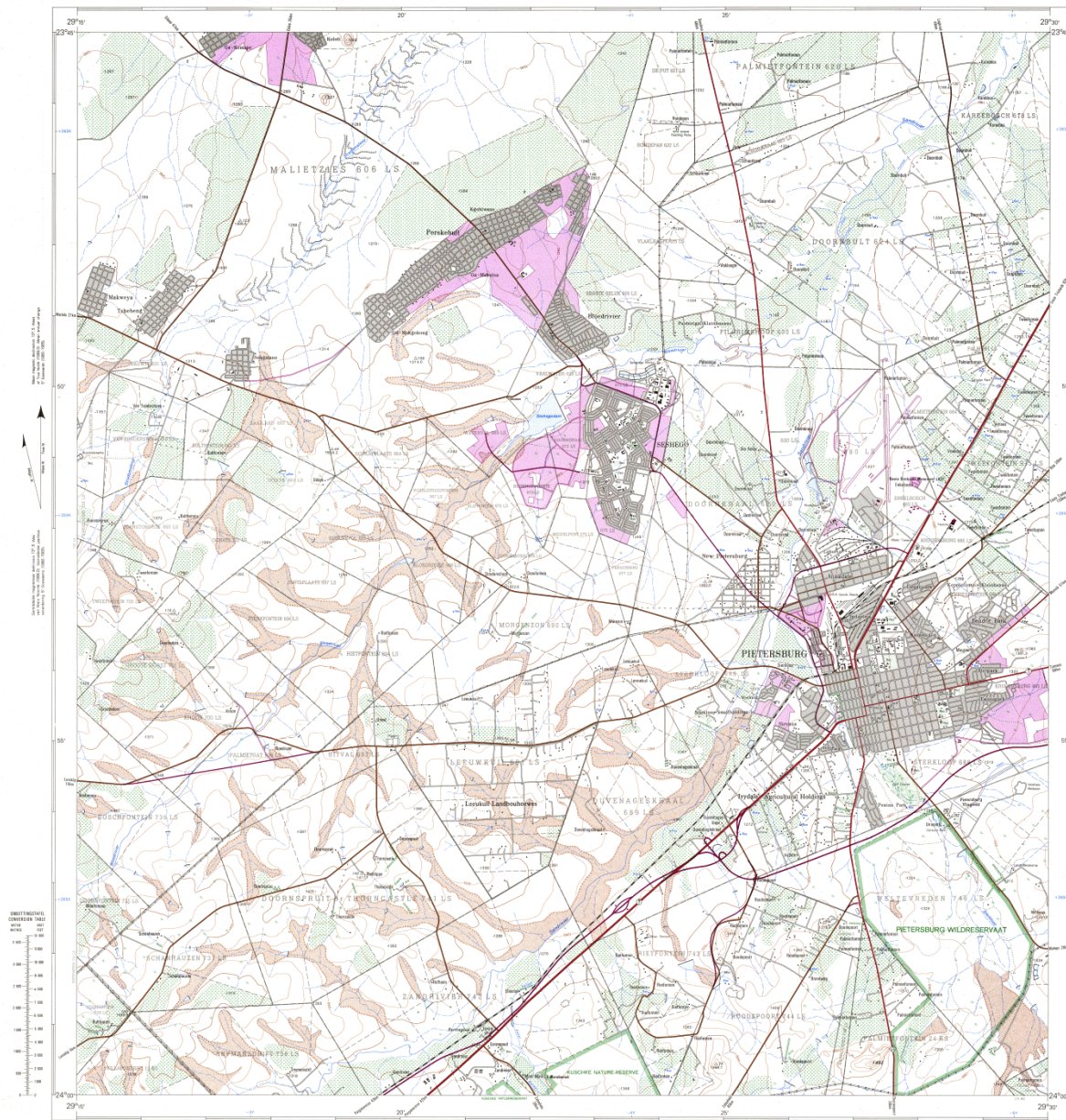
Figure 6.6: Urban land-use changes (2000-2002)
Source: Adapted from the Department of Land Affairs (2009)

The overall spatial growth trend in the study area between 1994 and 2002 has been predominantly in the eastern and north western part of the former Pietersburg city. This growth trend has taken the expansionary growth pattern with some elements of infill characteristics in the Seshego region and the central part of Polokwane. The growth in the study area within the study period can be broken into two distinct types; these are the high and low order developments. The low order developments are situated on the north western part of the city in regions B (Seshego Zones A, C and F) and C (Blood River and Perskebult). The emergence of these developments are as a result of push factors that have been militating against the expansion of these areas as was entrenched by the apartheid era in addition to the provision of low cost housing project that was undertaken by the Municipal Council in the Seshego and Westernburg areas (Figure 6.7 and 6.8). The study area is undergoing constant urbanisation transformation which has inadvertently affected the growth pattern of the city. The transformation is an off-shoot of the implications and legacies left by apartheid spatial legislations which have in recent years seen the outflow of people from previously disadvantaged areas to the city thereby resulting in land invasion, squatter settlements around the south western part of the city. The government is currently battling to tackle the problems associated with the rapid urban processes in such a fragmented spatial form (Turok, 2001).

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Figure 6.7: Polokwane as it was in 1998 Adapted from the Department Land Affairs (2013), Limpopo Province, South Africa

6.2.4 Residential Growth

Informal residential land use change

The following mapping series highlights informal residential growth between 1994 and 2002. Formal land uses for the baseline period are reflected in light grey, while growth of informal residence is depicted in a yellow to brown colour ramp. The informal settlements that sprang up during the study period were in the New Pietersburg areas around the fringes of Annadale, Futura and Ladanna (region B).

- **1994 – 1996 Period.**

During this period, informal settlements developed on the southern, northern and north eastern parts of Seshego in region B. Informal settlements also occurred on the south western part of the Blood River area in region C (Figure 6.9). Most of these informal settlements came into existence between 1998 and 2002 which could be seen as a result of influx of people from Seshego towards the city centre to reduce their travel distances to work and, most especially, to become beneficiaries of low income houses in the next informal settlement formation process.

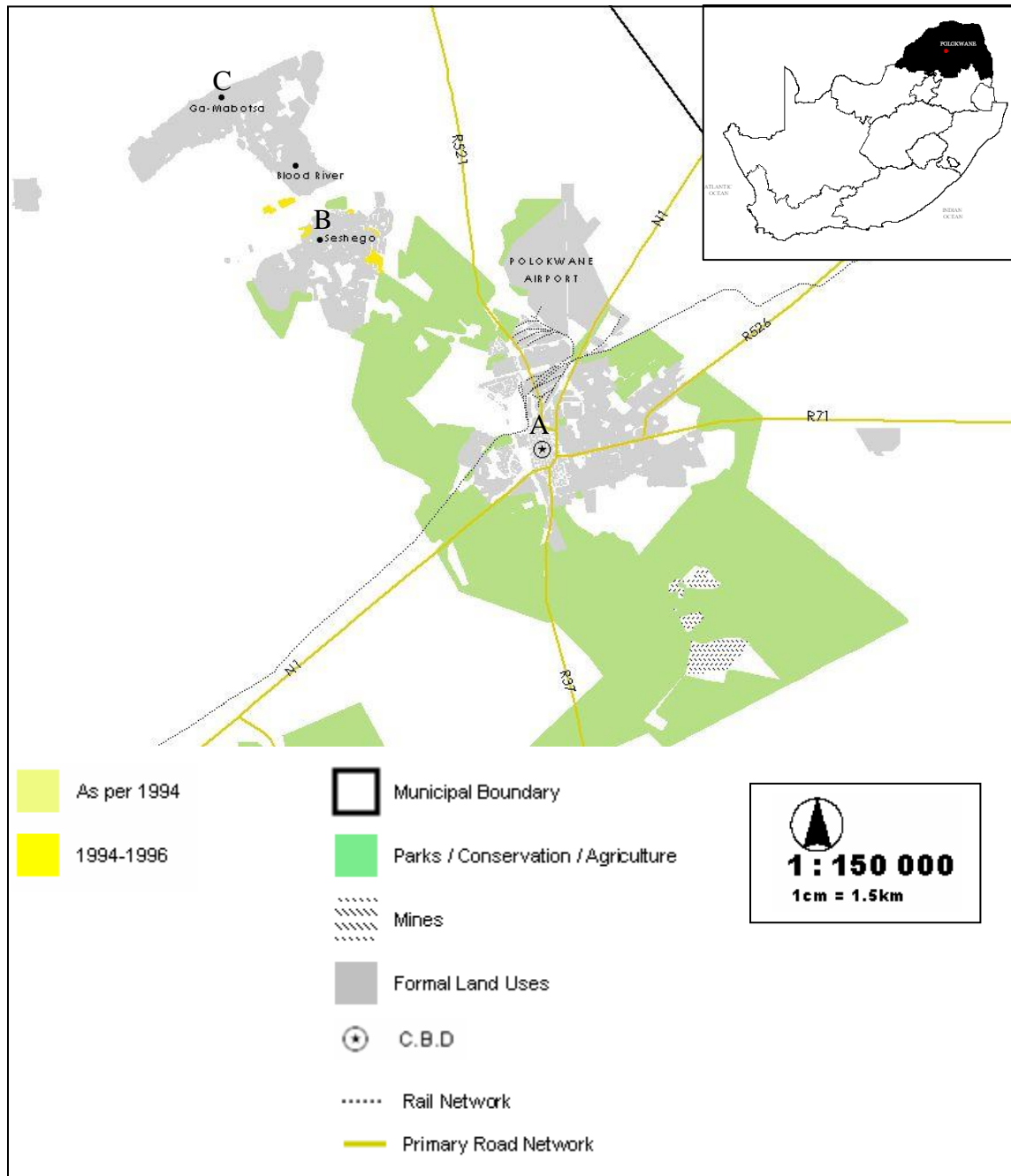


Figure 6.9: Informal residential land-use changes (1994 – 1996)
Source: Adapted from the Department of Land Affairs (2009)

- **1996 – 1998 Period**

An infill development emerged within Makgofe in region C as well as an expansionary growth with outlying characteristics on the southern tip of Perskebult (region C) which sprang up as a result of continuous expansion of the informal settlements in this area leading to urban growth.

There is an increasing competition for the available land and this increases the potential for conflict with non-rural residents (Figure 6.10). Urban growth is seen as one of the potential threats to sustainable development where urban planning with effective resource utilization, allocation of natural resources and infrastructure initiatives are key concerns. Information on urban growth is of great interest in urban and suburban areas for diverse purposes, such as urban planning, water and land resource management, market analysis and service allocation (Jati *et al.*, 2008).

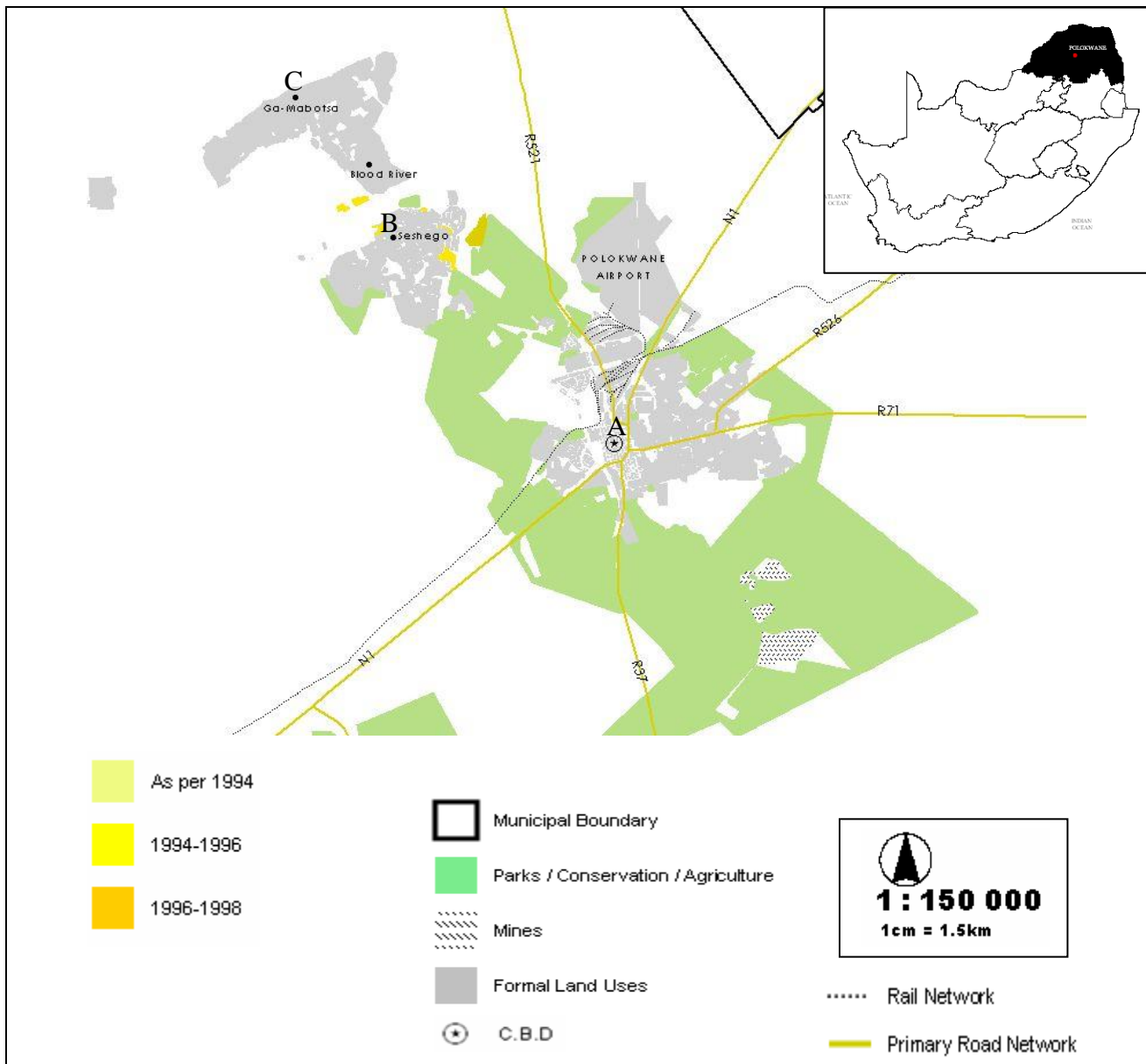


Figure 6.10: Informal residential land-use change (1996 – 1998)
Source: Adapted from the Department of Land Affairs (2009)

- **1998-2000 Period**

The 1998-2000 period was also characterised by the informal residential development in Perskebult in region C. This was previously a homeland that now falls under the jurisdiction of the Polokwane Municipality. This is another informal settlement that has expansionary growth with outlying characteristics. It is inhabited by squatters with the intention that it would soon be formalised by the Municipality. There was also the emergence of infill development within the Makgofe in region C. New Pietersburg, in region B, is an informal/squatter settlement that stands as an attachment to Seshego zone A (Figure 6.11). This area was previously formalized by the Municipal Council and later withdrawn leaving stand title holders clueless on their fate. It has continued to grow in size due to influx of people from mostly the rural areas with the intention of getting jobs in addition to paying lower rents. This development was caused by continuous expansion of the informal settlements that exists there leading to land use change in these areas.

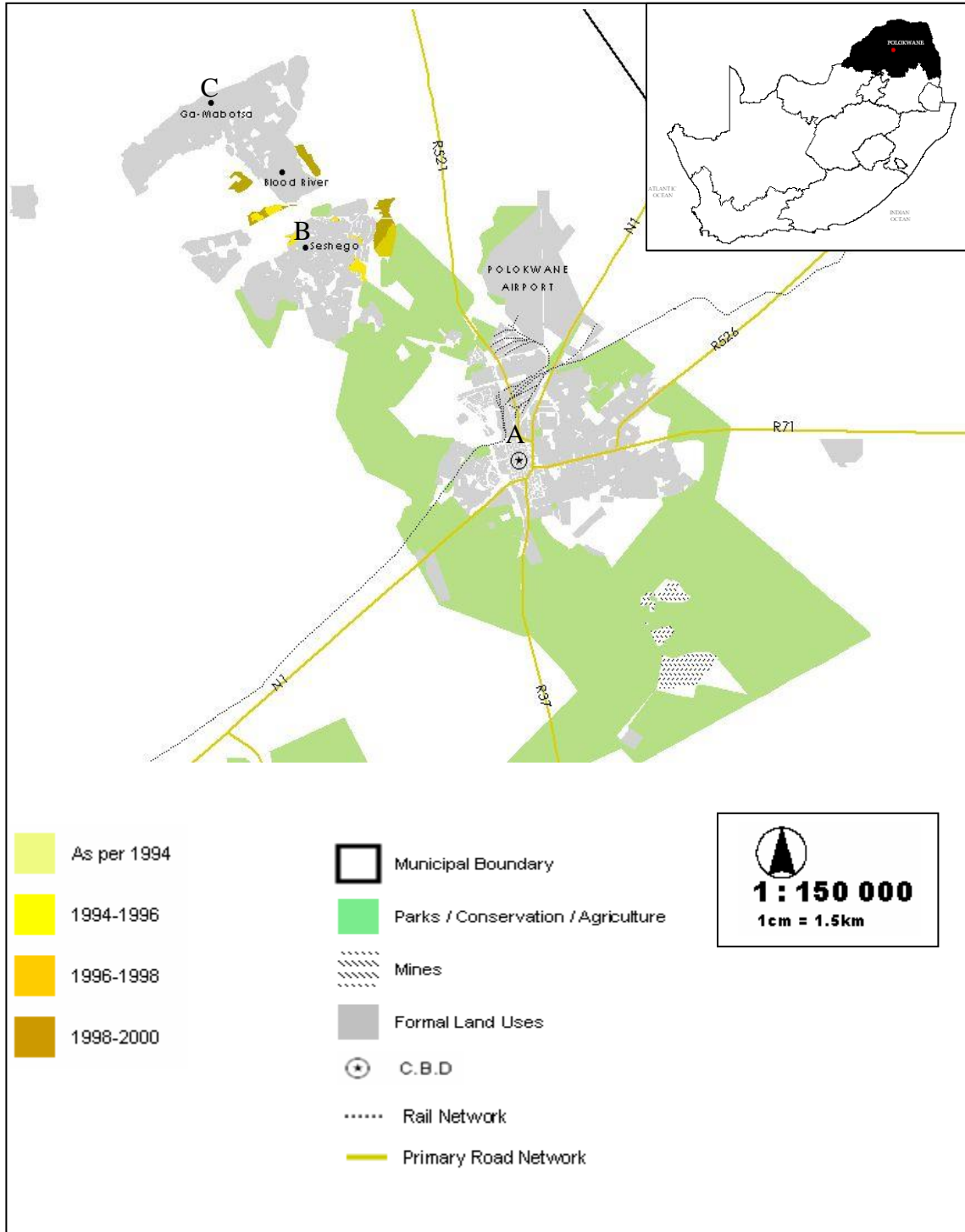


Figure 6.11: Informal residential land-use change (1998 – 2000)

Source: Adapted from the Department of Land Affairs (2009)

- **2000-2002 Period**

Figure 6.12 explain the residential growth that has occurred in the study area between 2000 and 2002. This period produced mostly expansionary growth patterns that occurred in some parts of Persebult, in region B, which is due to continuous growth of informal settlement that exists there. The informal settlement that sprang up during the study period occurred in the New Pietersburg areas around the fringes of Anadale, Futura and Ladanna. Facilitating urbanization and increasing interactions between rural and urban, rather than trying to prevent or ignore it, can stimulate rural and urban growth.

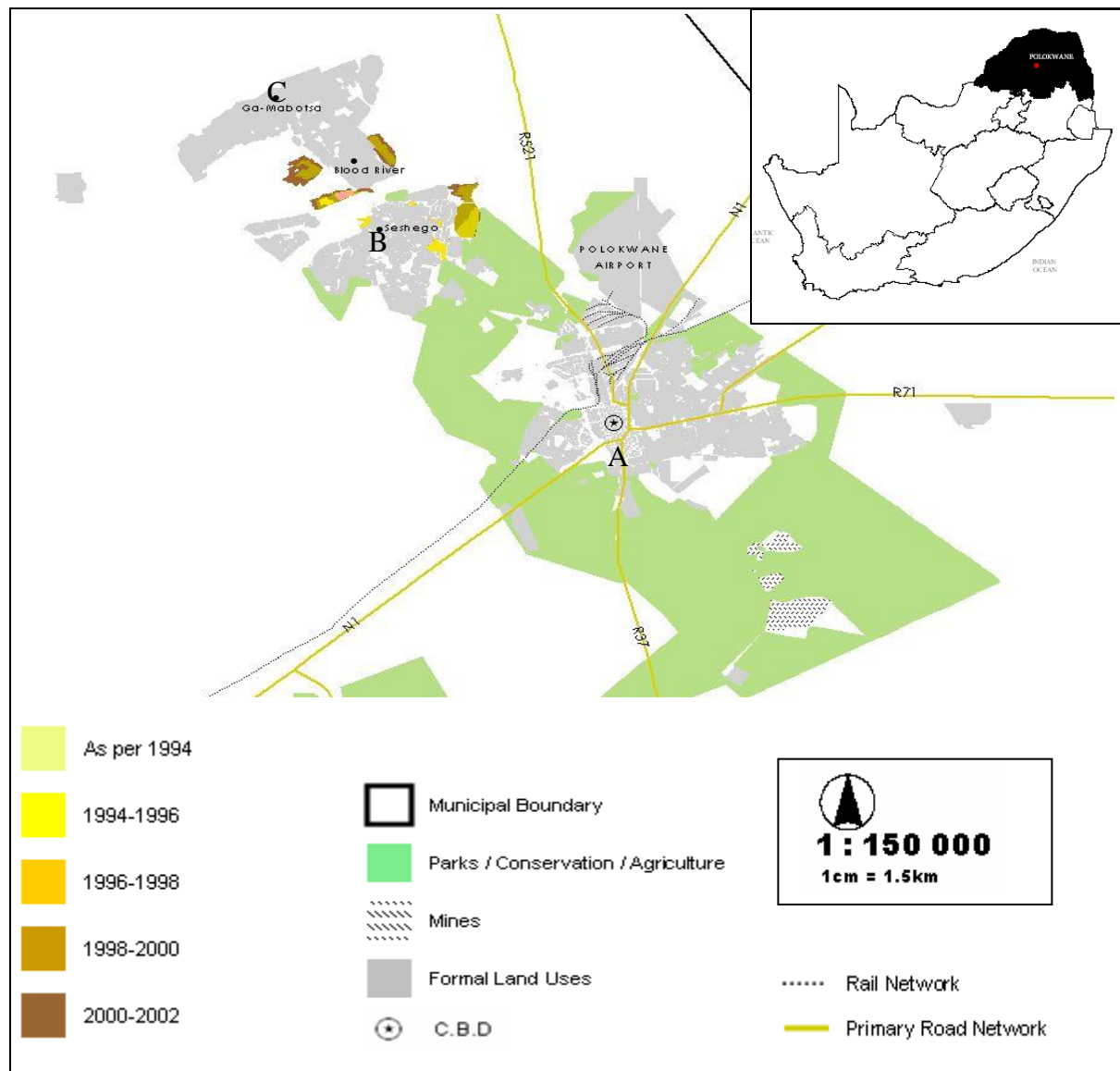


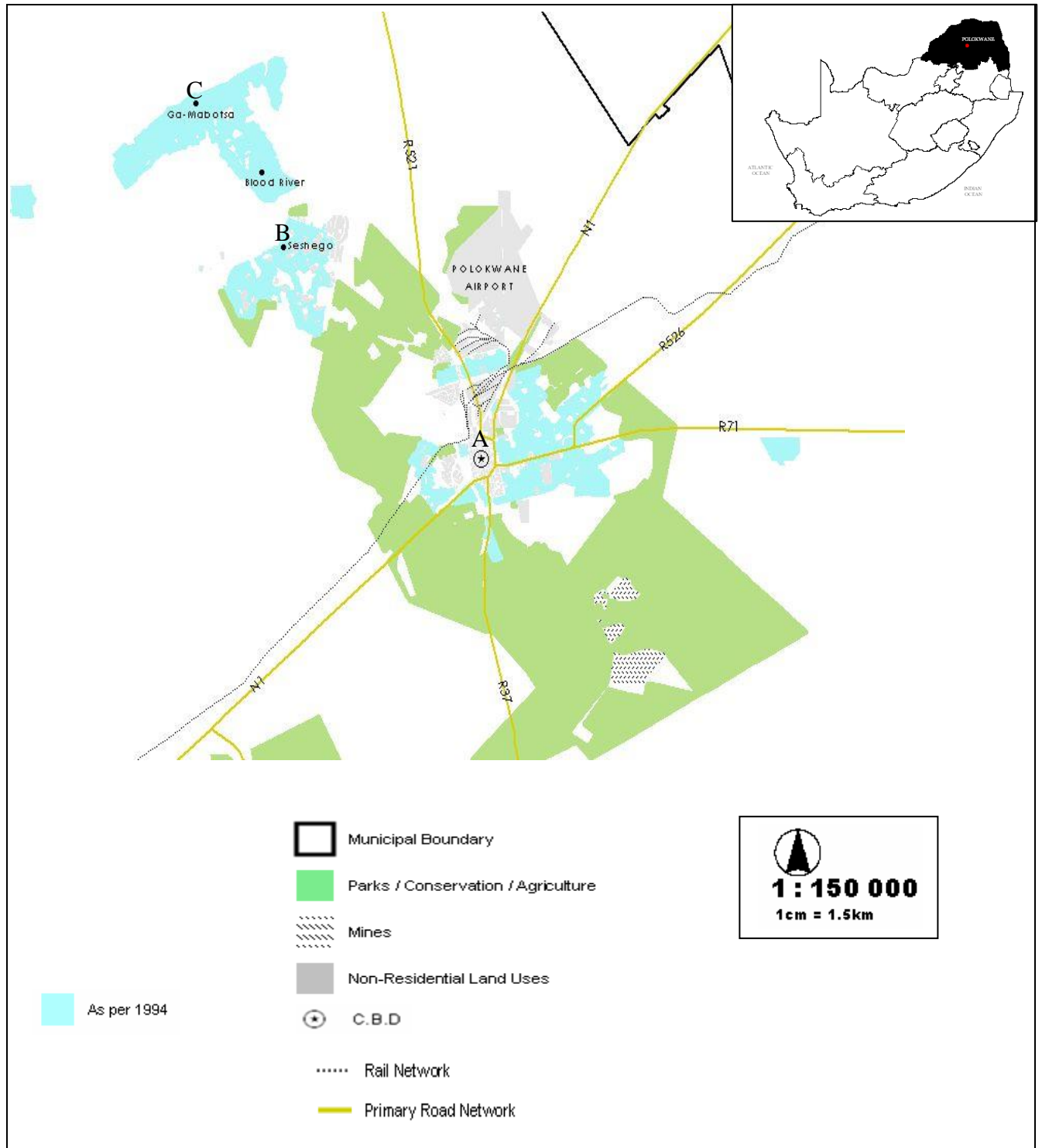
Figure 6.12: Informal residential growth (2000 – 2002)

Source: Adapted from the Department of Land Affairs (2009)

As more and more people move to cities, leaders must prepare to deal with the negatives and positives associated with a new urban environment (Henderson & Venables, 2009; Henderson & Wang, 2007). The informal settlement that sprang up during the study area between 2000 and 2002 also intensified in the New Pietersburg areas around the fringes of Anadale, Futura and Ladanna. Most of these informal settlements resulted from influx of people from Seshego towards the city centre to reduce their travel distances to work. Rapid population growth and inflow of migrant labours have induced great social problems such as housing provision and increasing crime rates and have increased the pressure for land. The use of land resource is often a source of conflict (Bogale *et al.*, 2006). The city governments should pay more attention to social and environmental sustainability in addition to urban economic growth (Shen, 2008).

- **Formal residential land use change**

The mapping series that follows highlights formal residential growth between 1994 and 2002. Non-residential land uses are reflected in light grey, while growth of formal residence is depicted in a turquoise colour. Figure 6.13 shows the situation as it was in 1994.



Source: Adapted from the Department of Land Affairs (2009)

Figure 6.13: Formal residential land-use coverage (1994)

- **1994-1996 Period**

There was expansionary growth north-westwards out of the Kgotwane into the Perskebult in region C. There was also expansionary growth on the south-eastern part of Ga-Mabotsa along the former road connecting Perskebult in the north and Blood River in the south-east (region C). This period also experienced expansionary development with infill and outlying characteristics in the Makgofe region and south-west of Blood River (region C), north of Seshego respectively (Figure 6.14). Expansionary growth also occurred in the northern part of Seshego towards the sewage works, and on the north-westerly towards Seshego dam. Infill development occurred in Seshego Zone D in the south of Seshego dam in the Doorndraai area, as well as within the Seshego Zone 4 region B. Southerly and westerly expansionary growth emerged in Seshego Zone A. Easterly expansionary growth occurred in Seshego Zone B towards Doornkraal. Westerly expansionary growth of the outlying macro-system occurred in the Vaalterval region west of Seshego dam and some southerly expansionary growth in the region of Sterkloop small holdings north-west of Nirvana (region A) leading to land use change. With the rapid expansion of population and the built-up area, there is increasing demand for the provision of urban infrastructure. There is also increasing stress on natural environment (Shen, 2008). In addition to economic growth, the city is experiencing massive residential expansion and sprawl which result in land competition and conflicts. While such developments are good for the city's economy and its diversification, pressure is placed on infrastructure systems and service rendering for all municipal developments and at all levels of government (DIDP, 2010/2011).

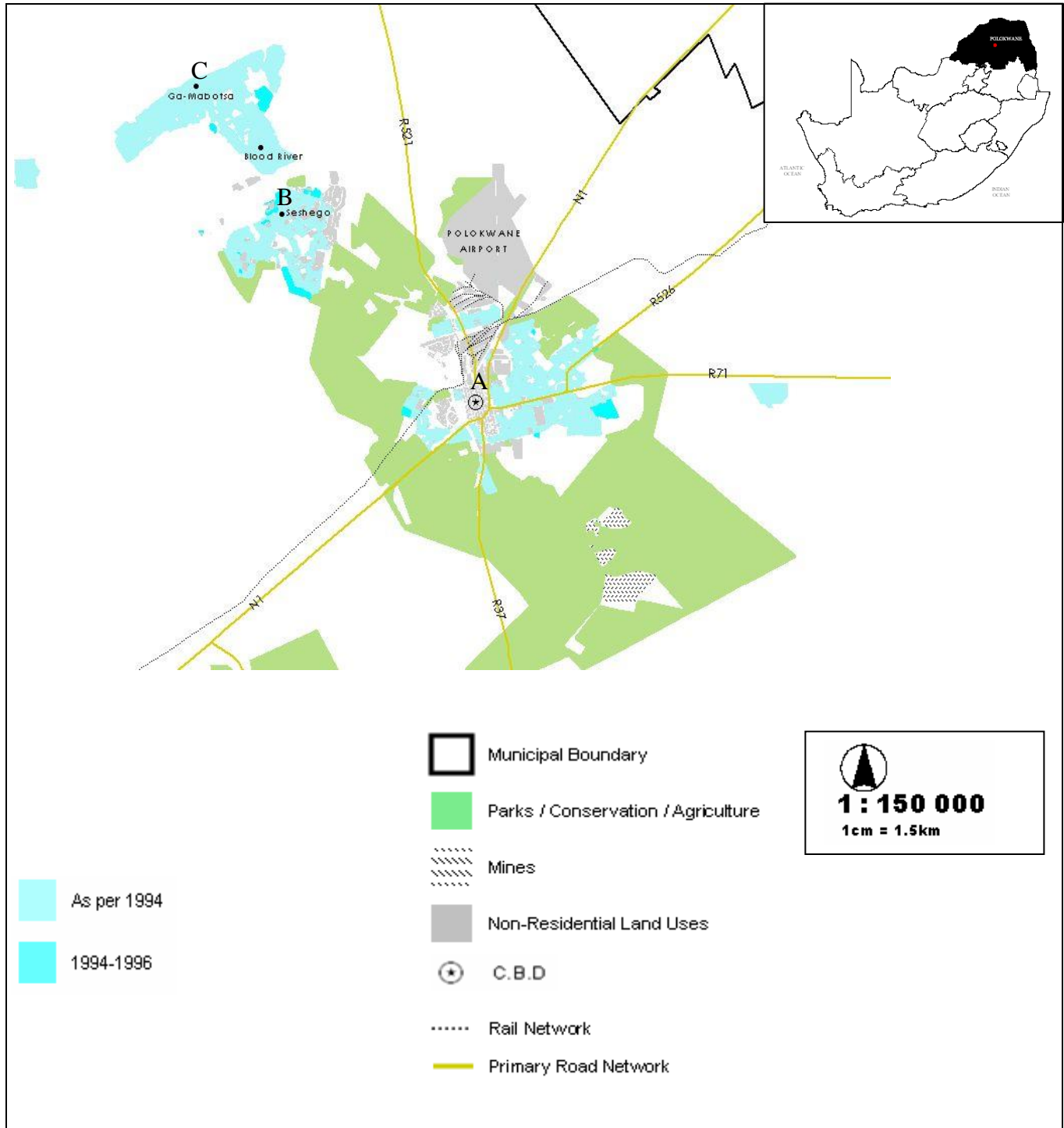


Figure 6.14: Formal residential land-use change (1994 – 1996)

Source: Adapted from the Department of Land Affairs (2009)

- **1996-1998 Period**

The 1996-1998 period witnessed pockets of linear residential settlement pattern developing in the north-eastern part of Doornkraal through Seshego Zones F towards Palmietgat and the north-eastern parts of Bendor Park area. During this period there was infill residential settlement growth in the north-eastern region of Nirvana in Superbia area, as well as the east of Makgofe. Expansionary settlement growth patterns occurred in the south-west of Perskebult towards Schaaplaats: the east of Welgelegen, east of Sterk Park and south-west of Flora Park towards the R71 road. The emergence of outlying growth with isolated characteristics also took place in the Lithuli area north-west of Laboria and New Pietersburg region north-east of Seshego zone A. There was also the emergence of infill development within the Makgofe region as an expansionary growth with outlying characteristics on the southern tip of Perskebult (Figure 6.15). This development was caused by the continuous expansion of the informal settlements that exists there leading to urban expansion. Urban expansion directly reflects the urbanisation level and has become a remarkable characteristic of urban development worldwide in recent decades (Catalan *et al.*, 2008).

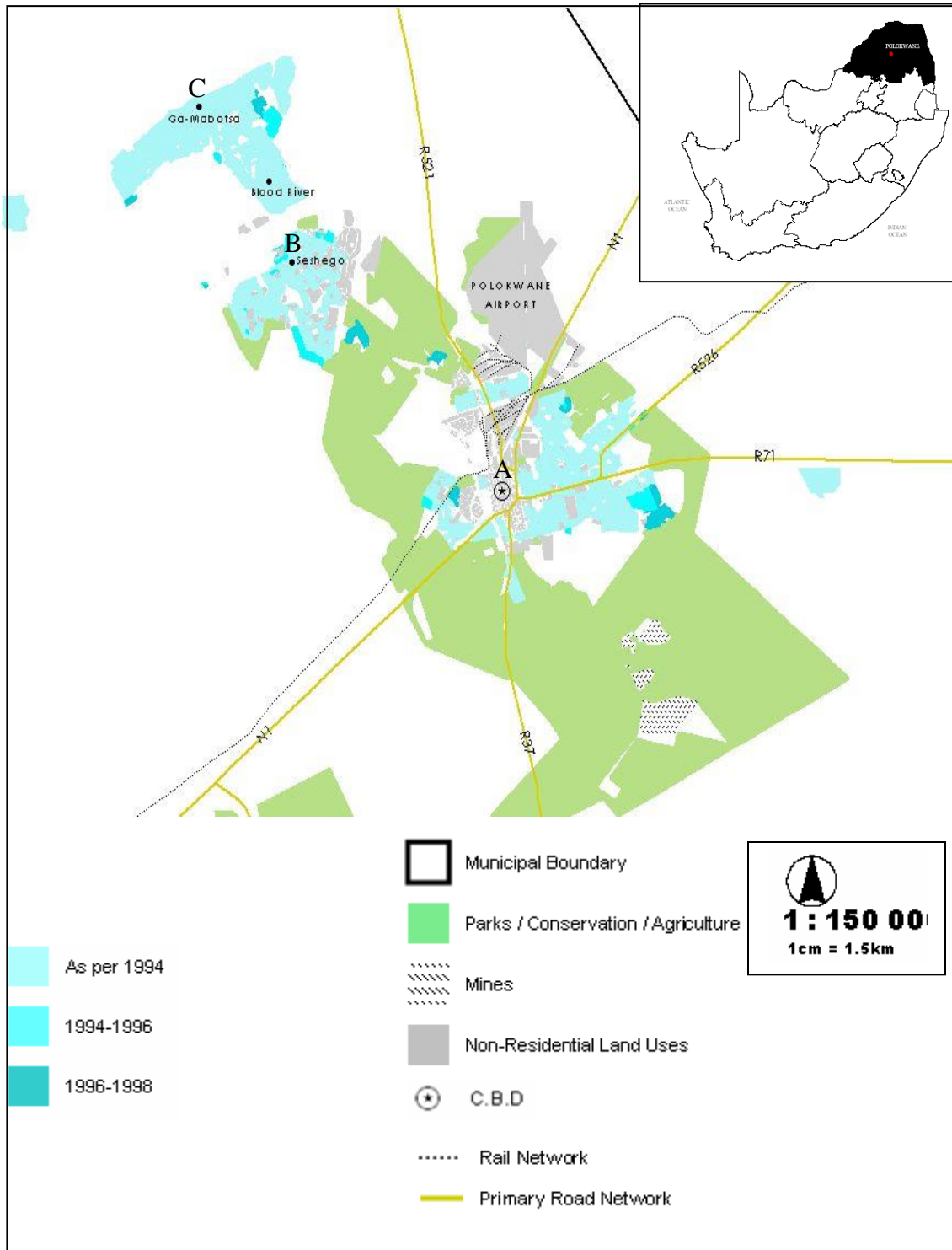


Figure 6.15: Formal residential growth (1996-1998)

Source: Adapted from the Department of Land Affairs (2009)

- **1998 – 2000 Period.**

A number of isolated settlements sprang up between the northern parts of Seshego Zone F and Palmietgat in the central eastern parts and the south-eastern parts of New Pietersburg and there was an emergence of some isolated developments with outlying characteristics between the northern part of Perskebult and the western region of Blood River. Outlying clustered branch development occurred, spreading from the western part of Murasic into the northerly parts of Seshego Zone E towards the Seshego dam. The appearance of outlying growth with isolated features between the south-eastern regions of Seshego Zone A, north-east of New Pietersburg and Doornkraal is observed. This period also saw expansionary growth patterns in the west of Makgofe, west of Seshego Zone F and in the south-western part of Westernburg. Expansionary residential settlements with linear branch features and isolated features occurred along the north-western plain of the Blood River area and in the central and eastern parts of Bendor (Figure 6.16). Rural-urban movement reflects sporadic and episodic economic crises and political instability (Linares, 2003). Much of the rural-urban movement documented in recent years defies the classic pattern in which men work in the factories and mines, while women remain behind to run the farm (Owens, 2010).

There was also the emergence of a linear branch growth pattern in the Ivy Park area, which can be attributed to the settlements that sprang up due to the development of the Meropa Casino. The growth in Seshego Zone F, Palmietgat and Perskebult can be attributed to the formalisation of the informal settlement that existed within Seshego Zone F and the continuous expansion of the Perskebult region. The growth in Seshego Zone E can be attributed to the provision of houses by the municipality and the one in Blood River and Bendor areas is a result of the development of residential houses by private individuals. Migration may be seen as one type of response to local pressure on resources, but it may also be an integral part of some people's livelihood. Push and pull factors cause people's movements and migration and it is practiced under many different forms. Whatever the background or form, migration always affects, and is being affected by issues related to access and control over land and other resources in places where it occurs, and brings with it potential conflicts in rural as well as urban areas (Odgaard, 2006). Urbanisation and urban expansion are governed by social, economic and political factors, such as population

growth, economic development and socio-political reforms. Environmental factors determine the overall trend of urban expansion. They also have an important influence on the formation and development of cities (Liu *et al.*, 2010).

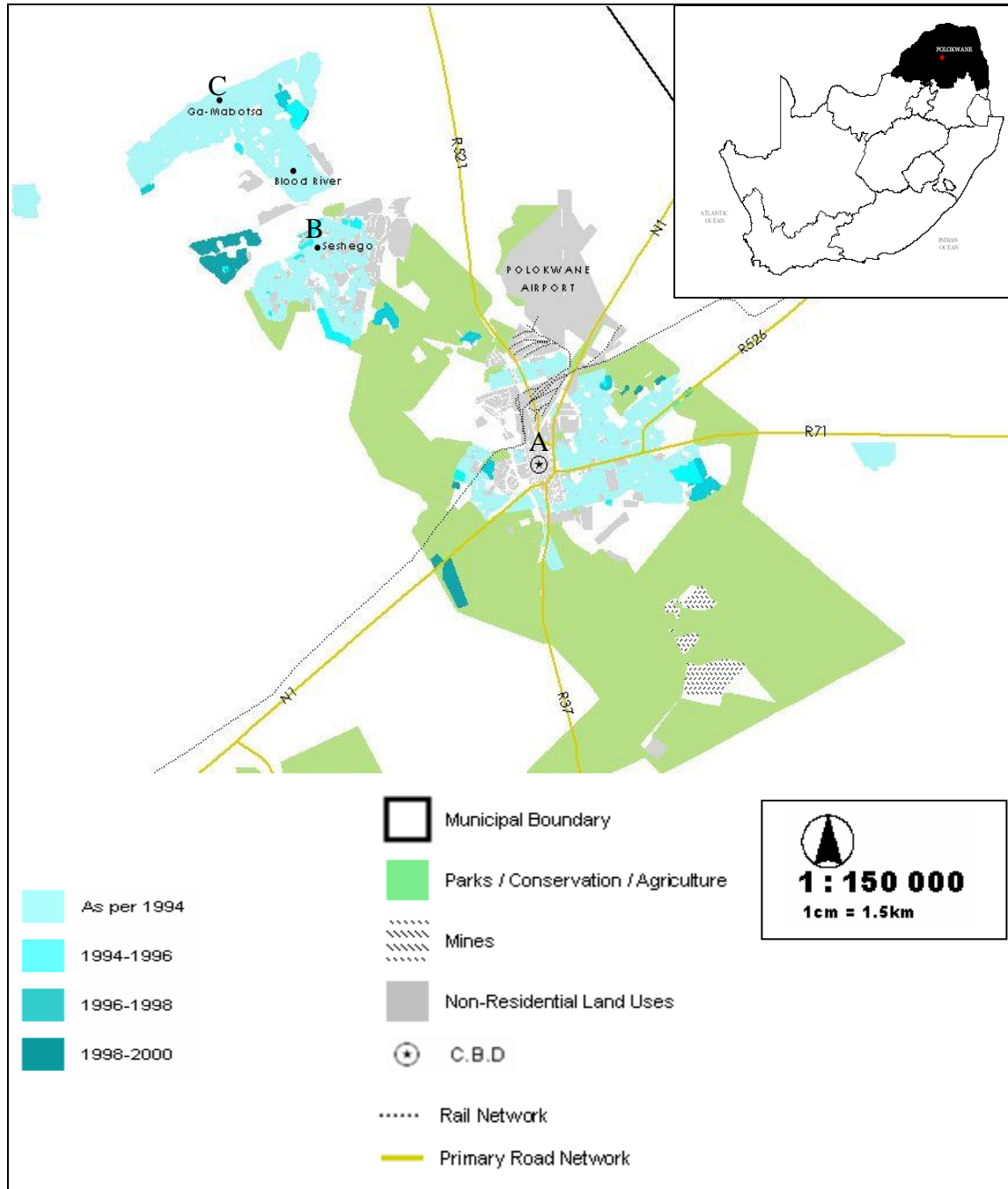


Figure 6.16: Formal residential growth (1998-2000)

Source: Adapted from the Department of Land Affairs (2009)

- **2000- 2002 Period**

This period, 2000 – 2002, produced mostly expansionary growth patterns. They occurred in the northern part of Seshego Zone F and south-western tip of Palmiegat (region B). This can be attributed to the increase in development of residential building in the area due to the formalisation of the informal settlements. Some other areas also experienced expansionary growth due to the construction of houses both by the municipality and the private developers. These areas are: the eastern parts of Seshego Zone A; the west to the central part of Doornkraal; southern part of New Pietersburg; the Bendor Extension 7 and Bendor Park areas; south-west of Nirvana and Westernburg. Expansionary residential growth with linear branch and infill characteristics also occurred in the areas along the northern boundary of the Kgotlhwane region; the north edge Makgofe; Penina Park and central Pietersburg; as well as isolated developments to the south-west of Westernburg adjacent to the railway line. The emergence of a linear branch growth pattern occurred in the north-eastern edge of Blood River (Figure 6.17). This is the result of informal settlements that sprang up within the area. Urbanisation changes land use often in negative ways and increases environmental degradation by diminishing biodiversity, lowering ecosystem productivity, deteriorating watershed discharge characteristics and interrupting biochemical cycles.

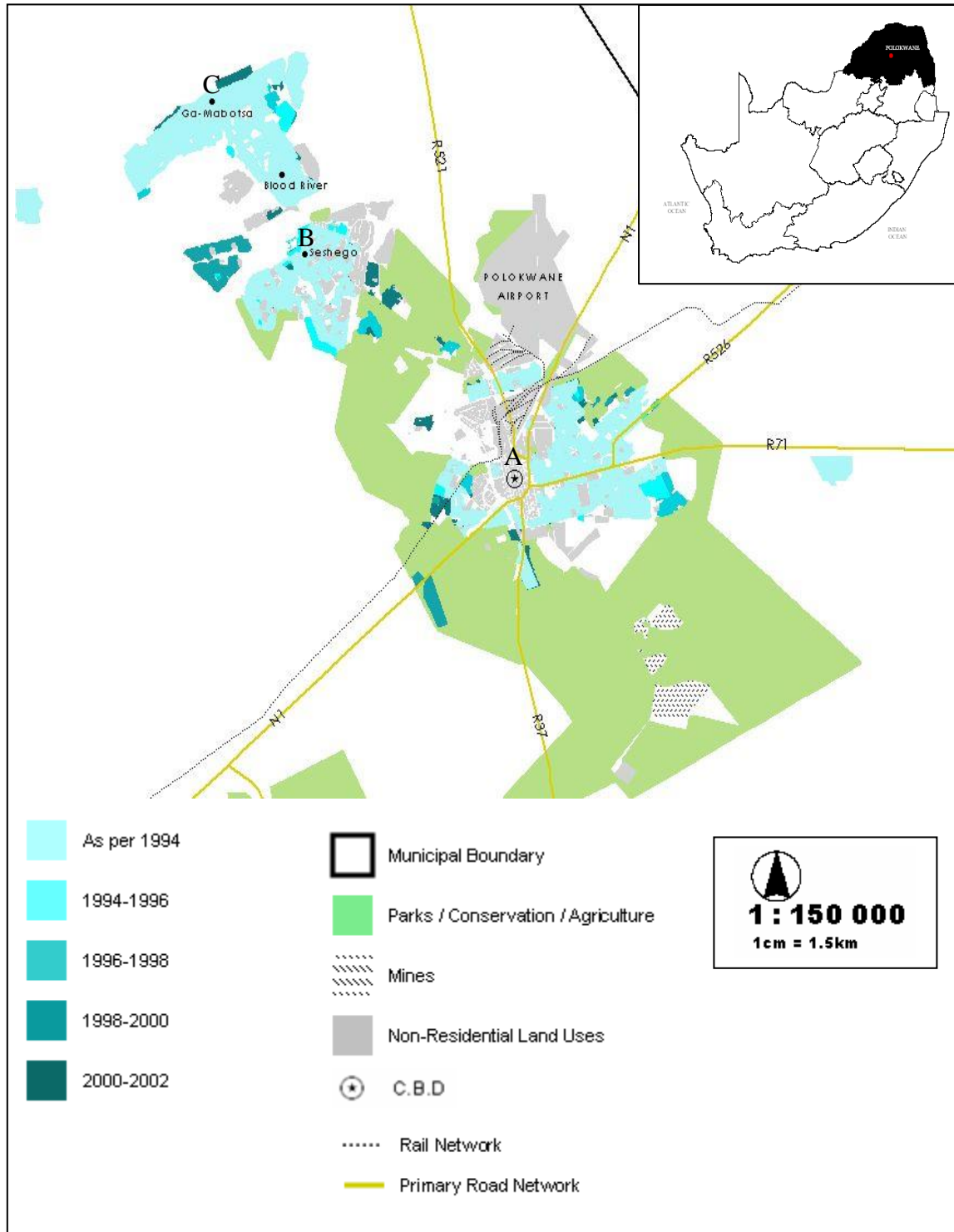


Figure 6.17: Formal residential land-use change (2000-2002)
 Source: Adapted from the Department of Land Affairs (2009)

From a broad perspective, the residential growth trends between 1994 and 2002 show that most of the growth in and around the Bendor extension 7 and Eduana Park areas was generally infill but with characteristics typical of the outlying areas. This could be attributed to the outward movement of people from the city as a result of the increasing number of economic activities in the city centre as well as the influx of people from the Seshego area in their bid to move closer to their place of work and people wanting to become beneficiaries of low income houses in the current and forthcoming informal settlement formalisation processes. Some clusters of isolated developments occurred between the city of Polokwane and Seshego. In the Seshego area most of the residential growth that took place was expansionary growth with linear branch characteristics around the fringes of Seshego Zones A and F. Such growth could be as a result of the new low income housing programme embarked upon by the Municipality to provide affordable housing for the people in Seshego. In the Perskebult, Kgotlwane and Blood River areas, the kind of residential growth that occurred during this period was mostly expansionary development with linear branch characteristics and some pockets of infill settlements. The spatial growth trend in municipal area between 1994 and 2004 has been predominantly in the eastern and north-western parts of the former Pietersburg city. This growth trend has taken the expansionary growth pattern with some elements of infill characteristics in the Seshego region and the central part of the study area (DIDP, 2010/2011).

6.2.5 Commercial Growth

The mapping series in Figures 6.18 – 6.22 highlights commercial growth between 1994 and 2002. Non-commercial land uses for the baseline period are reflected in light grey, while commercial growth is depicted in blue colour. The city is the commercial hub of the municipal region with a high concentration of economic resources and infrastructural development. This is because the study area serves as the major transport route where exports from South Africa go into some neighbouring SADC countries such as Zimbabwe and Zambia. There was not much commercial growth compared to residential growth within the same timeframe. Commercial growth occurred in the CBD which continues to expand into the surrounding residential areas. This commercial growth can be attributed to the development of shopping malls in Welgelten and Biccard streets and also an increase in commercial activities over the years together with

municipal policies that stand to protect the CBD and discourage the development and duplication of commercial growth nodes within the city. The construction of the Savannah Mall in Fauna Park brought other complementary services and commercial activities to the area which too, is responsible for the commercial growth in the Fauna Park area. Some elements of commercial growth occurred in Seshego Zone G (Figure 6.18). These can be attributed to the development of shops and small businesses to cater for the increasing population in Seshego. Economic development increases investment in urban construction, income and wealth, and accelerates urban expansion (Liu *et al.*, 2010).

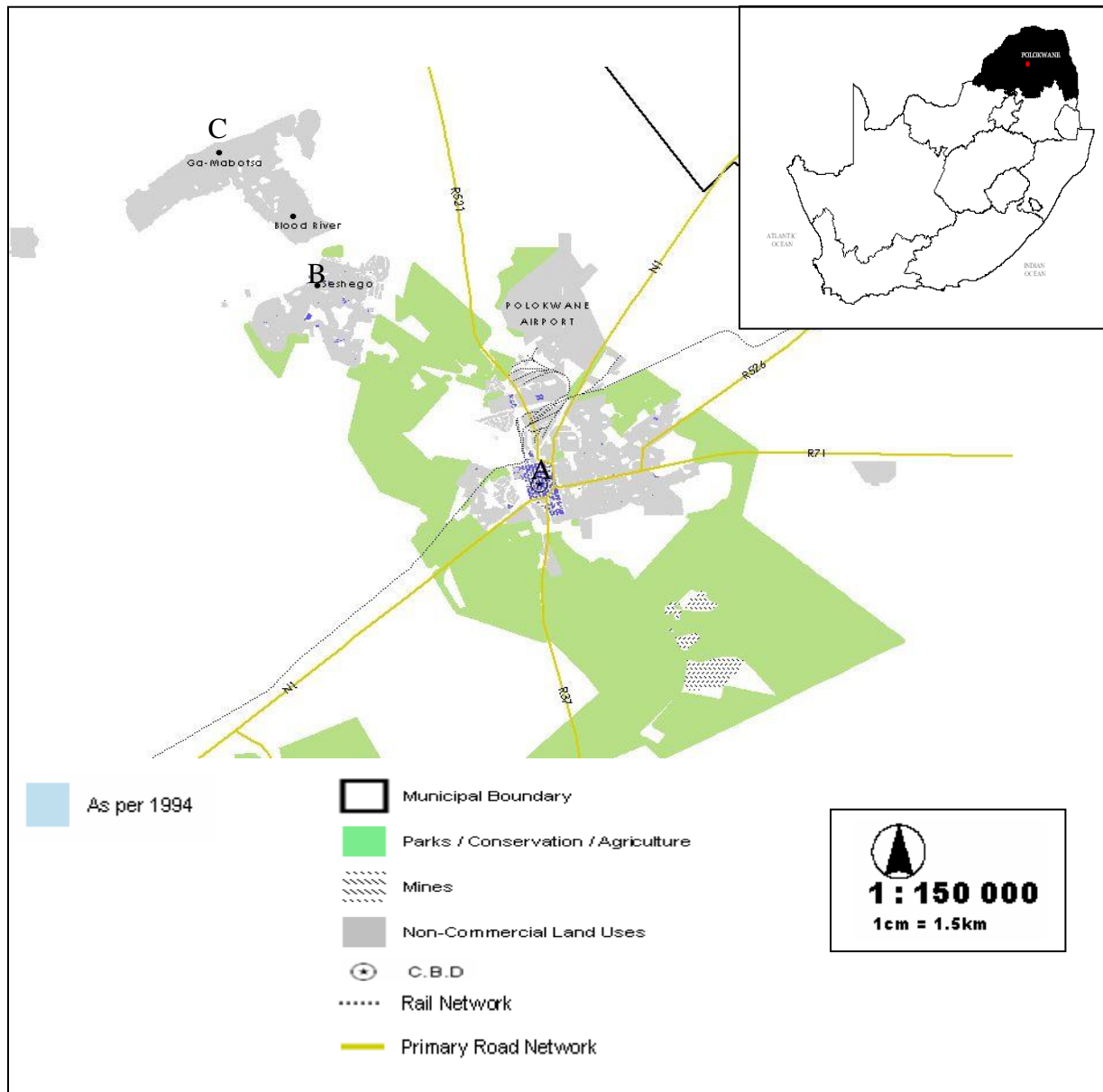


Figure 6.18: Commercial coverage (1994)

Source: Adapted from the Department of Land Affairs (2009)

- **1994-1996 Period:**

During this period, commercial growth occurred in region A around the CBD. Some developments also occurred in region B more especially on the southern and north eastern parts of Seshego. Commercial developments also occurred between N1 and R521 roads. No commercial development occurred in region C (Figure 6.19). The increase in population promotes development of housing stock, commerce, industry and transportation, thus driving expansion of urban construction land.

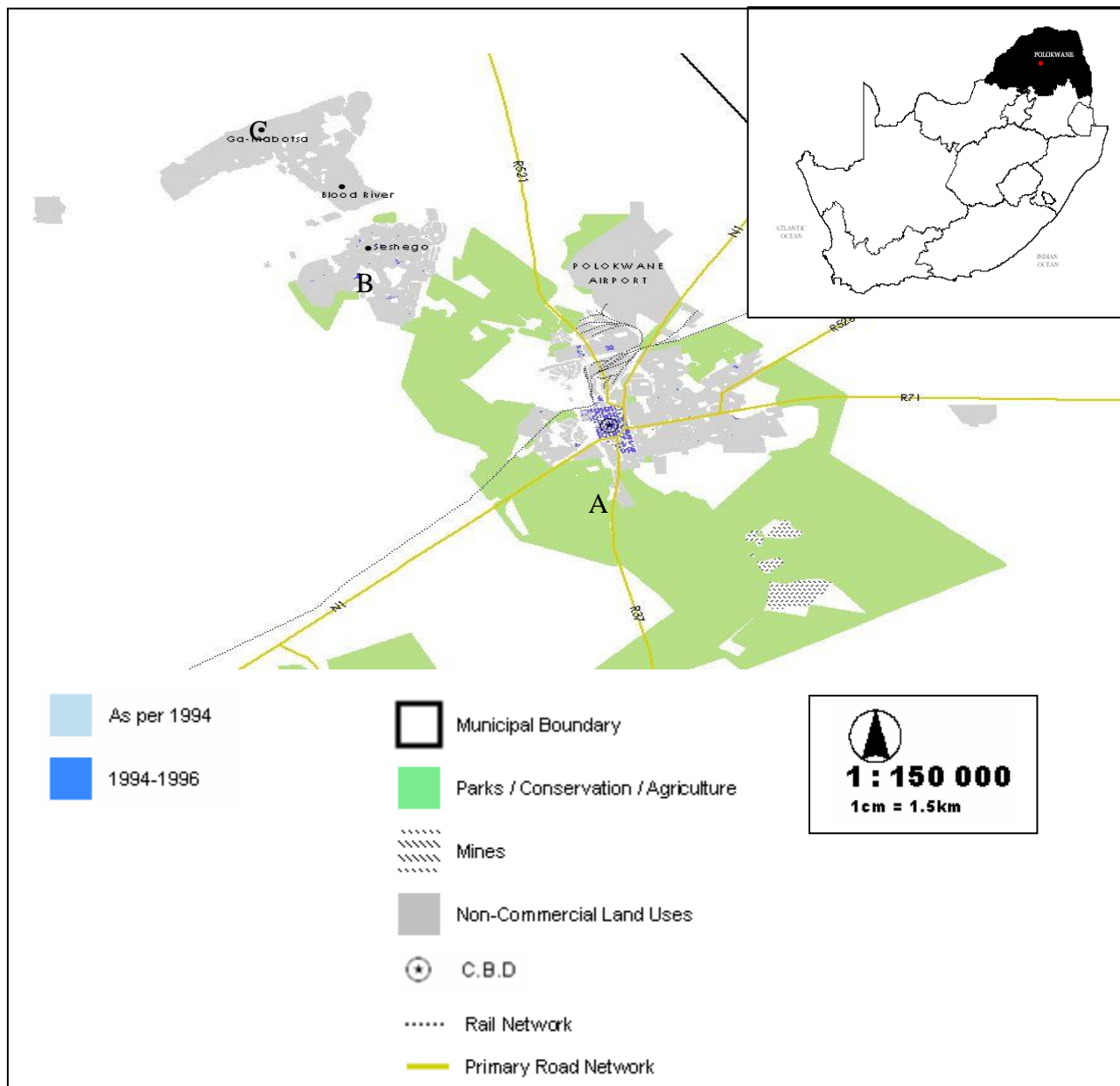


Figure 6.19: Commercial growth (1994-1996):
Source: Adapted from the Department of Land Affairs (2009)

Government policy, as an incentive or constraint, usually influences urban land use change and determines the direction and scale of urban expansion (Liu *et al.*, 2010).

- **1996-1998 Period**

Development during this period intensified in region A around the CBD. Some developments also occurred in region B. Development also occurred on the western side of the CBD along the R71 road (Figure 6.20). There were also some developments on the northern part of the CBD, between the R521 and the N1 roads.

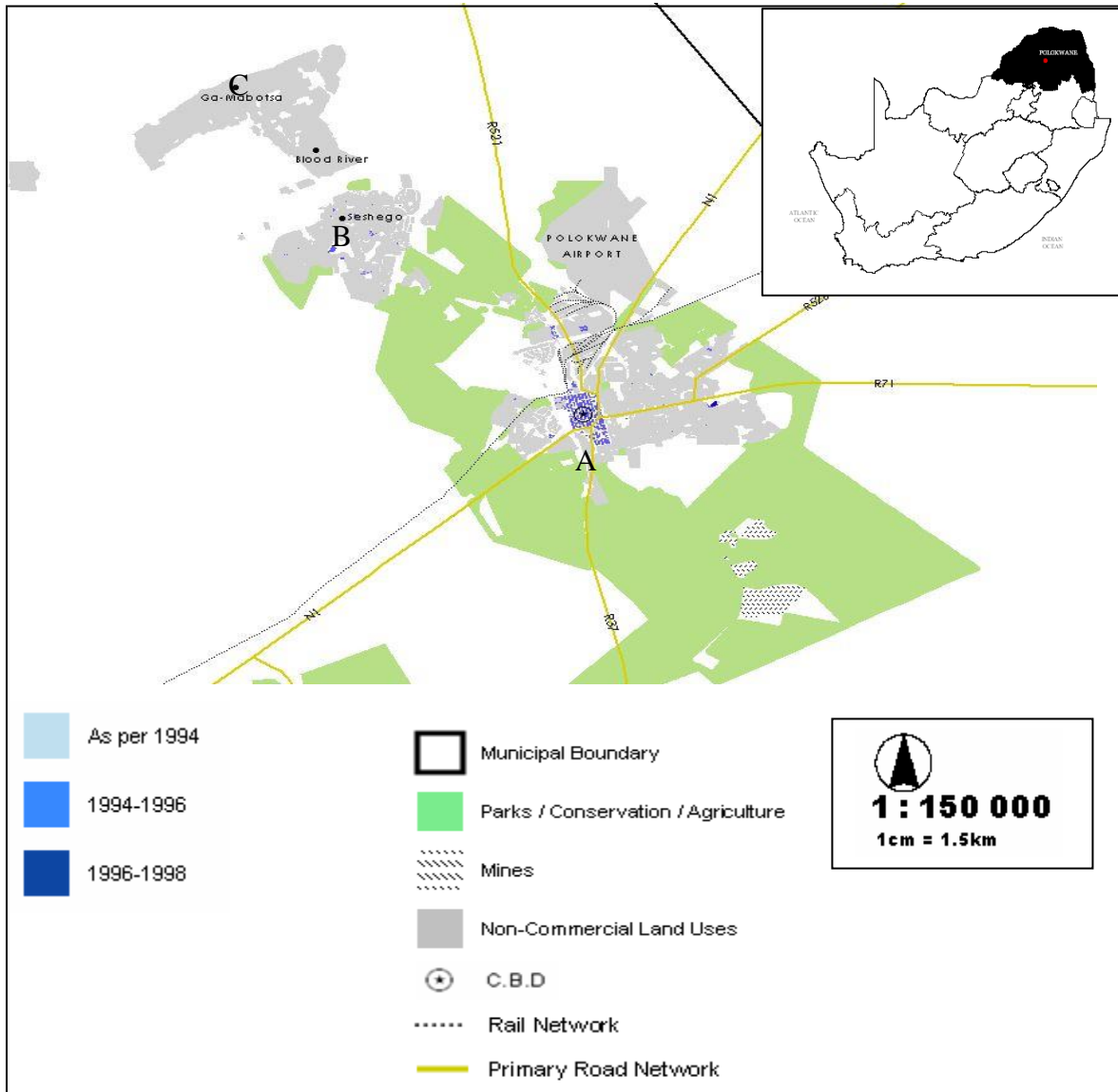


Figure 6.20: Commercial growth (1996-1998).

Source: Adapted from the Department of Land Affairs (2009)

The great transformations of the 21st century are rapid economic globalisation, increasing urbanisation in the developing world and acceleration of human induced global environmental change (Leichenko & Solecki, (2005).

- **1998-2000 Period.**

Commercial development intensified in region A around the CBD. Developments on the southern side of the R21 and between N1 and R521 also intensified during this period. Commercial growth also occurred in region B. There was no commercial growth in region C during this period (Figure 6.21).

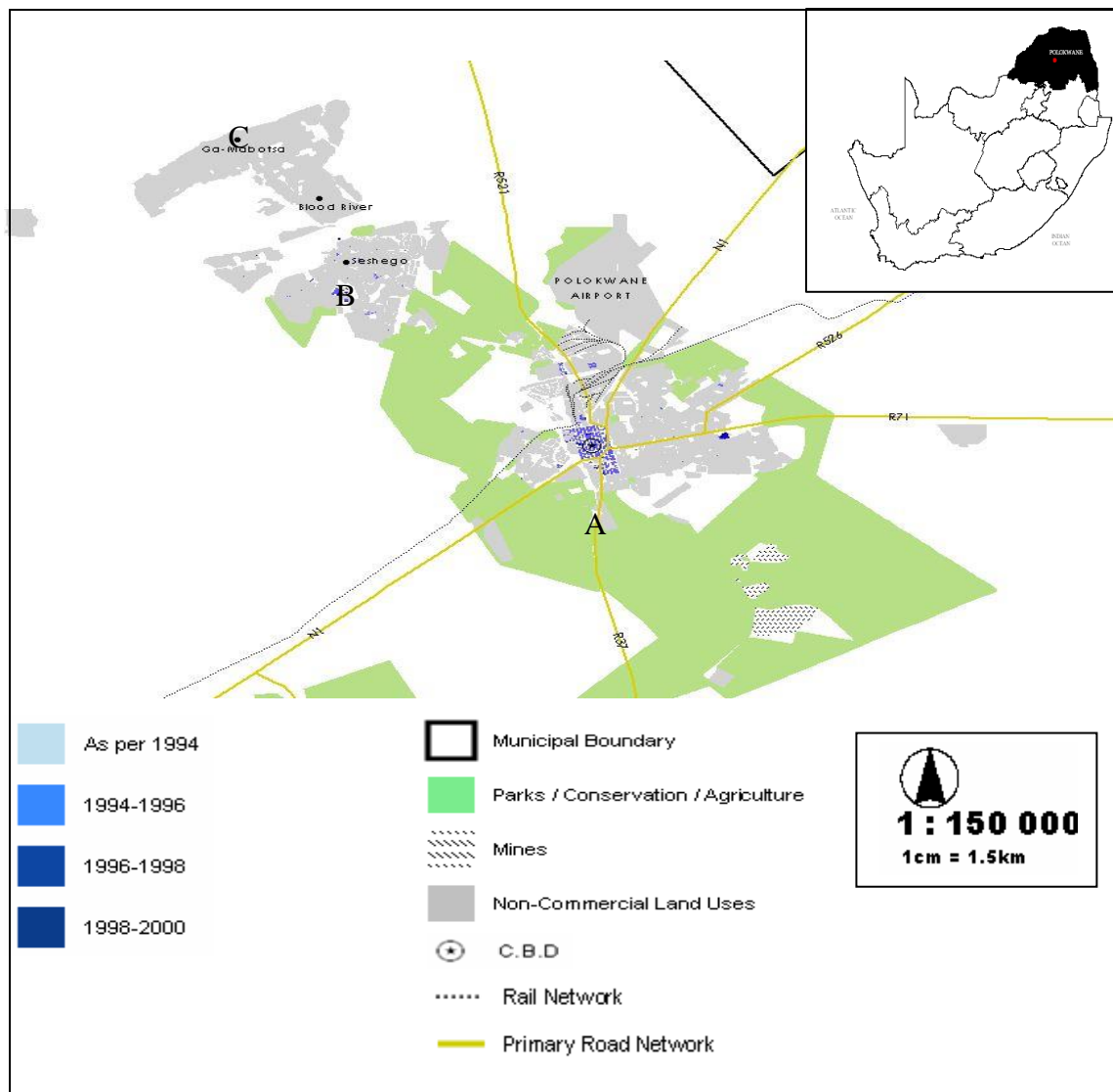


Figure 6.21: Commercial growth (1998-2000)
Source: Adapted from the Department of Land Affairs (2009)

With urbanisation, the increasing demand by people for space promotes expansion of urban construction land. Economic development at high speeds increases investment in urban construction and accelerates urban expansion (Liu *et al.*, 2010).

- **2000-2002 Period**

Commercial development intensified in region A around the CBD. Developments on the southern side of the R21 and between N1 and R521 also intensified during this period. There is evidence of isolated developments in region B. There was no commercial growth in region C during this period (Figure 6.22). There is evidence of taking advantage of economies of scale. Economies of scale refer to the cost advantages that business obtains due to expansion. There are factors that cause a producer's average cost per unit to fall as the scale of output increased. Economies of scale refer to reductions in unit cost as the size of a facility and the usage levels of other inputs increases. It is a practical concept that may explain real world phenomena such as patterns of international trade, the number of firms in a market, and how firms get too big to fail. The exploitation of the economies of scale helps explain why companies grow large in some industries. It is also a justification for free trade policies, since some economies of scale may require a large market than is possible within a particular country (Silvestre, 1987). As a social and physical transformation of landscapes, urbanisation is a powerful, irreversible and visible anthropic genetic force throughout the world (Huang *et al.*, 2009). As suburban areas developed, cities expand in geographic size faster than they grew in population. This trend has produced large metropolitan areas with low population densities, interconnected by roads (David & Resnik, 2010).

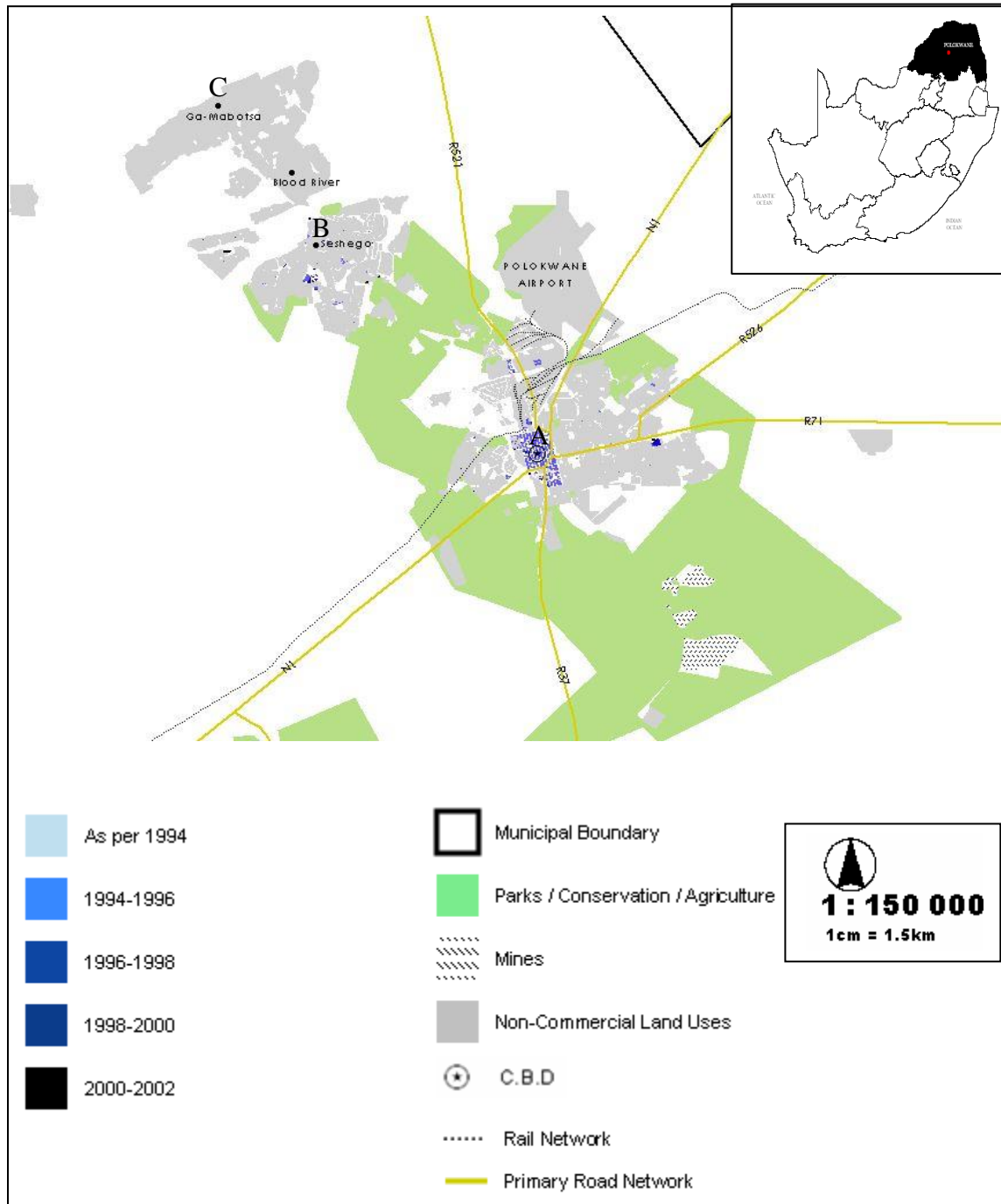


Figure 6.22: Commercial growth (2000-2002)

Source: Adapted from the Department of Land Affairs (2009)

6.2.6 Industrial Growth

Industrial growth between 1994 (Figure 6.23) and 2002 is highlighted by the following series of maps (Figures 6.20 - 6.24). Non-industrial land uses for the baseline period are reflected in light grey, while industrial growth is depicted in purple. The Polokwane Manufacturing sector is the fourth largest sector in the local economy. This shows that there has been a relative increase in the local manufacturing sector. In 2000 there were 77 manufacturers in the Polokwane area comprising amongst others, SA Breweries, Enterprise Foods, several milling companies and bakeries. A fair level of industrial growth occurred in Ladanna which experienced huge growth due to the expansion and establishment of more industries in the area, up to the Laboria region which grew as a result of the development of the Polokwane Airport that subsequently attracted industries to serve its specific needs. Some industrial growth also took place in the Westernburg area which was previously a residential area for the Indian population. Recently this is no longer the case as the land here is now being used for both residential and industrial purposes. A small amount of industrial growth occurred in Seshego Zones A and F which can be attributed to the presence of small or light industries within the area. Basic and developed industries encourage economic growth (Fard, 2011).

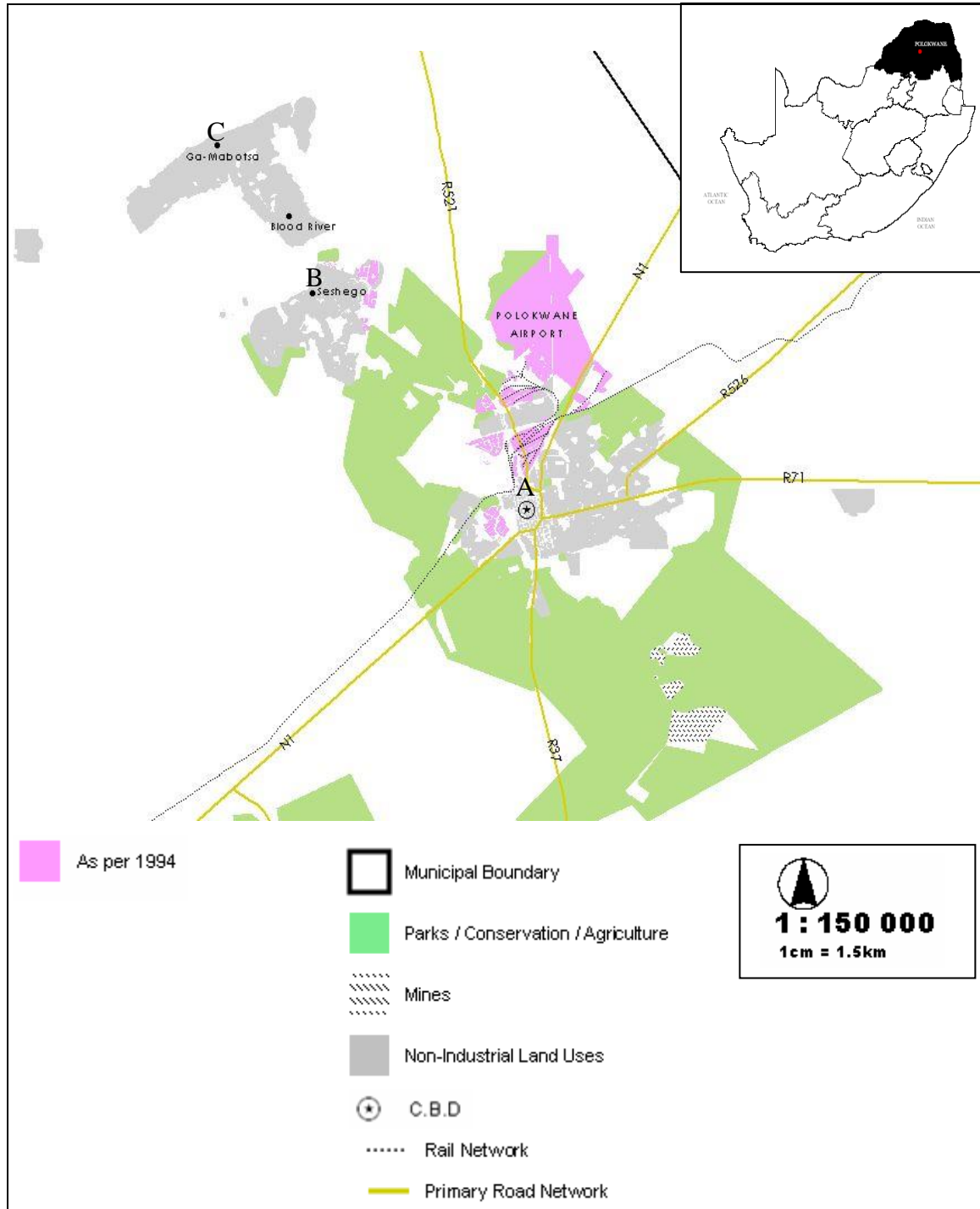


Figure 6.23: Industrial growth coverage (1994)

Source: Adapted from the Department of Land Affairs (2009)

- **1994-1996 Period**

The growth in the area during the period being studied can be broken into two distinct types: high order and low order development. The low order developments are mostly situated in the north-western part of the city at Perskebult, Blood River, Murasie, and Seshego Zones A, C and F (Figure 6.24). The emergence of these developments is a result of push factors that have been militating against the expansion of these areas since the entrenchment of the effects of legislation during the apartheid era, in addition to the provision of a low-cost housing project that was undertaken by the municipality in the Seshego and Westernburg areas. Urbanisation is surely one of the most significant phenomena currently affecting all of humanity. Many current environmental problems are directly or indirectly related to rapid urban growth. Urbanisation has significant effects on our natural environment and the services it can supply to humanity (Forman, 2008).

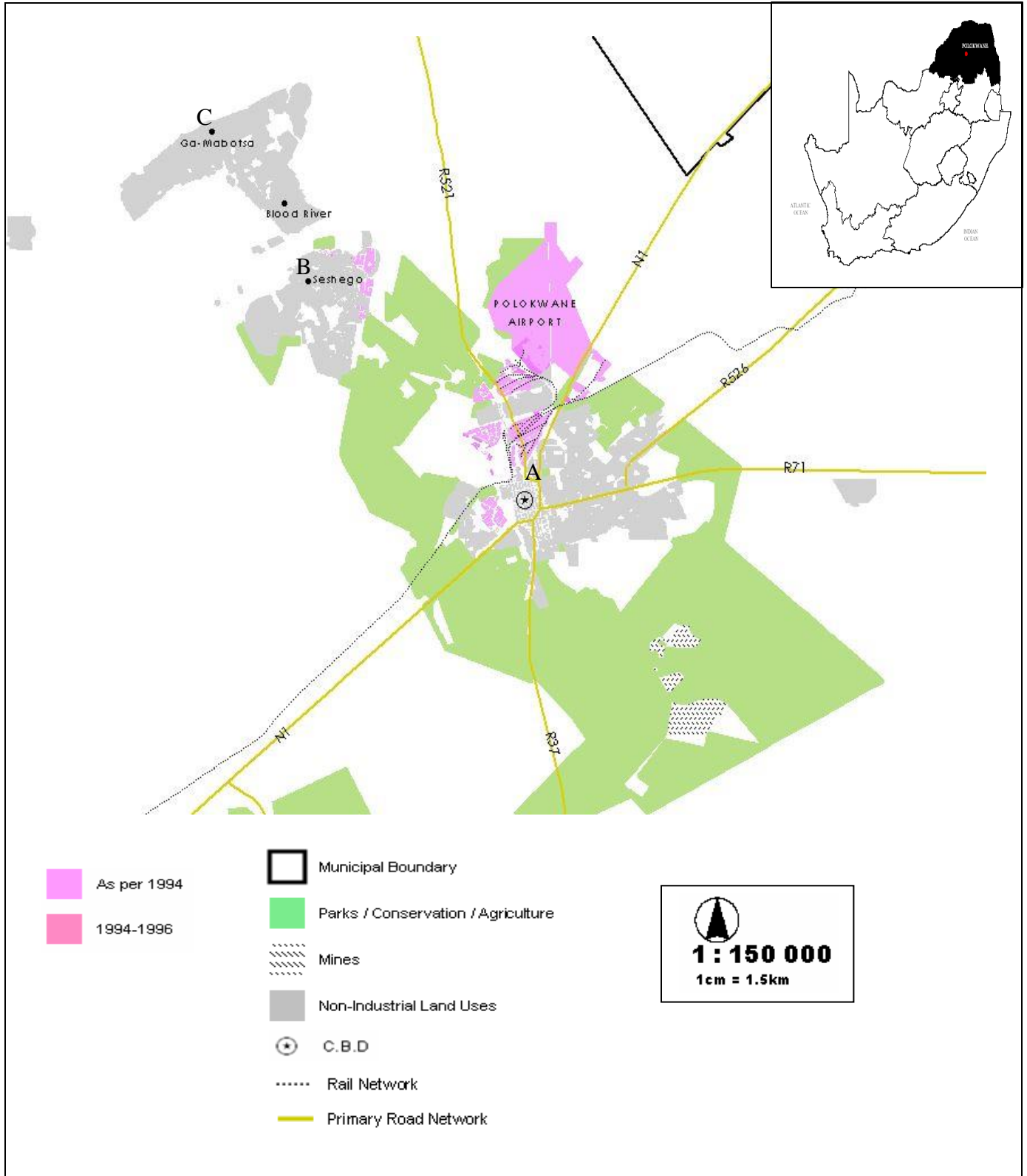


Figure 6.24: Industrial growth (1994-1996).
 Source: Adapted from the Department of Land Affairs (2009)

- **1996-1998 Period**

Industrial development occurred on the western part of the CBD, in region A during this period. Industrial growth also occurred on the northern part of the CBD, between N1 and R521 roads. The western part of R521 and the eastern part of N1 also experienced some industrial developments. Region B was also affected by some industrial growth on the northern, north eastern, eastern and south eastern parts of Seshego area. There was no industrial development in region C during this period (Figure 6.25).

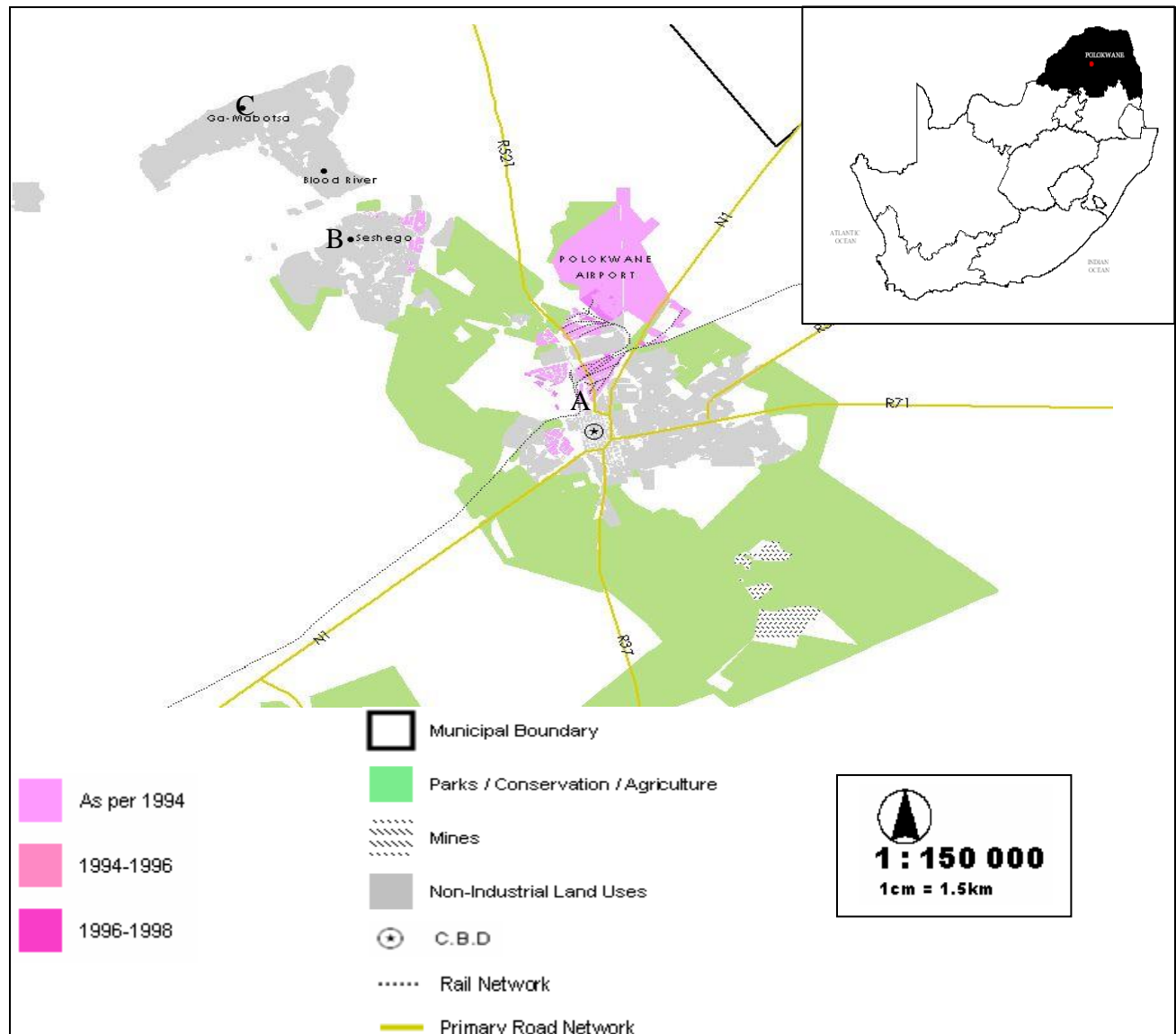


Figure 6.25: Industrial growth (1996-1998)
Source: Adapted from the Department of Land Affairs (2009)

Economic growth is also responsible for urban growth assuming that there is a definite relationship between people's economic status, available area to be built up and expansion of built-up area (Kumar *et al.*, 2007).

- **1998-2000 Period**

During this period (1998 and 2000) industrial growth intensified on the north western part of the CBD, between N1 and R521 and on the western side of N1.

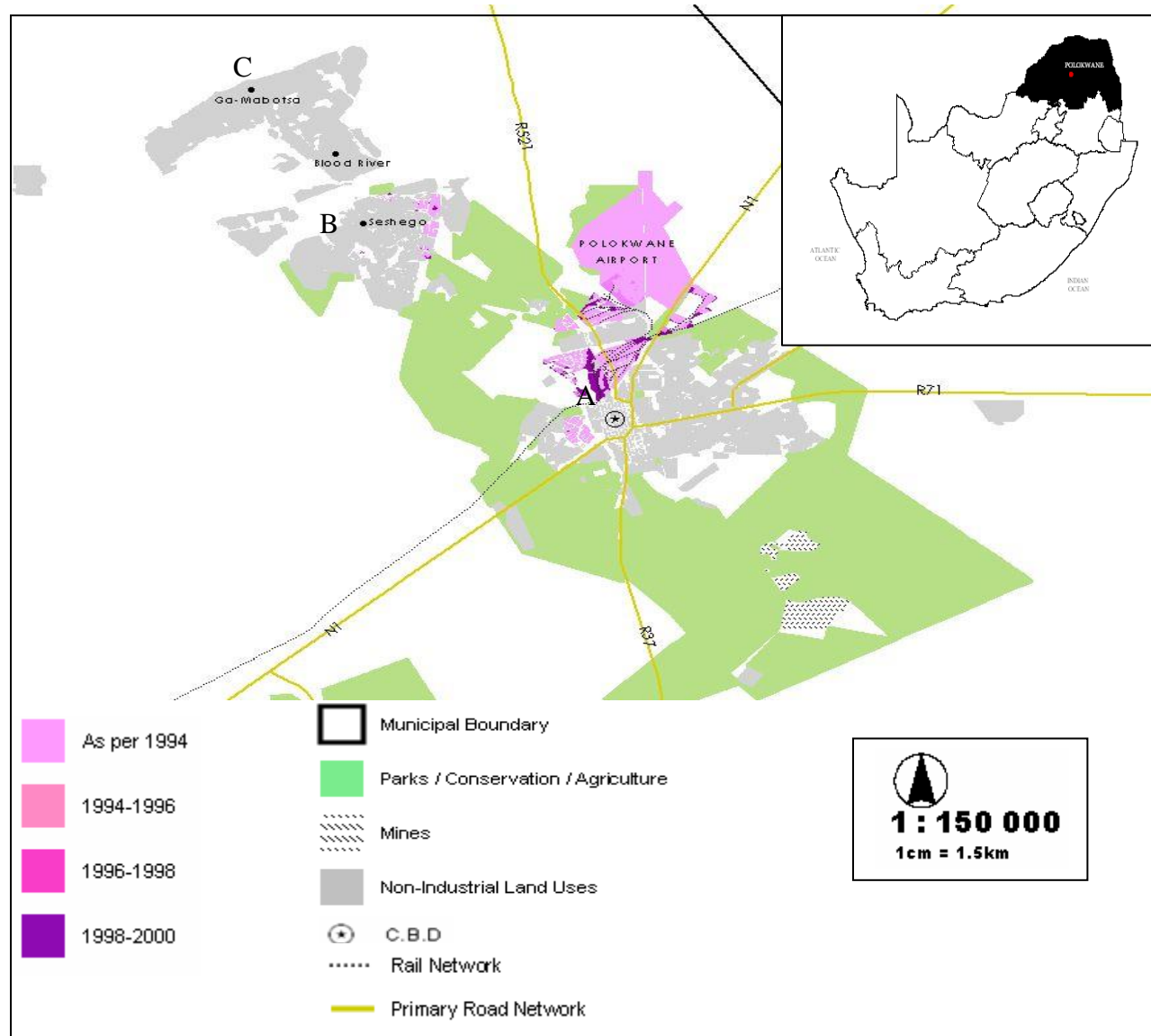


Figure 6.26: Industrial growth (1998-2000)

Source: Adapted from the Department of Land Affairs (2009)

Industrial growth also increased in region B on the north and south eastern parts of Seshego area. There was still no industrial development in region C during this period (Figure 6.26). Urban expansion is governed by internal adaptive factors, such as climate, topography, hydrology and vegetation, and external driving factors, like innovation, agglomeration, location, natural resources, ecological environment and urban development potential (Liao *et al.*, 2007).

- **2000-2002 Period**

During this period (2000 and 2002) industrial growth intensified in the north western part of the CBD, between N1 and R521 and on the western side of N1. Industrial development increased in region B on the north and south eastern parts of Seshego area. Industrial areas like Ladanna and Laboria which house heavy industries had a natural expansionary growth due to the industrial activities that attracted other light industries and several other complementary service establishments consequently leading to continuous growth of the area. No industrial development took place in region C during this period (Figure 6.27). Urban growth pattern has a direct influence on urban development processes both at the city and neighbourhood levels, but on the other hand, growth pattern is also affected by land and housing policy, current built-up area, available developable area, change in household count, population, economy and other factors (Bhatta, 2009).

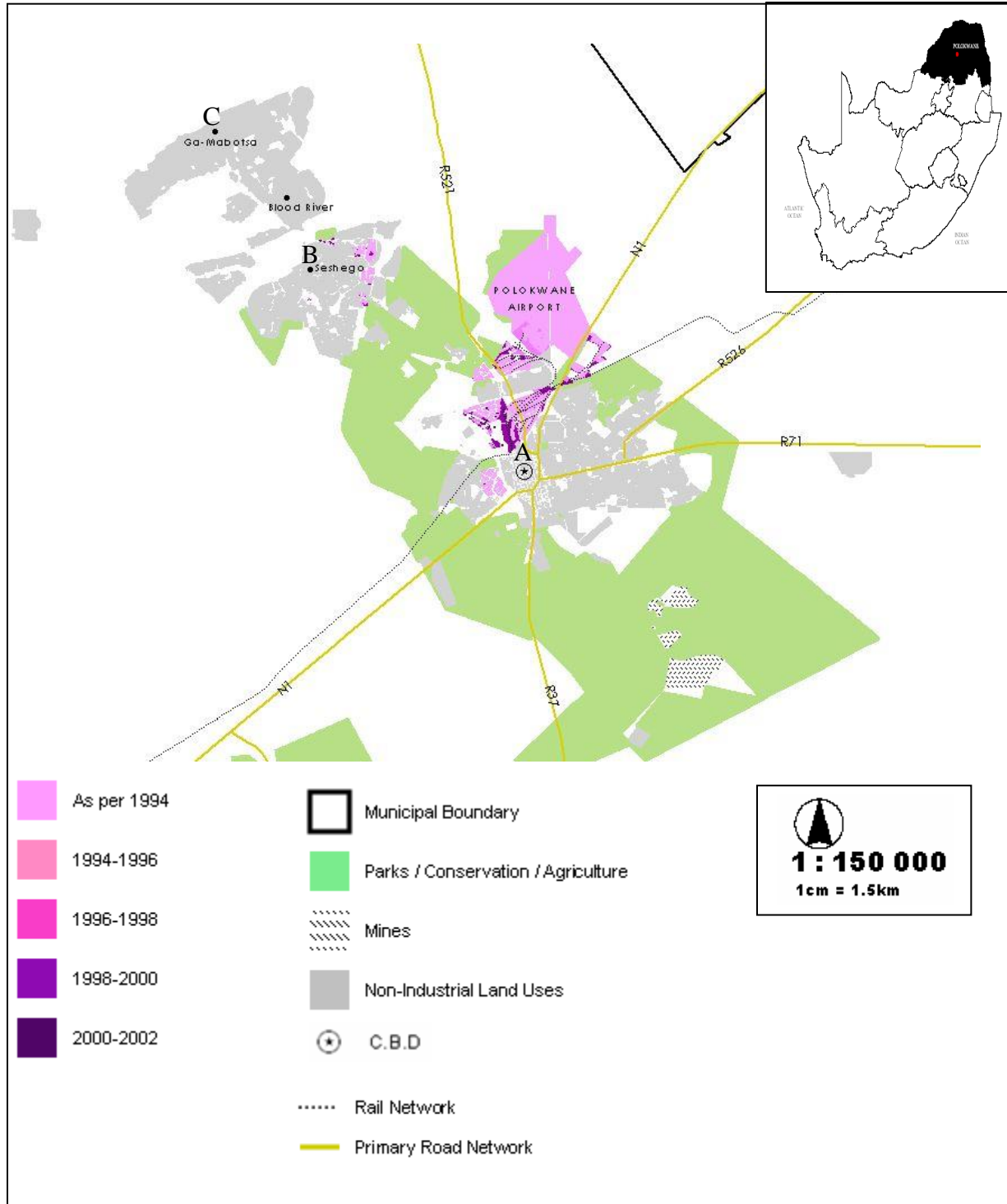


Figure 6.27: Industrial growth (2000-2002)

Source: Adapted from the Department of Land Affairs (2009)

There is a reasonable level of low order development in the western parts of the city such as the Westernburg, Nirvana and Bendor areas. The high order growth which evolved as a result of market forces is noticed around the Bendor and Sterkpark region, as well as some pockets in the northern fringes of Kgotlwane and Perskebult. Polokwane is undergoing constant urban transformation which has affected the growth pattern of the city. This transformation is an offshoot of the implications and legacies left by apartheid spatial legislation which has, in recent years, seen the outflow of people from previously disadvantaged areas to the city thereby resulting in land invasion, squatter settlements around the south-western part of the city, which result in land use conflict. The growth that took place over the period under review can be described as predominantly residential. There has been expansionary growth around the south of Flora Park area, which is a natural growth within the residential area of the middle class townhouses and security villages as well as the building of individual stand houses. Bendor and Bendor Park areas are high income residential areas that have experienced the same expansionary growth like Flora Park and are characterised by private developments that are mostly townhouses and private single stand houses. The growth is the result of the development of high income housing by individuals and private developers. Penina Park is another residential area that has grown over the period under review. It is predominantly occupied by middle income class residents. Like Flora Park, the expansionary growth with outlying characteristics in this area is prompted by the outward movement of this group of people from the city centre to the outskirts of town and the provision of housing development by private developers. People wanted to live outside the city centres to avoid traffic, noise, crime and other problems and to have bigger sites (David & Resnik, 2010).

The growth of Ivy Park within the Ivydale agricultural holding area can be described as unique because it is an isolated development. Residential growth sprang up due to the transport and business-associated opportunities that lie along the N1 gateway into the city as well as spin-offs from the development of Meropa casino. The developments within this area are mostly private middle income developments. Tremendous expansionary growth which occurred in the Westernburg and Nirvana areas changed the land use from residential to both residential and industrial and this has led to land use competition. It has continued to expand over the years. The reason for growth in this area is due to the opportunities the N1 gateway brings and the

Municipal intervention to give a facelift to the city. Moreover, the unique character of the southern gateway gave rise to scattered industrial activities in that region. The industrial areas, namely Ladanna and Laboria, house heavy industries such as the flour mill. Factories had a natural expansionary growth since the industrial activities that attracted other light industries and several other complementary service establishments to the area consequently led to the continuous growth of the area. The Municipality embarked on several housing delivery projects which eventually led to the expansion of several low income residential areas, such as Lithuli Park and Seshego Zones A and E. These areas experienced infill and expansionary growth as a result of the low-cost or affordable housing projects undertaken by private developers and the local municipality. Expansionary residential growth occurred in Madiba Park, an extension of Seshego. The growth was driven by private developments which were generally single stand houses but made of small plot sizes that were mostly occupied by the middle income group from the Seshego region. Construction of transportation speeds up land development and enlarges the size of the city. Although there is competition for land for economic developments at the rural-urban fringe, there is increasing pressure from environmental groups to restrict urban sprawl and protect the environment on the edge of cities from economic pressure. Perskebult was previously a homeland settlement area and it now falls under the jurisdiction of the Polokwane municipality. It is another informal settlement that has expansionary growth with outlying characteristics. Over the years it has become inhabited by squatters although the initial intention was that it would soon be formalised by the local municipality. Also part of the homeland demarcation policy that forms a micro system and ones that have shown significant growth are Makgofe, Blood River, Ga-Mabotsa and Kgothane. These are residential areas that are privately developed and are mostly occupied by low income people. The growth is attributed to the development of affordable housing by private developers in the Kgothane, Ga-Mabotsa and Blood River areas as well as the existence of some commercial activities around the Makgofe region (DLA, 2007).

The overall spatial growth trend in between 1994 and 2004 has been predominantly in the eastern and north-western parts of the former Pietersburg city. This growth trend has taken the expansionary growth pattern with some elements of typical infill characteristics in the Seshego region and the central part of the study area. The emergence of these developments are a result of push factors that has been militating against the expansion of these areas as entrenched by

apartheid legislation in addition to the provision of low-cost housing, the outcome of a project that was undertaken by the municipal council in the Seshego and Westernburg areas (DLA, 2007). Urban planning during the colonial period was for a different set of priorities that often did not foresee the rapid post-independence changes in economic, political and social expectations. The colonial institutions and plans were often designed to manage steady growth and not Rapid City growth. The post-colonial development agenda is driven by the situation on the ground in post-colonial countries themselves, forces that relate to system of knowledge production, education and the production of space (Yuen, 2011).

6.2.7 Overview of Land Use Change from 1994 to 2002

The study area has undergone some land use changes ever since 1994. The map analysis shows that urban land use change is mainly focused on one area which is a strip from the inner city towards the northern part of the study area up to Ha-Mabotsa. Growth and land use change seem to be influenced by three main factors, namely residential townships (Seshego), transportation routes, and the inner city. As shown in Figure 6.15, since 1994 the southern part of the city has been covered by agriculture and reserved areas and less land use change has occurred in that part of the study area. Major growths in that area were infill developments that occurred in the reserved areas. It seemed the city had a vision to keep the area as green on that side. This is because the changes that occurred were to support the existing agricultural area by residential and mine industries which existed before the period of study. The analysed map shows land use changes and growth in formal residential, informal residential, commercial and industrial areas. As a social phenomenon and physical transformation of landscapes, urbanization is a powerful, irreversible and visible anthropic genetic force throughout the world (Huang *et al.* 2009).

Informal residential change

Just after South Africa `s democratic election, informal residential areas started to intensify in and around the Seshego area. This study shows that informal residential area grew around the existing townships. In area such as Ladanna and Annadale, informal residential areas started to grow between 1998 and 2000. The reason to their growth in those areas was seen to be close proximity to place of work and getting better services and any CBD, related benefits. Up to date,

informal settlements surround formal townships and though they were isolated with formal area, they have connected the agricultural/conserved northern part area with the formal townships. With the new social housing policy in place, informal settlements might change to formal residence in order to form one big residential area. There are no informal settlements in the CBD area and this is because of the planning policy which has always protected the area. In the early 2000, the growth of informal settlements slowed down and this was because of the housing policies which included the RDP.

Formal residential change

As depicted in Figure 5.20, the study area had formal settlements from before 1994. These settlements were mostly focused in all parts of the city. This means that in those mixed uses in the inner city, residential use was one of the integrated uses which were of outmost importance from the perspective of the current municipal planning system which encourages people to live close to their places of work. From 1994, formal residential developments were aiming at expanding existing formal residential areas, and also to develop new residential area on vacant land to cater for the increasing population growth. It was focused simultaneously on all parts of the city including the Seshego townships. Rapid transformation occurred from 1998 to 2002 with the RDP policy at its strongest period. During this period the formal housing growth was mostly focused on the townships with less growth in the CBD. Polokwane has developed formal houses at the northern part, and it has developed high value formal houses and social housing estates on the outskirts and the edge of the CBD. Residential land use is developing faster and rapidly as compared to the rest of the uses and many people are moving from rural areas into urban areas. One of the most striking changes in the world population is change in the ratio between rural and urban population. All statistics show that the world population has been urbanizing at an unprecedented level. In 1950, only 29.1% of the world's population was living in urban areas. Today, urban population accounts for far more than 50%. Urbanization is expected to accelerate in the study area as well as in the world as a whole (Karaburun, 2010).

Commercial growth and change

The analysis shows that from 1994, commercial growth in Polokwane has been focused mainly on the inner city. There was little evidence of commercial land use few kilometres away from the inner-city. There have been no major changes from 1994 up to current, because commercial growth is still focused on the city. Commercial land use has been channelled along the national road and the R71 for accessibility. Small commercial growth also shows in the Seshego area towards the Blood River. There is little evidence of commercial land use on the southern side of the city. The local economy of the study area depends much on the commercial activities as it is the main job creator for the local residents. This means that there is a high chance of the commercial activities growing much more compared to what it is today.

Industrial changes and growth

The area around the Polokwane International Airport is the focal point for most industries. Gateway International airport was initially developed for the South African Air Force. Prior to the development of the airport, the land belonged to the former Pietersburg municipality. No major changes occurred elsewhere but factories that existed before 1994 are still in place. The changes occurred from the inner city along the N1 to Makhado Town. The railway is another factor which influenced development as indicated on the maps. Few industrial changes occurred on the border of Seshego areas which was developed in the form of infill development within formal residential areas of Seshego. Minor extensions occurred around the R521 road for ease. Agriculture and the International airport are the two most important macro land users which need further investigation and promotion.

Projected changes by 2020

Of all the land use changes, residential areas seem to be growing faster than the rest of the land uses in the study area. Polokwane seems to be growing towards the northern side of the city where informal and formal residential areas are expanding in proportion with population growth. The study projects that by the 2020, residential land use will grow towards the same northern

part of the CBD, because of the available vacant land and the fact that the southern part is reserved for agriculture and mining activities. The current planning policy strives to move residential away from heavy industry and this confirms that development will expand northwards and along the R521. The new housing policy seeks to reduce the number of informal settlements by clustering them with township development. Formal high value residential areas will continue to grow around the Bendor area. This is because people continue to invest in property development. In this study area there are many residents who are working in the CBD who cannot afford to stay in the formal residential suburbs around the city. This will contribute to the growth of townships which are around the city centre such as Seshogo and still remain lower income residential areas. The commercial sector will continue to be on the edges of the CBD and the residential outskirts because planning policies eliminates long walking distances. New malls will continue to develop on the outskirts since the rural-urban fringe has become an increasingly popular area for economic development. Urban expansion directly reflects the urban level and has become a remarkable characteristic of urban development worldwide in recent decades (Leichenko & Solecki, 2005; Catalan *et al.* 2008).

The CBD of the study area is surrounded by the residential land use which is growing much faster than the other land uses. This means that commercial activities in the city centre will not have much space for growth. The city centre will become more compact as many commercial activities are being developed in the city centre. As many malls will be developed in this study area, this will help to reduce the number of people who are served by the city. The more the city grows, the more people are likely to come and invest in it and this shows that, as Polokwane is growing at a fast rate, many industries will be developed in this area. Even though at the current stage industrial land use does not show much evidence in the study area, it has much potential to grow. Industrial land use is growing as many companies from large to small scale company have been planted in the study area; this shows that industrial area will be one of the largest job creator fields for local people. Rapid urbanisation in the world is quiet alarming especially in developing countries (Kumer *et al.*, 2007). The study area is growing into a big city. Rapid urbanisation has caused big cities to grow bigger, and has transformed rural centres into cities (Karaburun, 2010).

Polokwane, formerly an agricultural environment, is changing with agriculture being replaced by concrete structures that form islands of intense human activity which might have negative consequences for the environment. For good or bad, land use change has affected the study area, Polokwane and its environs, and land use conflict is gaining momentum. In conclusion, the question this research now pertinently addresses is: ‘*What does the future hold for the study area*’? ‘*Can the situation improve*’? The next section tries to answer these research questions specifically posed for this study.

6.3 PERCEPTIONS ON LAND USE COMPETITION AND CONFLICT

The previous section discusses trends in land use changes in the study area. This section provides results from the data collected during the surveys conducted in Polokwane. The regulation and distribution of land are very common practices of governments in countries in the developing world, especially those with a colonial past. This is the case in South Africa, for example, where controlling the access, use, ownership and spatial distribution of land was essential when enforcing the policy of apartheid of the 1960s. The observed trends in land use change in the study area can be ascribed to changing functions and purposes for which the land has been used, which in turn implies that competitive bids for meeting varying demands come into play.

There have been very few instances in which people have used land and its resources without causing harm. Over the last 300 years the impact of land use change has increasingly assumed proportions that have ranged from significant to threatening. It is human, with a few exceptions, and not nature’s agency that has brought about these changes and been responsible for their magnitude and severity. Such changes in the use of land occurring at various spatial levels and within various time periods are the material expressions, among others, of environmental and human dynamics and of their interactions which are mediated by land (Turner, 1995). In Limpopo province, whose population exceeds 5.2 million and covers an area of 122 839 km², land use change is to be expected. The province experienced a population growth of 6.98% from 1996 to 2001 and has an unemployment rate of 48.81% (SPI, 2006). Thus impact on land use is to be expected, particularly in its main core area, Polokwane, the site of this investigation.

In the first part of this section, the opinions of government officials and town planners, men and women in business and residents sampled for interviews are presented. These are annexed as appendixes 1, 2 and 3 respectively. Questions related to issues of land use, town planning, ownership, administration, legislation and identifying land-related gender issues were asked. Examples of land claims within the Limpopo Province are then given to support the exposition of the interrelatedness of competition, conflict and change in the use of land.

6.3.1 Demographic Profile of the Respondents in Polokwane City

This section provides a general overview of the characteristics of the sample.

The sample comprised of a total of 420 respondents made of 240 residents, 16 government officials 164, business people and relevant attributes were their age, gender, marital status, race and their residential and business interests in Polokwane. Most of the residents interviewed were between the ages 20-30 years (46%), and 31-40 years (32%). There were few people under the age of 19 (6%) and between the ages 40-50 years (12%) and over 50 years (4%). The same applied to business people. The majority of respondents were between 20-30 years (53%) and 31-40 years (31%). A few respondents were under the age of 19 (4%) and above the age of 50 (12%). More than half (60%) of the government officials were between 20 and 30years, (27%) between 31 and 40 years; 13% were between 40 and 50 years. There is an apparent similarity among residents, business people and government officials because most of the respondents in all age groups are found in the 20 and 30 age cohort. This is an active age group as visually depicted in figure 6.28.

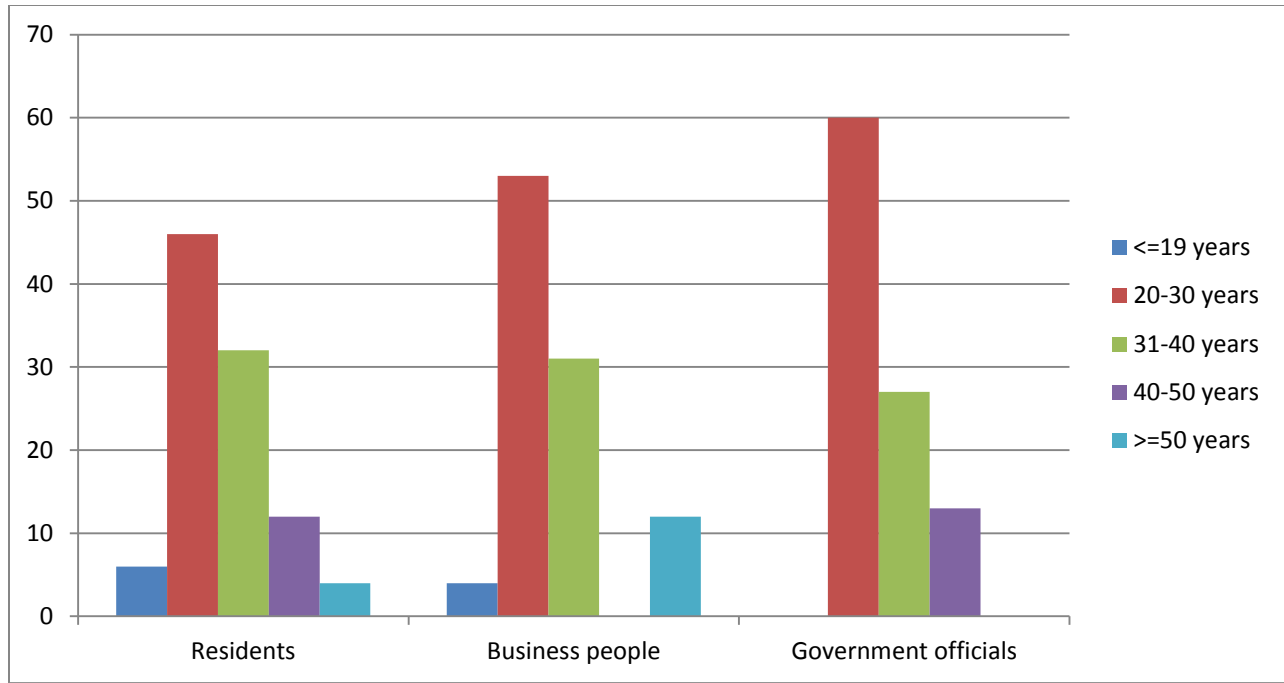


Figure 6.28: Total sample group, percentage frequencies

Table 6.11 reveals group of respondents. The data shows that business owners constituted 39%, government officials 3.9% and residents, 57.1% of the total number of people interviewed. There were few government officials because few respondents from this group had knowledge required to provide the information required. It would appear from the study that more men are engaged in entrepreneurial activities than women in South Africa. The data shows that although there are more males (56.3%) than females (43.7%) in government official respondents, the difference between the total number of males and females respondents is low (2.6%). This study reveals that the number of male and female qualified Town Planners in the study area is more or less the same. This confirms the fact that global disparities between men and women in literacy have drastically fallen since 1970 and as a result more women have entered and continue to enter the labour market due to rising education and growing market (European Commission, 2009). Male residents constituted 54.6% and female residents constituted 45.4%. Male respondents (57.1%) in this study constituted a greater proportion of respondents who participated in this study when compared to female respondents (42.9%). The data reveals that 61% of business owners interviewed were men and less than half (39%) were women. This study reveals that there are more businessmen (61%) than businesswomen (39%) involved in business activities in the study

area. This study correlates with the study conducted by Mutezo (2005) and Umsobomvu Youth Fund (UYF, 2008) where the ratio between male and female is 70:30.

Table 6.11: Number of respondents (n=420)

Respondents	Male	%	Female	%	Total	%
Business Owners	100	61	64	39	164	39
Government Officials	9	56.3	7	43.7	16	3.9
Residents	131	54.6	109	45.4	240	57.1
Total	240	57.1	180	42.9	420	100

Figure 6.29 shows gender and age of government officials who were interviewed. Most of them (56%) were between the ages 20 to 30 years and there were more males than females, which shows that there are still more males in government employment than females. The data shows a general trend of younger men and women entering the public and private sector, whether as newcomers or as long standing city dwellers. Between the ages 41 to 50 years, there were only (3) female respondents. Equal acceptance of men and women is evident.

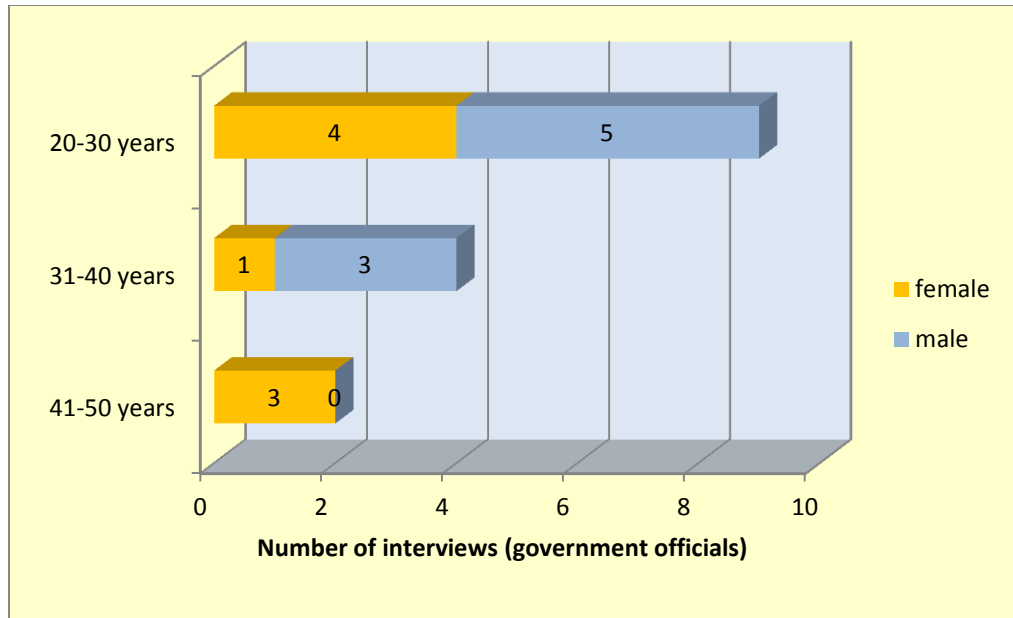


Figure 6.29: Gender and age of government officials' respondents (n=16)

Figure 6.30 reveals gender and age of residents' respondents. Both males and females were interviewed among residents of Polokwane. Less than half (46%) of the residents interviewed were females. There were only females under the age of 19 and only males at the ages above 50 years old. There were more females (31%) than males (1.2%) under 31-40 years category. There were more women than men in all categories except in the 0-19 years.

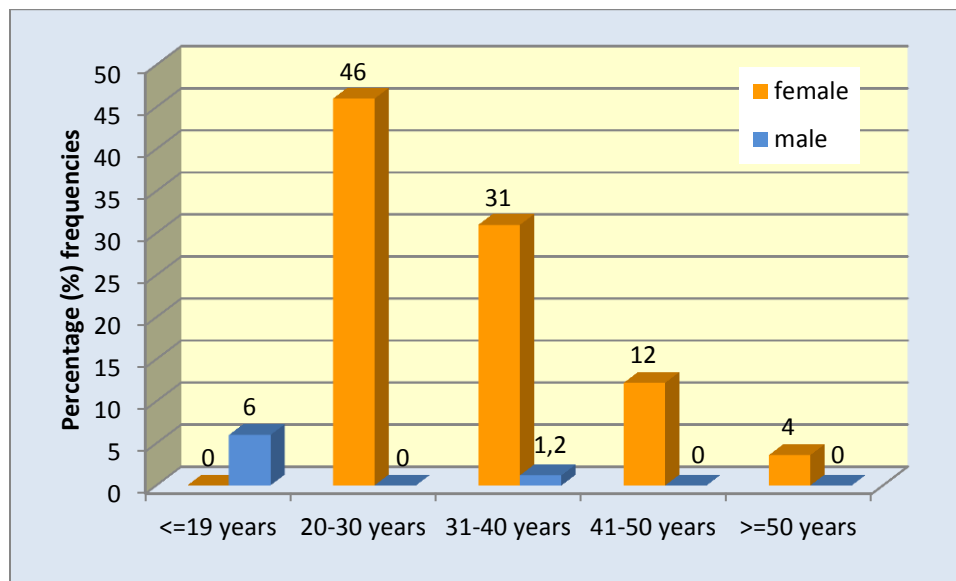


Figure 6.30: Gender and age of resident respondents (n=240)

Figure 6.31 shows gender and age of business people interviewed. Most of them (82%) are between the ages 20 to 30 years and were males, which further show that there are more males in business than females. The data between 31 to 40 years shows that (38%) females and (11%) males are found in public and private sectors. There are only women (9%) in the over 50 years category and only men (6%) at less than 19 years category and this shows a close similarity between gender and age of business people and that of residents.

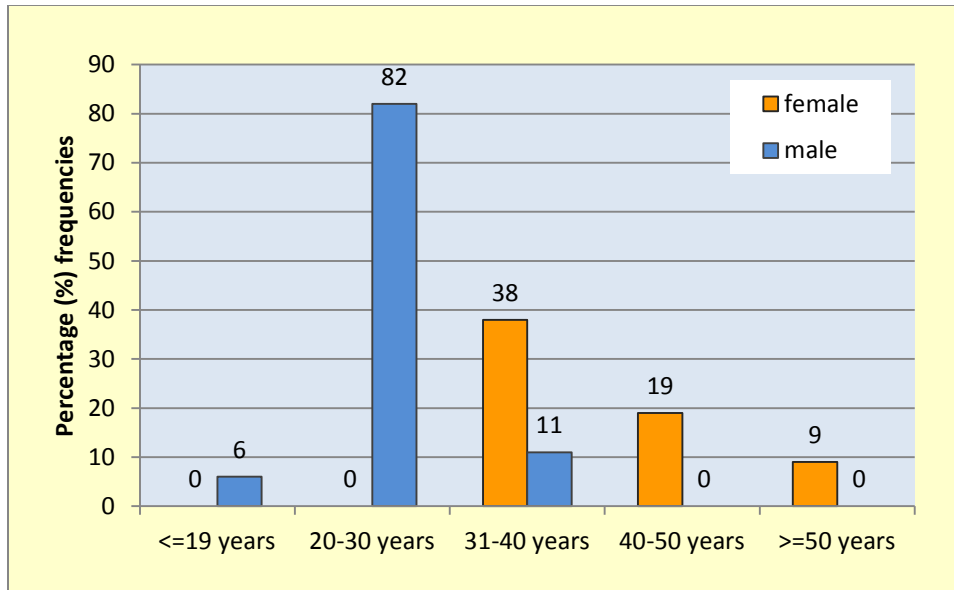


Figure 6.31: Gender and age of business people (n=164)

Table 6.12 reveals the age of Government officials. The data shows that 68.8% of the respondents fall in the 20-30 years category, while those in the 31-40 years and 41-50 years amount to 18.8 % and 12.5% respectively. The data clearly reveals that the number of qualified Town Planners is increasing. The study reveals that there are many young Government officials (68%) in the study area. Polokwane experiences human resource shortages. The Town planning Department of the Council has severe problems in dealing with large numbers of land use applications (e.g. rezoning). Skilled Town Planners and Town Planning assistants are utilized to deal with cumbersome administrative procedures and can therefore not be actively involved in forward planning or in compiling policies. Council should delegate powers with regard to land use control and administration and promote involvement of Town Planners in forward and

strategic planning. The increase in the number of qualified Town Planners should help to solve the problems of human resource shortages.

Table 6.12: Age of Government officials (n=16)

Age of government officials	Frequency	Present
20-30 years	11	68.8
31-40 years	3	18.8
41-50 years	2	12.5
Total	16	100.0

Table 6.13 gives an indication of length of stay of the sampled government officials. It was important for this study to ascertain how long the respondents had been associated with the study area. As in the case of business people, the number of sampled government officials also decreases as the number of years increases. Most (56.2%) respondents have lived in the area for less than 5 years. Those who fall under the category of 5-15 years constitute 31.2% and those who fall in categories 16-35 years and 36-55 years constitute 6.3% each. This data supports the premise concerning the recent growth in all sectors of economic life of Polokwane and the associated demand for accommodation as people enter the expanding business and administrative sectors of the city. Rapid urban expansion alters physical landscape. It destroys natural habitat and diminishes biodiversity. It has brought about tremendous challenges like land use conflict to human society.

Table 6.13: Length of stay in Polokwane – government officials (n=16)

Period living in Polokwane	Frequency	Percentage
<5 years	9	56.2
5-15 years	5	31.2
16-35 years	1	6.3
36-55 years	1	6.3
>56 years	0	0
Total	16	100.0

Table 6.14 reveals length of stay in Polokwane for residents. Most people who were interviewed have lived in the study area for less than 5 years (41%) while another 40% have lived in the study area for 5-15 years. In total, 81% had lived in the area for less than 15 years. Only 1% of

the residents who were interviewed had lived in Polokwane for more than 56 years. Those who fall in the category of 36-55 years constitute 5% and those who fall in the 16-35 years category constitute 13%. This has led to rapid population growth which in turn leads to an increasing demand for urban land. After 1994, many people moved to Polokwane to seek for employment and a better life and this has led to land use conflict in the study area.

Table 6.14: Length of stay in Polokwane - residents (n=240)

Period living in Polokwane	Frequency	Percentage
<5 years	98	41
5-15 years	97	40
16-35 years	31	13
36-55 years	12	5
>56 years	2	1
Total	240	100

Table 6.15 reveals length of stay in the study area for business people. The data reveals that less than half (38%) of the business people lived in Polokwane for less than 5 years. Those who fall in the 5-15 years category constitute 29% and those who fall in the 16-35 years category constitute 24%. Only 8% of business people have lived in Polokwane for more than 36 years. There is a strong similarity in length of stay in the study area for residents, between business people and government officials. In all cases the percentage decreases with an increase in number of years. Very few people have lived in the study area for more than 56 years and many people have lived in the study area for less than 5 years. This confirms the notion that many people moved to Polokwane after 1994 when the city became the capital of Limpopo Province. This movement leads to suburban developments which can lead to negative impacts on neighbourhood vitality and the accessibility of the recreational land surrounding urban areas. Natural and agricultural areas have lost space to benefit the urban functions of housing, employment and recreation. Housing is the most dominant urban function in the rural-urban fringe. This puts pressure on land which leads to land use competition, conflict and change.

Table 6.15: Length of stay in Polokwane – business people (n=164)

Period living in Polokwane	Frequency	Percentage
<5 years	62	38
5-15 years	48	29
16-35 years	39	24
36-55 years	13	8
>56 years	2	1
Total	164	100

Table 6.16 reveals marital status of the business people who were interviewed. The marital status of respondents shows that more single people were in business and government although this distinction is not so marked among the residents. Among the business people 33% of the respondents were married and 67% single. Business people were predominantly single. This study corresponds well with the South African Statistics which indicates that 68% of Polokwane Municipality people were never married and only 22.8% are married.

Table 6.16: Marital status of business people (n=164)

Marital status	Frequency	Percentage
Married	54	33
Single	110	67
Total	164	100

Table 6.17 reveals marital status of residents. The data reveals that just slightly more than half (52%) of the residents interviewed were single and just less than half (48%) were married. There are more single people in Polokwane than married people. This also has a strong relationship with Polokwane Statistics which indicates that there are more single people than married people in the study area.

Table 6.17: Marital status of residents (n=240)

Marital status	Frequency	Percentage
Married	116	48
Single	124	52
Total	240	100

If compared to government officials, more than two thirds (69%) interviewed were single and only 31% were married (Table 6.18). This corresponds very well with Polokwane population statistics where people who were never married constitute 68% and only 22.8% is married. This shows that most of the people who work in government offices are young and unmarried, with this group also penetrating the business arena. In all these cases more than half of the people interviewed were single. There is a strong relationship between the marital status of business people and that of government officials and these are closely related to the marital status of Polokwane.

Table 6.18: Marital status of government officials (n=16)

Marital status	Frequency	Percentage
Married	5	31
Single	11	69
Total	16	100

Table 6.19 shows departments where government officials, responding to the survey, worked. More than half (56.3%) were from the Department of Local Government and Housing and 18.8% of respondents came from the Department of Land Affairs. Consulting engineering constitutes 12.5%. The Departments of Water Affairs and Agriculture each makes up 6.2% of the total.

Table 6.19: Place of employment of Government officials (n=16)

Government Departments	Frequency	Percentage
Department of Land Affairs	3	18.8
Local Government and Housing	9	56.3
Water Affairs	1	6.2
Agriculture	1	6.2
Consulting engineers	2	12.5
Total	16	100.0

Figure 6.32 reveals positions and experience of interviewed government officials. Government officials involved in the survey occupied a range of positions. These included technicians, chemical engineers, resource auditors, town planners, senior planners, managers, deputy managers and administration officers. Transformation in this sector is evident in that many incumbents, particularly in the field of town planning and technical support, were new appointees whereas professional positions were filled by more experienced personnel, particularly in the managerial, financial and engineering fields, some of whom have already had six to ten years' experience in their respective positions.

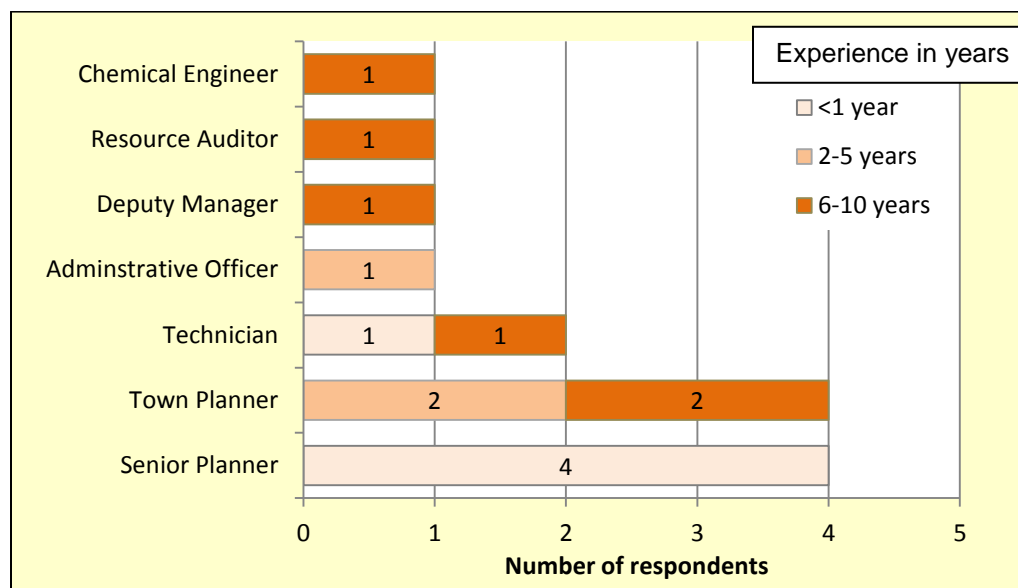


Figure 6.32: Position and experience – government officials (n=16)

Table 6.20 reveals the location of businesses. The data shows that a significant number of respondents (67.1%) operate their business in the CBD, 15.9% conduct their business in the Residential zone, 7.9% in the Transition zone and 4.3% in the Industrial zone. The data collected shows that most of the businesses are located in the Polokwane Central Business District (CBD) which is to be expected although businesses in the residential areas, the transition zone and the industrial zone also are represented in the sample group. This accords with current urban developmental trends in the area.

Table 6.20: Business location (n=164)

Business location	Frequency	Percentage
Central Business District	110	67.1
Residential zone	26	15.9
Transitional zone	13	7.9
Industrial zone	7	4.3
No response	8	4.8
Total	164	100.0

Table 6.21 reveals the previous racial classification of residents. Black people, Coloureds, Indians and Whites were interviewed. This would lead to meaningful results as all population groups were represented. More than half of the residents interviewed were Blacks (89.5%). Whites comprised 6.1% of the sample, Coloureds 2.4% and Indians were 0.8%. This study corresponds well with Polokwane statistics where Blacks constitutes 92.9%, whites 5.2% and 1.9% for Indians and Coloureds.

Table 6.21: Race of residents (n=240)

Race of respondents	Frequency	Percentage
Blacks	214	89.5
Whites	15	6.1
Coloureds	6	2.4
Indians	2	0.8
No response	3	1.2
Total	240	100.0

Table 6.22 reveals the population group of government officials. The data shows that 93.8% of the Government officials were Black people. This corresponds well with the distribution of population in Polokwane which indicates that Blacks constitute 92.9% of the total population. The study reveals that Black people are occupying key positions in the Government Departments.

Table 6.22: Population group (government officials) (n=16)

Population groups	Frequency	Percentage
Black	15	93.8
None respond	1	6.3
Total	16	100.0

Table 6.23 reveals race of business people interviewed. This distribution is comparable with the city's population composition because there are more Blacks in Polokwane. Whites, Coloureds and Indians are in the minority. Nearly two thirds (66%) of the business people interviewed were Blacks, 18% were Whites, 7% Indians, 6% Coloured. This shows that in recent years more Blacks were engaged in the commercial sector than was the case in the past. However, a significant core (18%) of White business people remains active in the business world, evidence of the impact of the area's socio-political heritage. The data also reveals that although the number of Coloureds and Indians in government positions and in residents is insignificant, a remarkable percentage 7% and 6% respectively is now engaged in business. The number of Blacks in residents, government officials and business is very high which reflects the population statistics of Polokwane Municipality.

Table 6.23: Race of business people (n=164)

Race of respondents	Frequency	Percentage
Blacks	108	66
Whites	30	18
Coloureds	10	6
Indians	11	7
No response	5	3
Total	164	100

The percentages are reflected in the table below the graph. From the graph, gender is represented by different colours for a particular age group. The first bar represents the age group 19 years old and younger by gender and shows the age gender distribution being equal, and the same is apparent for the age group of 50 years old. For the 20-30 years old age group females are slightly more in percentage than the males. When looking at the 31-40 age groups, one can clearly see

that more males responded for that particular age group and the same can be said for the 41-50 years group (Figure 6.33).

The graph below shows the distribution of age group by gender for the respondents (residents). The data shows that 6.60% of the respondents fall in the 19 years and below category, while those in the 20-30 years amount to 45.10%, 31-40 years amount to 33.40%, 41- 50 years constitute 11.70% and 50 years and older constitute 3.40%. In the 19 years and younger categories male and female respondents were of the same percentage (3.30% male and 3.30% female and 1.70% male and female respectively). In the 20-30 years category, female respondents were more than male respondents (23.80% male and 21.30% female) and in the 31-40 age cohort male respondents were more than female respondents (21.30% male and 12.10% female); in the 41-50 years category male respondents were also more than female respondents (7.10% male and 4.60% female). In this study male respondents were observed to be older than female respondents falling mainly in the 31-40 years (21.30% male and 12.10% female); 41-50 years (7.10% male and 4.60% female). Females were more than males falling mainly in the 20-30 years (23.80% female and 21.30% male). This study reveals that there are very few people (3.20%) under 19 years who are engaged in business. There are more people in business under the categories 20-30 years and 31-40 years (49.70% and 29%) respectively. The 41-50 years constitute 13.50%. There are few people over the age of 50 years (4.5%) who are still in business. This shows a very normal curve. This study confirms studies conducted in the USA and Europe where women in the sample were relatively younger than men (Verheul *et al.*, 2010).

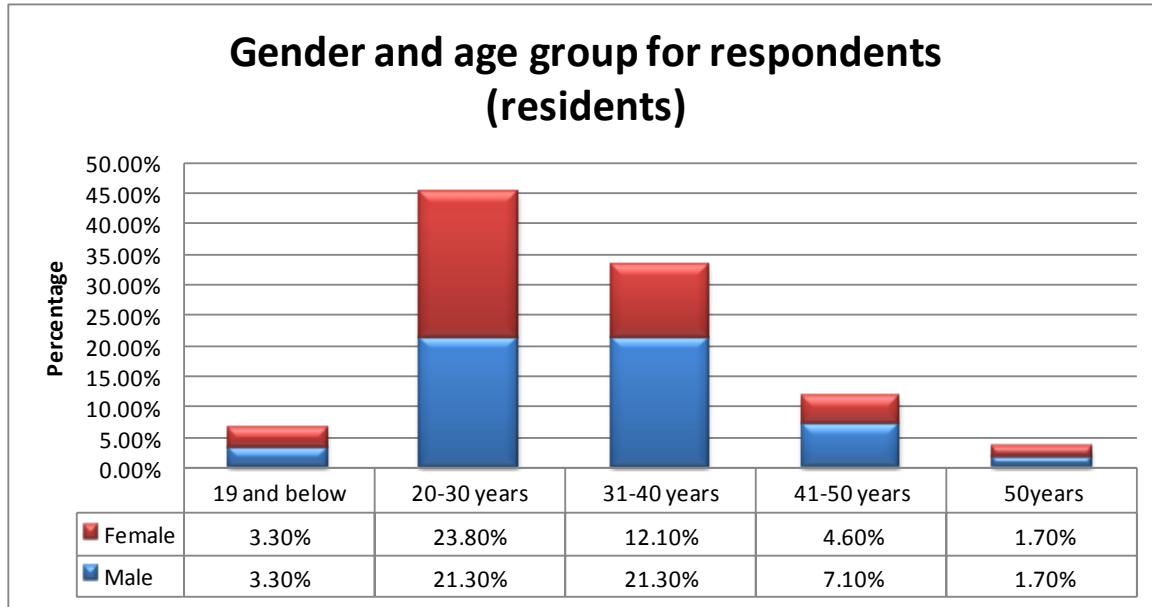


Figure 6.33: Gender and age group of respondents (n=240)

Table 6.24 reveals the number of years living in Polokwane and submission of land claims. Only 0.40% of those who lived in Polokwane for more than 56 years have indicated that they have submitted claims for land in the study area and 96% of the respondents indicated that they have never submitted a land claim. The data reveals that a negligible minority from all age categories have submitted land claims.

Table 6.24: Number of years living in Polokwane and submission of land claims (residents) (n=240)

Number of years living in Polokwane	Information about submission of land claims		Total
	Yes	No	
> 5years	1.70%	38.20%	39.90%
5-15years	0.40%	41.60%	42.00%
36-55years	0.80%	12.20%	13.00%
<56 years	0.40%	4.60%	5.00%
Total	3.40%	96.60%	100.00%

Table 6.25 reveals work experience of Government Officials. The data reveals that 37.4% of the Government officials fall in the 0-1 year experience and 31.3% fall in the 2-5 years' experience category, while 6.3% fall in the 6-10 years category. Those who fall under 10 years and above experience constitute 25%. The data reveals that most of the respondents (37.4%) are young people with one year experience and 2-5 years' experience (31.3%). The data reveals that a cumulative 68.7% of the respondents have less than 5 years' experience. These are young people who have joined the government departments. Based on the results from table 7.15 the study reveals that there are more young people who are qualified as Town planners and engineers in Polokwane Municipality. The data reveals that 25% of the respondents have more than 10 years' experience. This shows that there are old people with enormous of experience in the study area.

Table 6.25: Work experience of government officials (n=16)

Number of years working for government	Frequency	Percentage
0-1 year	6	37.4
2-5 years	5	31.3
6-10 years	1	6.3
>10 years and older	4	25.0
Total	16	100.0

Table 6.26 reveals the reasons why respondents have moved to Polokwane. Respondents indicated that they have moved to the study area for various reasons. More than half, 62.1% (57.5%+ 4.6%) moved to the city for work related considerations as 4.6% indicated that they were transferred to the study area. Those who were attracted by educational facilities constitute 8.3%. Very few people (5.8%) indicated that they were born in the study area and 4.2% indicated that they moved to the study area because their parents were living there. Those who moved to the study area due to better opportunities constitute 9.2% and 1.7% indicated that they went to Polokwane in order to start a business, these have an entrepreneurial spirit. Respondents who moved to Polokwane with the intention of farming and those who were attracted by a safe environment constituted minimal 0.4% respectively. Those who did not respond constitute 7.5%.

A close analysis reveals that these people come from all over the Province, all over South Africa and neighbouring countries such as Zimbabwe, Mozambique, Nigeria and Malawi. The study area is affected by informal settlements i.e. squatters. Squatters are those immigrants who illegally establish dwellings in areas deemed unsettled or with poorly defined tenure.

Table 6.26: Reasons for moving to Polokwane (n=240)

Reasons for moving to Polokwane (residents)	Frequency	Percentage
Non response	18	7.5
Parents	10	4.2
Better opportunities	22	9.2
Birth place	14	5.8
Crime rate is low and its very quiet	1	0.4
Development	1	0.4
Education	20	8.3
Farming	1	0.4
To start a business	4	1.7
Transferred to Polokwane (Work related)	11	4.6
Work related	138	57.5
Total	240	100

Table 6.27 reveals the relationship between the Municipality and property owners. The data reveals that one (1) of the respondents indicated that the relationship between the Municipality and the property owners is good and three (3) indicated that the relationship is not good. Those who did not respond constitute twelve (12) of the respondents. Those who responded constitute 25% of the respondents.

Table 6.27: Relationship between the municipality and property owners (n=16)

Response about relationship between the municipality and property owners	Frequency
Good	1
Bad	3
None respond	12
Total	16

Table 6.28 reveals information about informal traders. The majority of informal traders are women and of those women 9 do not own land. Many women are forced to be involved in business because of negative conditions like the death of a husband, separation or divorce (Mitchell, 2004). This confirms the findings of the study conducted in African countries and Latin America where it was found that 61% of small businesses are owned by women (Nichter & Goldmark, 2009).

Table 6.28: Informal traders (n=16)

The majority of informal traders are women	These women who are informal traders do not own any land		Total
	True	False	
True	9	4	13
False	2	1	3
Total	11	5	16

Table 6.29 reveals information about land price and movement of business. The data reveals that a significant majority nine (9) of the respondents indicated that the increase in land price has resulted in businesses moving into adjacent residential areas. The study reveals that there is a relationship between the prices of land influencing the movement of business in the study area. High land price has forced some businesses to move away from the CBD to residential areas. Polokwane is experiencing land use competition primarily between business and residential users. Small and emerging businesses cannot pay the rent demanded, so their only option is to

move away from the city. There is a movement of businesses from the CBD into the residential areas due to high land value in the CBD. This relocation of land uses will be attributable to land use change from agricultural to commercial in the rural urban fringe. Polokwane appears to be pushing the CBD into the fringe zone along the major routes. There are apparent new CBD zones scattered in a centripetal fashion from the original CBD, the N1 Musina route, the Zebediela route, the Turfloop route and the Giyani route. The changes have become dominant and faster over recent years. In the past movement was concentrated along one route, these days urban development projects tend to occur in multiple growths points along major routes. The study area is affected by land use change. Land use change is recognized as one of the greatest global environmental pressures (Lorencova, 2013).

Table 6.29: Scale of the movement (n=16)

Scale of the movement		Frequency
Valid	Huge	3
	Medium	4
	Low	2
	Total	9
Missing System		7
Total		16

6.3.2 Competition and Land Use

- **Land for residential and business purposes**

Table 6.30 reveals information about period lived in Polokwane and land use changes. The data reveals that in all categories (less than 5 years, 5-15 years, 36-55 years and 56 years and above), more than half of the respondents have noticed land use change. More than half (61.20%) of the respondents (residents) has indicated that they have noticed land use change over the past ten years. Less than half (38.80%) has indicated that they have not noticed any land use change over the last ten years. This shows that land use change is taking place in Polokwane. The study reveals that respondents who have stayed in the study area for a few years are able to notice land use change more than those who have been in the area for many years. This is more evident in

the less than 5 years (22%) and the 5-15 years (25.60%) categories. There are few people (10.10%) in the 36-55 years category who have noticed land use change in the study area. In the 56 years and above category, only 3.50% has noticed the land use change. This shows that when people have been living in an area for a long time, they hardly notice any change taking place in land use. As people age, they tend to have fixed routes and established habitats where their needs are met. Newcomers have to explore to know the terrain and to locate service points related to their needs. Further analysis using chi square tests shows that the length of time people have lived in Polokwane significantly influences ($X^2 = 2.4$; $df=3$; $P > 0.01$) their perception of land use changes.

Table 6.30: Period living in Polokwane and land use change (n=240)

Period living in Polokwane (residents)	Noticed land use change for the past ten years		Total
	Yes	No	
> 5years	22.00%	16.70%	38.80%
5-15years	25.60%	16.30%	41.90%
36-55years	10.10%	4.00%	14.10%
<56 years	3.50%	1.80%	5.30%
Total	61.20%	38.80%	100.00%

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.400 ^a	3	.494

Chi-Square Tests

a. 1 cells (12.5%) have expected count less than 5. The minimum expected count is 4.65.

Table 6.31: reveals information about notice of land use change and the type of change. Residents interviewed indicated that they have noticed land use change over the past ten years. Majority of respondents (94.6%) indicated that they have noticed change in land use in the study area. More than half of the respondents (63.9%) have indicated that they have noticed land use change from residential to business, 16.3%, has noticed land use change from rural to urban, 8.8%, noticed land use change from residential to industrial and 5.4% have indicated that land

use has changed from business to residential. This reflects a fairly accurate picture of land use in Polokwane because residential areas are being overtaken by business area. There is land use competition between residential and business areas, residential and industrial areas and urban to rural areas. This has been brought about by a widening gap between the growing population and the rapidly shrinking land resources. Further analysis using Pearsons Chi-square tests shows that there is no significant relationship ($X^2= 7.5$; df 3, $P < 0.10$) between people’s perceptions of change and the actual types of changes that are taking place in Polokwane. This means that the two variables types of change and residents notice of change are independent of each other. As indicated in the interviews the key contributing factor is the pressure on land due to growing population and rapidly shrinking land resources.

Table 6.31: Noticed land use change and the type of change (n=240)

Type of change	Notice of land use change for the past ten years (residents)		Total
	Yes	No	
Residential to business	63.90%	2.00%	66.00%
Residential to industrial	8.80%		8.80%
Business to residential	5.40%	1.40%	6.80%
Rural to urban	16.30%	2.00%	18.40%
Total	94.60%	5.40%	100.00%

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	7.593 ^a	3	.055

a. 3 cells (37.5%) have expected count less than 5. The minimum expected count is .54.

Table 6.32 reveals information about conversion of houses. Only 2.5% of the respondents have indicated that they have bought houses and converted them into business buildings, 4.9% have

converted buildings into offices and 0.8% has converted them into both offices and business buildings. This shows that land use change is taking place in Polokwane, especially in the CBD.

Table 6.32: Houses bought and converted (n=240)

Houses converted into	Bought a house in Polokwane		Total
	Yes	No	
a business building	2.50%	2.50%	4.90%
an office	4.90%	3.30%	8.20%
Both	0.80%	2.50%	3.30%
none of the above	47.50%	36.10%	83.60%

Table 6.33: reveals response on houses demolished for business purposes. The data reveals that 75.4% of the respondents have indicated that houses are being demolished for business purposes in the city. The study reveals that land use change is particularly evident in the CBD. It also shows that business development is taking over the use of land in many residential areas in the study area. Many residential areas are being converted into business areas and houses are pulled down to make space for business development. Private business is taking over residential stands. This is more evident on the southern side of the city between Dorp and Dahl streets. Land use change is evident in the study area. Conversion causes land use change.

Table 6.33: Response on houses demolished for business (n=240)

Houses demolished for business	Frequency	Percentage
Yes	181	75.4
No	56	23.3
No response	3	1.3
Total	240	100



Figure 6.34: Business development replacing residential buildings
Source: Field survey (2009)

The tendency to buy a house in the city and convert it into rented accommodation is gaining momentum and is becoming a big business in the city. People buy large, old sites and build townhouses (Figures 6.34, 6.35, 6.36 and 6.37), which are presently in demand. There are very few freestanding houses in the city. This is marked along Marshall Street as far as Savannah. People prefer to live in townhouses as a response to crime. Many people in Polokwane own two houses, one in the village and the other one in the city.

Business people make a great deal of money in the accommodation sector. Motels in the study area are always fully booked. Furthermore, this became an important business in the city in preparation for the World Cup soccer event in 2010. Many houses between Dorp and Marshall Streets have been converted into businesses. Almost all available land in the CBD is owned and developed. Space does not allow for the establishment of townhouses in the CBD and it is better to find virgin land outside the city centre. Land on the periphery is cheaper. Residential land is cheaper than commercial land. Therefore, land use competition is evident in the study area. Agricultural land is changed into residential and commercial land this has led to land use change.



Figure 6.35: Residential property converted to guesthouse
Source: Field survey (2009)



Figure 6.36: Townhouse development
Source: Field survey (2009)



Figure 6.37: Residential property converted to townhouse

- **Land for retail trade**

Corner shops are generally attractive and always accessible. People buy a building on a site at a corner and convert it into a corner shop, for example, 7/11, now known as the Friendly Store, is situated at the corner of Dorp and Marshall Streets. This is a response to inefficient planning in the past. Blacks do not always buy things in bulk and therefore there is always a need for convenience goods. In Flora Park provision for corner shops has not been made so people use garages as tuck shops. This is a result of bad planning.

There is also competition for land in residential zones for shopping mall development. Land use competition had led to land use changes, which pushed prices up. Houses and land are now very expensive due to these changes in land use. Land supply is the main determinant of housing supply (Saize, 2010). Residential components for high-income groups also put a lot of pressure on land. If Savannah could be extended, the price of land around it would also go up. The areas occupied by the GAME (Figure 6.38) and Savannah (Figure 6.39) malls were not originally planned for business purposes but for industrial and residential purposes respectively. They were both changed due to the increasing demand for land for business development. This confirms

that there is land use competition between residential and commercial land in Polokwane and that land use change is evident.

The study area has experienced a relatively high population growth rate since 1980 (5.1% p.a. – higher than the provincial average of 3.9%), which compares well with cities of the same order in South Africa such as Potchefstroom, Middelburg, Rustenburg and Witbank (DIDP, 2010/2011). The population scenario represents a relatively high influx of people into the area, because Polokwane functions as the capital of Limpopo Province. Another possible factor is the deteriorating economic conditions in the rural areas, and the perception of the availability of job opportunities in the urban areas. This always leads to land pressure which in turn will cause land use change, competition and conflict. Migration always affects, and is being affected by issues related to access and control over land and other resources, and brings with it potential conflicts in rural and in urban areas (Odgaard, 2006).



Figure 6.38: Game Mall
Source: Field survey (2009)



Figure 6.39: Savannah Mall

Source: Field survey (2009)

The Mall of the North (Figure 6.40), which is the single largest real estate investment and development in the Limpopo Province is also situated in an area that was not planned for business. Having all the major retail anchors and brands under one roof in a modern, safe, and clean and air conditioned setting gives it a competitive advantage. It is the largest shopping centre in Limpopo Province.



Figure 6.40: Mall of the North

Source: Field survey (2011)

Table 6.34 reveals information about perception of land use patterns by residents. The data reveals that more than half (57%) of the residents interviewed indicated that they were happy about the patterns of land use in the study area although the structure of Polokwane area is essentially that of an `apartheid city`, which is typified by mono-functional land use. Residential areas were racially segregated and spatially separated by buffer zones. Large distances between places of work, coupled with inadequate public transportation present problems. Less than half (43%) of the residents interviewed were not satisfied with the land use patterns.

Table 6.34: Perception of land use patterns (n=240)

Satisfaction with land use pattern(residents)	Frequency	Percentage
Yes	137	57
No	103	43
Total	240	100

Table 6.35 reveals information about satisfaction with land use patterns by businessmen. More than half (53%) of the respondents indicated that they are satisfied with land use patterns in the study area and less than half (41%) indicated that they are not satisfied. Those who are satisfied with land use patterns constitute 57% (residents) and 53% (businessmen) and those who are not satisfied constitute 43% (residents) and 41% (businessmen). This could be ascribed to the fact that many people now live in security villages or gated settlements where there is no crime. Although the urban form is evidently fragmented, all efforts are being made to achieve integration and consolidation. The Municipality has put in place policies and legislation to redress past spatial and other development imbalances. The development of malls, where all major retail anchors and brands under one roof in a modern, safe, and clean and air conditioned setting is also an added advantage of emerging land use patterns. Emerging patterns, according to business people and residents interviewed, are better than apartheid spatial pattern. The study reveals that there is similarity between the perception of businessmen and that of residents. Further statistical analysis using Kolmogorov's Smirnov test

Table 6.35: Satisfaction with land use pattern (n=164)

Satisfaction with land use pattern (business people)	Frequency	Percentage
Yes	87	53
No	67	41
No response	10	6
Total	164	100

Table 6.36 reveals information about the perception regarding land use size by business people/owners. Those who are not satisfied constitute 40.9%. The study reveals that although there are many respondents who are satisfied with the size of their sites (56.7%), there are still a number of people who are dissatisfied. The study reveals that there is still pressure for land in the study area.

Table 6.36: Perception on the size of business (n=164)

Satisfaction about the size of site of business	Frequency	Percentage	Valid Percentage
Yes	93	56.7	58.1
No	67	40.9	41.9
Total responded	160	97.6	100
non response	4	2.4	
Total	164	100	

Table 6.37 reveals that 61.6% of the business people interviewed have no area of expansion for their business and only 32, 9% have indicated that they have areas of expansion for their business. This shows that there is a pressure for land in the study area. The study reveals that the demand for land is high in the study area. This leads to conflict over land and contestation and control of land because competing demands for a limited resource leads to conflict.

Table 6.37: Area of expansion (n=164)

Area of expansion for business	Frequency	Percentage	Valid Percentage
Yes	54	32.9	34.8
No	101	61.6	65.2
Total responded	155	94.5	100
Non response	9	5.5	
Total	164	100	

6.3.3 Town Planning Issues

Particular town planning issues in Polokwane concern public participation, land claims both in the city and in residential areas, space for expansion and the price of land.

- **Public participation**

Public participation encourages an innovative process that guarantees the efficiency of sustainable urban planning and promotes a sustainable new way of living in the community. Democracy and public participation are necessary in all aspects of city development (Marzuki *et al.*, 2012). Many business people (88%) indicated that they were not consulted during town planning initiatives, implying that very few people (12%) were consulted (Table 6.28). For effective land use planning to take place, there must be a good relationship between those who plan and those who are affected. This was not the case with Polokwane. (The study reveals that there was lack of public participation in the planning process. How significant are the differences).

Table 6.38: Consultation during town planning (n=164)

Consultation during town planning		
Not Consulted	145	88%
Consulted	19	12%
Total	164	100%

- **Land claims in Polokwane**

This section discusses information on land claims in Polokwane as perceived by residents, business people and government officials interviewed. A number of land claims have been lodged with government within the study area of jurisdiction. From the spatial development point of view, land claims do not necessarily have an impact on the type of land use. It, however, do have an impact in delaying development processes. Table 6.39 reveals information about land claims in the city. More respondents (56.3%) indicated that there are land claims in the city. Only 6.3% indicated that there are no land claims in the city. Those who did not respond constitute 37.5%. This shows that more than half of the respondents know about land claims that are taking place in the city and this confirms that land claim is taking place in the study area.

Table 6.39: Information about land claims in the city by government officials (n-16)

Knowledge of land claims in the city(government officials)	Frequency
Yes	9
No	1
Total responded	10
None response	6
Total	16

Table 6.40 reveals response on known land claims in the city by residents. A third of the people interviewed (33%) were aware of land claims in the city but 40% stated that there had not been any claim of land. This shows that there are several residents who are not aware of land restitution. Both government officials and residents are aware of land claims taking place in Polokwane Municipality and this supports the notion that land claim is taking place in the study area.

Table 6.40: Response on known land claims in the city by residents (n=240)

Knowledge of land claims in the city(resident)	Frequency	Percentage
Yes	79	33
No	96	40
No response	65	27
Total	240	100

Table 6.41 reveals information about land claimants. The low number of no response rate (60%) could suggest that little is known about land claims. However, 13.3% of the people interviewed indicated that the claimants are people who were forcefully removed, 6.6% said that they were rural residents and people from outside Limpopo, another 6.6% intimated that they were from New Pietersburg. Only 5% of the respondents who were residents said that they had received land claims on the land they occupy and 93% had not.

Table 6.41: The claimants (n=240)

The claimants	Frequency	Percentage
People who were forcefully removed	32	13.3
People from New Pietersburg	16	6.6
Rural residents and people from outside Limpopo	16	6.6
Unknown	32	13.3
No response	144	60

Table 6.42 reveals knowledge about submission of land claims and age. Land claims had not affected business people interviewed with 96.3% indicating that they had never received a land claim on the land they were occupying and very few (3.4%) had. The strong similarity between the business and residential situations is striking (96.6% businessmen and 93% residents) not receiving land claims and only 5% of the residents and 2% of the business people with land claims. With businessmen, the submission of land claims does not appear to be a serious issue in the city. The study reveals a strong similarity between the business and residential situations. Most respondents in business (96.6%) indicated that they had never submitted a land claim application in the study area. Those who indicated that they have submitted land claims constituted (3.4%). Residents who have indicated that they have submitted land claims constituted 2%. The study confirms that the study area is affected by land restitution.

Table 6.42: Knowledge of submission of land claims and age (residents) (n=240)

Knowledge of submission of land claims and age (residents) (n=240)

Age groups		Response to submission of land claims		Total
		Yes	No	
	19 and below		6.7%	6.7%
	20-30 years	1.3%	43.7%	45.0%
	31-40 years	1.7%	31.9%	33.6%
	41-50 years	.4%	10.9%	11.3%
	50years		3.4%	3.4%
Total		3.4%	96.6%	100.0%

The study shows that land claim is taking place in the city. Land claims lead to land use conflict. Active land claims within the study area include:

- Disteneng (New Pietersburg): An application on behalf of the ‘Back to New Pietersburg Forum’ which entailed 720 title deed holder claims;
- Le Rouxville: This claim was lodged recently and represents a consolidated claim on behalf of the Khaiso School, New Look and Old Location areas (the area to the north of the CBD along the New Seshego road);
- Annadale: About 14 claims were submitted either as property claims or as tenant rights claims;
- CBD/Market Street claim: Indian business community members lodged approximately thirteen claims for land ownership rights.

- **Classification of land conflicts**

Of conflicts: inner-personal, interpersonal, inner-societal and inter-societal/international level. The inner-personal can be ignored since it is not related to land conflicts (Kinsey, 2004). The other three levels are very useful for a classification. Land conflicts within a country will therefore occur at either interpersonal or inner-societal level. Examples of land conflicts that fall under the interpersonal level include ownership conflicts caused by inheritance conflicts,

boundary conflicts between neighbours, building extensions on somebody's private land, individual occupation of private land and illegal lease or sale of somebody's private land. Those that fall under inter-societal level include among others, boundary conflicts between villages or tribes, group invasion of private land, occasional or massive semi-legal or illegal seizure of state land, illegal use of own land, occasional illegal use of state land, ownership conflicts due to legal pluralism, land use conflicts between private and public utilisation due to a general disregard of land use regulations by many people, expropriation without compensation and violent evictions by authorities (with or without a mandate) (Wehrmann, 2006).

- **Area for expansion**

A third planning issue identified in this survey is that of space for expansion. For most of the respondents (61.2%) their business sites could not be extended. This also shows a great demand for land, a factor that would also lead to land use competition between business people and the residents.

6.3.4 Administration and Legislation Issues

Land use types, competition, conflict and change are closely associated with administrative and legislative procedures. Polokwane is particularly affected by national, provincial and local government policy and directives. Its political status with regard to land issues is addressed in this section. Capacity building on land use planning and management are among the core strategic mandates of the Provincial Department (DIDP, 2010/2011). The next section deals with Polokwane as a capital city and its pricing structure.

- **Polokwane: Capital city status**

Table 6.43 reveals information about the rising land price since 1994 by business people. The data reveals that 59.1% of the respondents have indicated that the price of land has increased since 1994. Those who did not agree constituted 27.4% and those who did not respond constituted 13.4%. More than half (59.1%) of the business people interviewed indicated that the

recognition of Polokwane as the capital city of Limpopo led to an increase in the price of land. The causes behind this are the attractiveness and the development of the area and the fact that government and business activities have moved to the city. As a result of the increase to the value of land in the CBD many functions move to the rural urban fringe where the value of land is comparatively low (Thuo, 2010). The movement into the suburbs brings about urban sprawl, a situation in which land is withdrawn for urban use, but it is not actually used for urban purposes.

Table 6:43: Price of land (n=164)

The price of land has risen since 1994 (Business people)	Frequency	Percentage	Valid Percentage
Yes	97	59.1	68.3
No	45	27.4	31.7
Total	142	86.6	100
Non response	22	13.4	
Total	164	100	

Table 6.44 reveals information about the rising land price since 1994 by residents. Business people who indicated that the recognition of Polokwane as a capital of Limpopo has led to an increase in the price of land constituted 59.1% while the residents constituted 61.8%. Businessmen who did not agree constituted 27.4% while residents constituted 28.5% (Table 7.35). The study reveals that the recognition of Polokwane as the capital city of Limpopo has led to an increase in the price of land. There is a strong similarity between the perception of business people (59.1%) and residents (61.8%). Land use and its control have to be regulated.

Table 6.44: Price of land (n=240)

The price of land has risen since 1994 (Residents)	Frequency	Percentage
Yes	148	61.8
No	69	28.5
No response	23	9.7
Total	240	100

- **Land use control**

This section looks at the perception of respondents on how the Municipality controls land use. Just over a third (36%) of the business people interviewed indicated that they did not know how the Municipality controls the use of land, 43% were not sure, 7% indicated that property owners should operate according to certain guidelines set by the government in order to protect the residents. Yet another 14% indicated that they had no idea (Table 6.45).

Table 6.45: How the Municipality controls land use (n=164)

Knowledge of how the Municipality controls land use (Business people)	Frequency	Percentage
Do not know	59	36
Not sure	71	43
Operate according to guidelines	11	7
No idea	23	14
Total	164	100

Causes of squatting

Squatting is a serious challenge in the study area. Respondents have cited the following as causes of squatting:

- High cost of houses in the study area. Houses are very expensive in the study area and poor and unemployed people who cannot afford to buy houses in the city resort to squatting;

- High land value in the city. The value of land is very high in the city and poor and unemployed people cannot afford to buy sites in the city for the erection of buildings;
 - Polokwane is the capital city of Limpopo and therefore it is a centre of attraction, so many people move to the city because it offers better opportunities and this has led to urban expansion and urban growth;
 - An expensive city life style makes it impossible for unemployed people to live in the city;
 - Migration of people from rural to urban areas is also a contributing factor to squatting;
- The following actions are suggested to solve the challenge of squatting in urban areas;
- Introduction of the `Green Belt` system i.e. an area around the city where no building is allowed. The prime function of the green belt policies is to control urban sprawl and preserve an encircling green girdle to separate the urban from the open countryside. It therefore restricts urban encroachment. Green belts preserve the special character of towns (Amati, 2007) and assist in urban regeneration (Robert et al., 2011).
 - People should be equipped with skills that will enable them to survive and to be self-sufficient. Capacity building programmes for squatters should be introduced;
 - Provision of RDP houses for the poor. The Municipality is trying to solve this problem by introducing an RDP housing project, providing basic services and finding alternative land;
 - Formulation of by-laws that prevent squatting near and around urban centres.

6.4. CONCLUSION

In general, as reported in this chapter, analysis of the responses from people interviewed in this survey reveals that Polokwane is affected by land use change, competition and conflict. Land claims, which can also lead to conflict, have also taken place in the city as well as in the surrounding rural areas. Examples of these are discussed in chapter five. There is land use competition between business and residential areas, corner shops and residential areas and mall development and residential areas. Many houses in the city have been pulled down, giving way to business development.

Private business is taking over residential stands. Townhouses are in demand because many people have moved into the city in search of employment opportunities, especially since 1994.

People buy old houses and erect townhouses on the sites. Guesthouses are also in demand and this trend will continue, more especially because the 2010 FIFA World Cup sports event set a trend. The chapter has also drawn attention to the lack of public participation in the whole planning process. The next chapter comprises discussions of results and strategies for land use change and conflict.

CHAPTER 7: DISCUSSION OF RESULTS AND A PROPOSED STRATEGY FOR MANAGEMENT OF LAND USE CHANGE, COMPETITION AND CONFLICT

7.1 INTRODUCTION

The previous chapter of this study discusses trends in land use change and perceptions on land use competition and conflict in Polokwane since 1994. This chapter therefore discusses results and designs a model to deal with land use change, competition and conflict.

7.2 DISCUSSION OF RESULTS

7.2.1 Changes and conflicts arising from land restitutions

White colonists settled in Limpopo (formerly the Northern Province and before that the Transvaal) much later than in most other parts of the country, due to distance from the coast and stiff resistance from the African kingdoms like the Pedi, led by Chief Sekhukhune and the Venda, led by King Makhado (Thomson, 1995). South Africa's urban and rural areas entered the 1990s with a legacy of segregation planning and a racially imbalanced land occupancy relationship. Access to land is universally regarded as a human right and offers a person a place to live and is a source of material sustenance (Smith, 1994). South Africa's post-1994 land reform programme aimed to achieve a number of objectives, including redressing the historical imbalance in land holding, poverty alleviation and developing the rural economy. A range of policies has been developed to deal with restitution, but delivery has been painfully slow with all key policy areas falling far behind their targets (Hall, 2004). The post-apartheid government should regard urban reconstruction and development as its highest priority.

The study reveals that the study area is affected by land claims. Few residents (3.4%) and few business people (2%) have indicated that they have submitted land claims in the study area. The study also reveals that there are business people (2%) and residents (5%) who have indicated that they have received land claims on the land they were occupying. This shows that the area is

affected by land claims. As a province, Limpopo has established the Regional Land Claims Commission to deal with all land claims in the province. A total of 5 808 restitution claims were lodged in Limpopo in terms of the Restitution of Land Rights Act. More than 17% of these were settled in 2004, the majority of which were urban claims. By March 2007, 42% had been settled (CRLR, 2007, Derman *et al.*, 2006). Over 90% of the Makhado Municipality lying to the north of the study area is under claim (Lahiff *et al.*, 2006). The research confirms that many different pieces of land legislation and systems of land administration are an apartheid legacy. The situation is chaotic in the former homeland areas of Lebowa, Venda and Gazankulu. In most cases, administration and record-keeping have broken down, and this has led to insecurity and uncertainty. Land records have been lost and permits have been issued without regard to legal requirements due to the fact that more often than not, the laws were unclear.

Land restitution leads to land use changes. In all 5 cases, black people used the land for residence, stock farming, subsistence farming, collection of firewood and herbs, performance of ceremonial acts, rituals and hunting. When white people arrived during colonial rule in South Africa, these local socio-economic activities that used the land were changed to commercial farming, mining, eco-tourism, motels and parks, racing fields, game farming and lodges. Black residential areas were replaced by white residential areas. Land use changed again in most cases when the land was restored to the original owners. Land use changed from grazing land to housing or residential purposes. In most cases, commercial farming gave way to game and cattle farming. Agriculture was replaced by the establishment of a nature reserve in the some areas. Land use changed from subsistence farming to a nature reserve, from commercial farming to eco-tourism, game farming, cattle farming and mining. In Matokolo the land that was used for residential purposes for black people, farming and agriculture was changed into a motel and a racing field for 4x4 vehicles. In the future, livestock farming and agriculture would be accommodated. In some cases, the residential area was replaced by mining activities and settlement for whites. Game farming replaced white residential areas in several cases (LARP, 2008).

In 1994, when the first democratic government was elected, whites owned 71% of the agricultural land, not including state land or other land in urban areas, despite being only 11% of

the total population. The best land was reserved for whites in Limpopo which resulted in an intense hunger for land in the province. Since then, land reform has reduced white landholding by only 1.7%. This is due, in part, to inadequate resources being allocated to land reform, including budgetary constraints. The majority of the population in the province (82.4%) are located in the former Bantustan areas of Lebowa, Gazankulu and Venda (Statistics South Africa, 2011). Different policies and programmes have supported land and agrarian reform for the last 12 years.

This study shows that overlapping claims lead to a number of conflict situations as two parties put in a claim for the same land. Another type of problem arises when the new landowners refuse to sell their land and this has happened in many cases. This can also lead to land use conflict. In some areas new landowners were not willing to sell their land and there were disputes over these properties. In other areas landowners challenged the validity of the claim and refused to sell their land. There was also a dispute over land involving the Dutch Reformed Church and the new landowner at Rita. The community protested against labour tenancy and farmers refused to vacate the land. These examples show persistent land use conflicts between blacks and whites that are entrenched within the context of land reform. Community members were constantly harassed by the new landlord and their continued stay on the land was unbearable (Tilley & Lahiff, 2007).

A significant finding from this is that conflict arising from a land claim can take place in the city as well as in the surrounding rural areas. The study area was purposefully demarcated to include both the city environs of Polokwane and selected land restitution areas where land use change and conflict has taken place. It has demonstrated that the rights previously enjoyed by a community and the manner in which their rights were gradually eroded away, made daily living unbearable for black people. Forced removals uprooted people from their land. Blacks were made foreigners in their own country. People were firmly removed and without compunction taken from various farms at different times. Community members were forced to work on the farm on a rotation of three months paid and three months unpaid labour (Tilley & Lahiff, 2007).

The claimants experienced a sense of social disruption and lost attachment to their ancestral graves through the forced removals. This study further reveals that the division created by the forced removal of the original inhabitants resulted in disputes. Moreover, conflict was also created by the lack of communication between groups. The study further discloses that, in all 5 case studies, land was being used at well below its full potential. Land use changed mostly from subsistence farming to commercial farming. In a number of areas, people, including land restitution claimants who were frustrated by the slowness of the process, have occupied state land, especially in cases where they believed their claims were strong. In other cases the occupation of the land was influenced by fears that the neighbouring township would be extended into the land that the community saw as rightfully theirs. This resulted in land use competition. There are no reports of occupation of private land in the province, but there are threats by landless people to do so. A critical issue for land reform is the poverty alleviation which concentrates in rural areas. There is evidence that poverty is growing and the majority of rural dwellers are living below poverty line (Bhorat & Kanbur, 2006).

Land claim leads to land use conflicts. Internal community conflicts over membership eligibility and access to power and resources, including land, have bedevilled the restitution projects. In some cases the state did not set up comprehensive planning and a consultative process within government institutions. The beneficiaries entertain expectations of resources that have not been met due to regulatory and institutional constraints, which fuelled anger. Claimants within a particular group are likely to have diverse experiences. Individual and different groups frequently have competing interests (Walker, 2008). There will be internal conflicts over access to land, power and other resources. The inequitable power relations and association behaviour that Pienaar (2008) describes are to be expected.

Defining boundaries of the community, who is included and who is excluded, is highly problematic (Cousins, 2008). During rapid social change, new communities emerge and older ones disintegrate. Defining community (for the purpose of land restitution and reform) is likely to stimulate conflict (Kepe, 1999). The restitution question is further complicated because people who are part of the community when a restitution case is concluded may not have any historical link to the land from which that community was evicted. One of the state's flawed strategies has

been to define a claimant community as the individual and their descendants through lineage who were dispossessed rather than what constitutes the community today (Pienaar, 2009).

It is not practical to attempt to reconstruct fragmented communities many years after they were driven out of their land (Hall, 2003). Defining, formalising and administering the land tenure system are critical to all aspects of development. Definitions, rules and procedures are needed for the different rights that could be allocated, to whom they could be allocated, how they could be transferred and the obligations accompanying those rights. A small number of boundary disputes in the village area between neighbours and instances of people moving their surveyed boundary beacons were reported (Mayson & Engelbrecht, 2000). This always leads to land use conflict. They also described a group antagonistic to the committee who refused to respect the plot boundaries or the land allocated rules. The notion of a village also generates conflicts. Some claimants refuse to live in a village and prefer to live at their former outposts on the understanding that they would provide and pay for their own engineering and services. An American entrepreneur, Isidore (Issy) Schlesinger instructed the community to work on the farm under his supervision if they wished to continue there. Some agreed out of fear of eviction, while others refused, indicating that they were not prepared to be slaves on their own land (Tilley & Lahiff, 2007).

Conflicts bedevilled resettlement and development. In many cases conflict was grounded primarily in membership eligibility and long standing family rivalry, as well as insufficient space and water to accommodate all the descendants of those who were evicted. The sufferers asserted that membership should be limited to those who were part of the dispossessed community. They suffered directly and it was they who had led the struggle to get the area restored to them. The sufferers disrupted governing committees meetings, various sub-committees and general meetings. Longstanding family feuds also surfaced in the governing committees and general community meetings (Mayson *et al.*, 1998). Autocratic and undemocratic behaviour of committee chairs also lead to conflict (Gophe, 2005). In some cases, control of livestock and their health provision was erratic and compromised human health and commercial agriculture. It is difficult to get stock owners to keep their animals out of the orchards (Cartwright, 2007). Early developments were analysed at Elandskloof in terms of a social change theory which Fourie

(1993) developed, based on Comaroff, (1982) (Barry & Mayson, 2000). In terms of this theory community cohesion and solidarity in dealing with external agencies should be expected, but that there will be concurrent internal conflicts over access to power, land and other resources. Associated with these conflicts are coalition formation and dissolution, perhaps intensified by entrepreneurial behaviour, as some individuals can be expected to strive to maximize their share of what is on offer. For the entrepreneur, negotiations with outsiders and internal community rules are useful as a first step in gaining power and resources for the community as a whole, but then these may be altered and manipulated for personal gain. In this environment, coalitions form and dissolve as individuals strive to achieve their personal goals (Fourie, 1993). In Elandskloof, inequitable power relations and associated behaviour emerged at the outset (Barry & Mayson, 2000).

Land reform has suffered two major problems. Slow delivery of land and limited benefits for participants in terms of sustainable livelihoods. The slow delivery of land and the inadequacy of post-transfer support have been exacerbated by weakly defined intergovernmental relations, the generally poor integration of land reform into municipal Integrated Development Programmes (IDPs), and the limited capacity within many municipalities and provincial departments to support land reform. The failure of post-transfer support to materialise, even where it is specified in the project, presents an overwhelming obstacle to production and marketing. This is often the outcome of lack of land use planning prior to transfer, which in turn may be due to the absence of an initial assessment of needs, skills, assets and priority. This particular observation supports the view of Lahiff & Cousins (2005: 129) that:

“Limited post-transfer support, and the failure to integrate land reform with a wider programme of rural development, has severely limited (the contribution of land reform)...to livelihoods and to the revival of the rural economy. The failure to define and enforce post-settlement arrangements and the roles of different institutions has direct consequences for livelihoods. This should be rectified. Where claims are settled, or projects transferred, without these arrangements in place, it leads to uncertainty, not only for beneficiaries but also in the part of those institutions which are not under any compulsion to provide support”.

Building a nation is about healing the injury of the past, and all of us are part of that healing. The restitution programme provides the opportunity to initiate a process of healing, re-integrating and reconstructing the cities, towns and all places that still bear the scars of racial zoning. The land restitution programme was introduced by the democratic South Africa as a programme to reverse the pattern of land ownership as it was skewed. The main purpose was to develop the rural communities and improve their livelihoods; however this programme has been plagued by some institutional challenges and policies (Manenzhe & Lahiff, 2007; Bollig & Werner, 2008).

Post-colonial land reforms have largely failed to comprehensively address historical injustices inflicted by colonial tenure systems to ensure broad-based access and ownership of this vital resource, which has fuelled ethnic grievances and grudges (Kagwanja, 2009). This brief and succinct history of dispossession clearly demonstrates the rights previously enjoyed by the community and the manner in which their rights were gradually eroded away making daily living unbearable for Blacks.

7.2.2 Characteristics of land use in Polokwane

From this research endeavour, the main findings that emerged are that the spatial pattern of Polokwane area reflects that of a historic apartheid model characterised by segregated settlements. It has a distorted spatial pattern, the result of political factors that can be identified as: a legacy of apartheid; encompassing land use policy; competition among potential users; out-dated and inadequate legislation; lack of planning; the absence of a formalised urbanisation development strategy; no provision for land use control and rezoning; land use specialisation and lack of public participation in the planning process. Polokwane suburbs no longer host exclusive racial groups and the local government has launched a project to encourage integration. Both the DFA and the SPLUMA contributed to the correction of the historically distorted spatial pattern in the study area.

In the preceding chapters theories that specify the particular patterns of land use that could give rise to land use change and land use conflict were discussed. These are the Von Thünen and Alonso's theories, both of which treat land use change and conflict in a rather limited way. A

number of theorisation traditions are associated with non-spatial disciplines like sociology, economics and political science whereas spatiality is a core concept in geographical research. Descriptive and normative theories deal with spatial patterns. Not all theories focus on all relevant factors, and where they do, they do not put the same emphasis on those under discussion. Despite its focus on agricultural land value, Von Thünen's theory has informed explanations of the distribution of urban land and their associated values in Polokwane. For example, commercial activities in the study area are prepared to pay a high price for the land they need for occupation and are located at the city centre where land values are highest and, in most cases, residential areas are located away from the city centre where land values are lower, although variability exists from suburb to suburb. An adequate relationship exists between Alonso's theory and the spatial pattern of land use in the study area. The spatial distribution of land use reflects that the highest bidder occupies a central location, and the lowest bidder would occupy land at the edge of the city. In Polokwane the fact that high income people live in residential areas like Bendor and Bendor Park, middle income people have properties in areas like Penina Park and Flora Park whereas Makgofo is a low income class residential area, bears this theory out.

The concentric zone model also applies to the study area in that all five zones can be identified in Polokwane, and although they are not in clear-cut concentric circles, the trend is visible. The same thing applies to the radial sector theory, although the zones are not strictly in the form of sectors but a pattern of grouping of varying types can be identified. The multiple nuclei theory of urban land structure is most applicable, as Polokwane's urban settlement has developed, and continues to develop, around several nuclei. Notwithstanding the contributions of these theories towards land use distribution in the study area, socio-cultural and political factors have played a significant role as well. The demise of the former apartheid regime and the establishment of a democratic government in 1994 saw Polokwane becoming the provincial capital city of Limpopo and the centre of attraction which has enchanted and drawn many people, Blacks, Whites, Indians and Coloureds, all with different cultural backgrounds, experiences and purposes. These socio-cultural and political factors often create an environment where change is likely to take place.

The study reveals that the structure of Polokwane is essentially that of an ‘apartheid city’, which shows a typically distorted spatial structure with residential areas that are racially segregated, such as Nirvana, Westernburg and Seshego. Within the context of apartheid spatial planning, residential areas in the study area are spatially separated by buffer zones and the city is consequently characterised by large distances between places of work and dwelling areas with inadequate public transportation adding to the burden of those who dwell in these townships. For example, Seshego community is far removed from the city core and all major centres of job opportunities in Polokwane. This pattern of settlement has resulted in urban sprawl through which physical and social resources are not optimally utilised.

Apartheid traits are still visible in the study area despite the progress made in the proclamation of a variety of spatial initiatives. Many of these policies do not advance integration or compaction although they advocate delivery of basic services to the poor. As a result, fragmentation continues unabated. The settlement pattern of Polokwane, as supported by several authors, is still distorted, unequal, fragmented, incoherent and inefficient (Boshoff, 2003). Many poor people still live far away from places of economic, recreational, cultural and educational opportunities.

The establishment of Polokwane as the capital city of Limpopo has impacted on its patterns. The city became the economic centre for the whole province and many job opportunities were created. The relaxation of the Group Areas Act in the post-1985 era due to both internal and external pressure, coupled with the enactment of the democratic government in 1994, saw an increase in the influx of the previously disadvantaged communities into urban areas for both business and residential purposes. Many respondents (61.8% residents) indicated that the recognition of Polokwane as the capital city of Limpopo led to an increase in land price. More than half (59.1%) of the business people interviewed indicated that the price of land has risen since 1994. There is a strong similarity between the perception of business people and that of the residents. The data reveals that 43% of the residents and 41% of the business people interviewed are not satisfied with the pattern of land use in the study area. More than half (53% and 57%) of the residents and business people, respectively, indicated that they are satisfied with the pattern of land use in the study area although the pattern of Polokwane is that of an apartheid city. The study further reveals a strong similarity between the perception of the residents and that of

business people. The city experienced rapid urbanisation and informal settlements started mushrooming near major activity areas. This also led to the emergence of suburbs in the peripheral areas of the city. The city is becoming more structurally dispersed due to the emergence of the suburbs in the peripheral areas of the city. This is caused by readily available land, the vibrant property value markets and the prospect of making a profit.

Many government departments are housed in buildings that were formerly dwelling units. This shows that the establishment of Polokwane as the capital city of Limpopo has affected land use change and contributed to land use competition and conflict. Major companies and parastatals deemed it necessary to provide a provincial head office to perform specific functions. This, together with the concentration of government activities, led to an abnormal amount of development since 1994. Many people moved to the study area in search of employment, which also led to land use competition and conflict. Most of the people who live in the study area have houses in Polokwane and also own other homes in the villages. This has put more pressure on land. Increasingly, there is a demand for land to accommodate people as well as business activities. As a result, in preparation for the 2010 FIFA World Cup soccer event, the price of land and houses increased tremendously. Land use competition between residential and business areas was intensified. Fragmentation, separation and low density sprawl, dominated by RDP houses, are the three urban spatial patterns characteristic of Polokwane. The research shows that Polokwane is experiencing expansionary and infill growth in several areas due to huge investments in townhouses and security villages by private developers. This is typically so in areas like Bendor and Penina Park, which are high income residential areas. Growth due to industrial activities also occurred in the area between Westernburg and Laboria. In Seshego and Westernburg, growth was caused by low-cost housing projects that were undertaken by the Municipality. Expansionary and infill growth have caused tremendous land use change in the study area.

The study reveals that Polokwane is experiencing land use competition primarily between business and residential users. The original CBD can no longer provide for all the needs of people nor can it accommodate the current rate of city expansion. At the inception of the new democracy in 1994, Polokwane changed from being just a town in South Africa into the capital

city of a newly reorganised spatial landscape gaining different status in the new urban land space. With this status, various dynamics emerged. The so called “homelands” lost their status and were attached to Polokwane. People moved from rural areas to the towns. Much of the growth is ascribed to a substantial increase in rural–urban migration as people seek an improved quality of life, employment and access to improved basic services and infrastructure. Polokwane Municipality as the physical, economic, political and administrative capital of the Limpopo Province is experiencing phenomenal growth.

Many houses in the city have been pulled down, giving way to business development such as surgeries and other small businesses in order to provide for services that are in demand as the population grows. Municipal rules and regulations are followed when these changes take place. Townhouses are in demand because many people have moved into the study area in search of employment opportunities since 1994. People buy old houses and erect townhouses on the sites. The study further reveals that private business is taking over residential stands leading to land use change. Guesthouses are in demand and this trend will continue, more especially because of the aftermath of the 2010 FIFA World Cup soccer event and the prospects of hosting future sporting events. These land uses compete for land.

The survey undertaken for this research, shows that most of the businesses are located in the CBD. This should be expected. However, businesses are present in the residential areas, the transition zone and industrial zone. This is in accordance with current urban developmental trends in the area. Increasingly more blacks are engaged in the commercial sector than was the case in the past. However, a significant core of white business people remains active in the business sector, evidence of the impact of the area’s socio-political heritage. The study supports the premise concerning the recent growth in all sectors of economic life of Polokwane and the associated demand for accommodation as people enter the expanding business and administrative sectors of the city. In South Africa, despite many attempts at reconstruction, cities still reflect the footprints of the past in their spatial land use patterns serving as constant reminders of past inequality and segregation (Boshoff, 2003; Pieterse, 2004).

Public participation is a fundamental aspect of land development and plays an important role in planning. The study reveals that a large portion of the respondents were not consulted during town planning initiatives to give their contributions, implying that very few people were consulted. The study shows that there are more businessmen (61%) than businesswomen (39%) involved in business activities in the study area. This correlates to the study conducted by Mutezo (2005) where the ratio between male and female is 70: 30. Umsobomvu Youth Fund (2008) also reveals that 32% of entrepreneurs in South Africa are women.

It also reveals that the number of males and females qualified Town Planners in the study area is more or less the same. In this study male respondents were observed to be older than female respondents. This study confirms the study conducted in the United States of America and Europe where women in the sample were relatively younger than men (Verheul *et al.*, 2010).

The study reveals that more young people are able to notice land use change than old people. More residents have noticed the change in land use than businessmen, which show that businessmen are more concerned with their business than what is taking place in the environment. The study also reveals that the majority of the informal traders in the study area are women. This confirms the findings of the study conducted in African countries and Latin America where they found that 61% of small businesses are owned by women (Nichter & Goldmark, 2009).

7.2.3 Prevailing perceptions of competition and conflict bringing about changes

Land use change leads to some land use conflict. The research has revealed that there is land use competition between business areas and residential areas in the study area. Houses are pulled down in the city for business development. There is also a tendency to buy houses in the city and convert them into business or offices. The city is also experiencing competition between corner shops and residential areas. There is competition of land use between residential and Mall development. The area occupied by Savannah mall was originally a residential area. As the demand for mall development increased, the area was used for the erection of a mall, changing the original land use. Preparations for the 2010 FIFA World Cup sports event also put a lot of

pressure on land. Many motels and other accommodation units were erected and existing ones needed more land for expansion. This led to a demand for more land and the competition for land is intensifying. Westernburg and Nirvana, previously occupied by Indians and Coloureds respectively, also experienced land use change during this period. They changed from being purely residential to being used for both residential and industrial purposes. Moreover they have continued to expand over the years. The presence of opportunities along the N1 gateway into Polokwane serves as stimulus for growth. Moreover, the unique character of the southern gateway gave rise to scattered industrial activities in this area. This led to competition for land between residential and industrial functions. When industries are located in residential areas for one reason or another, people are forced to move away from that area to another, and this also leads to land use conflict. There are several examples of land conflicts that resulted in environmental migration (Reuveny, 2007).

Polokwane's industrial areas, namely, Ladanna and Laboria which house heavy industries such as a flour mill and factories, had natural expansionary growth due to the industrial activities that attracted other light industries and several other complementary service establishments to the region, leading to continuous growth of the area. Lithuli Park and Seshego zones A & E experienced infill and expansionary growth due to low-cost or affordable housing projects undertaken by private developers and the municipality. Madiba Park, an extension of Seshego, also experienced expansionary growth during the period under investigation. Growth here was driven by private developments, thus industrial areas replaced agricultural land. This led to land use competition between industrial and agricultural land. Industrial land is more valuable than agricultural land in this case. New Pietersburg is an informal or squatter settlement that is attached to Seshego Zone A. The area was previously formalised by the municipal council and later withdrawn. Stand holders were left uncertain of their fate. This area has continued to grow in size as there has been the influx of people mostly from the rural areas who have the intention of getting jobs as well as paying lower rents. Seshego Zone F grew rapidly over the last decade and, by decree of the municipal council, the previous informal settlement that had arisen there, has been formalised. It is now characterised by some business-oriented developments. The formalisation process led to more residential developments springing up around the area. Urban growth creates opportunity and conflict which are reflected in the distinctive rural urban fringe,

for example while traditional rural activities such as agriculture and mineral extraction enjoy the benefits of accessible market, they also face increasing competition from industry, residential development and recreational activities. The issue of land control is a source of conflict in many countries (Simelane, 2012).

Perskebult is another informal settlement that has experienced growth with outlying characteristics. It is inhabited by squatters who believe it will soon be formalised by the municipality. In previous years this was a homeland and now falls under Polokwane municipality. Makgofo, Blood River, Ga-Mabotsa and Kgotwane were also part of the former homelands. Significant growth has taken place in these areas that have been developed as residential areas by private companies and are mostly occupied by low income people. Private developers have been particularly active in the Kgotwane, Ga- Mabotsa and Blood River areas and have also promoted the existence of some commercial activities around the Makgofo region. Residential growth dominated the expansion that took place in Polokwane from 1994 to 2002. Expansionary growth occurred to the south of the Flora Park area. This was natural growth within the middle class residential area and was driven by private developers who built townhouses and security villages as well as constructing individual stand houses. The same development occurred in Bendor and Bendor Park areas that are high income residential areas. The process of urbanisation is among the most important dimensions of economic, social and physical changes (Thuo, 2010).

Penina Park also experienced growth over this period. This area is occupied by more of the middle income class. The expansionary growth with outlying characteristics in this area was prompted by the outward movement of this group of people from the city centre to the outskirts of the town where private developers were engaged in housing developments. The growth of Ivy Park within the Ivydale Agricultural Holdings area is a residential area that sprang up due to the opportunities that lay along the N1 gateway into the city as well as spin-offs from the development of the Meropa Casino. The developments within this area were mostly for private middle income residents. In all these suburbs residential sites have replaced agricultural land, leading to land use change. The status of Polokwane is the main force behind this change. Economic activities in the city attract people to the city. This brings a high demand for

residential opportunities, leading to land use competition between agriculture and residential needs. In this case, residential land is more valuable than agricultural land, and therefore, agricultural land is giving way to residential land. Whenever a city expands into the surrounding rural areas, land use change always takes place. People living in the surrounding rural areas are forced to move away in order to create a space for urban expansion. This leads to conflict between the municipality and people who live in the surrounding rural areas. Conflicts between squatters and conservationists are a common outcome when they encroach on the protected areas leading to destruction and loss of livelihoods (Treves *et al.* 2006).

Westernburg and Nirvana experienced land use change from being purely residential to the situation where land is now used for both residential and industrial purposes. Thus competition for land between residential and industrial areas arises. Urban land use patterns in South Africa's towns and cities can be attributed to a combination of social and economic forces; apartheid planning and approaches to physical planning that were adopted from First World countries. Geographical segregation of urban areas according to race and class, urban sprawl and disparate levels of service provision and access to urban amenities in different areas, make South African cities extraordinarily inequitable. The research shows that the overall urban spatial growth trend in Polokwane Municipality between 1994 and 2004 has been predominantly in the eastern and north-western parts of the former Pietersburg city, showing an expansionary growth pattern with some elements of infill characteristics in the Seshego region and the central part of the study area. The emergence of these developments is a result of push factors that militated against the expansion of these areas as entrenched during the apartheid era, in addition to the recent provision of low cost housing projects undertaken by the Municipal council in the Seshego and Westernburg areas.

The study reveals that land use change is taking place in the study area, especially in the Central Business District. The tendency to buy a house in the city and convert it into rented accommodation is gaining momentum and is becoming a big business in the city. The observed trends in land use change in the study area can be ascribed to changing functions and purposes for which the land has been used, which in turn implies that competitive bids for meeting varying demands come into play. Land is considered the most fundamental resource to the poor and is

essential to generate income, accumulate wealth and transfer it between generations and that its use is often a source of conflict (Bongale *et al.*, 2006).

The study reveals that in all age categories more than half of the respondents, residents, (61.20%) have noticed land use change in the study area. The study also reveals that those who have stayed in the city for few years are able to notice land use changes more than those who have been staying in the area for many years. This shows that the more people stay in an area the less they notice change taking place in their environments.

This research shows that both residents and business people are satisfied with the emerging land use pattern. Land use types, the competition, conflict and change are closely associated with administrative and legislative procedures. The study area is particularly affected by national, provincial and local government policy and directives. Many government departments are housed in buildings that were formerly either dwelling units or business premises. This further shows that the area is experiencing land use change. In general, as reported in chapter seven, analysis of the responses from people interviewed in this survey reveals that the study area is affected by land use competition, conflict and change. The study also shows that there is land use competition between business and residential areas, corner shops and residential areas and mall development and residential areas. Some of the conflicts are related to re-negotiation of customary land ownership in the face of the ignored rights of the landholders, in view of social and political changes (Magigi & Drescher, 2009). The research also affirms that Polokwane is undergoing constant transformation, which has inadvertently affected the growth pattern of the city.

7.2.4. Strategies for coping with Change, Competition and Conflict in Urban and Rural Limpopo Province

Based on the findings of this research as presented and discussed as related to the various identified issues, a Strategic Framework and recommendations are put forward. Legislation and procedures used in the study area tend to be out dated, cumbersome and costly. Proclamation number R293 of 1962 is an example of out-dated ‘apartheid’ legislation which governs township

establishment and land use in the Seshego area. In Seshego, land ownership and full ownership should be promoted instead of using the redundant ‘Deed of Grant’ process. Land use control mechanisms should be put in place and streets and neighbourhood names should be provided.

It is evident that the multiplicity’s pieces of legislation applicable in this Province has a negative effect on the people administering them as well as on potential investors. This gives rise to a need to rationalise all planning legislation and come up with one that will cater for all elements of existing legislation as long as they are consistent with the Constitution of the country (Act 108 of 1996), South Africa. The Land Use Management Bill (2004) covers most of the issues affecting Limpopo as a Province, but provincial legislation should deal with issues not covered in this Bill. The procedure and structures that may have to deal with small-scale applications, such as a corner shop, would be an example of a case that would require special attention provincially.

Eviction, as a solution to land invasion, is a measure to be taken as a last resort and should be considered only after all other possible alternative solutions have been explored, including commitment to organised groups of landless people for the delivery of land within specific time frames. Where evictions are the course of action decided upon, due and fair consideration should be given to the process that should be followed. In the final analysis, it is the delivery of appropriate land at a rapid pace that is the solution to land invasions. Evictions are traumatic. They cause physical, psychological and emotional distress (Chenwi, 2008).

There is often no ‘right’ or ‘wrong’ when it comes to conflict. Conflict often emerges from what appears to be routine circumstances. It is usually brought about by what is perceived to be significant change, and, if not positively managed, can become a severe impediment to people’s quality of life, causing both emotional and financial strain. There is often an opportunity to manage conflict at an early stage or to avoid it all together. Conflict cannot always be resolved to everyone’s satisfaction. It is desirable to try to resolve or manage it. Most environmental disputes are either resolved through litigation through legislative bodies or never enter formal resolution because one of the disputing parties cannot meet the costs of resolution. The numbers of disputes that are formally litigated worry policy makers, academics and the public at large. Environmental

disputes are increasing in prevalence and complication, which highlights the necessity of having procedures to settle these conflicts quickly, efficiently and less expensively. However, mediation seems well positioned to resolve many of these conflicts although empirical analysis comparing mediation and litigation are lacking (Lanken, 2000).

Mediation offers multiple and flexible possibilities for resolving a dispute and for the control the parties have over the resolution. In a case filed in court, the parties will obtain a resolution thrust upon them by the judge or jury. The result probably will leave neither party to the dispute totally happy. In mediation, on the other hand, the parties have control over the resolution, and the resolution can be unique to the dispute. Often, solutions developed by the parties are ones that a judge or jury could not provide. Thus, mediation is more likely to produce a result that is mutually agreeable, or win/win, for the parties. The result is attained by the parties working together and is mutually agreeable, which results in the compliance with the mediated agreement being usually high. This also results in fewer costs, because the parties do not have to seek out the aid of an attorney to force compliance with the agreement. The mediated agreement is, however, fully enforceable in a court of law (Zutter, 2004).

The gratification of being heard can be furnished by giving participants an opportunity to speak without interruption. The mediator must create a safe environment to speak frankly, ensure a climate of uncompromised confidentiality and operate with complete neutrality. Participants must be made to understand the dynamics of the disputes. Mediation plays an important role in social questions involving land use conflict because participants are not only allowed, but requested and urged, to say what is on their minds and in their hearts. Mediators must build trust because by building trust you avoid the delays that are caused by suspicion and one person's ability to halt progress due to lack of information. Trust facilitates the flow of information and makes the game fairer because the other party will know what you are thinking and you will also know what they are thinking. Land use conflicts can only be minimised if all approaches are combined as required by the specific land conflict and adopted to specific situation, respecting the rules, organisational structures and the overall cultural, political, legal, economic and social frame conditions (Wehrmann, 2006).

If land use mediation is to be successful, the right people must be at the table, to talk about the right things, in a well-organised fashion. The Collaborative Resolution Method is an appropriate tool for resolving conflict over agriculture, land use and natural resources. By bringing people together, this approach can produce a more acceptable and a longer lasting solution that will leave the community stronger than before the conflict arose. It is interesting to note that industries and organisations have found that including interested groups and making participation meaningful have more benefits than disadvantages (Gouldson *et al.*, 2004).

Resolving community conflicts often means determining which dimensions both parties agree or disagree on. It remains to be seen whether mediation can resolve conflict successfully especially in situations where large-scale capital investment is required to satisfy the concerns of irate neighbours. It is assumed that conflict is a normal process in society, and it is treated as a 'given'. The goal is not to avoid conflict, but to focus on the skills that can help people express their differences and solve their problems and meet their needs. Successful conflict management requires the participation of all legitimate parties or stakeholders in a dispute. Conflict must be brought into development policy (Dandelin, 1999).

Geographical segregation of urban areas according to race and class, urban sprawl and disparate levels of service provision and access to urban amenities in different areas, make South African cities extraordinarily inequitable. In South Africa, despite many attempts at reconstruction, cities still reflect the footprints of the past in their spatial and land use patterns that serve as constant reminders of past of inequality and segregation. The findings of this study support the view that town planning ideas were used very effectively to create "apartheid cities" in South Africa. Many of these ideas originated in England and the USA. In spite of the political change, South Africa is still one of the most intolerant societies in the world, having racial and ethnic segments that have been formed by extremely antagonistic relationships since the beginning of the twentieth century (Landman, 2006). All these should be done away with.

The survey reveals that there is lack of proper planning in Polokwane. Public participation encourages an innovative process that guarantees the efficiency of sustainable urban planning and promotes a sustainable new way of living in the community. Democracy and public

participation are necessary in all aspects of city development (Marzuki *et al.*, 2012). The research revealed that there was lack of public participation in the planning process. In this survey, more people (83%) indicated that they were not consulted during town planning initiatives. In chapter seven attention was drawn to the lack of public participation in the whole planning process. Another planning issue identified in this survey is that of space for extension. Most business sites could not be extended. This also shows a great demand for land, a factor that would lead to competition. Transformation in this sector is evident in that many incumbents, particularly in the field of town planning and on the technical support, were new appointees, whereas professional positions were filled by more experienced personnel particularly in the managerial, financial and engineering fields, some of them having already had six to ten years' experience in their respective positions. Both newcomers, approximately a third of the sample, as well as established business people submitted completed questionnaires, which again reflect the premise that there is continuous business development offering increasing job and entrepreneurial opportunities in the city. Several factors make land use conflicts unique from other disputes. Land use disputes always involve multiple parties that have less common ground as to how they should resolve their disputes (Peltonen & Sairinen, 2010).

To analyse the concept of conflict, we must agree that conflict is as old as mankind. Political conflicts have existed for generations and will continue to exist since sectional interests that are their root causes endure between states or ethnic groups. Generally, no side really profits from conflict and its impact is negative for all involved and affected. The final conclusion drawn is that the situation as found in Polokwane is similar to other South African towns where apartheid policy was purposefully enforced. The case of Durban (Maharaj, 1992) and Newcastle (Todes, 1997) in KwaZulu-Natal and Nelson Mandela Bay Metropolitan area in the Eastern Cape (Taylor, 1990) had similar experiences, all of which have been noted as characteristic features of the study area. These issues are residential segregation due to implementation of apartheid legislation; enforced residential living near industries that are places of employment; and absorbing displaced former farm workers into the urban space economy.

This study has shown that land use change, conflict and competition interplay, affecting the spatial and structural characteristics of the study area and the surrounding land reform areas. The

rural and urban dynamics of the study area have been exposed. Effective spatial planning in the study area still has a long way to go. It will take some time for the historic apartheid pattern to be redressed. Contributory factors include ever-increasing urbanisation and impoverishment, lack of capacity, institutional dynamics, communication problems, inadequate resources and the aggressive market forces. It is nevertheless noticeable that a lot of work since 1994 has been done to set the foundation for addressing spatial inequalities of the past.

The concept of strategic partnerships has been employed in large restitution settlements, especially those involving high-value lands. Notable examples in Limpopo include the Makuleke claim on a portion of the Kruger National Park, Zebediela Citrus Estate and Levubu Valley. The concept of strategic partnerships represents an important new departure for land restitution in South Africa. The most important strategy that may be employed to minimise conflict is mediation. The most enduring result of mediation is the goodwill it engenders among former adversaries. It gives both parties a chance to explain what they intend to do. It enables people to get mutually agreed-upon results. It has the ability to help the parties identify the most critical areas of disagreement between them. It is crucial to arrive at an enforceable outcome and it is a more efficient and a less costly means of resolving land use conflicts. Mediators help people to focus on the issues that matter. Experience of mediation illustrates how an acute dispute over an issue can serve as a stalking-horse for more deeply embedded difficulties (Soen, 1986).

The mediators keep the parties focused on the fundamental needs of each agency and discourage the impulse to sabotage the negotiations by sharing biased information with the news media or influential interest group. The mediator strategy to treat the party's key concerns separately and methodically, rather than as an all-or nothing package aids the process by offering hope to both parties. This is referred to as the take 'one at a time' approach. Successful mediation begins with the careful identification of the major players, interests and parties to the conflict. The mediators must ask themselves and the parties to be interviewed, "Who else needs to be at this table?" All legitimate interests must be represented in multi-party disputes in order to avoid the conflict flaring up again. The mediated process becomes an exercise in which the parties begin to appreciate the benefits of the agreement. A critical criterion for the selection of participants from both parties is their genuine willingness to solve the problem. The participants must be in the

mediation process to find a solution and not to play games or find more ways to harm others (Zutter, 2004).

7.3 STRATEGY TO DEAL WITH LAND USE CHANGE, COMPETITION AND CONFLICT (SLCCC)

Land conflicts have extensive negative effect on economic, social, spatial and ecological development. They are a widespread phenomenon, and can occur at any time or place. Both need and greed can equally lead to them, and scarcity and increases in land value can make things worse. All land conflicts, no matter how peaceful or violent they are, produce negative consequences for individual people as well as for the entire society. The DFA Act 67 Of 1995 has failed and I am not sure if the new act SPLUMA (Spatial Planning Land Use Management Act 16 of 2013) will be effective, hence the recommendation of the SLCCC (Strategy to deal with land use change, competition and conflict).

The dynamics of change in urban and rural areas may differ, but they are not unique. Polokwane as a capital city should have mechanisms and resources to manage land use changes, competition and conflict in both its rural and urban areas. This study proposes a strategy in which the Municipality liaising with Land Claim Commissioner identifies possible developments occurring as a result of the awarding of the land claims and urban growth. An effective approach to manage land use change, competition and conflict would be a proposed strategic framework that should have the following elements: Capacity Building, Dispute/Conflict Resolution, Stakeholders and Management.

- **Capacity Building:** Capacity building in terms of resources, planning, legislation, infrastructure and fully fledged town planning divisions. The city ensures that each Municipality, at local level, has a fully-fledged town planning or land use planning division with skilled personnel who are able to deal with land use management. Government officials adequately promote facilitation, moderation, consultation, conciliation, mediation and arbitration.
- **Dispute/Conflict Resolution:** Good dispute resolution methods which have the following characteristics:

Appropriate speed: Process that resolve the disputes quickly, while still giving due consideration to the issues, taking account of the magnitude and complexity of the dispute.

Appropriate cost: Cost of resolution is commensurate with the magnitude and complexity of the dispute.

Information: Decision makers have access to information.

Effectiveness: A decision made under the dispute resolution is enforceable by the parties.

Capability: Decision makers have skills to understand dispute and the effects of different solutions.

Incentives: Decision makers have incentives to make decisions that are not only important but good.

- Stakeholders: Roles of stakeholders should be clearly defined.

Risk allocation: Tasks or projects should be given to competent stakeholders.

- Governance: Should have competent leadership whose roles are clearly defined.

Management: Should possess good management skills (Figure. 7.1).

All these will result in an effective and controlled land use pattern.

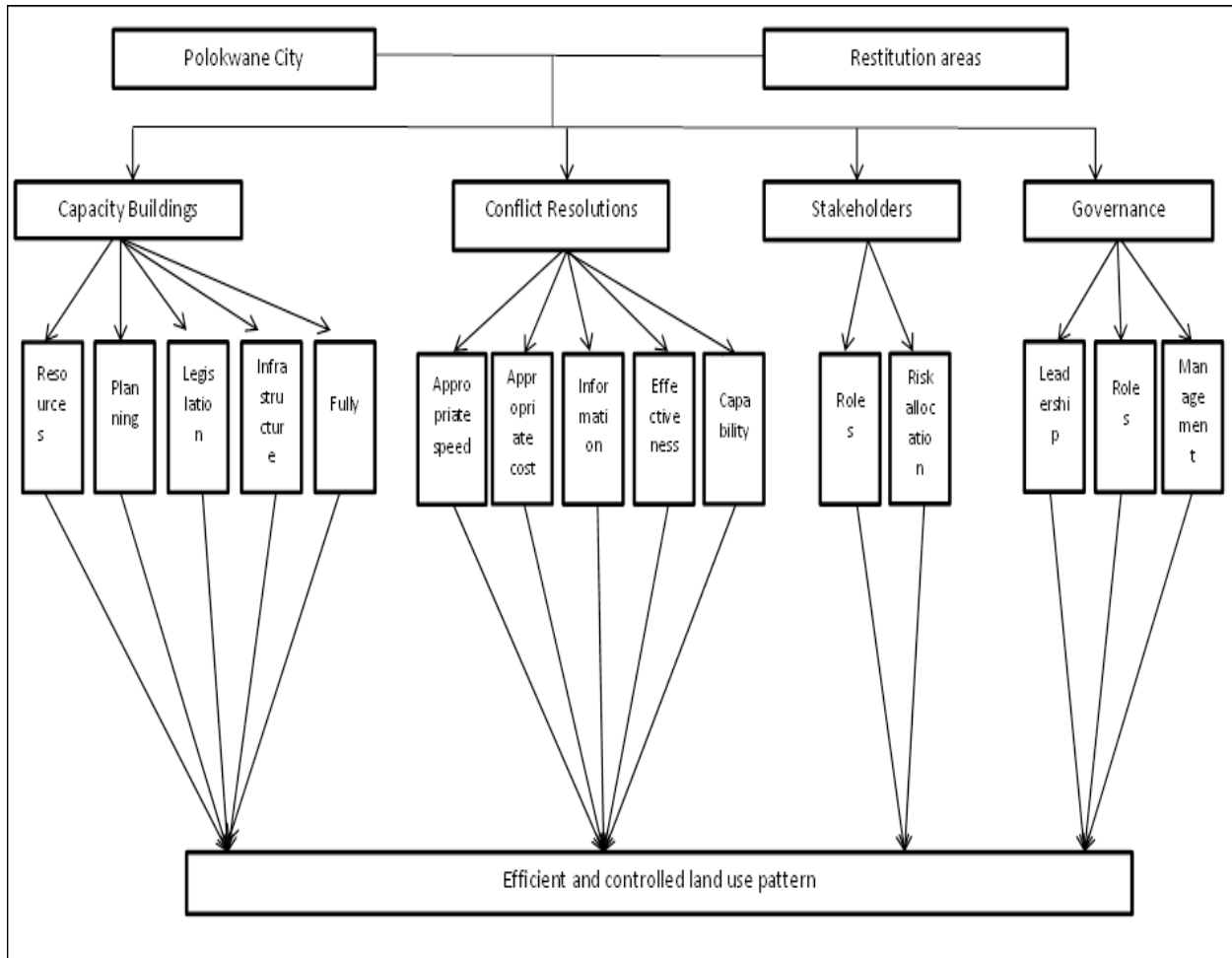


Figure 7.1: Strategy to deal with land use change, competition, conflict (SLCCC)

7.4 CONCLUSION

This chapter discusses results and proposed strategy for management of land use change, competition and conflict. The next chapter discusses summary of findings, conclusions and recommendations.

CHAPTER 8: SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

8.1 INTRODUCTION

This chapter provides a summary of the findings of this study followed by conclusions that can be drawn, and recommendations that can be made, as a result of the work done for this research. Most studies on land use change and conflict concentrate on either urban or rural areas but this investigation focused on the urban and rural environments found within the chosen study area, Polokwane, the capital city of Limpopo and its environs. The previous chapter offered an analysis of the responses from different people who were interviewed about their perception and experience of the effect of land use change, conflict and competition in the study area.

Firstly, this study set out to evaluate the changes and conflict arising from land restitution and the land reform process in rural Limpopo, and secondly, to identify and account for the distribution, nature and changes involving land use in Polokwane and. A third objective was to analyse and document prevailing perceptions of competition and conflict that might bring about new changes. A fourth objective was to develop and recommend strategies for coping with change, competition and conflict in both urban and rural context. Hence, the study area was delimited as comprising the provincial capital city of Limpopo, Polokwane, and its environs (Chapter 3).

The first step was to identify and map land use zones for the period 1994-2002 at two year intervals, and record land use change as related to urban growth and residential, commercial and industrial developments (Chapter 6). The patterns were then compared to theoretical models that focused on micro- and macro-economics, urban structure and planning. The characteristics of the study area were placed in local, national and international and historical contexts with an emphasis on the relationship between the use of land, competition for its use and conflict that arises from decisions that people and administrators make (Chapter 2). Social, economic, political and environmental changes that took place over time were addressed (Chapter 6). The

second focus was on investigating how the people living in the city of Polokwane and in the restitution areas (Chapter 5) experienced and perceived land use change and the competition and conflict associated with this phenomenon (Chapter 6).

The study area is characterised by rapid land use change, competing interests, conflict, disputes and tensions concerning the access, control and use of land resources. The study reveals changes and conflicts in rural areas as represented in land restitution areas. The research also shows that division created by the forced removal of the original inhabitants resulted in disputes. Evictions still occur in South Africa without adherence to the relevant standards contained in the Constitution (Chenwi, 2008).

8.2 SUMMARY OF FINDINGS

8.2.1 Changes and conflicts arising from land restitution

South Africa's post-1994 land reform programme aimed to achieve a number of objectives, including redressing the historical imbalance in land holding, poverty alleviation and developing the rural economy. A range of policies has been developed to deal with restitution, but delivery has been painfully slow with all key areas falling far behind their targets. The study reveals that land restitution leads to land use change. In all 5 cases, black people used the land for residence, stock farming, subsistence farming, collection of firewood and herbs, performance of ceremonial acts, rituals and hunting. When white people arrived during colonial rule in South Africa, these local socio-economic activities that used the land was changed to commercial farming, mining, eco-tourism, motels and parks, racing fields, game farming and lodges. Land use changed again in most cases when the land was restored to the original owners. Land use changed from grazing land to housing or residential purposes. In most cases, commercial farming gave way to game and cattle farming.

This study shows that overlapping claims lead to a number of conflict situations as two parties put in a claim for the same land. A significant finding is that conflict arising from land claim can take place in the city as well as in the surrounding rural areas. In some cases, people, including land restitution claimants who were frustrated by the slowness of the process, have occupied

state land, especially in cases where they believed their claims were strong. In other cases the occupation of the land was influenced by fears that the neighbouring township would be extended into the land that the community saw as rightfully theirs. This resulted in land use conflict and competition. The study shows that land was being used below its full potential in most restitution areas. This confirms the findings of Deininger & Castagnini (2006) who indicate that the output for plots affected by conflict is lower than for those not affected.

8.2.2 Characteristics of land use in Polokwane

The study reveals that the structure of Polokwane is essentially that of an “apartheid city“, characterised by segregated settlements. It has a distorted spatial pattern, the result of political factors that can be identified as: a legacy of apartheid; encompassing land use policy; competition among potential users; out-dated and inadequate legislation; lack of planning; the absence of a formalised urbanisation strategy; no provision for land use control and rezoning; land use speculation and lack of public participation. Apartheid traits are still visible in the study area despite the progress made in the proclamation of a variety of spatial initiatives. Many of these policies do not advance integration or compaction although they advocate delivery of basic services to the poor. As a result, fragmentation continues unabated. The settlement of Polokwane is still distorted, unequal, fragmented, incoherent and inefficient. Many poor people still live far away from places of economic, recreational, cultural and educational opportunities.

The spatial distribution of land use reflects that the highest bidder occupies a central location, and the lowest bidder would occupy land at the edge of the city. This shows that an adequate relationship exists between Alonso’s theory and the spatial pattern of land use in the study area. In Polokwane the fact that high income people live in residential areas like Bendor and Bendor Park, middle income people have properties in areas like Penina Park and Flora Park whereas Makgofe is a low income class residential area, bears this theory out.

The concentric zone model also applies to the study area in that all five zones can be identified in Polokwane, and although they are not in clear-cut concentric circles, the trend is visible. The same thing applies to the radial sector theory, although the zones are not strictly in the form of

sectors but a pattern of grouping of varying types can be identified. The multiple nuclei theory of urban structure is most applicable, as Polokwane's urban settlement has developed, and continues to develop, around several nuclei. The data revealed that 43% of the residents and 41% of the business people interviewed were not satisfied with the pattern of land use in the study area. The study reveals a strong similarity between the perception of the residents and that of business people.

8.2.3 Prevailing perceptions of competition and conflict bringing about changes

The research has revealed that there is land use competition between business areas and residential areas in the study area. Houses are pulled down in the city for business development. There is also a tendency in the city to buy houses and convert them into business or offices. There is competition of land use between residential and Mall development. The study reveals that in all age categories more than half of the respondents, residents (61.20%) have noticed the land use change in the study area. The study also reveals that those who have stayed in the city for few years are able to notice land use changes more than those who have been staying in the area for many years. This shows that the more people stay in the area the less they notice changes taking place in their environments. In general, as reported in chapter six, analyses of the responses from people interviewed in this survey reveals that the study area is affected by land use competition, conflict and change, The research affirms that Polokwane is undergoing constant transformation, which has inadvertently affected the growth pattern of the city.

8.2.4 Strategies for coping with Change, Conflict and Competition in Urban and Rural Limpopo Province

Based on the findings of this research as presented and discussed, some strategies and recommendations are put forward. Legislation and procedures used in the study area tend to be out dated, cumbersome and costly. Land use control mechanisms should be put in place and streets and neighbourhood names should be provided. Problems associated with ineffective procedures regarding land use development, control and application within specific strategic development areas can be overcome by means of delegating authority normally only vested in the Municipal councils. This would expedite the process of development and reduce the administrative responsibilities of the planning personnel.

The research reveals that conflicts should be managed at an early stage and that conflicts cannot always be resolved to everyone's satisfaction. It is desirable to try to resolve or manage it. Mediation offers multiple and flexible possibilities for resolving a dispute and for the control the parties have over the resolution. Mediation is more likely to produce result that is mutually agreeable, or win/win, for the parties. Mediation plays an important role in social questions involving land use conflict because participants are not only allowed, but requested and urged, to say what is on their minds and in their hearts. Mediators must build trust because by building trust you avoid the delays that are caused by suspicion and one person's ability to halt progress due to lack of information. Trust facilitates the flow of information and makes the game fairer because the other party will know what you are thinking and you will also know what they are thinking. If land use mediation is to be successful, the right people must be at the table, to talk about the right things, in a well-organised fashion.

The requirement of public participation should be built into planning Acts as a legal requirement in Polokwane because public participation forms an integral part of the planning process in most democratic countries.

8.3 CONCLUSIONS

The final conclusion drawn is that the situation as found in Polokwane is similar to other South African towns where apartheid policy was purposefully enforced. The case of Durban and Newcastle in KwaZulu Natal and Nelson Mandela Bay Metropolitan area in the Eastern Cape had similar experiences, all of which have been noted as characteristic features of the study area. These issues are residential segregation due to implementation of apartheid legislation; enforced residential living near industries that are places of employment; and absorbing displaced former farm workers into the urban space economy. In South Africa, despite many attempts at reconstruction, cities still reflect the footprints of the past in their spatial and land use patterns that serve as constant reminders of past inequality and segregation. Polokwane Municipality is making efforts to achieve integration and consolidation and after 20 years in democracy, is moving away from residential segregation to class segregation. High income people live in Bendor and Bendor Park, middle income people have properties in Pennina Park and Flora Park

and Mokgofe is a low income area. The findings of this study support the view that town planning ideas were used very effectively to create “apartheid cities” in South Africa.

Building a nation is about healing the injury of the past, and all of us are part of that healing. The restitution programme provides the opportunity to initiate a process of healing, reintegrating and reconstructing the cities, towns and all places that still bear the scars of racial zoning. The land restitution programme was introduced as a programme to reverse the pattern of land ownership as it was skewed. Post-colonial land reforms have largely failed to comprehensively address historical injustices inflicted by colonial tenure systems to ensure broad-based access and ownership of this vital resource, which has fuelled ethnic grievances and grudges. This brief and succinct history of dispossession clearly demonstrate the rights previously enjoyed by the community and the manner in which their rights were gradually eroded away making daily living unbearable for Blacks.

The overall finding was that land use competition, conflict and change has impacted the city and that land restitution has affected both the city and the surrounding rural areas.

8.4 RECOMMENDATIONS

Public participation in the planning process is strongly recommended for the study area. The idea of planning with people instead of planning for people is accepted in many countries, and is current practice in South Africa, although it was not practiced in the study area. The fundamental principle, that citizens have the right to participate in decisions that influence their lives, is no longer debatable. Participation provides a forum for the exchange of ideas and priorities, an assessment of public interest and the practicability of planning proposals. It brings residents and authorities close to each other. For effective land use planning to take place, there must be a good relationship between those who plan and those who are affected. The study reveals that there was lack of public participation in the planning process. Public or citizen participation has become a generally accepted idea and a sound maxim that professionals and politicians should adopt when involved in the planning process. A basic lack of communication exists between the planner and the planned and this should improve in the study area. Land use planning affects

every member of the community although at varying degrees. In allocating the use of land and promoting future change, the value of land is determined, creating, apportioning and redistributing wealth. It brings residents and authorities close to each other (Soen, 1986). People feel consulted and valued as long as they are at the table throughout the discussion even if consensus is not reached (Craigton, 1992).

Public participation forms an integral part of the planning process in most democratic countries, and the requirement of public participation is often built into planning Acts as a legal requirement. The basic concept of public participation is based on the desire to stimulate the involvement of the public in planning and development matters that concern the people, the residents and the inhabitants. The increasing importance of public opinion in the planning process changes plans and development from being a predominantly one-sided bureaucratic decision making process to a process of participation which varies in scope and intensity. The planning process, in general, and the preparation of development in particular, has always appeared remote to the individual citizen (Ratcliffe, 1978).

There are also many houses on single stands. This should be regulated through a densification policy that controls the density of home construction. Apartheid policies of separate development has also influenced the pattern of the study area, hence the location of Seshego away from the CBD. This should be rectified by creating nuclei around which development can take place in rural areas around the city and by formulating a single integrated city planning scheme for the whole Polokwane area. Land use fragmentation according to race and income entrench social division and become a source of potential conflict. Distortions in the study area that have resulted from planning according to apartheid and segregation policies have to be redressed.

It is imperative that the pace of land reform in the study area be accelerated. The sustainability of individual emerging farming enterprises has improved but the rate of transfer of land has been slow. The provision of settlement support has not aligned adequately with the transfer of land and this should change. This shows the low priority status given to land reform in South Africa and also the many challenges faced in attempting to achieve set targets (LARP, 2008).

Restitution cases are not land hand-over's to be engineered speedily and then forgotten. They should be supported from the beginning to the end of the programme. Conflict and manipulation of resources is to be expected, and social differentiation, family feuds and unfulfilled expectations added to tensions. Internal conflict is a major impediment to development and the allocation of resources. The acts of people determined to use resources from which they have been formally excluded take on a closer resemblance to criminal acts. Nyambara (2001:539) says, 'conflicts over land have become ubiquitous,' and people are beset by accusations of witchcraft, threats and acts of violence, particularly against cattle, as well as pervasive theft of cotton by roaming 'gangs' of young men unable to get access to the land they want (Hammar, 2001). The proliferation of conflict over land cannot be ignored. Social negotiation around land and of fuzzy or ambiguous claims and counter –claims to the same lands fuels more conflicts (Peters, 2004). Over and above the social problems and direct costs that may be caused by land conflicts, conflicts affect productivity of land use and reduce the scope of future growth. Output for plots affected by conflict is lower than those not affected. Plots without conflicts are characterized by higher productivity along the whole range of land distribution (Deiniger & Castagnin, 2006).

The transfer of land should consider the paradigm shift from traditional land use, such as spiritual or ancestral attachment of people to grave sites for African religious worship, to commercial land use. The commercial and spiritual motives must be discussed to avert wasteful land use. Beneficiaries of land reform should be given adequate support (Lahiff, 2008). Initiatives to address challenges of post-settlement support such as CASP should be taken. Equality of ownership of land should be practiced and attention should be paid to wider land needs of the community, such as land for housing and for small scale food production. Returning land to its former owner is a matter that cannot be left to the market. The state has to act as a nurse maid. A further peculiarity of restitution is that they bring the state into relationship with citizens (Robertson, 1984). Beneficiaries should have access to services such as training, extension advice, financial support, transport and ploughing services (Lahiff *et al.* 2007a).

A more holistic approach to land claims and land use options might have resolved the disputes and created more coherent development for the area. Forced removals in support of racial

segregation have caused enormous suffering and hardship in South Africa and no settlement of land issues can be reached without addressing historical injustices. Mediation should be used only for disputes where it may potentially deliver a settlement or contribute to settlement. Even where mediation cannot deliver a settlement on all aspects of a dispute, if it can contribute to settlement of some of the elements of the dispute, it is an appropriate process to implement. Many observers criticise the government for a fragmented approach to land restitution and its lack of commitment to seeing a restitution project through. In part this can be attributed to the fragmented government institutional responsibilities in seeing a project through from the restitution claim, planning, and the handing over of the land, to a successful social and economic entity. The difficulties involved in defining and reconstructing communities and in developing and formalising rules relating to land tenure also create problems. Beneficiaries are also likely to have experienced trauma and pain as a consequence of losing their land, and addressing this pain is an important component of restorative justice strategy (Walker, 2008).

Restorative justice programmes should go beyond the mere material restoration of the land, and they should also address the psychological and emotional facets. Lost land is a powerful symbol for those dispossessed and trauma and pain accompany that dispossession (Walker, 2008). This pain should be addressed. Fundamental, is establishing how land is allocated, from which portions of the land income is to be generated, and who should receive the income (Hall, 2003). Pienaar (2008) argues that failure to do the above is the main reason why more than 2000 land reform and restitution related communal property institutions (e.g. CPAs, community trusts) in South Africa are in trouble. There are inequitable power situations in many of these CPIs. Powerful minorities have grabbed land use rights to the exclusion of many other members, which also leads to land use conflict. In some CPIs, tension between members who live off site and members on site is intense. Tension tends to be higher when the majority of members live off site and hold the balance of voting power (Pienaar, 2008).

Core elements of conflict resolution and prevention are therefore the establishment of the state under the rule of law and implementation of good governance to minimize abuse of power and corruption. Integration is required of psychotherapeutic methods for active trauma counselling and reappraisal of historical injustice so as to restore missing trust in the state and its institutions

(Wehrmann, 2006). In South Africa, stories about human rights abuses were revealed to the Truth and Reconciliation Commission. A similar processes and institution should have formed part of the land restitution programme (Walker, 2008).

No matter how difficult concerned action might seem amid the chaos and confusion following conflict, land questions have to be dealt with as early as possible. Each land conflict needs its individual solutions, adapted to its local, regional, national and supranational political, socio-economic, cultural and power-related framework conditions. Internal conflict has been a major impediment to development and allocation of resources. The state should intervene. While different policies and programmes have supported land and agrarian reform in the last 20 years, the rate of transfer of land has been slow. The provision of settlement support has not aligned adequately to the transfer of land (LARP, 2008).

Black people should be given the capacity to buy land. Land reform is concerned with interventions in the prevailing pattern of land ownership, control and usage. It is indeed one thing to ensure rights to buy land, it is quite another to give people the ability to buy land and use it productively. Apartheid has impoverished black people on the land issue over many decades and to expect them to compete on a free-for-all scramble for land is unrealistic. To say that black people should buy the land is another way of denying them access to land. The Department of Land Affairs has used the standard settlement offer (SSO) to settle most of the land claims in urban areas. The SSO is not effective in settling restitution in rural areas. Restitution is a mechanism employed to address South Africa's unequal distribution of land. The acquisition of land through the willing-buyer willing-seller framework has been haphazard and slow in Limpopo Province (McCusker, 2004).

The Municipalities should be trained on how to assist new owners of land. The general expectation of using land surrounding the city as a food basket has been compromised in many cases due to the fact that current owners neglect production of stock and crops and allow the land and invested capital to lay waste. The training of people to manage the farms was also compromised by appointing mentors who have vested interest. In order to solve these challenges, new farm owners should be mentored by neutral farm managers who do not have interest in the

land. There should always be a strategy in place to invest in the creation of senior management with capacity to take over the management of the land. The state should devise a means to control the price of land to avoid exorbitant land prices charged by farmers and state agencies should always provide post settlement support (Lahiff *et al.*, 2008).

There is a need to revise Council procedures and policies to ensure congruence with the post-apartheid ethos. An effective national land reform programme should be the central and driving force of a programme of rural development. Such a programme would aim to effectively redress the injustices of forced removals and the historical denial of access to land. It should aim to ensure security of tenure for rural dwellers. The provincial department responsible for planning must be able to adequately assist, monitor and support Municipalities to perform their functions. This implies getting dedicated staff to carry out their roles professionally. Despite broad agreement over its ends, the means towards land reform are frequently coloured in ideological hues, which manifest themselves in overlapping and sometimes confounding binaries like racial or environmental justice, market/state and equity/efficiency (Logan *et al.*, 2012).

A shortage of human resources is another problem facing the city. The Town Planning Council has a severe problem in dealing with the large number of land use applications it receives, especially those related to rezoning procedures. Skilled town planners and town planning assistants are utilised to deal with unwieldy administrative procedures and cannot be actively involved in forward planning or in compiling policies. This should be reversed. Skilled town planners and town planning assistants should do the work for which they have been trained. It is imperative that additional personnel be appointed to deal with land management and land development. If this is not possible, this function could be partially outsourced. The development of skills is an important aspect and the Municipality has allocated resources to ensure that skill development is aligned to the objectives set in the IDP. However, there is still a challenge facing the Municipality in planning, technical and management capacity in certain service delivery areas (DIDP, 2010/2011).

For any urban land policy to have a far-reaching effect, it should identify problems of both the developed part of the city and the underdeveloped areas, and provide an adequate framework

within which a solution to problems could be found. Public policies should minimise conflict between alternative land development strategies and integrate them in the light of the objectives of efficiency and justice which are of common interest. Each Municipality, at local level, should have a fully-fledged town planning or land use planning division with skilled personnel able to deal with land use management, since it is a Municipal function in terms of the country's Constitution. Moreover this department should deal with the development of new policies and legislative matters. A process that would effectively and quickly deal with the provision of street neighbourhood names in areas where no names exist should be put in place. Council should delegate power with regard to land use control and administration and promote the involvement of planners in forward and strategic planning.

There is also a need to investigate and strategize for gender equity in land redistribution. Development planning principles should form the basis of an alternative strategy for providing the correct approach in meeting the urban developmental challenges in a city. Therefore the study area should move from general urban planning to developmental planning principles. The concept of compact cities would be a suitable urban form. Compaction principles promote a number of basic tenants, such as the revitalisation of the inner city, regeneration, preventing urban sprawl, higher density, mixed land use, improved access between employment, housing and services, promoting public transport nodes, and improving housing and services, corridor development and urban infill. All these are fundamental elements of contextualisation. Existing policies and procedures applicable to land management should be reviewed and either amended or repealed where the present legislation causes conflict. Investigation should be undertaken in all areas where development needs and growth potential or pressure exist. The development of skills is an important aspect and the Municipality has allocated resources to ensure that skill development is aligned to the objectives set in the IDP. Problem of the gap between policy formulation, legislation and implementation should be attended to. However, there is still a challenge facing the Municipality in planning, technical and management capacity in certain service delivery areas (DIDP, 2010/2011).

This concluding chapter has therefore clearly shown that the key objectives of this study have been achieved after rigorous analysis of data on land use changes, competition and conflict in

Polokwane and the surrounding rural areas. Land use changes have occurred as a result of historical factors and the transition to democracy which introduced new dynamics in the rural and urban environments in South Africa. Land use changes are however not unique to South Africa but the historical factors and responses in the new dispensation have shown new dynamics that are unique to this study. These land use changes have brought about competition in the use of land as well as conflict between various land uses and amongst various land users. These are captured, studied and illustrated forming a major contribution of this study to existing knowledge. As indicated earlier on most land use change conflict and competition studies only concentrate on dynamics on the urban fringe, this study has shown how rural land reform is also a major contributor to land use changes, competition and conflict in both urban and rural areas. The key recommendation is that there is need to pursue planning policies and processes that recognise the role of these dynamics in a changing South Africa.

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APPENDIX 1

LAND USE CHANGE, COMPETITION AND CONFLICT: THE CASE OF POLOKWANE: LIMPOPO PROVINCE: SOUTH AFRICA

INTERVIEW QUESTIONNAIRES FOR GOVERNMENT OFFICIALS AND PLANNERS

P. O. Box 81
Vhufuli
0971
30 June 2005

Dear Respondent

It is a great honour for me to inform you that you have been selected as one of the respondents in Polokwane to participate in this project. You are kindly requested to complete the accompanying questionnaire.

The purpose of the questionnaire is to gather information about land use competition, conflict and change in Polokwane's urban area and the surrounding rural area.

The research is part of my post-graduate study for a doctorate in the philosophy of Geography at the University of Venda for Science and Technology. It is my hope that the study will be interesting and useful to both academicians and planners in the field of rural and urban planning

Your contribution is highly valuable to enable me to reach insightful conclusions in order to improve development in Polokwane.

Confidentiality will be strictly maintained. Your name is not required and will not be recorded either by yourself or the researcher. So, please feel free to honestly share your opinion and knowledge about the subject by responding to each item.

Thank you for taking part in this research. I assure you that results will be made available to you at the University Library.

Thank you

Yours faithfully

N L Nemukula (Mr)

**LAND USE CHANGE, COMPETITION AND CONFLICT:
THE CASE OF POLOKWANE, LIMPOPO PROVINCE, SOUTH AFRICA**

INTERVIEW QUESTIONNAIRES FOR GOVERNMENT OFFICIALS AND PLANNERS

Please make your responses by making a cross in a space provided unless stated otherwise.

PERSONAL PARTICULARS

1. Gender

Male	1
Female	2

2. Please indicate the age group to which you belong

19 years and under	1
20-30 years	2
31-40 years	3
41-50 years	4
50 years and over	5

3. How long have you been living in Polokwane?

Less than 5 years	1
5-15 years	2
16- 35 years	3
36-55 years	4
56 years and year	5

4. Marital status

Single	1
Married	2
Widowed	3
Divorced	4

5. Name of your residential area

6. Name of the department in which you are employed

7. Rank

8. Work Experience

0-1 years	1
2-5 years	2
6-10 years	3
10 years and over	4

9. Population group

Black	1
Indian	2
White	3
Coloured	4

NATURE OF LAND USE CONFLICT AND COMPETITION AND KEY FACTORS CONTRIBUTING TO CONFLICT OVER LAND USE

10.1. What specific legislation governs the establishment of townships in Polokwane?

10.2. How does it operate?

10.3. Which specific section do you think inhibits development?

10.4. What do you suggest should be changed?

10.5. What would be the benefit if such changes were effected?

11. There are informal settlements in New Pietersburg and to the west of Annadale.

11.1. What do you think causes squatting?

11.2. Where do these people (the squatters) generally come from?

11.3. What are the plans that the municipality intends putting in place to resolve the squatting problem?

12. How should they be solved?

13.1. Are there land claims in the city?

Yes	1
No	2

13.2. What are claimants and who are they?

13.3. What restitution measures are likely to be made possible?

14. Polokwane municipality is using different pieces of legislation to administer land development.

14.1. What are the problems associated with this procedure?

14.2. How should they be solved?

15. The notion of having a single legislature that administers land development is seen as democratising land development.

15.1. Do you agree with this statement?

Yes	1
No	2

15.2. If yes, why?

15.3. If no, why not?

15.4. Any other suggestions about this point?

16.1. How do you enforce or conduct citizen participation on issues relevant to Polokwane?

16.2. Has citizen participation been a useful exercise?

Yes	1
No	2

16.3. If yes, what were the highlights?

16.4. If no, what were the pitfalls?

16.5. To prevent problems from happening, what should be done?

17. The organic growth of Polokwane is determined by the property owners.

17.1. How does the municipality control land use in areas owned by landlords?

17.2. How would you regard the relationship between the municipality and property owners?

Good	1
Bad	2

17.3. If bad, what are the problems?

17.4. How should they be solved?

17.5. Any relevant issue you should like to raise that is worth noting?

GENDER-SPECIFIC LAND USE ISSUES

Rights to own and occupy land in South Africa have been largely determined by race, class and gender.

18.1. Are women discriminated against in Polokwane?

Yes	1
No	2

18.2. If yes, how?

18.3. If no, what is it that can be done to facilitate their involvement in land issues?

19. There were ordinances which used to prevent women from owning land. From when did women start owning land?

20. 1. How many female land owners in Polokwane do you know?

20.2. What type of business are they in?

21.1. How many female farmers do you know in Polokwane?

21.2. In what type of framing are they involved?

22.1. Are there women in your statutory bodies?

Yes	1
No	2

22.2. When were they appointed?

22.3. Was the appointment on merit or merely to comply with government policy?

On merit	1
To comply with the policy	2

22.4. If appointment was on merit, what are the benefits?

22.5. If it was compliant, what are the issues?

22.6. How do you think such issues should be resolved?

THE ROLE OF POLOKWANE AS A CAPITAL CITY OF LIMPOPO AND ITS ROLE IN MANAGEMENT OF CHANGE AND CONFLICT

23. Which government departments relocated in Polokwane?

24. These departments are housed in

Buildings which were formerly dwelling units	A
Buildings meant for business	B
Both A and B	C
None of the above	D

25.1. Has the change of status of Polokwane to being the capital city of Limpopo Province led to an increase in the price of land?

Yes	1
No	2

25.2. What do you think could be the reason behind this?

25.3. Was this a good thing?

Yes	1
No	2

25.4. What was good about it?

25.5. What was bad about it?

25.6. What should be done to improve the situation?

26. Due to the increased prices of land in the CBD, parks and open spaces are being converted into areas for business development.

26.1. To what extent have existing parks in Polokwane been lost?

26.2. How many parks have been affected by this?

26.3. Is the community happy about it?

Yes	1
No	2

26.4. Did they participate in the decision to rezone?

Yes	1
No	2

27. The increase in land prices results in the development of shopping malls.

27.1. To what extent has this been the case in Polokwane?

27.2. How did high land prices of land affect shopkeepers in the CBD?

27.3. How did they respond to the challenge?

27.4. How did the municipality assist them?

28. The increase in land prices especially in the CBD resulted in businesses moving into adjacent residential areas.

28.1. Is this happening in Polokwane?

Yes	1
No	2

28.2. If yes, at what scale?

Huge	1
Medium	2
Low	3

28.3. Is it a good thing?

Yes	1
No	2

28.4. If yes, what is good about it?

28.5. If no, what is bad about it?

28.6. How can the situation be improved?

STRATEGIES FOR LAND USE PLANNING FOR POLOKWANE AND SURROUNDING RURAL AREAS THAT ADDRESS THE ECONOMIC NEEDS OF PEOPLE AND GENDER INCLUSION AND EXCLUSION

29. The urban future is usually shaped by specific and powerful ideas which initiate and drive urban development and transformation.

29.1. Are there “gated” communities in Polokwane?

Yes	1
No	2

29.2. How do they operate?

29.3. How does their operation affect access to land?

29.4. Does this stifle competition or not?

Yes	1
No	2

30. The poor are adversely affected by diverse urban development, being effectively trapped by the high cost and lack of transport.

30.1. Has the municipality tried to identify well-located land to improve access to the city for the urban poor?

Yes	1
No	2

30.2. If yes, where?

30.3. If no, what are the constraints the municipality has experienced when attempting to identify such land?

31. In most urban areas, poor people are located near the CBD but this is not the case in Polokwane. Seshego is located 15 km away from the CBD.

31.1. What were the main reasons for this development?

31.2. How can this problem of distance be rectified?

31.3. The spatial structure of Polokwane is such that whites and Indians are divided by the N1; whites and Coloureds are divided by a railway line; and an industrial area separates blacks and whites.

32.1. What were the objectives of the reasoning that led to these divisions?

32.2. How does this pattern fit into modern or new land policies?

32.3. How can this pattern be improved in order to be in line with modern planning?

33. Were the areas now occupied by Game and Savannah shopping centres originally meant for business?

33.1.

Yes	1
No	2

33.2. If no, for what land use were these areas originally zoned?

33.3. What caused the change in land use?

34. Women's disadvantages in relation to land ownership, access and control have been major points in the drafting of new land policies in many areas of land use. How practical is this for Polokwane?

35. Some urban areas are struggling to cope with the scale and rate of increase in homelessness and landlessness. This increase is overtaking the rate at which housing can be provided.

35.1. Is Polokwane also in the same situation as described above?

Yes	1
No	2

35.2. If yes, what is the municipality doing to address this problem of homelessness and landlessness?

36. What would you recommend for consideration about the future planning of Polokwane?

Thank you very much for your assistance to me in conducting this study. I hope you enjoyed completing the questionnaire. I look forward to receiving your answers.

APPENDIX 2

LAND USE CHANGE, COMPETITION AND CONFLICT: THE CASE OF POLOKWANE, LIMPOPO PROVINCE, SOUTH AFRICA

INTERVIEW QUESTIONNAIRE FOR BUSINESSMEN AND WOMEN

Please make your responses by making a cross in a space provided unless stated otherwise.

PERSONAL PARTICULARS

1. Gender

Male	1
Female	2

2. Please indicate the age group to which you belong

19 years and under	1
20-30 years	2
31-40 years	3
41-50 years	4
50 years and over	5

3. How long have you been living in Polokwane?

Less than 5 years	1
5-15 years	2
16- 35 years	3
36-55 years	4
56 years and year	5

4. Marital status

Single	1
Married	2
Widowed	3
Divorced	4

5. Name of residential area

6. For how long have you been in business?.....

7. What type of business do you have?

Industrial	1
Light	2
Medium	3
Commercial	4
Small scale	5
Large scale	6
Other (specify	7

8. Population Group

Black	1
Indian	2
Coloured	3
White	4

9. Is your business located in the

Transition Zone	1
Residential area	2
Industrial Zone	3
CBD	4

10. Are you satisfied with the pattern of land use in Polokwane?

Yes	1
No	2

11. As a potential land user were you consulted to give your contribution when the town was planned?

Yes	1
No	2

NATURE OF LAND USE CONFLICT, COMPETITION AND KEY FACTORS CONTRIBUTING TO THESE CONFLICTS

12. Are you satisfied with the size of the site of your business?

Yes	1
No	2

13. Have you ever bought a house in Polokwane?

Yes	1
No	2

14. If yes, did you convert the house into

A business building	1
An office	2
Both	3
None of the above	4

15. Have you ever received a land claim for the land you occupied

Yes	1
No	2

16. If yes, how was the problem of land ownership resolved?

17. Have you ever submitted a claim for a piece of land in Polokwane?

Yes	1
No	2

18. If yes, for which land in which area did you submit the claim?

19. How was the land claim problem resolved?

20. Do you have space for any desired expansion of your business?

Yes	1
No	2

21. If your answer is no, why?

22. If you were to move your business to another site, to which area would you move your business?

23. Why?

GENDER-SPECIFIC LAND USE ISSUES

24. A number of women seem to be coming into the property market. What do you think is the reason for this?

25. How many women landowners in Polokwane do you know?

26. How many female farmers do you know in Polokwane?

27. How are women involved in land restitution claims in Polokwane?

**THE ROLE OF POLOKWANE AS A CAPITAL CITY OF LIMPOPO AND ITS
ROLE IN THE MANAGEMENT OF CHANGE AND CONFLICT OVER THE USE
OF LAND**

28. When did you start living in Polokwane?

29. Where did you live before coming to Polokwane?

30. Why did you decide to move to Polokwane?

31. The price of land has risen since 1994.

Yes	1
No	2

32. If yes, what do you think is the reason for the rise in the price of land since 1994?

33. How does the municipality help you protect your land or property from invasion of informal settlers?

34. Do you know how the municipality deals with land restitution?

Yes	1
No	2

STRATEGIES FOR LAND USE PLANNING FOR POLOKWANE AND SURROUNDING RURAL AREAS THAT ADDRESS THE ECONOMIC NEEDS OF PEOPLE AND GENDER INCLUSION AND EXCLUSION

35. What would you recommend for the future planning of Polokwane?

Thank you very much for your assistance to me in conducting this research. I hope you enjoyed completing the questionnaire. I look forward to receiving your answers.

**APPENDIX 3: LAND USE CHANGE, COMPETITION AND CONFLICT: THE CASE OF
POLOKWANE: LIMPOPO PROVINCE, SOUTH AFRICA,
INTERVIEW QUESTIONNAIRES FOR RESIDENTS IN POLOKWANE**

P. O. Box 81

Vhufuli

0971

30 June 2005

Dear Respondent

It is a great honour for me to inform you that you have been selected as one of the respondents in Polokwane to participate in this research project. You are kindly asked to complete this questionnaire. The purpose of the questionnaire is to gather information about land use competition, conflict and change in Polokwane's urban area and its surrounding rural area.

The research is part of my post-graduate study for a doctorate in the philosophy of Geography at the University of Venda. It is my hope that the study will be interesting and useful to both academicians and planners in the field of rural and urban planning. Your contribution is highly valuable and will enable me to reach insightful conclusions that I can document. I anticipate that the recommendations made will assist in improving the development situation in Polokwane.

Confidentiality will be strictly maintained. Your name is not required and should never be recorded by you or by the researcher. So, please feel free to honestly share your opinion and knowledge about the subject by responding to each item.

Thank you for taking part in this research. I assure you that results will be made available to you at the University Library.

Thank you

Yours faithfully

N L Nemukula (Mr)

**LAND USE CHANGE, COMPETITION AND CONFLICT: THE CASE OF POLOKWANE,
LIMPOPO PROVINCE, SOUTH AFRICA.**

INTERVIEW QUESTIONNAIRE FOR RESIDENTS IN POLOKWANE

Please make your responses by making a cross in a space provided unless stated otherwise.

PERSONAL PARTICULARS

1. Gender

Male	1
Female	2

2. Please indicate your age group

19 years and under	1
20-30 years	2
31-40 years	3
41-50 years	4
50 years and over	5

3. How long have you been living in Polokwane?

Less than 5 years	1
5-15 year	2
16-35 years	3
36-55	4
56 years and over	5

4. Marital status

Single	1
Married	2
Widowed	3
Divorced	4

5. Name of your residential area _____

6. Occupation _____

7. Population group

Black	1
Indian	2
White	3
Coloured	4

NATURE OF LAND USE CONFLICT, COMPETITION AND THE KEY FACTORS CONTRIBUTING TO THESE CONFLICTS.

8 Are you satisfied with the pattern of land use in Polokwane?

Yes	1
No	2

9 As a potential land user, were you consulted to make a contribution when the town was being planned?

Yes	1
No	2

10 A number of houses in the CBD are being demolished to make space for business development. Is this statement true?

Yes	1
No	2

11. Have you ever submitted a land claim?

Yes	1
No	2

12. If yes, how was it solved?

13. Land invasion is a problem in many cities. How does this problem affect your city?

GENDER-SPECIFIC LAND USE ISSUES

14. The majority of informal traders do not own any land

True	1
False	2

15. Female informal traders do not own any land.

True	1
False	2

16. How many women participate in the land use decision making process?

17. How many female farmers in Polokwane do you know? _____

THE ROLE OF POLOKWANE AS THE CAPITAL OF LIMPOPO AND ITS ROLE IN THE MANAGEMENT OF LAND USE CHANGE AND CONFLICT

18. When did you start living in Polokwane? _____

19. Why did you decide to move to Polokwane?

20. From which area do you come?

21. Did you ever claim any piece of land in Polokwane?

Yes	1
No	2

22. If yes, why did you claim that piece of land?

23. How was the claim resolved?

24. What are your comments about the fact houses that are being demolished in the CBD for commercial development?

25. Have you noticed any land use changes over the past ten years?

Yes	1
No	2

APPENDIX 4: LETTER REQUESTING ACCESS TO INFORMATION RELATED TO LAND USE CLAIMS FROM LAND CLAIMS COMMISSION, POLOKWANE

P.O. Box 81

Vhufuli

0971

05 December 2006

Attention: Mr. Molosi

Land Claims Commission

Polokwane

REQUEST TO VISIT YOUR OFFICE

Following our discussion on Wednesday 20th November 2006, I would appreciate receiving your permission to visit your office on 13, 14 and 15 December 2006 in order to access information relating to land use conflict. In particular, I would like to be able to consult documents related to the following projects/land claims:

1. VHEMBE

1.1 Madimbo

1.2 Getrudsburg

1.3 Munzhedzi

1.4 Mampodo

1.5 Mtititi

1.6 Sandfontein

2. WATERBERG

2.1 Modimolle

2.2 Tale Ga Morudu

2.3 Legata

2.4 Mabjaneng

3. MOPANI

3.1 Magobaskloof

3.2 Mashishimale

3.3 Hlomela

3.4 Pheeha

3.5 Ba Phalaborwa Ba Mashishimale

4. BOTLABELA

4.1 Moletele

4.2 Sekororo

4.3 Mamashiane

5. CAPRICORN

5.1 Zebediela

5.2 Rita

5.3 Makgato

5.4 Mamahule

5.6 Matokolo

Thank you

Yours faithfully

.....
Nkhangweleni Lennox Nemukula

APPENDIX 5: REQUEST FOR ACCESS TO INFORMATION

P.O. Box 81
Vhufuli
0971
03 June 2011

The Manager
Polokwane Local Municipality

REQUEST FOR ACCESS TO INFORMATION RELATED TO LAND USE CHANGE, COMPETITION AND CONFLICT IN POLOKWANE

The above matter has reference

I am hereby requesting for access to information related to Land use Change, Competition, Conflict in Polokwane city and the surrounding rural areas.

I am doing a research on Land Use Competition, Conflict and Change in Polokwane city and the surrounding rural areas.

My student number is 8300738.

The research is part of my post-graduate study for a doctorate in the philosophy of Geography at the University of Venda. It is my hope that the study will be interesting and useful to both academicians and planners in the field of rural and urban planning.

Your cooperation is highly valuable and will enable me to reach insightful conclusions that I can document. I anticipate that the recommendations made will assist in improving the development situation in Polokwane.

Thanking you in anticipation

Yours faithfully

N L Nemukula (Mr)