

# North West University, Potchefstroom Campus, South Africa

## Subject Group for Urban and Regional Planning

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### 1. Introduction

The training and education of urban and regional planners at North West University (Potchefstroom Campus) dates back to 1962. At that stage it was located in the Faculty of Arts and enjoyed the status of an independent Department of Urban and Regional Planning. In 1998 the then department was included in the School for Environmental Sciences and Development within the Faculty of Natural Sciences. The department was transformed into the Subject Group for Urban and Regional Planning. This transformation was due to a general restructuring and transformation of the then Potchefstroom University for Christian Higher Education (PU for CHE). Since 2004 the PU for CHE has been transformed in terms of the policy and legislative framework applicable to the rationalisation of higher education institutions into the North West University (Potchefstroom Campus).

Although the objective from the outset in 1962 was to educate and train urban and regional planners for the national market, in line with the focus on international trends and developments, emphasis was placed on the realities within the regional context, namely North West Province (NWP) as it is known today. NWP is predominantly a rural-orientated spatial entity with a few intermediate towns serving the agricultural and mining sectors. More detail on the regional context and setting will be given in the next section of this paper.

The NWP spatial structure is the product of a region that was initially occupied by various tribes who settled in the area. During a long period of white people moving into the region, tribes were resettled and concentrated in settlements towards the extreme north-west part of NWP. The dualistic character of traditional living alongside commercial farming was further enhanced through the years of apartheid under the previous political dispensation. Today, 60% of the population still resides in mainly rural areas, with the largest concentration in the eastern part of the province.

The provincial economy was initially based on mining during the colonial period. This was carried through into the period when the apartheid and bantustan regimes governed the region. Although, a strong financial services sector emerged nationally, NWP remained largely agrarian, with small pockets of tourism. The training of urban and regional planners to address these challenges and to provide skills and expertise to develop such spatial entities remained a core focus. After democratisation in 1994 the training of planners was broadened in line with international market tendencies and professionalism. The establishment of the North West University, consisting of three campuses – Potchefstroom, Mafikeng and the Vaal Triangle (Van der Bijl Park) – created further spatial dynamics due to the locational diversity in the two provinces in which the campuses were sited, namely NWP and Gauteng.

## 2. The urban and regional context

The NWP can be classified as a rural-orientated spatial system consisting of dispersed urban nodes within a vast rural hinterland. The urban nodes are linked through a road system of different functional classes. The concept of 'urban' in the NWP is aligned to the norms and principles as defined for the purposes of Statistics South Africa (Stats SA) (Stats SA 2004, 2007) and used in terms of the National Spatial Development Perspective (NSDP) (The Presidency 2006). It includes a geographic classification based on an analysis of size and density within the spatial system. The classification is divided into *high density* or *large settlement*, and *low density*. This provides an alternative basis for analysis to the *urban/rural* classification. At the same time the classification is based on dominant settlement type and land use. Cities, towns, townships, suburbs, etc., are typical urban settlements. The urban orientation includes informal settlements, hostels, institutions, industrial and recreational areas, and smallholdings within or adjacent to any formal urban settlement. 'Rural' refers to the other phenomenon with regard to spatial systems.

### 2.1 Institutional structures in the North West Province

The NWP is currently divided into four district municipalities representing 21 local municipalities (Table 1).

**Table 1: Institutional structures within NWP**

District municipality (DM)	Local municipality (LM)
Southern DM	Merafong
	Ventersdorp
	Potchefstroom
	City of Matlosana
	Maquassi Hills
Bojanala DM	Moretele
	Madibeng
	Rustenburg
	Kgetlengrivier
	Moses Kotane
Bophirima DM	Kagisano
	Molopo
	Lekwa Teemane
	Greater Taung
	Naledi
	Mamusa
Ngaka Modiri Molema DM (Central)	Tswaing
	Mafikeng
	Ditsabotla
	Ratlou
	Romotshere Moiloa

Mafikeng is the provincial capital and the seat of provincial government. Other major urban centres include Potchefstroom and Klerksdorp in the south-east and Vryburg (Huhudi) in the west (NWP 2008a).

Figure 1 shows the municipal boundaries within the NWP, which is a landlocked institutional entity. The province is bordered by Gauteng and Limpopo Provinces in the east, the Northern Cape in the

west, the Free State in the south, and shares an international border with Botswana in the north.

Figure 1: Institutional entities within NWP

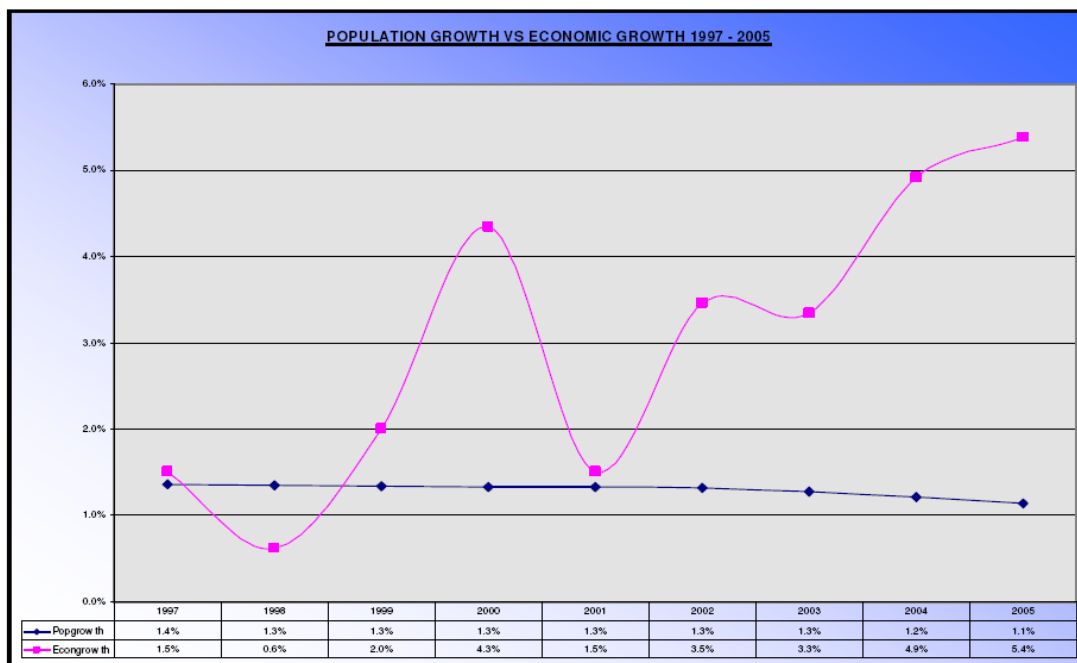


Source: NWP 2008a

## 2.2 A socio-economic perspective on North West Province

Figure 2 shows population growth within NWP, as compared to economic growth, for the period 1997–2005.

Figure 2: Population growth compared to economic growth in NWP, 1997–2005



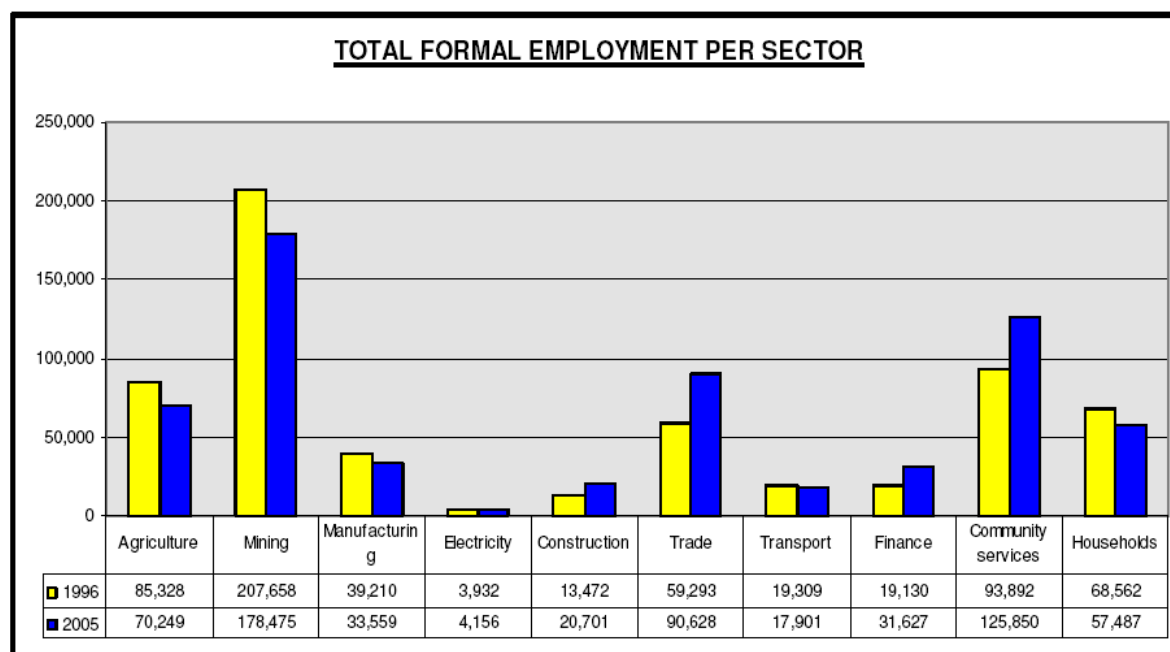
Source: Global Insight 2006

The overall annual population growth in NWP is estimated to have decreased from approximately 1.4% in 1997 to 1.1% by 2005. These figures imply that the annual economic growth rate has been in excess of the population growth rate since 1999. Although the year-on-year economic growth rate has

fluctuated, there was an overall increase in the economic growth rate from 1.5% in 2001 to 5.4% by 2005 (NWP 2008b).

Figure 3 illustrates the total formal employment per sector within NWP for 1996 and 2005 respectively.

**Figure 3: Total formal employment per sector within NWP, 1996 and 2005**



Source: Global Insight 2006

From Figure 3 a number of important trends can be distinguished:

- Despite the strong economic growth in the mining sector as measured by Gross Value Added (GVA), this was not accompanied by the same growth in formal-sector employment opportunities.
- Both the agricultural and the manufacturing sectors experienced a decline in formal-sector employment opportunities between 1996 and 2005.
- The sectors which experienced an increase in formal employment opportunities include construction; wholesale and retail trade; financial and business services; and the community, social and personal services sector.

Table 2 shows the total estimated population within NWP for 2007.

**Table 2: Estimated population within NWP, 2007**

District	Population	Households
Bojanala Platinum District Municipality	1 268 618	357 201
Southern District Municipality	849 992	270 445
Central District Municipality	798 783	183 401
Bophirima District municipality	354 554	100 073
Total	3 271 948	911 120

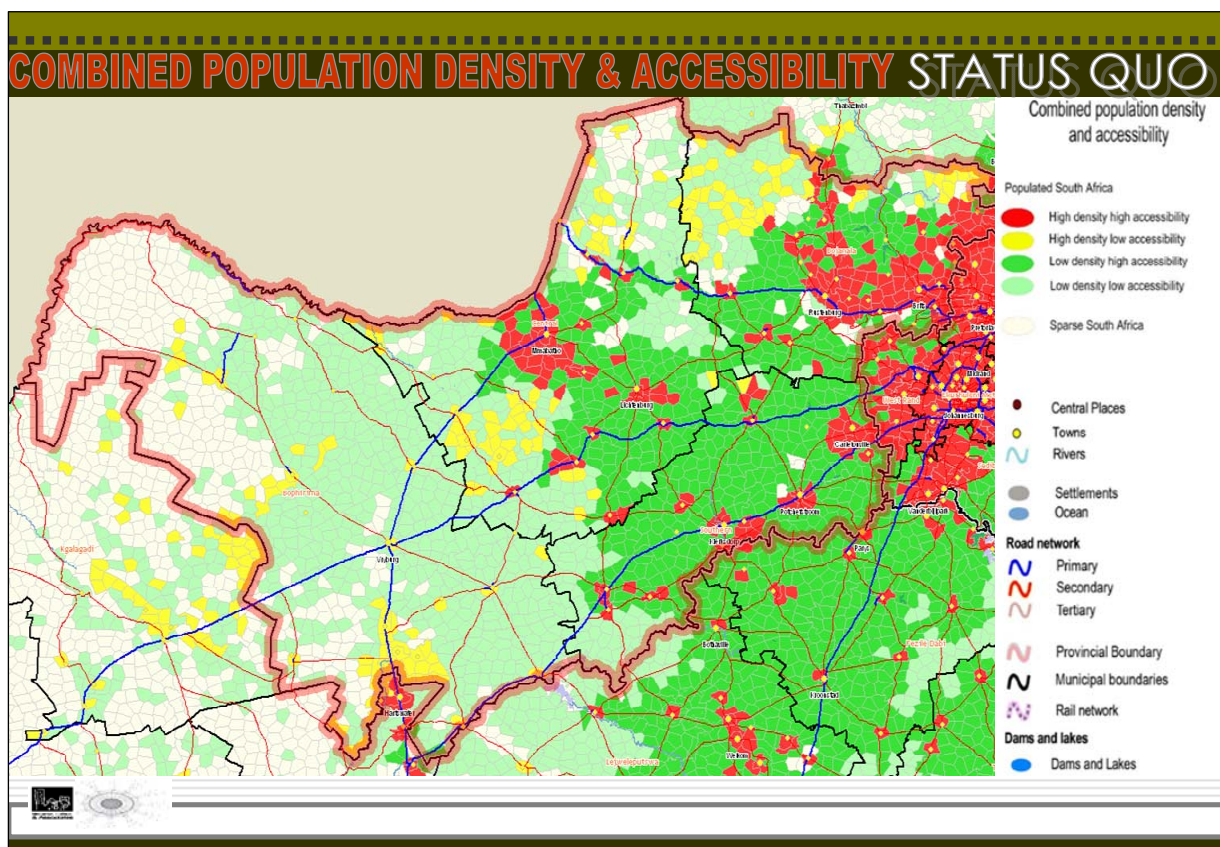
Source: Stats SA 2007

In summary, the population structure of NWP reflects the following characteristics:

- The NWP is home to approximately 3.2 million people who constitute 8.2% of the South African population.
- The majority of the people are found in the Bojanala District, which also has the densest demographic distribution (208 people/km<sup>2</sup>).
- Bophirima District Region has the smallest population with the lowest demographic density (10.43 people/km<sup>2</sup>).
- The population is currently growing at a rate of 1.2% per annum.
- The male and female proportions of the population are 49.2% and 50.8% respectively.
- More than 33% of the total population is younger than 14 years old.
- NWP is predominantly rural, with 65.1% of the population living in rural areas and 34.9% living in urban areas.
- Some 30% of the adult population is illiterate, the highest figure among all provinces in South Africa.

Figure 4 shows combined population density and accessibility within the NWP.

**Figure 4: Combined population density and accessibility in NWP**



Source: NWP 2008a

The Provincial Growth and Development Strategy (PGDS) (NWP 2007) states that the two main factors which may influence future population trends in NWP are the impact of HIV/AIDS and possible inter- and intra-provincial migration patterns. Table 3 shows the estimated migration streams for all provinces within the national space economy in 2006. NWP experienced an outflow of 55 500 persons in that year.



**Table 3: Net migration within the national space economy, 2006**

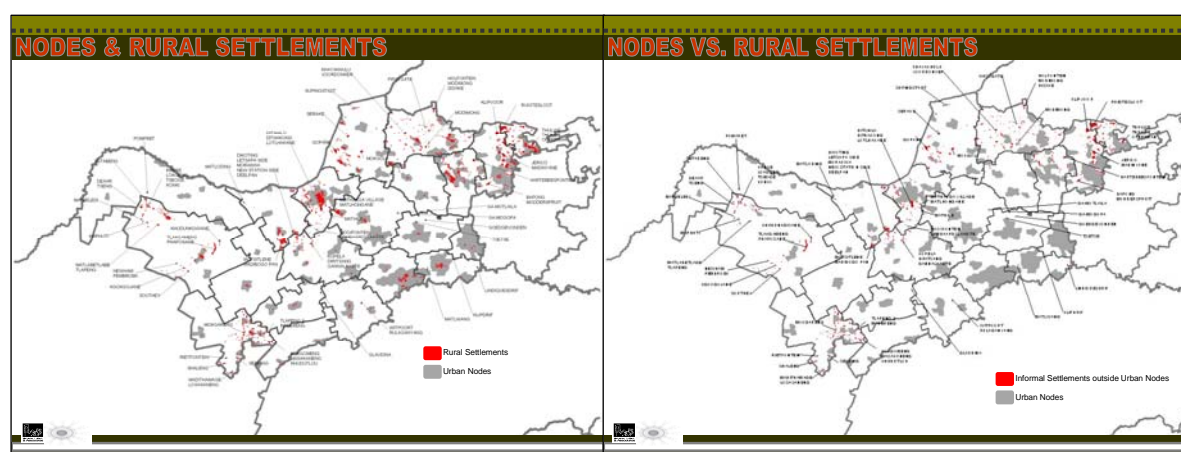
Province	Total in-migrants	Total out-migrants	Net migration
Eastern Cape	117 200	440 400	-323 200
Free State	102 300	160 000	-57 700
Gauteng	853 400	333 500	519 900
Kwazulu Natal	213 200	209 200	4 000
Limpopo	102 500	351 800	-249 300
Mapumalanga	143 500	182 200	-38 700
Northern Cape	53 100	77 000	-23 900
North West	163 700	219 200	-55 500
Western Cape	337 300	112 900	224 000

Source: NWP 2007

### 2.3 Rural-urban linkages

The rural-urban linkages within NWP are the direct result of the spatial manifestation of the previous political dispensation within the space economy. Figure 5 depicts these linkages within the NWP spatial system.

**Figure 5: Urban/rural relationships within NWP**



Source: NWP 2008a

### 2.4 Provincial space economy

The economy of the NWP is relatively small, making a 7% contribution to the South African national Gross Domestic Product (GDP). It is mainly natural resource-based, with main contributors being the mining (35.5%) and agricultural (35%) sectors. Recently an increase in the manufacturing, retail and tourism sectors has led to diversification and upswing in the economy, with a 2% growth rate being reported in 2001. Private sector activity can best be described as very modest. Figure 6 shows the provincial economic concentrations for 2006 in the study area.

#### *Mining activities*

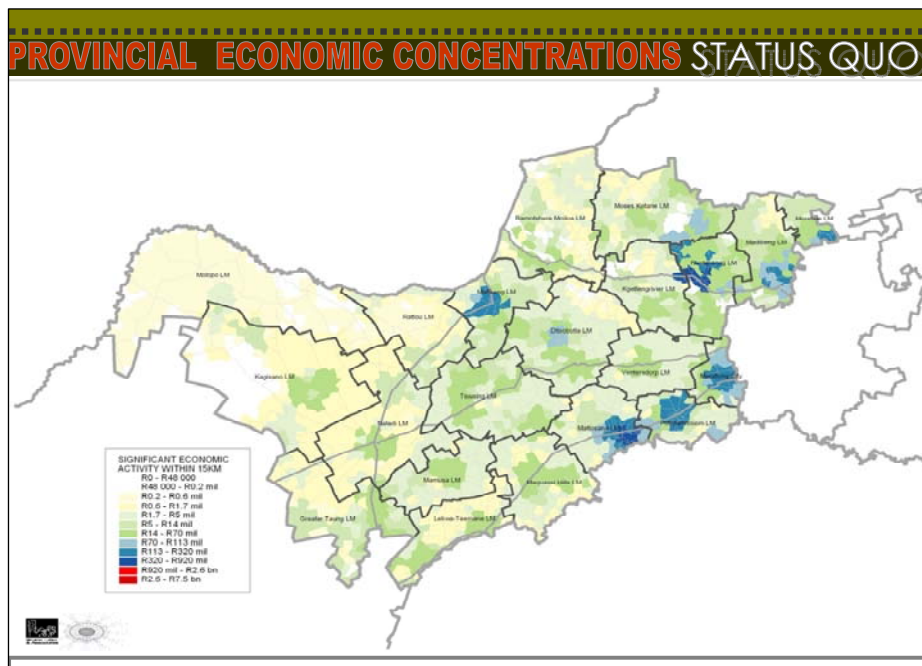
Mining forms the backbone of the provincial economy, contributing 42% to the region's GDP and 39% to employment. The mining sector is dominated by large platinum mines and smelters in the Rustenburg area which produce an estimated 70% of the world's platinum, as well as the gold mines of the Merafong, Orkney and Klerksdorp areas. By its very nature mining of non-renewable resources is unsustainable.



Pollution of air soils and water from mining activities, as well as the negative social impacts of mining, affect the sustainability of the environment. Industrial and economic activities, which include industries and manufacturing, tourism and leisure, retail and wholesale distribution, infrastructure development and energy, all have an impact on the environment, because of increased consumption patterns and waste generation.

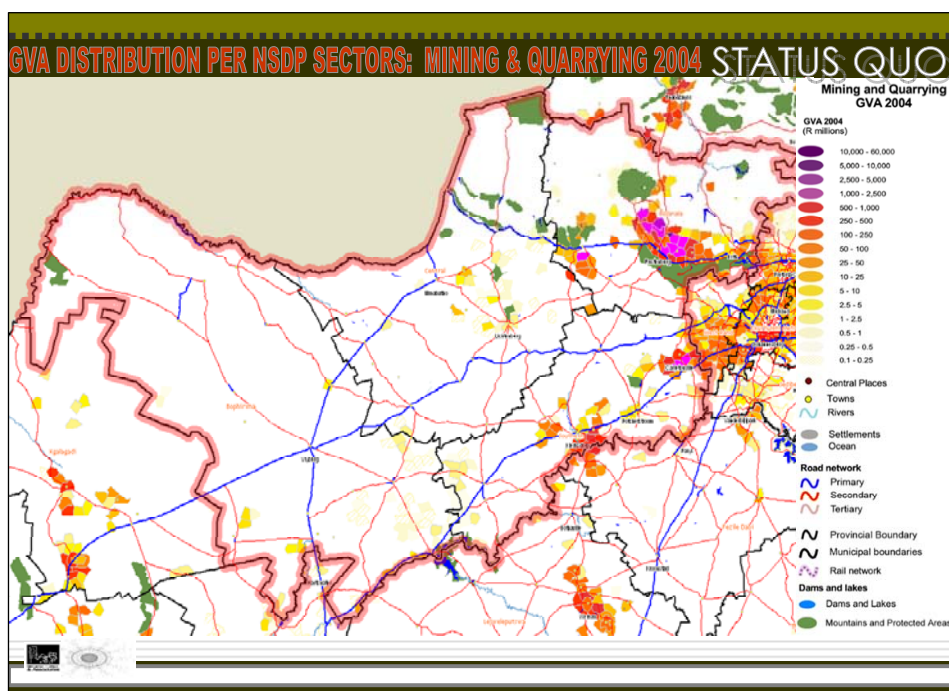
Figure 7 shows the GVA figures for the mining and quarrying sector in NWP for 2004.

**Figure 6: Provincial economic concentrations, 2006**



Source: NWP 2008a

**Figure 7: GVA distribution for the NWP mining and quarrying sector, 2004**



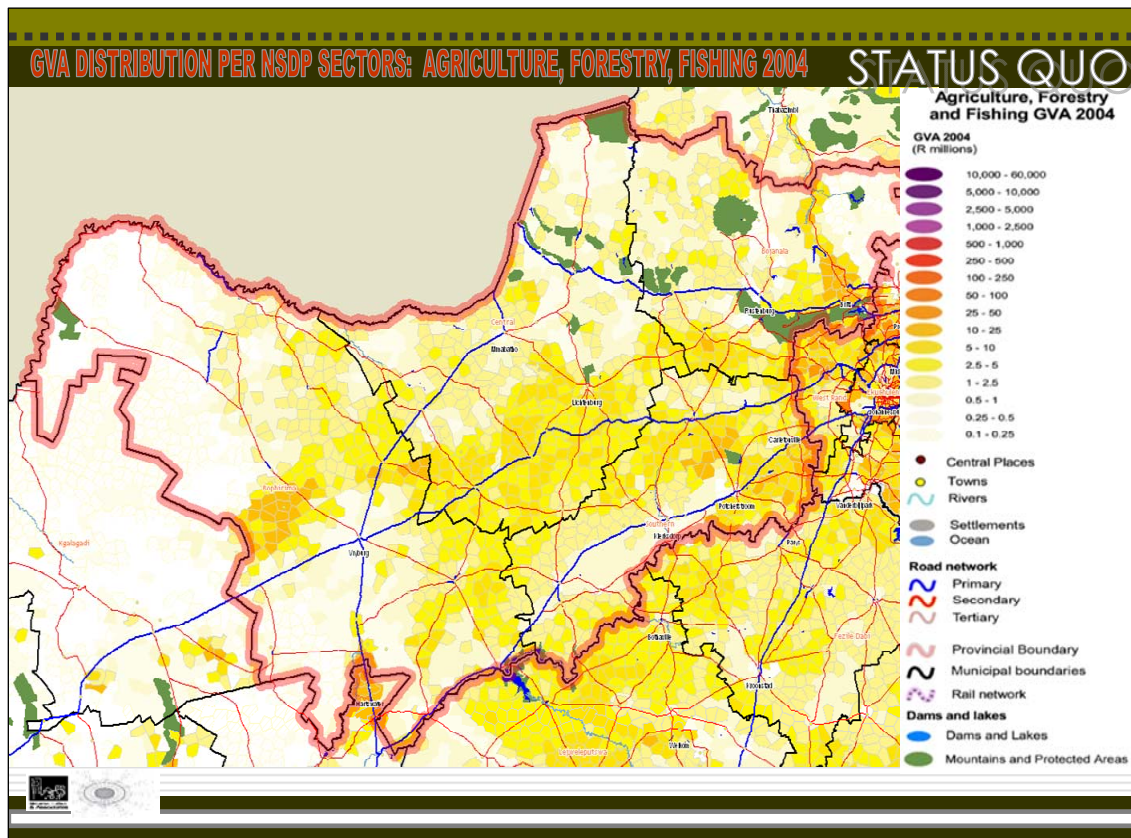
Source: NWP 2008a

### Agriculture

Agriculture is the second-most important sector of the NWP space economy, contributing 13% of the GDP and 18% of employment respectively. Crops such as maize, sunflowers and peanuts are extensively grown on the fertile plains of the Ngaka Modiri Molema region. Cattle and game farming are prevalent in the western region of the province. The pressure for greater food production for a growing population has led to agricultural practices that are unsustainable in the long run. This includes the use of marginal land for crops and intense overgrazing, particularly in communal areas.

The NWP is experiencing a soil degradation index of 149, and has the fourth-most degraded soils in South Africa. In the Molopo area grazing capacity has been reduced by 50% as a result of back thorn encroachment. Most communal grazing areas are overstocked by more than 40 times their carrying capacity. Overstocking causes the spread of stock diseases, the damaging of fences and watering places, land degradation and increased water consumption. Figure 8 shows the GVA distribution for the NWP agricultural, forestry and fishing sector for 2004.

Figure 8: GVA distribution for the NWP agriculture, forestry and fishing sector, 2004



Source: NWP 2008a

The NWP is one of the poorest provinces in South Africa. The provincial gross geographic product of R3 964 per person is well below the national average of R6 498. The Gini coefficient, a measure of income inequality, is above 0.6 in the province, placing it among the most unequal regions in the world (NWP 2005b).

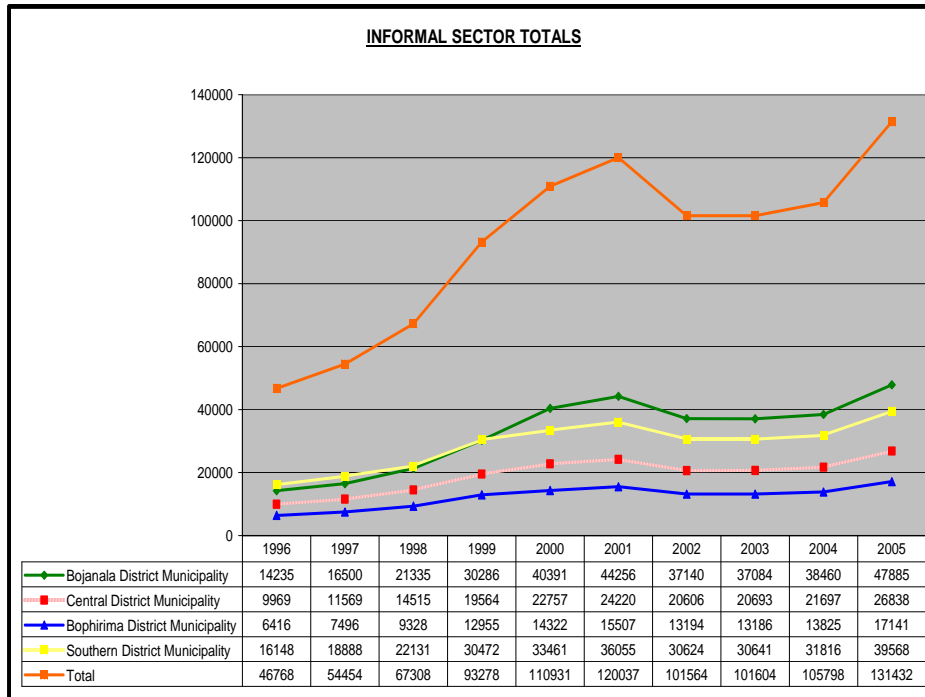
## 2.5 The informal sector in NWP

The informal sector can be classified as a growing sector although a lack of policy to facilitate and

accommodate its role limits the potential for it to evolve from the second economy to the first.

Figure 9 shows the informal sector total for the NWP in 2006. The numbers on the graph and in the table represent informal-sector employment opportunities.

**Figure 9: Informal sector totals within NWP, 2006**



Source: NWP 2007

## 2.6 Access to housing and services

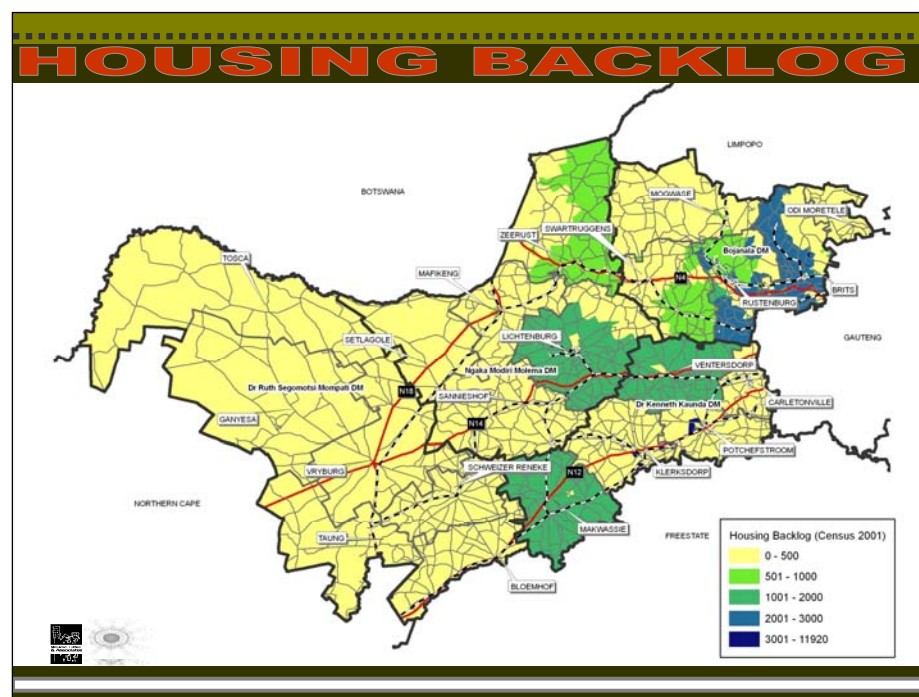
Figure 10 shows access to basic services within NWP for 2007. The map in this figure represents the gap or backlogs in terms of service provision. From Figure 10 the conclusion can be drawn that the rural areas have restricted access to services. Figure 11 shows the housing backlog within the province for 2001.

**Figure 10: Access to basic services within NWP, 2007**



Source: NWP 2008a

**Figure 11: Housing backlog in NWP, 2001**



Source: NWP 2008a; Stats SA 2001

## 2.7 Unemployment, poverty and income equalities

The estimated unemployment rate in NWP is 44.9%, slightly higher than the national average in South Africa. The unemployment rate among women is above 50%.

In the analysis of unemployment rates it is important to make a distinction between the official definition of unemployment and the expanded definition of the unemployed. The official definition of unemployment is given as ‘those people within the economically active population who a) did not work during the seven days prior to the interview, b) want to work and are able to begin work within a week of the interview and c) have taken steps to look or start some form of self employment in the four weeks prior to the interview’ (NWP 2007: 7).

The expanded definition of unemployment, on the other hand, is ‘those people within the economically active population who a) did not work during the seven days prior to the interview and b) want to work and are able to begin work within a week of the interview. It also includes the discouraged job seekers (those who say they were unemployed but have not taken steps to find work in the four weeks prior to the interview)’ (NWP 2007: 7).

The official provincial unemployment rates according to these two definitions are summarised in Table 4. According to the official definition of unemployment, the provincial unemployment rate was 27.4% in 2005, while the comparative figure based on the expanded definition of unemployment was 44.9%.

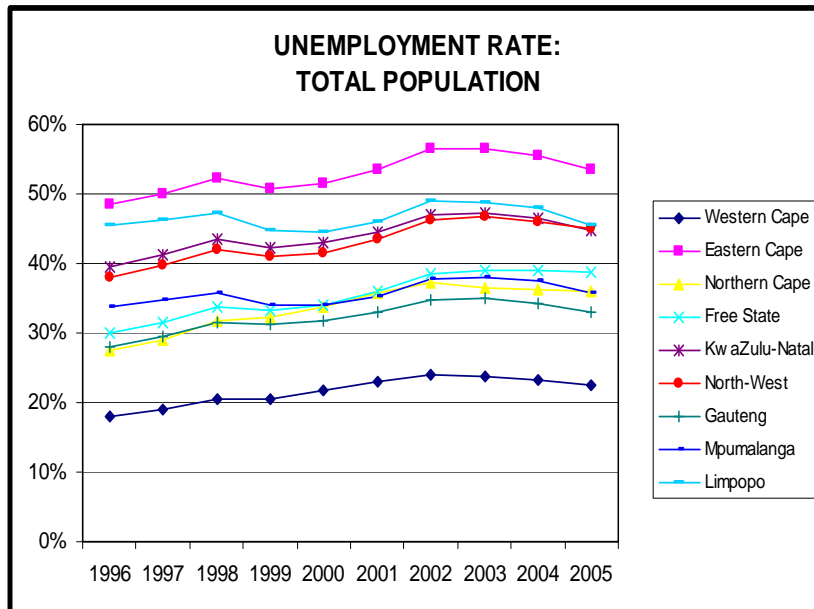
**Table 4: Unemployment within NWP, 2001–2005**

Definition of unemployment	2001	2003	2004	2005
Official unemployment rate (%) *	28.6	28.4	28.0	27.4
Expanded definition of unemployment (%) **	43.6	46.7	46.0	44.9

Sources: \* Stats SA 2006 data used in the preparation of the NWPGDS (NWP 2005a, 2008c); \*\* Global Insight 2006

Figure 12 shows the unemployment rate within the national space economy for the period 1996–2005, by province. The figure for NWP follows a patterns similar to that for the other provinces and is the fourth-highest on a national level.

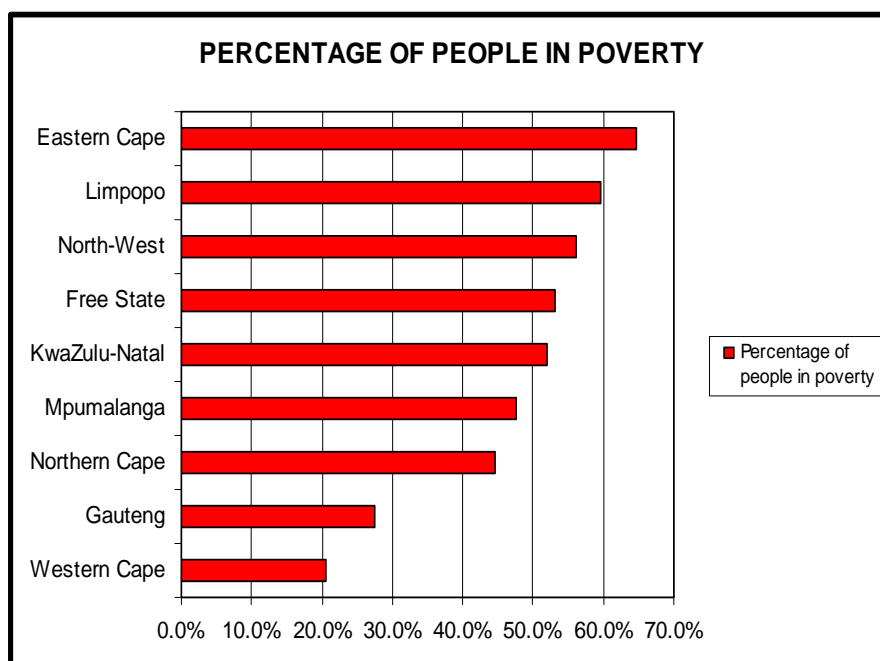
**Figure 12: Unemployment figures within the national space economy, by province, 1996–2005**



Source: NWP 2007

Rural poverty and rural-urban income differences aggravate the social problems, which often express themselves in the form of violence, crime and high rates of HIV infection, estimated to be between 30% and 40% among some population groups in NWP. Figure 13 shows the percentage of the population living in poverty in 2006, by province. NWP has the third-highest percentage of people living in poverty within the national space economy.

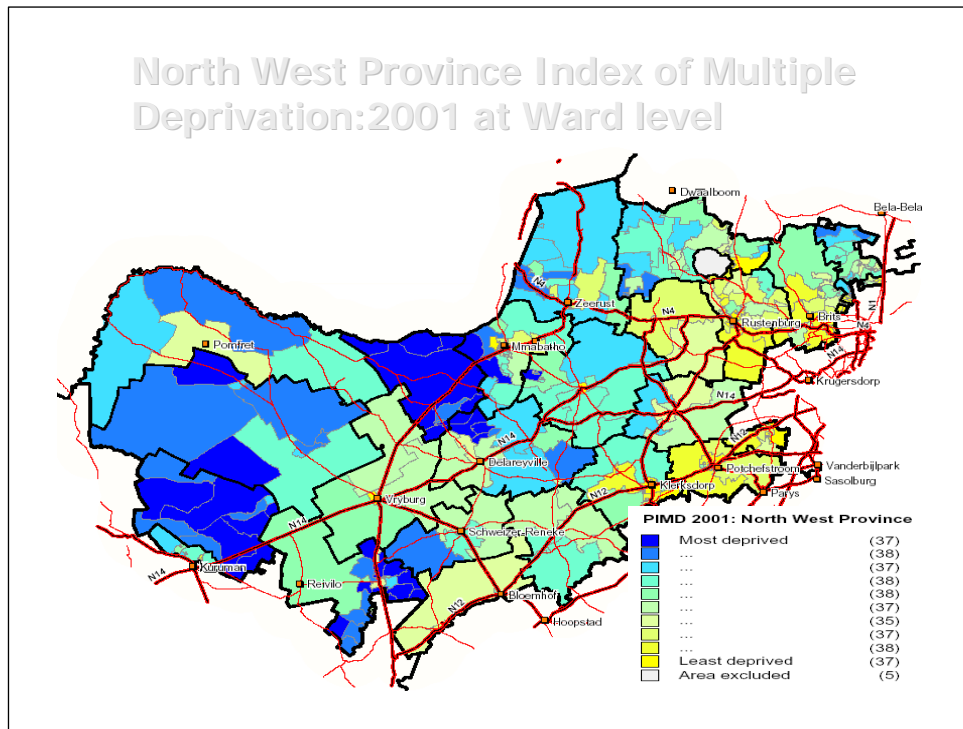
**Figure 13: Percentage of the population living in poverty, by province, 2006**



Source: NWP 2007

Figure 14 shows the index of multiple deprivation at ward level within NWP for 2001.

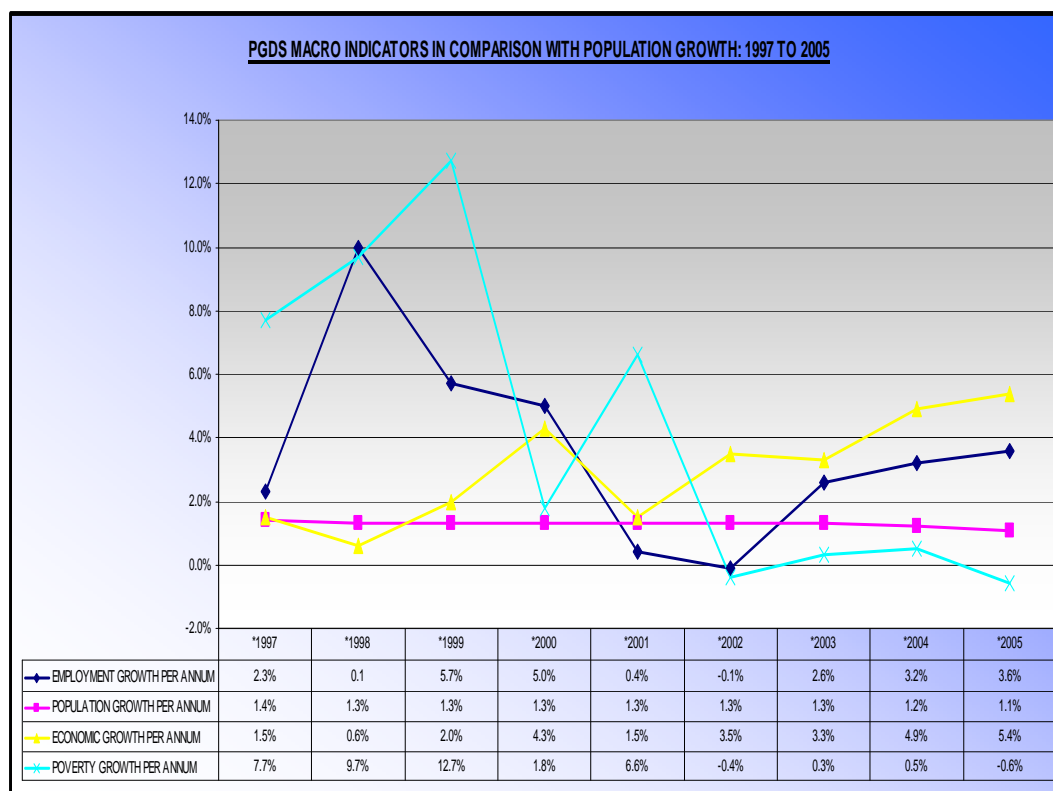
**Figure 14: NWP index of multiple deprivation at ward level, 2001**



Source: NWP 2007

Figure 15 presents the PGDS indicators in comparison with population growth in NWP for the period 1997–2005.

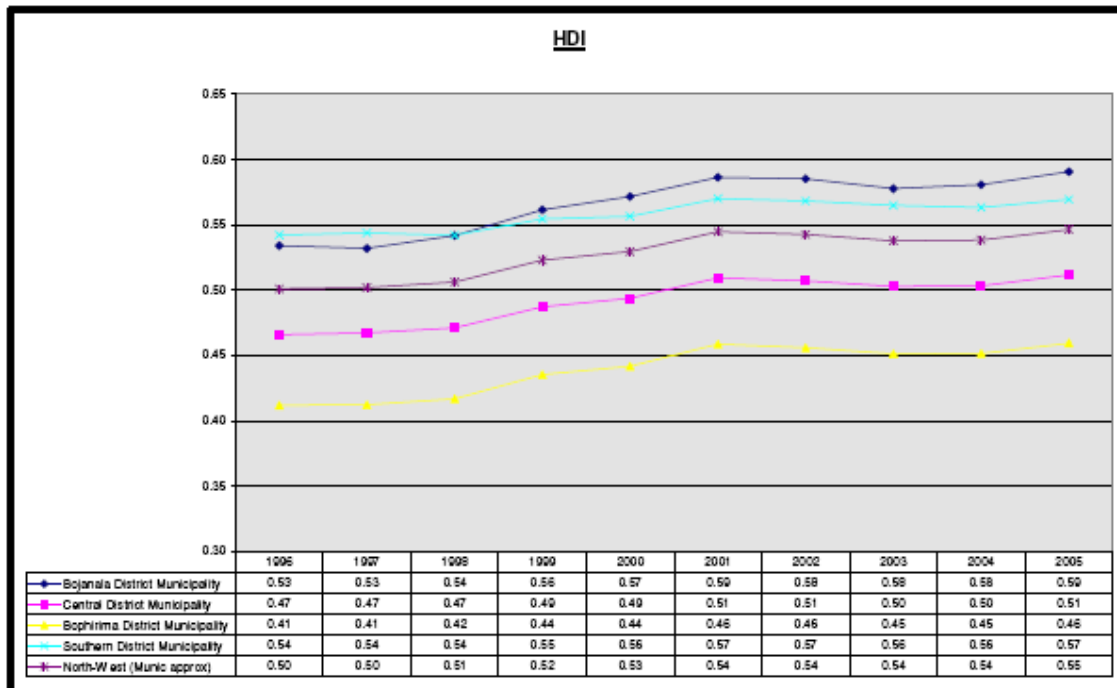
**Figure 15: PGDS macro indicators in comparison with population growth in NWP, 1997–2005**



Source: NWP 2007

The Human Development Index (HDI) for NWP for the period 1995–2005 is illustrated in Figure 16. The overall HDI in the province has improved from 0.50 in 1996 to 0.55 in 2005. The districts with the highest average HDI values are the Bojanala Platinum District Municipality (with a value of 0.59) and the Southern District Municipality (0.57). The figures for the Central District Municipality (0.51) and Bophirima District Municipality (0.46) are well below the provincial average of 0.55 (NWP 2007).

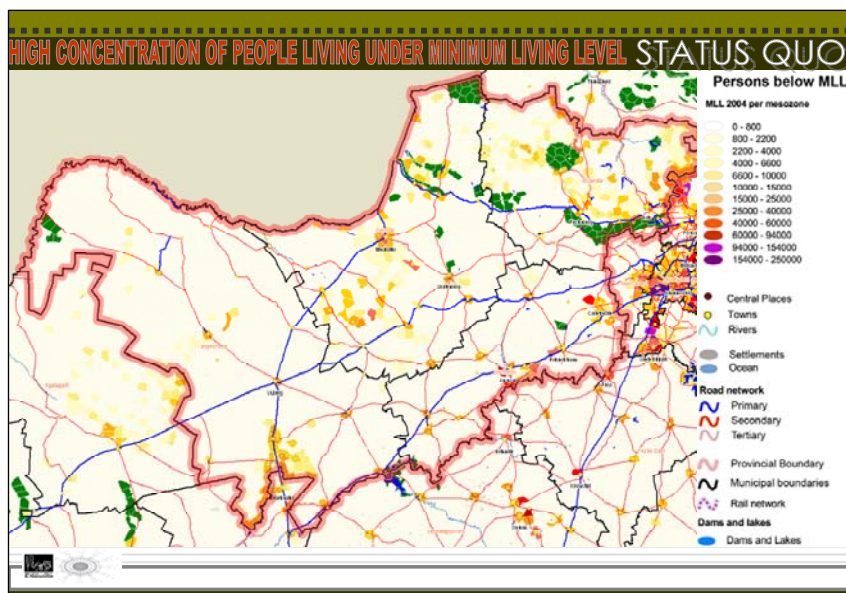
Figure 16: Human Development Index in NWP, 1995–2005



Source: Global Insight 2006

Figure 17 shows the distribution of the population within NWP living below the Minimum Living Level (MLL) in 2004. From Figures 16 and 17 the conclusion can be drawn that in general in NWP, the further away from the urban nodes the population resides, the further it can be classified below the MLL.

Figure 17: Distribution of population in NWP living below the MLL

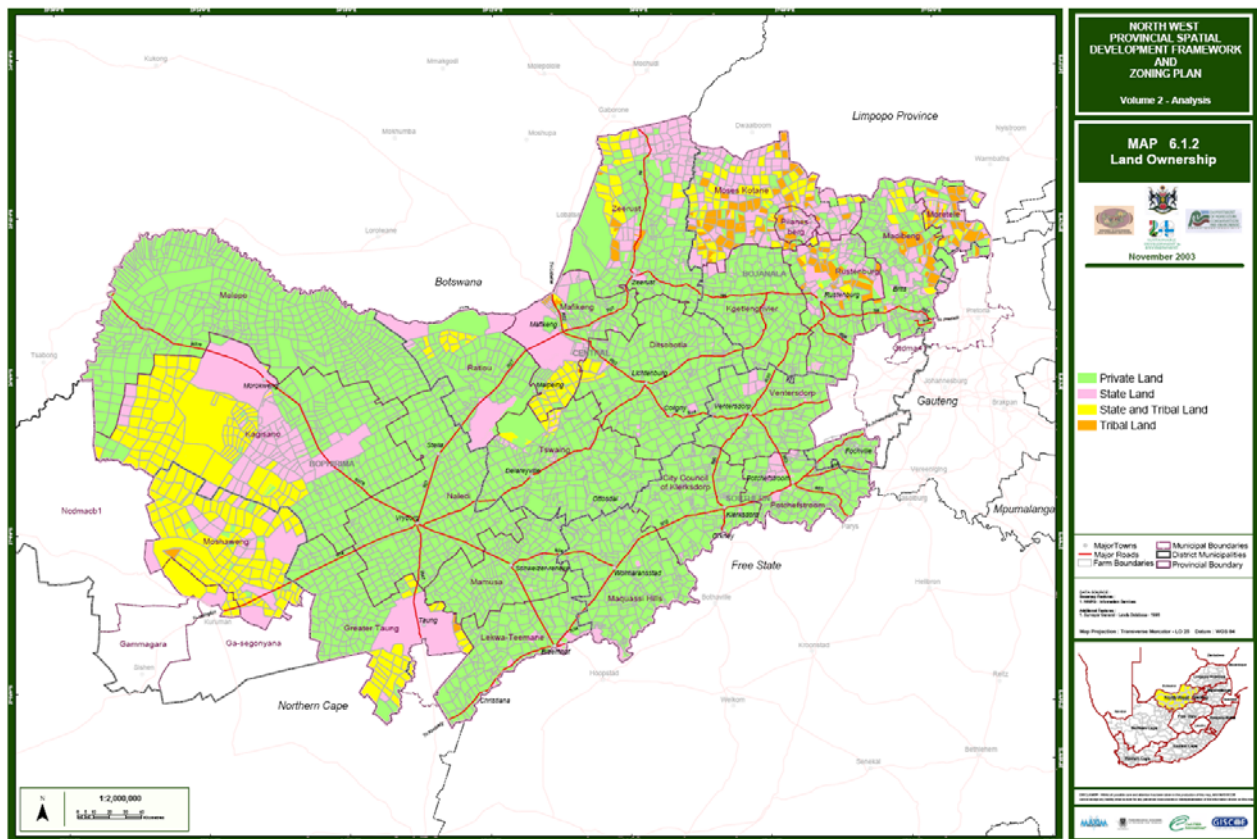


Source: NWP 2008a

## 2.8 Land reform

The nature of land ownership in NWP is indicated in Figure 18. The present status of land tenure is complex, with the majority of land being privately owned. Approximately 10% is state-owned, and large areas are under tribal administration, particularly in the former Bophuthatswana homeland areas of eastern Ngaka Modiri Molema and Bophirima regions. NWP is, furthermore, a predominantly rural province, with some 60% of the population living in rural areas; the more populous industrial centres include Rustenburg, Brits and Ga-Rankuwa in the eastern region of the province.

Figure 18: Land ownership within the NWP



Source: NWP 2005b

Land as a resource forms the backbone of the development of every economy. The application of apartheid-era land policies (the Group Areas Act, the Resettlement of Blacks Act, etc.) within the NWP mainly focused on the following:

- forced removals of the black population;
- support of racial segregation;
- prohibition of certain groups, mainly blacks, from having access to land;
- dispossession of land owned by blacks;
- eviction of farm workers and labour tenants;
- legal insecurity of land occupied by blacks;
- insecurity of tenure for rural dwellers;



- prohibition of blacks from securing housing subsidies and other development finance; and
- legal restriction on women's access to land.

The current land policy in South Africa has the goal of addressing the apartheid legacy, inter alia:

- the injustice of racially based land dispossession of the past;
- the need for a more equitable distribution of land ownership;
- the need for land reform to reduce poverty and contribute towards economic growth;
- security of tenure for all; and
- a system of land management that will support sustainable land use patterns and rapid land release for development.

The land policy is reflected in the land reform programme, consisting of three principle sub-programmes, namely land distribution, land restitution and land tenure reform.

Various land reform programmes are currently being implemented in order to provide access to land for landless communities and emerging farmers, as illustrated in Table 5. Due to the fact that the geographical location of these projects is not available, their spatial distribution and impact cannot be determined. The numbers of affected households for all the projects listed are also not available (NWP 2005b). The implementation of the land reform programme will address some of the land issues inherited from the past, but will not address the disjointedness within the provincial space economy as far as normalised land practices are concerned.

**Table 5: Land reform and distribution projects in NWP, 2005**

Municipality	Commonage	Settlement	Settlement & production	Settlement & mining	Agricultural production	LRAD	State land	New application	Total
Southern District	(3)* 3 634 ha	(2) 3 480 ha	(6) 2 322 ha	(2) 1 132 ha	(3) 1 750 ha	(4) 376 ha	0 ha	0 ha	(20) 12 704 ha
Central District	(3) 1 910 ha	(1) 3 200 ha	(4) 4 290 ha	0 ha	(4) 991 ha	(9) 1 545 ha	(22) 6 929 ha	(2) 2 234 ha	(45) 2 1099 ha
Bojanala District	(2) 1 010 ha	(6) 4 112 ha	0 ha	0 ha	(7) 505 ha	0 ha	(19) 2 9480 ha	(8) 174 ha	(42) 35 281 ha
Bophirima District	(1) 20 ha	(2) 26 050 ha	(2) 1 791 ha	0 ha	(29) 24 775 ha	0 ha	(26) 47 460 ha	(1) 703 ha	(61) 100 799 ha
Total NWP	(9) 2 574 ha	(11) 3 6842 ha	(12) 8 413 ha	(2) 1 132 ha	(43) 28 021 ha	(13) 1 921 ha	(27) 83 869 ha	(11) 3 111 ha	(168) 169 883 ha

Source: NWP 2005b

Note: \* Numbers in parentheses indicate the number of projects of each type in the municipality.

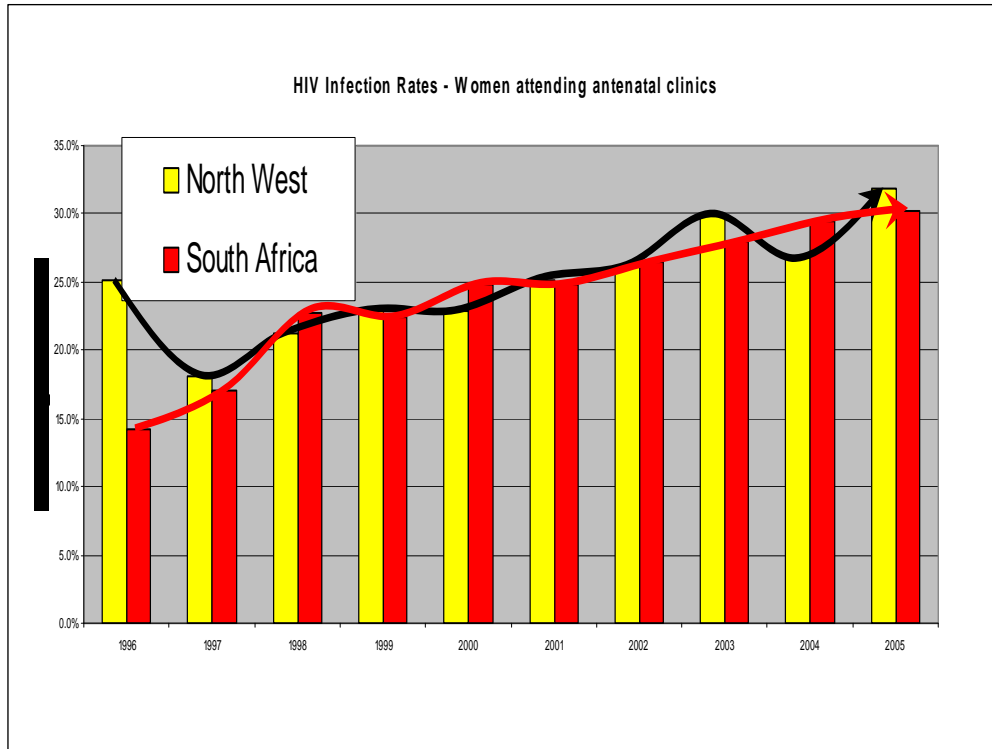
## 2.9 Health and related issues

Rural poverty and rural-urban income differences aggravate the social problems in NWP, which often results in social disorder including high rates of HIV infection, estimated to be between 30% and 40% among some population groups. Figure 19 shows the HIV infection rates within the province (1996–2005), in relation to the national trend. Generally the NWP infection rate follows a similar trend to the national rate.

Between 1999 and 2001 the HIV prevalence rate (as measured among antenatal clinic attendees) in NWP increased from 22.9% to 25.2%. This is a high rate of prevalence compared with the 8.8% for sub-Saharan Africa on average, or even the 0.3% prevalence rate in Western Europe. According to the

AIDS committee of the Actuarial Society of South Africa, about 26.7% of all deaths in the North West in 2000 were due to AIDS, and this could rise to 67.4% by 2010 if no interventions were taken.

**Figure 19: HIV infection rates within NWP and nationally, 1996–2005**



Source: NWP 2007

## 2.10 The environmental context

As part of South Africa’s ongoing environmental reporting programme, the NWP developed a Provincial State of the Environment Report (NWSOER) in 2002 (NWP 2002). This follows on from the preliminary SoER compiled by the province in 1995 and is supported through the national reporting initiative of the Department of Environmental Affairs and Tourism (DEAT).

The concept of sustainable development integrates the intricate linkages between:

- economic stability and viability;
- ecological/environmental integrity; and
- social well-being or equity.

All growth and development activities have a major influence on the environment because of their reliance and impact on natural resources (e.g. water, land, energy, vegetation, animals) to create wealth and employment. Resources are depleted or degraded, and wastes are produced that are detrimental to the environment. In general, areas of high economic activity experience the most severe environmental problems (e.g. Rustenburg and Brits). The North West Spatial Development Framework (NWSDF) (NWP 2008a) emphasises that sustainable development means different things to different people. At local level, the primary focus has historically been on the promotion of economic growth and social development while neglecting environmental concerns. However, as the concept of sustainable development gradually finds its way into planning policy and implementation, the emphasis needs to shift from ‘what needs to be done to how it is going to be done’. The NWSDF guides the way in which responses should be formulated to problems of intensified and

unsustainable demand for land, uncontrolled urbanisation and the subsequent degradation of ecosystems, agricultural land and other ecological resources. Sustainable development is a priority that cuts across all spheres of government and sectors and needs to be considered by planners, all spheres of government and communities.

### 3. The planning system as applied in NWP

The planning system applicable in South Africa pivots on the policy and legislative framework developed since democratisation in 1994. Most of this framework was developed in order to rectify the social, economic and spatial imbalances created through the previous political dispensation. The Green Paper on Development and Planning (DLA 1999) identified the following milestones in South African planning history:

- from 1910 to the 1930s: the spread of influence of the British method of planning;
- the 1930s, the Second World War, and post-war construction efforts;
- the post-1948 era and Grand Apartheid;
- the period following the Soweto uprising of 1976;
- post-1995 late-apartheid reforms.

These milestones identified in the Green Paper are of historical value only. Of importance to the discussion in this paper is the fact that, notwithstanding the historical value of identifying timeframes, the results of planning actions undertaken during the period from 1652 to 1994 should be viewed in totality, from a development perspective. The development implications of the historical spatial planning and development practices in South Africa have been well documented by various researchers including Dewar et al. (1984), Tomlinson (1990), Swilling (1991), Mabin and Smit (1997), Planact (1997), Tillman and Wall (1997), Dewar and Todeschini (1999), the Green Paper on Development and Planning (1999), the Council for Scientific and Industrial Research (CSIR 2000) and the White Paper on Spatial Planning and Land Use Management (Department of Agriculture and Land Affairs 2001). Of more significant value to this paper is the planning system that was developed to address these development implications.

Table 6 contains the core planning policies and legislation applicable to planning and development in South Africa, and more specifically to the situation in NWP. The content of the policy and legislative framework also contains certain environmental legislation.

**Table 6: National and provincial core policies, legislative framework and guidelines applicable to environmental management, spatial planning and land use management in NWP**

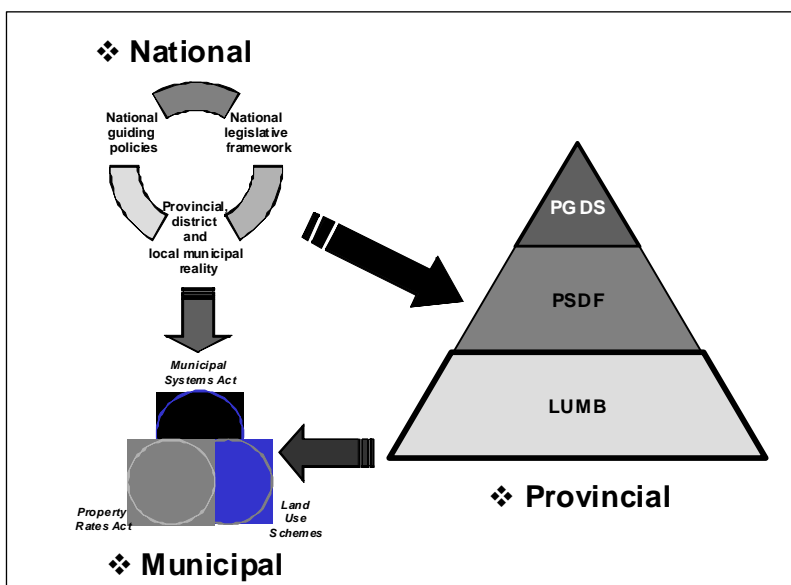
Policy	Legislation	Guidelines
<ul style="list-style-type: none"> <li>▪ Reconstruction and Development Programme (ANC 1994)</li> <li>▪ Growth, Employment and Redistribution Strategy (GEAR) (1996)</li> <li>▪ White Paper on South African Land Policy (1997)</li> <li>▪ Urban Development Framework (1997)</li> <li>▪ Rural Development Framework (1997)</li> <li>▪ Green Paper on Development Planning (National Development</li> </ul>	<p><i>Existing core legislation:</i></p> <ul style="list-style-type: none"> <li>▪ Constitution of the Republic of South Africa (Act No. 108 of 1996)</li> <li>▪ Bill of Human Rights (1996)</li> <li>▪ Municipal Structures Act (No. 117 of 1998)</li> <li>▪ Restitution of Land Rights Act (No. 22 of 1993)</li> <li>▪ Interim Protection of Informal Rights Act (No. 76 of 1995)</li> <li>▪ Prevention of Illegal Eviction from Unlawful Occupation of</li> </ul>	<ul style="list-style-type: none"> <li>▪ <i>IDP Manuals</i> IDP Guide Pack – Guide III – Methodology IDP Guide Pack – Guide V – Sectors and Dimensions IDP Guide Pack – Guide VI – Implementation Management (Department of Provincial and Local Government 2001)</li> <li>▪ Resource Document on the Chapter 1 Principles of the Development Facilitation Act, 1995 (DLA 1995)</li> </ul>

<p>and Planning Commission, Department of Land Affairs, May 1999)</p> <ul style="list-style-type: none"> <li>▪ White Paper on National Transport Policy (1996)</li> <li>▪ Moving South Africa (1997 and 1999)</li> <li>▪ White Paper on Local Government (1998)</li> <li>▪ Strategic Environmental Assessment in South Africa (2000)</li> <li>▪ Integrated Sustainable Rural Development Strategy (2000a)</li> <li>▪ White Paper on Spatial Planning and Land Use Management (Department of Agriculture and Land Affairs 2001)</li> <li>▪ National Spatial Development Perspective (2003)</li> <li>▪ Mining Charter (2003)</li> <li>▪ Construction Charter (2005 and 2007)</li> <li>▪ King Report on Corporate Governance for South Africa (2002)</li> <li>▪ Convention on Biological Diversity (2006)</li> <li>▪ Minimum requirements for the Classification, Handling and Disposal of Hazardous Waste (2nd Edition) (Department of Water Affairs and Forestry 1998)</li> <li>▪ White Paper on Integrated Pollution and Waste Management for South Africa (2000b)</li> <li>▪ White Paper on Water and Sanitation (1994)</li> <li>▪ National Framework for Sustainable Development (206)</li> <li>▪ National Spatial Development Perspective (2006)</li> <li>▪ Housing Atlas (2005)</li> <li>▪ NWPGDS (NWP 2005a; 2007; 2008c)</li> <li>▪ NWPSDF (NWP 2005b) and NWSDF (NWP 2007; NWP 2008a, 2008b)</li> <li>▪ NWSOER (NWP 2002)</li> <li>▪ Various Strategic Environmental Assessments</li> <li>▪ Integrated Development Plan (IDP) documents for DMs and LMs</li> <li>▪ Draft Land Use Policy Framework for the NWP (2008c)</li> </ul>	<p>Land Act (No. 19 of 1998)</p> <ul style="list-style-type: none"> <li>▪ Reconstruction and Development Programme Act (No. 79 of 1998)</li> <li>▪ Municipal Systems Act (No. 32 of 2000) and Regulations on Municipal Planning and Performance, 2001 (Regulation R796)</li> <li>▪ Development Facilitation Act (No. 67 of 1995) – Chapter 1 Principles</li> <li>▪ Subdivision of Agricultural Land Act (No. 70 of 1970)</li> <li>▪ Agricultural Resources Act (No. 43 of 1983)</li> <li>▪ Minerals Act (No. 50 of 1991)</li> </ul> <p><i>Draft legislation:</i></p> <ul style="list-style-type: none"> <li>▪ Land Use Management Bill (Draft 2006)</li> </ul> <p><i>Other National Acts that must also be taken into consideration:</i></p> <ul style="list-style-type: none"> <li>▪ Advertising on Roads and Ribbon Development Act (No. 21 of 1940)</li> <li>▪ Fencing Act (No. 31 of 1963)</li> <li>▪ Health Act (No. 63 of 1977)</li> <li>▪ National Building Regulations and Building Standards Act (No. 103 of 1977)</li> <li>▪ Urban Transport Act (No. 78 of 1977)</li> <li>▪ National Road Traffic Act (No. 93 of 1996)</li> <li>▪ National Veld and Fire Forest Act (No. 101 of 1998)</li> <li>▪ National Heritage Resources Act (No. 25 of 1999)</li> <li>▪ Land Transport Transition Act (No. 22 of 2000)</li> <li>▪ Water Act (No. 54 of 1956)</li> <li>▪ National Water Act (No. 36 of 1991)</li> <li>▪ Water Services Act (No. 108 of 1997)</li> <li>▪ Environment Conservation Act (No. 73 of 1989)</li> <li>▪ Physical Planning Act (No. 125 of 1991)</li> <li>▪ Less Formal Township Establishment Act (No. 113 of 1991)</li> <li>▪ Occupational Health and Safety Act (No. 85 of 1993)</li> <li>▪ Local Government Transition Act (No. 209 of 1993)</li> <li>▪ Housing Act (No. 107 of 1997)</li> </ul>	<ul style="list-style-type: none"> <li>▪ Strengthening Sustainability in the Integrated Development Planning Process. National Framework Document (Department of Environmental Affairs and Tourism 2002)</li> <li>▪ Strategic Environmental Assessment in South Africa. Guideline Document. (Department of Environmental Affairs and Tourism 2000)</li> <li>▪ <i>Environmental Management Information Series</i> (Department of Environmental Affairs and Tourism, 2004– 2006)</li> <li>▪ Green Paper on Development Planning (National Development and Planning Commission, Department of Land Affairs, May 1999)</li> <li>▪ White Paper on Spatial Planning and Land Use Management (Department of Agriculture and Land Affairs 2001)</li> <li>▪ Housing Code (Department of Housing 2000)</li> <li>▪ Guidelines for the provision of engineering services and amenities in residential township development (CSIR 1994)</li> <li>▪ Human Settlement Planning and Design (CSIR 2000)</li> <li>▪ Municipal Infrastructure Grant Guidelines (2005)</li> </ul> <p><i>Other sources:</i></p> <ul style="list-style-type: none"> <li>▪ Global Biodiversity Strategy: Guidelines for action to save, study and use earth's biotic wealth sustainably and equitably (WRI, IUCN &amp; UNEP 1992)</li> <li>▪ Balancing the Scales: Guidelines for increasing Biodiversity's Chances through Bioregional Management (WRI 1996)</li> </ul>
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- National Land Transport Interim Arrangements Act (No. 45 of 1998)
- National Environmental Management Act (No. 107 of 1998)
- The South African National Roads Agency Limited and National Roads Act (No. 7 of 1998)
- World Heritage Convention Act (No. 49 of 1999)
- National Heritage Resources Act (No. 27 of 1999)
- Promotion of Access to Information Act (No. 2 of 2000)
- Promotion of Administrative Justice Act (No. 3 of 2000)
- National Transport Transition Act (No. 22 of 2000)
- Municipal Finance Management Act (No. 56 of 2003)
- Biodiversity Act (No. 10 of 2004)
- Environmental Management: Protected Areas Act (No. 57 of 2003) (Including the Regulations proclaimed GNR. 1061 of 28 October 2005)
- Provincial Ordinances on Town Planning and Townships (Transvaal) (No. 15 of 1986) and (Free State) (No. 9 of 1969)
- Division of Land Ordinance (Transvaal) (Ordinance 20 of 1986)
- Removal of Restrictions Act (No. 84 of 1967)
- Draft Land Use Management Bill for NWP (in process) (2008)

The interface between the different spheres of government responsible for planning is illustrated in Figures 20 and 21.

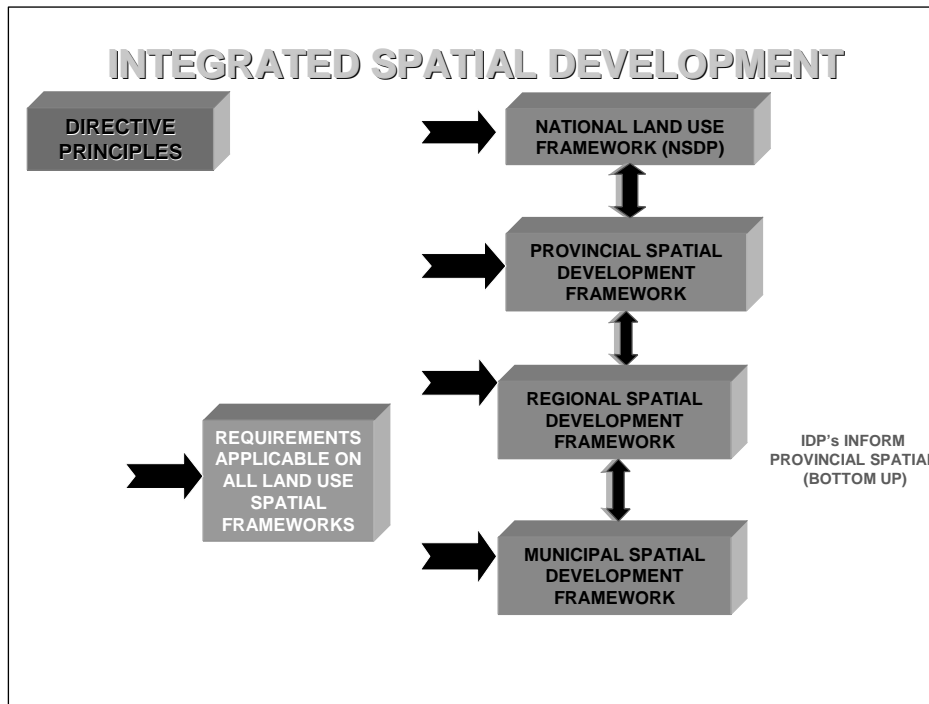
**Figure 20: Simplified interface between the various spheres of government in the application of**



**the planning system in NWP**

Notes: PGDS = Provincial Growth and Development Strategy; PSDF = Provincial Spatial Development Strategy;  
LUMB = Land Use Management Bill

**Figure 21: Integration of elements of the spatial planning system in NWP**



Source: NWP 2005b

Figure 22 shows the stratification of various plans in the provincial sphere to inform spatial planning in the municipal sphere of government.

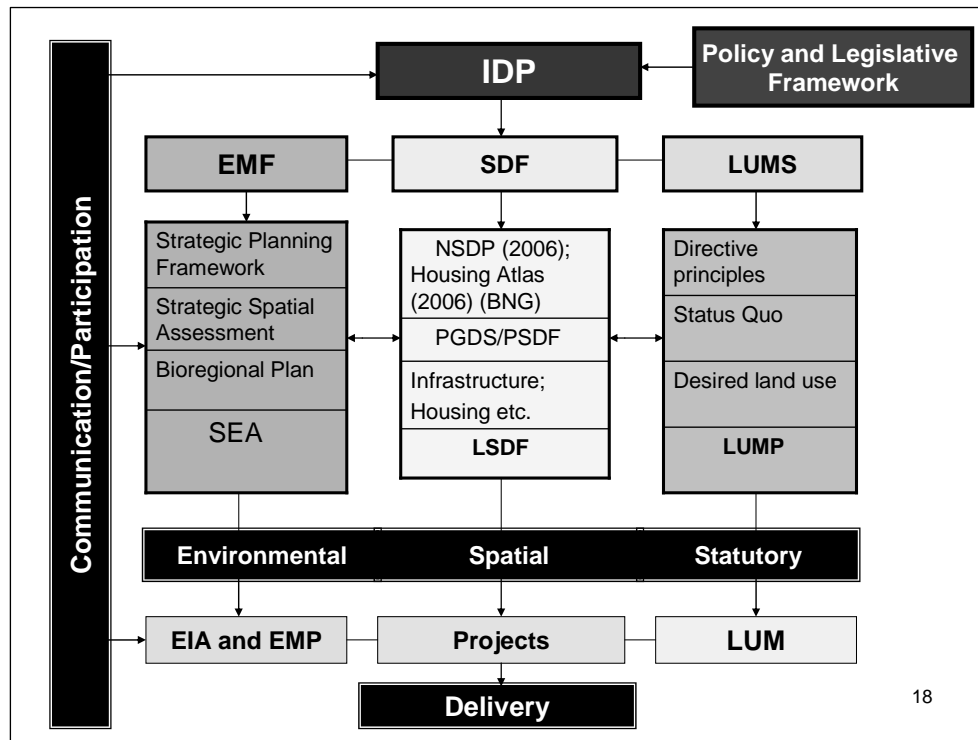
**Figure 22: Hierarchy and stratification of plans informing planning within the municipal sphere of government**



Source: NWP 2005b

The application of the policy and legislative framework within the provincial and local spheres of government in the NWP is shown in Figure 23.

**Figure 23: Core components of the planning system as applied in the NWP and in municipalities**



Note: IDP = Integrated Development Plan; EMF = Environmental Management Framework; SEA = Strategic Environmental Assessment; SDF = Spatial Development Framework; NSDP = National Spatial Development Perspective; BNG = Breaking New Ground; PGDS = Provincial Growth and Development Strategy; PSDF = Provincial Spatial Development Framework; LSDF = Local Spatial Development Framework; LUMS = Land Use Management System; LUMP = Land Use Management Policies; EIA = Environmental Impact Assessment; EMP = Environmental Management Programme; LUM = Land Use Management

The anchor components of the planning system include the applicable policy, legislative and guideline frameworks and integrated development planning (IDP) process. These are underpinned by the sub-components of environmental, spatial and statutory planning frameworks. Each of these sub-components has a provincial and municipal field of application.

Examples of some of the plans referred to above are shown in Figures 24–27.

The preparation of the plans shown in Figures 24–26 is implemented in the municipal sphere of government and includes comprehensive stakeholder consultation. Due to capacity constraints municipalities make use of consulting urban and regional planners and other support capacity such as environmentalists, transportation engineers etc. in the preparation of the plans. On an international level the Finnish government, through the Finnish/South African Project for Sustainable Development and Environment in North West Province (SESDNW) structure, has for the past eight years provided support on a provincial as well as a municipal level in the preparation of several environmental management, spatial development and land use management plans.

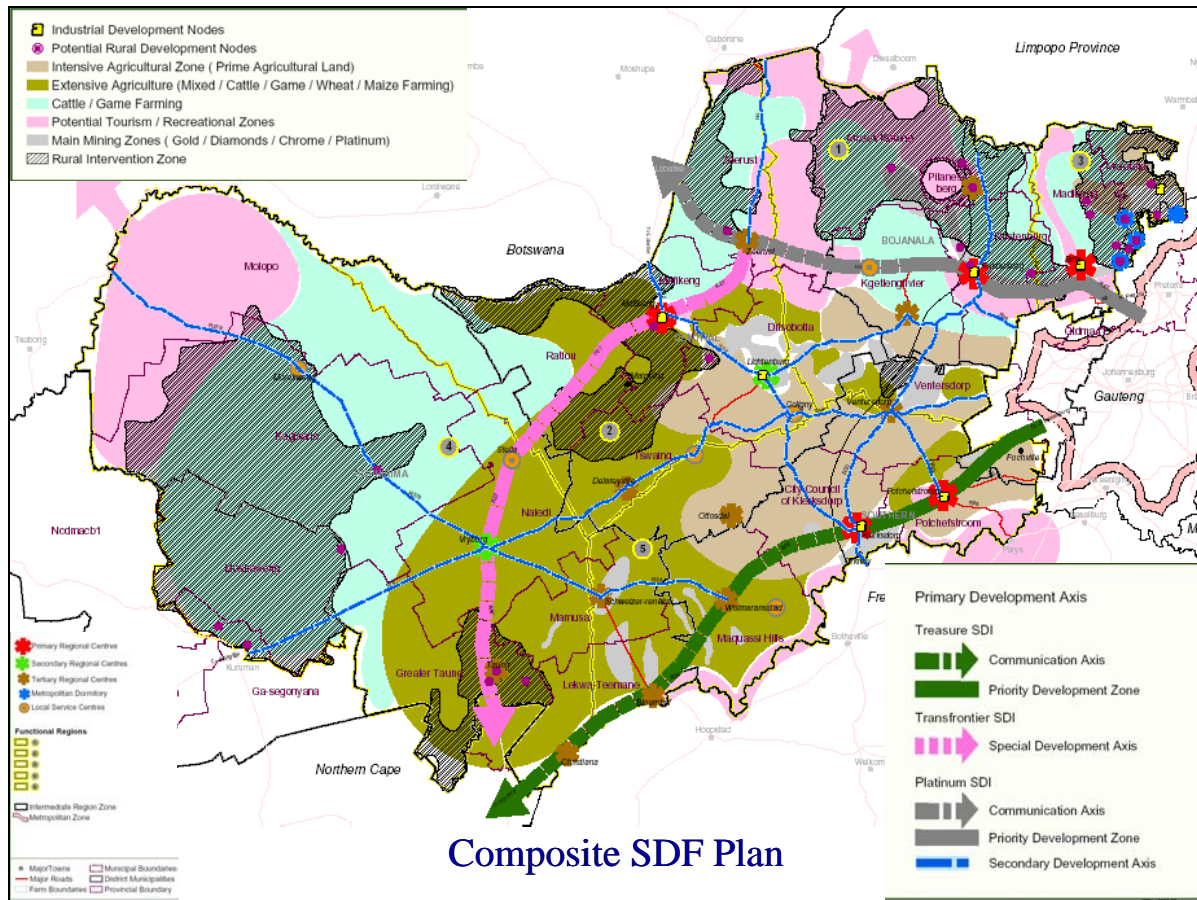
An important element of spatial planning integration relates to the recent preparation of an Integrated Management Plan for the Vrededorp Dome World Heritage Site (VDWHS) that is shown in Figure 27.

All the plans illustrated in Figures 24–27 clearly indicate that the planning system being applied in the NWP focuses on the management of growth and development in a sustainable way. Not only are the plans formulated in an integrated fashion, but they are aligned and coordinated in their formulation to optimise all planning outcomes. During the implementation process all actions are monitored and



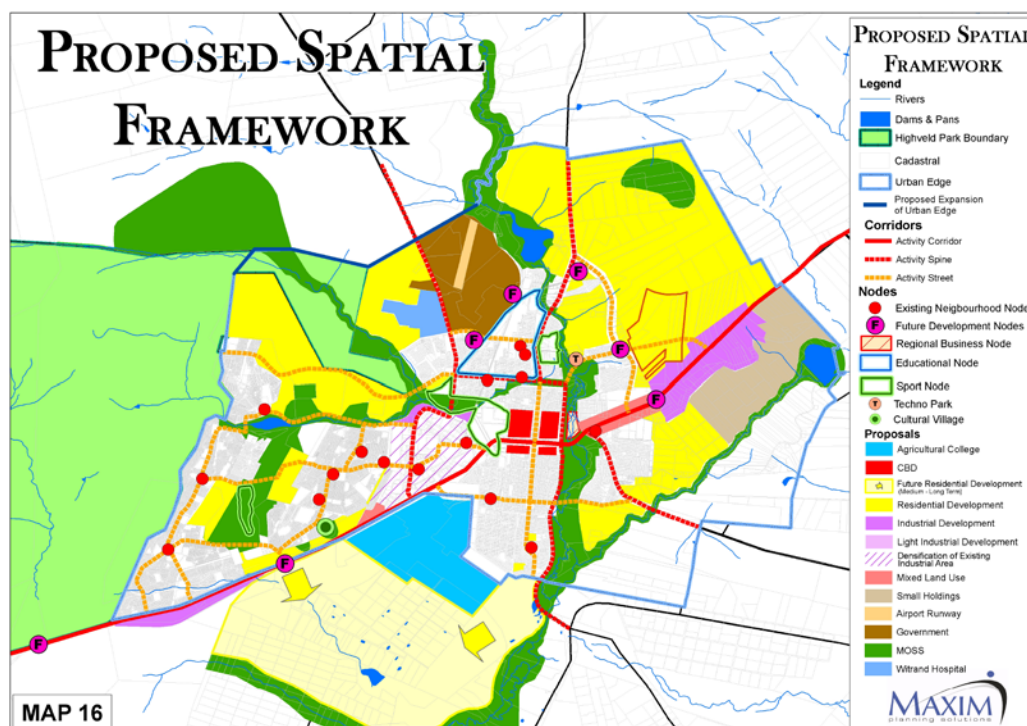
feed back into follow-up plan revision exercises.

Figure 24: Spatial development framework for NWP



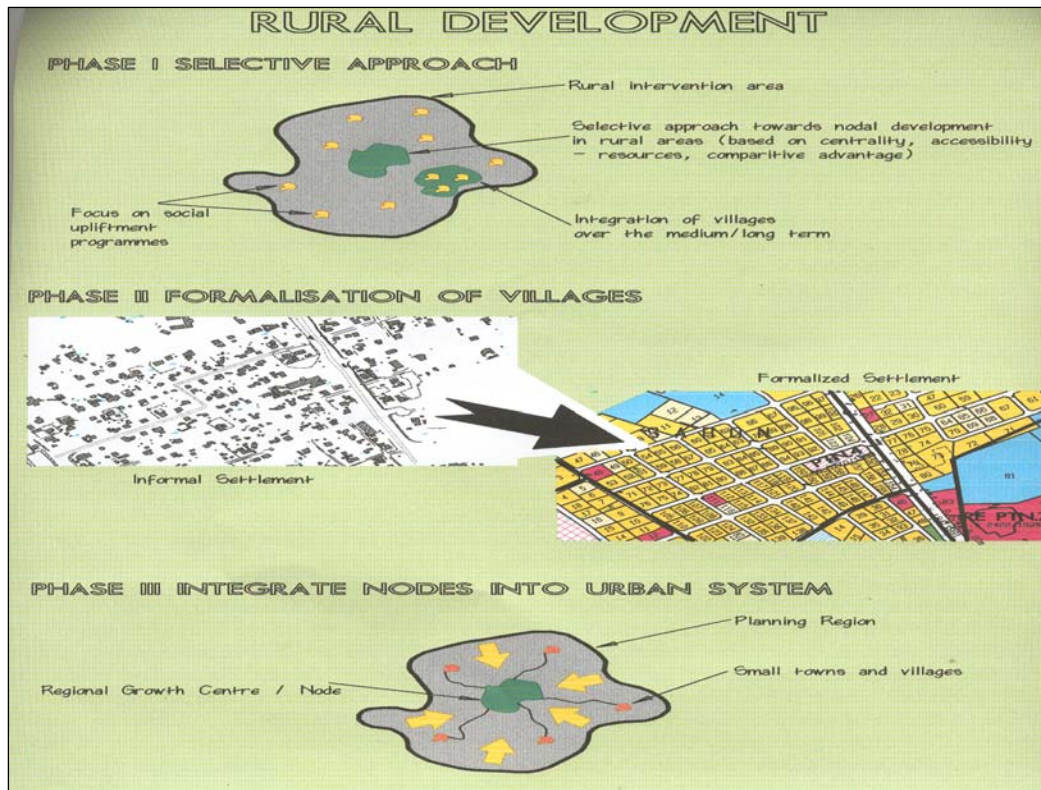
Source: NWP 2005b

Figure 25: Spatial Development Framework for Tlokwe (Potchefstroom) local municipality



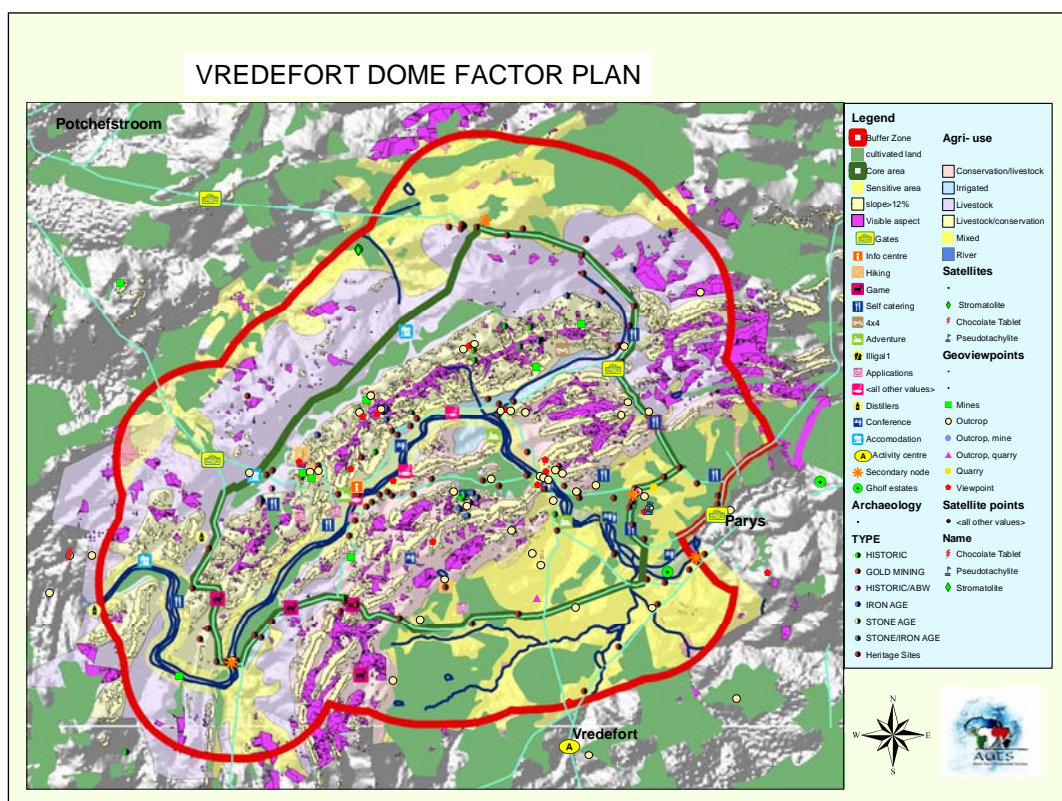
Source: Tlokwe City Council 2008

Figure 26: Spatial planning in rural environments in NWP



Source: NWP 2005b

Figure 27: Vredefort Dome World Heritage Site Factor Plan



Source: Schoeman 2007

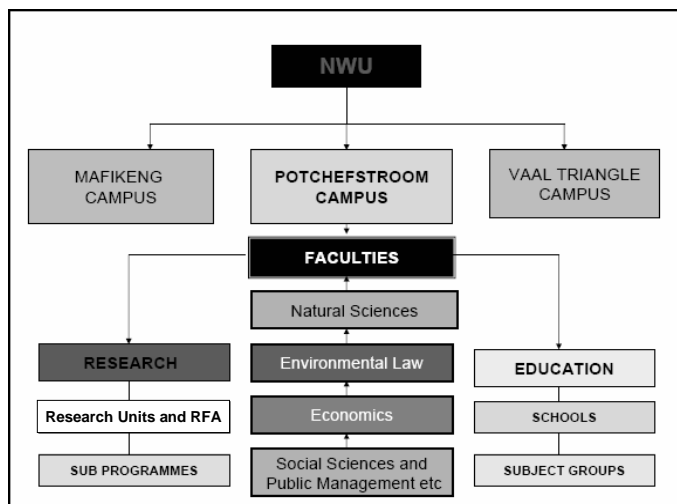
## 4. Planning education at NWU (Potchefstroom Campus)

The Subject Group for Urban and Regional Planning (as it is known today) was established in 1962 as a department within the Faculty of Arts. In 1996, with the restructuring of the then PU for CHE, the department was transformed into a Subject Group and was located within the newly established School for Environmental Sciences and Development in the Faculty of Natural Sciences. Since 2004 the PU for CHE has been incorporated into the North West University (NWU), which consists of three campuses, the Potchefstroom Campus, Mafikeng Campus (previously known as the University of North West) and the Vaal Triangle Campus (Van der Bijl Park).

### 4.1 Organisational structure

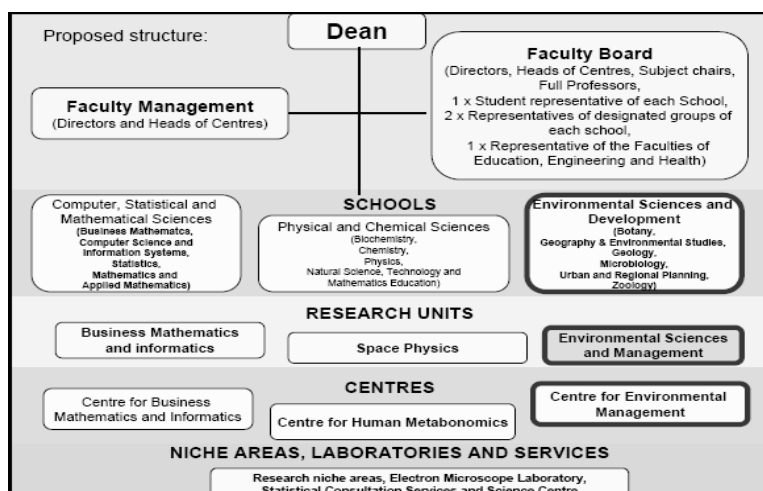
Figures 28–29 present an overview of some of the organisational structures of NWU, with special reference to faculties on the Potchefstroom Campus. Figure 29 shows the organisational structure of the School for Environmental Sciences and Development within the Faculty of Natural Sciences with reference to the Subject Group for Urban and Regional Planning.

Figure 28: Organisational structure of NWU



Source: NWU 2007

Figure 29: Organisational structure of the Faculty of Natural Science at the Potchefstroom Campus of the NWU



Source: NWU 2007

## 4.2 Content of the urban and regional planning curriculum

Three programmes in urban and regional planning are offered at NWU (Potchefstroom Campus): a Bachelor of Arts and Sciences (B Art et Sc) (Planning), a Master of Arts and Sciences (M Art et Sc) (Planning) and a PhD (Urban and Regional Planning). Table 7 summarises the main features of the three programmes.

**Table 7: Programmes in urban and regional planning offered at NWU (Potchefstroom Campus)**

	<b>B Art et Sc (Planning)</b>	<b>M Art et Sc (Planning)</b>	<b>PhD (Urban and Regional Planning)</b>
<b>Programme curriculum</b>	<ul style="list-style-type: none"> <li>▪ Curriculum N140P (with Geography)</li> <li>▪ Curriculum N141P (with Economy)</li> <li>▪ Curriculum N146 (with Geography and Economy) (articulation since 2007)</li> </ul>	<ul style="list-style-type: none"> <li>▪ Curriculum N825P (Dissertation)</li> </ul>	<ul style="list-style-type: none"> <li>▪ Curriculum N912P (Thesis)</li> </ul>
<b>Content</b>	Coursework and mini-dissertation	Dissertation based on research	Thesis based on research project
<b>Format</b>	Full-time	Full-time or part-time	Full-time or part-time
<b>Year of initiation</b>	1962	1962	1962
<b>Duration</b>	Minimum 4 years, maximum 5 years	Full-time: Minimum 1 year, maximum 2 years Part time: Minimum 2 years, maximum 4 years	Minimum 2 years, maximum 4 years
<b>South African Qualifications Authority credits</b>	Curriculum N140P: 576 credits Curriculum N141P: 552 credits Curriculum N146P: 584 credits	Curriculum N825P: 128 credits	Curriculum N912P: 256 credits
<b>Accreditation status</b>	Accredited (2005)	Research-based.	Research-based
<b>Average number of students per year</b>	25–35	5	3
<b>Throughput rates</b>	72%	85%	80%
<b>Qualifications for admittance</b>	Command of Afrikaans or English Grade 12 with university exemption Grade 12 Mathematics: C Grade in cases of Standard Grade 12; D Grade in cases of university exemption Admission based on formal selection process:	Assumed prior learning: Command of Afrikaans or English. Appropriate honour's degree. Knowledge and skills acquired through prior learning and work experience	Assumed prior learning: Command of Afrikaans or English Appropriate master's degree Knowledge and skills acquired through prior learning and work experience

M-Score of 18  
Recognition of assumed  
prior learning

Source: NWU (Potchefstroom Campus) 2008

The course modules included in the B Art et Sc (Planning) programme are set out in Table 8.

**Table 8: B Art et Sc (Planning) course modules\***

Module code	Module name
SBEL111	Historical Development of Cities
SBEL121	Garden Cities and Neighbourhood Theory
SBSL211	Land Use Management and Residential Development
SBSL221	Urban Design
SBSL311	Transport Planning
SBSL321	Industrial and business Planning
SBEL311	Engineering for Planning 1
SBSL 321	Engineering for Planning 2
SBEL421	Integrated Planning Management
SBEL471	Planning Project
SBSL411	Housing Policy and Settlement Issues
SBRL211	Location of Industries, Regional Plans and Formation of Metropolitan Structures
SBRL311	Regional Economics
SBRL321	Regional Theory and Regional Evaluation Techniques
SBRL411	Demographic Aspects of Planning
SBRL412	Application of Regional Planning in South Africa
GGFN	Geography and Environmental Studies
EKNP	Economics
STTK	Statistics
WISK	Mathematics
SOSL	Sociology
ENT	Enterprise
WTNL	Philosophy

Note: \* For detailed information on programme content refer to the website of the university, <http://www.nwu.ac.za/>.

### 4.3 Quality control and programme review

The quality control principles applied at NWU are informed by the approach developed by the Higher Education Quality Committee. Quality control is managed through Academic Support Services on campus. Internal and external evaluation based on standards and criteria are applied to all programmes. Accreditation forms a pivotal role in this regard. The existing quality improvement policy of NWU is being applied.

Inclusion of new modules and amendments to existing modules are considered on an ongoing basis and implemented through the prescribed processes so as to ensure quality. Feedback from students and practitioners forms an important element in improving the content and outcomes of the programme.

The management of the Subject Group continually review the content of the curriculum in the light of new knowledge gained through research or visits abroad. Global impacts, tendencies and

developments are assessed on a regular basis. Feedback from practitioners and contact with other planning schools also serve important sounding boards in this regard.

#### **4.4 Educational and planning-related philosophy**

The primary goal and objective of the Subject Group for Urban and Regional Planning is to educate and train undergraduate urban and regional planners in terms of the requirements as contained in the Planning Profession Act (No. 36 of 2002). The education philosophy is related to existing and scientifically deduced planning and development realities as applicable to the South African situation.

Global realities, tendencies and developments form an important focus in this regard. The core focus is to produce critical thinkers, and not simply practitioners who implement existing planning policy and practices without considering moral and ethical issues and other spatial planning-related elements.

The development of objectivity, creativity, innovative and critical thinking forms the foundation for holistic spatial planning thinkers and analysts. Development of conceptual thinking is considered to be an important focus in the education and training of students.

The nature of the education and planning-related philosophy consists of a combination of interactive, problem-based lecture, studio and community-based activities, and internet-based approaches. It pivots on the need to teach a specific subject in context to predetermined outcomes for each programme and module, but also in the context of best international practices. A formative assessment approach is followed in all curricula offered. This includes symposia, class tests, examinations and project assignments.

The emphasis of the postgraduate educational and planning philosophy focuses on research-related approaches guided by the needs and practices within specialist areas. It includes a theoretical foundation and a focus on specific empirical applications and best practices. Students at both undergraduate and postgraduate levels are exposed to the most recent literature and ideas in planning through interactive discussions, group work and research.

#### **4.5 Support resources and development support**

Learners have access to extensive library, IT and education support systems. Workspace is provided for undergraduate as well as postgraduate students. Site visits and excursions are organised to build capacity and linkages between theory and practice.

#### **4.6 Marketing of the NWU programme**

The Subject Group focuses on educating and training planners based on international standards so as to serve global as well as national needs. Students throughout South Africa and neighbouring countries enter the programme offered at NWU (Potchefstroom Campus). At the postgraduate level significant numbers of graduates from other planning schools apply for admission to a research master's or doctoral degree.

#### **4.7 Linkages to the planning profession**

Linkages to the planning profession are fostered through guest lectures by visiting researchers, planning practitioners, student exchanges and interaction with the South African Planning Institute (SAPI). Linkages between the planning profession and other related professions are also being promoted. International academic and research cooperation agreements with Breda University of Professional Education in the Netherlands and universities in Finland add further value in terms of international professional linkages. The recent visit by the UK Royal Town Planning Institute to NWU has also created the opportunity to review the quality and content of curricula offered, and their

transformation in terms of international standards.

#### **4.8 Preparing planning students to operate in the 21st century**

The focus of the present programme, supported by dynamic interventions in response to changing needs that are identified through research, and demands emerging in the workplace, ensures that the students are properly equipped to function as professional planners in the 21st century. This objective is also realised through the offering of short courses and support in the application of continued professional development. The ability of planning to function as a profession within a transdisciplinary environment is the main driver in this process.

### **5. Conclusion**

The NWP serves as an appropriate research area in which to educate and train planners at NWU. This opportunity in itself forms an important part of the programme. However, global needs and focal issues in the training of planners, as well as other national planning challenges not present within the NWP, are being addressed so as to ensure that the standard of education in the NWU Subject Group for Urban and Regional Planning is aligned internationally, nationally, regionally and locally. The vision informing all the programmes offered is the creation of professionals who can be employed globally:

*'Educate, train, and deploy locally but orientate globally.'*

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