



VHEMBE DISTRICT MUNICIPALITY
SPATIAL DEVELOPMENT FRAMEWORK

APPROVED FINAL REPORT

July 2007

VHEMBE SPATIAL DEVELOPMENT PLAN

CHAPTER 1

INTRODUCTION AND BACKGROUND

1.1 APPOINTMENT

After a public tendering process, VHEMBE DISTRICT MUNICIPALITY has appointed a service provider to compile a Spatial Development Framework (SDF) for them. The service provider is HANNES LERM & ASSOCIATES (Town Planners) in a joint venture comprising of GLEN STEYN & ASSOCIATES (Development Economists) and MANAGEMENT & DEVELOPMENT STRATEGIES (Development Planners). Following below are the deliverables as expected by the District for the SDF. These deliverables form part of the Terms of Reference as contained in the relevant advertisement as received by the service provider. It is expected by the District that the appointed service provider delivers on these outputs, and that they should be accepted as part of the contract.

1.2 PROBLEM STATEMENT

Previously development policies such as segregation, lack of access to opportunities for the urban poor and urban sprawl are still evident across the Vhembe District despite the progress made by the Government since 1994 in formulating and promulgation of relevant ameliorating spatial planning legislations and policies. To date, fragmentation continues unabated.

Main issues include a displaced urbanization and settlement pattern that is distorted, fragmented, unequal, incoherent and inefficient. Most of the poor are located far way from places of economic, cultural, recreational and educational opportunities. The District is faced with the following challenges in the field of spatial development:

- Dysfunctional spatial pattern and land use management systems
- Uneven social development
- Infrastructure disparities and deterioration
- Skewed and scattered settlement patterns
- Demographic imbalances
- Environmental deterioration

1.3 OBJECTIVES OF THE PROJECT

The main objective of the project is to restructure the current spatial pattern, ensure equity, efficiency, sustainability, integration and economic growth in order to contribute towards eradication of poverty. Such plan shall ensure a well spatially coordinated district and facilitate alignment of municipalities' spatial plans both vertically and horizontally.

The ISDF of Vhembe District will indicate how the IDP of the municipality will be implanted in a spatial context.

1.4 RELATIONSHIP BETWEEN THE SDF AND THE LUMS

The SDF should be flexible and able to change to reflect changing priorities, whereas the land use management scheme should be tighter and only amended where required for a particular development. The SDF should therefore inform the content of the LUMS, rather than to act as a direct source of rights and controls itself. In this regard, the SDF should:

- Only be strategic, indicative and flexible forward planning tool to guide planning and decisions on land development.
- Develop an argument or approach to the development of the area of jurisdiction, which is clear enough to allow decision-makers to deal with the unexpected.
- Develop a spatial logic which guides private sector investment
- Ensure the social, economic and environmental sustainability of the area.
- Establish priorities for public sector investment.
- Identify spatial priorities and places where public-private partnerships are a possibility

In the rural context will be necessary also to deal specifically with natural resource management issues, land rights and tenure arrangements, land capability, subdivision and consolidation of farms and the protection of prime agricultural land.

The purpose of the SDF is not to infringe upon existing land rights but to guide future land uses. The maps should be used as schematic representation of the desired spatial form to be achieved by the municipality in the long-term. The boundaries created through this process should therefore be left for interpretation and not be scaled.

The SDF needs to be informed by the vision of the municipal area, the development objectives and outcomes envisaged for the next 5 years as well as the strategies and outputs identified in the IDP. The SDF is therefore the spatial presentation of the restructuring and transformation objectives of local government also ensuring

that a more sustainable land use pattern and optimum utilization of space are established.

1.5 CONTENTS OF AN SDF

According to the white paper on spatial planning and land use management, The SDF should comprise the following four components:

- Policy for land use management
- Guidelines for land use management
- Capital expenditure framework for spending
- Strategic environmental assessment

The SDF must take the following into consideration:

- Give effect to the development facilitation act (DFA) principles
- Set out objectives that reflect desired spatial form
- Set out basic guidelines for land use management system
- Set out capital investment framework for development programmes
- Incorporate a strategic environmental assessment of the SDF
- Identify programmes and projects for development of land as identified on the IDP
- Be aligned with the neighbouring SDF's
- Provide a visual representation of the desired spatial form of the municipality, which is namely:
 - Must indicate public and private land development and infrastructure investment
 - Must indicate desired/undesired utilization of space
 - Must identify areas where strategic intervention is required
 - Must indicate where priority spending is required

1.6 FORMAT OF THIS REPORT

The SDF document for Vhembe district municipality will consist out of the following:

CHAPTER 1: INTRODUCTION

CHAPTER 2: SPATIAL INTERPRETATION OF THE IDP OF THE
MUNICIPALITY

CHAPTER3: ANALYSIS OF THE CURRENT REALITY

CHAPTER4: DESIRED SPATIAL GOAL

CHAPTER5: IMPLIMENTATION STRATEGIES AND PROGRAMME

CHAPTER6: CONCLUSION

SUPPORTING MAPS AND TABLES

CHAPTER 2

SPATIAL INTERPRETATION OF THE IDP

2.1 MISSION & VISION

2.1.1 Vhembe district municipality

SPATIAL IMPLICATIONS OF THE VISION AND MISSION

The vision of the VHEMBE DISTRICT MUNICIPALITY is as follows:

“Improving the quality of life through sustainable development and services excellence”

The mission of the Vhembe District Municipality is as follows:

The VHEMBE DISTRICT MUNICIPALITY is committed to the improvement of an integrated socio-economic and institutional environment in order to address poverty and promote development

The vision indirectly impact on spatial development through the reference to **“sustainable development”**. The mission also refers to **“promote development”**.

2.1.2 In practice neither the Vision nor the Mission refers directly to Spatial Development and its role in the future development of VHEMBE DISTRICT MUNICIPALITY. We want to propose that the mission of Vhembe District Municipality be adjusted to include a reference to spatial development.

2.1.3 Musina Municipality

The vision for the Musina Municipality as spelt out in the IDP is as follows:

“VEHICLE OF AFFORDABLE QUALITY SERVICES AND STABILITY THROUGH ECONOMIC GROWTH, DEVELOPMENT AND COLLECTIVE LEADERSHIP”

The vision as expressed above has two main thrusts which have spatial implications. Namely, affordable quality services imply service provision must be as efficient as possible often achieved through densification of settlements. The second thrust is economic growth and development which suggests the promotion of growth areas as outlined in the National Spatial Perspective.

From the above thrusts we can derive a Spatial Vision for the municipality as follows:

“TO DEVELOP A SPATIAL FRAMEWORK FOR THE MUNICIPALITY THAT PROMOTES SETTLEMENT CONSOLIDATION, AND PROVISION OF BASIC NEEDS, ENHANCES THE AGRICULTURAL AND TOURISM SECTORS WITHIN THE MUNICIPALITY WHILE ENSURING THAT LOCAL RESIDENTS ARE ABLE TO BENEFIT FROM THESE SECTORS THROUGH EQUAL ACCESS TO THESE OPPORTUNITIES BOTH PHYSICALLY AND ECONOMICALLY”.

2.1.4 Mutale Municipality

Vision of the Mutale Municipality

“A DEVELOPMENTAL MUNICIPALITY THAT ENSURES SUSTAINABLE ECONOMIC GROWTH AND EQUITABLE SERVICE DELIVERY”

2.1.5 Thulamela Municipality

Mission

We build prosperity, eradicate poverty and promote social, political and economic empowerment of all our people through delivery of quality services, community participation, local economic development and smart administration.

Vision

We, the people of Thulamela would like:

- our municipality to provide basic services to all our communities in a sustainable manner and to create an enabling environment to improve the quality of our people, and
- Our area to become a tourist destination and a productive agricultural area.

2.1.6 Makhado Municipality

VISION OF THE MUNICIPALITY

Peace, harmony and prosperity in a healthy environment for all.

Mission

The Municipality of Makhado being the gateway to other African states strives to improve the quality of life for its entire people by rendering basic, efficient, affordable and sustainable services through transparent, participatory, governance, dedicated, efficient and a accountable institution focused on developing the area as a growth point.

2.2 WHITE PAPER ON SPATIAL PLANNING AND LANDUSE MANAGEMENT

The White Paper on Spatial Planning and Land Use Management (WPSPLUM) contains principles and norms, collectively forming a vision for land use and planning in the country. The overall aim of the principles and norms relating to spatial development is to achieve planning outcomes that:

- Restructure spatially inefficient settlements,
- Promote the sustainable use of land resources in the country,
- Channel resources to areas of greatest need and development potential, thereby redressing the inequitable historical treatment of marginalised areas,

- Take into account the fiscal, institutional and administrative capacities of role players, the needs of communities and environment,
- Stimulate economic development opportunities in rural and urban areas, and
- Support an equitable protection of rights to and in land.

These national policies create a concrete mechanism in which integrated development can be achieved by all the sphere of government. They also provide what policy articulation could mean in practice since they promote the compilation of IDP's. The Mutale ISDF should represent a desired pattern of development as stipulated in these national policies.

2.3 OBJECTIVES AND STRATEGIES AS CONTAINED IN THE IDP

The IDP for VHEMBE DISTRICT MUNICIPALITY contained a wide range of priorities with objectives and strategies linked to each of them. The information is grouped into the following clusters as follows:

2.3.1 Social Cluster

- Water & sanitation supply
- Electricity supply
- District roads & storm water infrastructure
- Coordination for the provision of housing
- Solid waste management infrastructure
- Fire and rescue services
- Disaster management
- Health and social development services coordination
- Coordination of educational services
- Coordination of sports and recreational facilities
- Environmental health provision
- Coordination of passenger transport

2.3.2 Governance and Administration Cluster

- Municipal transformation and organisational development
- Customer service and performance management
- Skills development
- Financial viability
- Good governance and community participation
- Anti-fraud and corruption strategy management
- Strategic leadership and programme management
- Special programmes for the moral regeneration, youth, gender, disable, people, children and pensioners.

2.3.3 Economic Cluster

- Economic growth and increase employment
- Agriculture / agro processing and manufacturing
- Tourism
- Mining
- SMME's

None of the abovementioned refers to spatial development in particular. We want to propose that the following be added to the IDP documentation of VHEMBE DISTRICT MUNICIPALITY under the Economic Cluster:

- Spatial Development Objectives
 - To promote orderly spatial development
 - To concentrate development at selected growth points
- Strategies
 - To align the SDF of the District with that of the local municipalities
 - To encourage both Government and private investments at selected growth points
 - To monitor spatial developments and make adjustments to the SDF as and when needed.

2.4 INTEGRATION OF LOCAL MUNICIPALITIES WITH THE DISTRICT

The status of Spatial Planning for the four (4) local municipalities within VHEMBE DISTRICT MUNICIPALITY differs from each other. The status for the various local municipalities can be described as follows:

2.4.1 Musina

A SDF was completed during 2005 and accepted by the Municipal Council.

2.4.2 Makhado

The Municipality recently appointed the same team of service providers for the compilation of their SDF.

2.4.3 Thulamela

A SDF was compiled a few years ago and forms part of the IDP documentation. This documentation does not meet the requirements and must be revised.

2.4.4 Mutale

The Municipality recently appointed the same team of service providers for the compilation of their SDF.

2.5 PRIORITIES ISSUES

Government does not have sufficient resources to address all the issues identified by communities. Prioritisation assists government, and in this case, primarily the district municipality, in allocating scarce resources to those issues and needs highlighted as most urgent.

(i) Water

Water Infrastructure is not meeting the population growth. The source of water is not meeting demand of the population, i.e. Vondo RWS, Mutshedzi RWS and Mutale RWS. The source of water is not meeting the RDP standard; as a result, water is being supplied below the RDP standard. The 2001 stats result for water infrastructure is inclusive of access beyond 20m RDP while 2005 only figured the 200m RDP and above. For example, in Makhado 85% of all households had water to an acceptable standard. In 2001 the RDP standard was implemented and this figure drops to 60% of households, see map 8.

(ii) Sanitation

The figures for 1996 considered the pit latrines as basic sanitation, whereas in 2001 pit latrines were excluded. The improvement in 2005 on the provision of sanitation is because of the inclusion of the VIPs, for example in Makhado, flush toilets improved from 8.6% in 2001, septic tank and chemical toilets improved from 0% to 3%, VIPs to 8,1% and pit latrines reduced from 79,2% to 62,4%, see map 9.

(iii) Electricity

The total number of households provided with electricity from **2000 to 2005 is 41 328**, costing about **R244 million**. The **backlog** is currently estimated **36 581 households** as at March 2005. Given the rate of electrification, the backlog will not be eliminated in line with the national target for 2012. **R208**

Million for house connections alone excluding bulk infrastructure is required in order to totally eradicate the backlog and meet the national targets.

Makhado for example, spent R19 979 000 to 5 740 households in 15 villages in ESKOM licensed area from funds transferred from Capricorn to previous TLCs between 2001/2 and 2003/4.

Mutale has budgeted only for feeder lines since it does not have license for electricity delivery. Mutale invests more on feeder lines and there is no cost recovery as ESKOM will just do house connections. In the 2005/06 VDM has allocated R10 million to electrify 974 households shared amongst local municipalities.

As from 2001/02 up to date, Thulamela Municipality has been engaging on the Public Private Partnership together with ESKOM as service provider and communities as beneficiaries.

The VDM is encouraged to formalize their relationship with ESKOM to ensure appropriate delivery and management of electricity supply. ESKOM needs to equip municipal officials with exact information on roll-out plan for community electrification in order to inform IDPs. Department of Minerals and Energy needs to intervene in the delays and capacity constraints of ESKOM in order to speed up the validation process. It is recommended that electrical supply authorization and issues relating to the restructuring of REDs are finalized as soon as possible with the assistance from DPLG, Provincial Local Government and Housing, SALGA and the MEC for Local Government and Housing in this regard.

Regular power breaks due to ESKOM capacity problems pose a serious challenge as well. Municipalities lose income on electricity investment in ESKOM licensed areas and this minimizes potentials of further extension of services to the needy areas.

(iv) Roads and Stormwater

The district is faced with high backlog in road and storm water management. Poor roads and storm water infrastructure is impacting negatively in the economic growth in the district especially access to tourism attraction spots. Due to lack of capacity particularly available machinery, municipalities are unable to service their economic potential identified areas. The huge service backlog makes it difficult for municipalities to cope with the demand. However, the revised powers and functions put the responsibilities to local municipalities which leave the District playing a minimal role of coordination. Roads and storm water infrastructure remains the District priority because of the magnitude of backlog even though projects to address access roads and storm water infrastructure will be done by local municipalities and sector

departments "inter alia" Transport and Public Transport and Road Agency Limpopo (RAL) see map 7.

(v) **Telecommunications**

The access to telephones definition as a communication backlog needs to be revisited in order to cover access to mobile networks because there seemed much that has been done as far as communication is concerned if we are to include cell phones. The only area that needs more attention is access to internet facilities. However, there are still villages in the district that lack postal and telecommunication infrastructure which results in a communication breakdown.

(vi) **Solid Waste Management Infrastructure**

This priority issue came as a result of inadequate infrastructure of solid waste disposal/management systems. Inadequate resources made it difficult for, especially the rural society to get this kind of infrastructure. The rural areas of all four local municipalities are faced with the service backlogs. Although in the townships the backlog is limited, the service is not sufficient. The District Municipality has managed to build phase 1 at Malamulele and Phase 2 need to be completed to reduce the backlog. There are **6 legal landfills** and **5 illegal landfills** in the District. There is a need to establish 5 more legal sites.

CHAPTER 3

SPATIAL ANALYSIS OF CURRENT REALITY

3.1 DISTRICT AND MUNICIPAL BOUNDARIES

VHEMBE DISTRICT MUNICIPALITY was established in the year 2000 in terms of Local Government Municipal Structures Act 117 of 1998. The VHEMBE DISTRICT MUNICIPALITY IS located in the Northern part of Limpopo Province and shares boarders with Capricorn and Mopani District Municipalities in the southern and eastern directions respectively. The sharing of boarders extends to Zimbabwe and Botswana in the north and west and the Kruger National Park in the east respectively. Map indicates the location in relation to the other municipalities and countries.

3.2 DISTRICT WIDE SPATIAL ISSUES AND PROJECTS

The District covers 21 407 square km of land with total population of 1.199 884 million people. The population mainly comprised of women (55%) with 50% of the population being under the age of 20 years. The district settlement patterns are largely rural with ± 576 -dispersed villages. The district is still faced with infrastructural backlog: water 56% sanitation 68%, and electricity 46% below RDP level of services.

3.3 INVESTMENT AND SPENDING PATTERNS

3.3.1 Macro Economic Perspective

The Limpopo Province has a dualistic economy with a highly developed commercial sector existing next to an informal subsistence sector. The commercial sector has established itself largely in accordance with the spatial location of the production factors. Resultantly, the various activities of the commercial sector have gravitated toward particular locations, resulting in definite production "peaks". In some areas, the availability of local production resources suggests further capacity for an increase in the current production rates. Due to the nature of the informal sector, very little accurate information is readily available on the portfolio and level of the various activities. However, if viewed against the high levels of unemployment, it can be assumed that the informal sector plays a significant part in supporting the household survival strategies, particularly of those families residing in the deeper rural areas of the former homeland areas.

A great cause for concern is the low performance levels of the aggregate economy, relative to the high rates of population growth. This implies that the formal economy

is progressively less able to absorb new entrants into the labour market, thereby increasing the already high levels of unemployment.

3.3.2 Economic Growth and Employment

The IDP for VHEMBE DISTRICT MUNICIPALITY indicates that the main contributions to the economy of VHEMBE DISTRICT MUNICIPALITY are community services (22%), trade (14%) and mining (0, 7%). Tourism, agriculture and manufacturing are also significant with potential to be further enhanced. The rate of unemployment level stands at 53%. According to the stats SA 2001 figures 67% of VHEMBE DISTRICT MUNICIPALITY population or households in the district has an income of less than R800.00 per month.

VHEMBE DISTRICT MUNICIPALITY contribution to the total production decreased to 18.13% of the total Limpopo Province. This means that VHEMBE DISTRICT MUNICIPALITY becomes the fourth biggest to the provincial GDP between 1993 and 1998. VHEMBE DISTRICT MUNICIPALITY performed fairly well between 1993 and 1998, but again performed fairly poor between 1998 and 2003 when the grow rate declined from 3.8% to 2.4%.

This analysis illustrates that VHEMBE DISTRICT MUNICIPALITY produces only 7.55% of the total GVA in Limpopo which implies that its economy is very small in the provincial context and that very little of production that occurs in the province occurs with VHEMBE DISTRICT MUNICIPALITY.

The sustainability of the local economic and the future viability of VHEMBE DISTRICT MUNICIPALITY are in danger of stagnation, and should this situation not be reversed, general economic decline and increase in the unemployment rate is guaranteed. The percentage 15.5% of people in the formal sector of VHEMBE DISTRICT MUNICIPALITY is also not represented in the strong economy. The composition of that labour force indicates that many workers are unskilled in VHEMBE DISTRICT MUNICIPALITY.

Education levels are also very low in VHEMBE DISTRICT MUNICIPALITY, implying that local people have become poorer thus implying that local people have a poorer chance of obtaining higher level of job opportunities and consequently they have a lesser chance of earning higher level incomes. The majority of the population is heavily reliant on primary sector work opportunities which fluctuate seasonally.

Percentage of 1.83% as dependency rate means that in VHEMBE DISTRICT MUNICIPALITY every local person that earns an income has about two (2) people who are dependant on the same income. The large available pool of labour makes the area attractive for industrialists, but lack of development incentives is keeping potential investors away. The following table indicates the total income and employment of the whole district:

Table 2: EMPLOYMENT AND INCOME TABLE

Employment & Income Indicator	Vhembe District Municipality		Local Municipalities							
			Musina		Mutale		Thulamela		Makhado	
Employed	138	11.5%	16	41.2%	6 553	8.3%	55	9.52%	60 045	12.0
	465		197				670			
Unemployed	156	13.0%	5 384	13.6%	8 970	11.3%	82	14.0%	59 625	11.9
	127						148			
Economically inactive	358	29.8%	5 073	12.9%	24	31.1%	176	30.2%	151	30.5
	231				609		833		716	
Total 15 - 65 years	652		26		40		314		271	
	823		654		132		651		386	
Income: R0-R800	177	67%	7 983	69.8%	11	67.1%	84	66.9%	73 259	66.9%
	722				599		880			
Income: R801-R3200	61	23.2%	2 341	20.8	4 355	25.2%	29	23.4%	25 163	23.0%
	599						740			
Income: R3200 +	25	9.6%	1 253	10.8	1 309	7.5%	12	9.52%	10 939	10.0%
	568						068			
Total Households	264	100%	11	100%	17	100%	126	100%	109	100%
	889		578		263		688		360	

Source : District Municipality I D P

➤ Age Structure and Gender Composition

The age and sex (gender) structure of the population is a consequence of fertility, mortality (and migration).

Although there are a number of factors that interact in a complex manner to directly influence fertility and mortality, there are also a number of socio-economic circumstances, such as education, income and location that have an indirect impact on the fertility and mortality of the population.

3.3.3 Local Economy

The Vhembe District generates a sizeable contribution towards the provincial economy (12% in 1980, 16.1% in 1991 and 16.8% in 1995).

The Service Sector (contributed 31,2% in 1980, 43,3% in 1991 and 46% in 1995) and the Trade sector (contributed 13.1% in 1980, 18,3% in 1991 and 20,68% in 1995) dominate the local economy. The reasons for the dominance of the Service sector can be attributed to the inclusion of the capital of the former Venda (Thohoyandou) in the district. The relative strong performance of the Trade sector can be attributed to the trade facilities at Thohoyandou and the well established

trade sectors of Musina and Makhado. The economy is not particularly concentrated as the Agriculture and Mining sectors also generate sizeable contributions to the local economy. The Agriculture sector, however, has started to grow at a negative rate, in recent years.

The shift-share analysis suggests that the district economy perform much weaker than the aggregate provincial economy. The location quotients suggest that the district enjoy a comparative advantage in the Agriculture and Service sectors.

About 20% of agricultural production is animal products (of which cattle is the most important), 69% is horticulture products and 10,4% is field crops (of which cotton is the most important).

About 82% of all farmers in the district can be considered as subsistence farmers, with only 0,4% classified as large-scale commercial farmers.

Although the district is strategically located on the N1 corridor, it mainly serves as through-way for trade traffic to and from Africa with very little direct spin-offs accruing to the local economy (apart from the relative limited shopping in Musina and at Beit Bridge). The district has tremendous potential for eco-tourism and one of the first trans-frontier parks is planned at the convergence of the Shashe River with the Limpopo River.

3.3.4 Economic Space

The north and western parts of the district is sparsely populated, whereas Thohoyandou is one of the most densely populated areas in the Province. The nodes are well defined, with Makhado, Thohoyandou and Musina as the most important.

The area north of the Soutpansberg mountain range is Mopani veld, and is only suitable for extensive cattle or game farming. There are a number of irrigation regions along the more important river systems with the Limpopo, Nwanedi and Nzhelele regions as examples. The Limpopo Valley in particular is well suited for the production of Dates, for which there is a proven market. The Soutpansberg mountain range is an important forestation area and 15 563 ha are planted with soft and hard woods. This area (Dry and Wet Soutpansberg) is also suitable for the production of crops such as Avocado, Macadamia, Citrus and Flowers. The Thohoyandou district (which falls largely in the Levubu irrigation area) has high agricultural potential and is suitable for the production of crops such as Avocado, Macadamia, Mango, Citrus and Paprika. However, the production potential of this area is negatively impacted by high population concentrations which sterilize high potential agricultural land and place much pressure on the water resources. The same also applies to the Dzanani and Vuwani districts where the average population density varies from 100 to 200 persons per km². The urban space in

these areas reflects a large number of informal villages of varying sizes that were originally established and have since grown organically with very little planning.

Only about 4,72% of the total land area can be considered arable. Of this potential, 72% is used for dryland production and 20% is under irrigation. About 78% of the land area is suitable for grazing. A sizeable portion (16%) is used for the purposes of nature conservation or forestry.

3.3.5 Significant Mineral Occurrences

Minerals can be considered a **finite resource**. In addition, mineral deposits are also fixed in space (i.e. their geographic location). As such, mineral deposits influence and determine the macro spatial patterns in terms of the location of mining activities and mineral processing activities. It is therefore important to locate and describe those mineral occurrences that can be considered significant in terms of the type of mineral, the degree of the deposit, the current and possible future demand and price levels. Within the context of the Spatial Rationale, these significant mineral deposits can be considered **mineral / mining zones** that impact and determine land uses. Some of these zones have been or are being exploited at present. **In cases where no exploitation has taken place as yet, it is important to highlight the location of these particular zones in order to prevent or minimize their sterilization with other land-uses (e.g. urban development).** Mining activities indicated in map 6.

The most important mineral occurrences and zones in the Vhembe District include:

- Beit Bridge Complex / Limpopo Belt;
- The Tuli, Mopane, Tshipise and Pafuri coal fields;
- Tshipise magnesite field;
- Mussina copper;
- Schiel Complex; and
- Soutpansberg group

(a) Beit Bridge Complex / Limpopo Belt

The complex hosts a number of minerals, the most important of which include:

- **Iron:** Exploration drilling by ISCOR on the farms Moonlight (111LR), Julietta (112 JR) and Goudafontein (76 LR) south of Marnitz indicated occurrences of magnetite. Reserves are estimated at 470 Mt.
- **Dolomite:** The Gumbu Group has significant reserves. However, the long distances to markets marginalize the economy of these reserves.

Deposits that have been exploited include that on the farm Steenbok (565 MT) and Nous (178 MT).

- **Diamonds:** The Limpopo River is known to have significant alluvial diamonds. However, no deposits are mined at present and the only deposit mined in the past is located on the farm Riedel (48 MS). Prospecting has indicated diamonds to occur on the farms Krone (104 MS), Blyklip (25 MS), Halcyon (21 MS), Little Bess (70 MS), Skutwater (115 MS), Bismark (116 MS), and River (141 MS). The only active diamond mine at present is the Venetia Mine.
- **Marble:** Known occurrences of marble are on the farms Kairo (212 MR) and Baklykraal (265 MR), northwest of Alldays.
- **Graphite:** Two mines used to exploit graphite namely the Gumbu and the Mutale Graphite Mine (both have been closed). A known reserve of flake graphite occurs at Dreamboat.

(b) Tuli, Mopane, Tshipise and Pafuri coal fields.

The economics of these fields are marginalised by the long distances to markets. At present, only the Pafuri coal field is exploited by the Tshikondeni Mine, which produces coking coal for ISCOR's Vanderbijlpark plant.

(c) Tshipise magnisite field

The field stretches from Tshipise for about 50km in a east-northeast direction. A number of occurrences are located in this field such as that on the farms Graandrik (162 MT), David (160 MT), Frampton (72 MT), etc. The field is exploited by only one operation namely the GeoCarpo Mine.

(d) Mussina copper

Copper occurs in the Messina fault. This deposit was exploited by the Messina Development Company, which was terminated in 1991.

(e) Schiel Complex

The Schiel complex is the largest alkaline plutonic occurrence in the Limpopo Province (133km²), and it is located halfway between Makhado and Giyani. A phosphate deposit covering an area of about 2km² occurs on the farm Schiel (54 LT). The reserve has been prospected by Foskor and is estimated at about 36Mt.

(f) Soutpansberg group

A number of minerals are associated with the Soutpansberg Group including corundum, feldspar, garnet, graphite, kieselguhr, limestone, phosphates and talc.

3.3.6 Areas of Significant Agricultural Production

The inherent agricultural production capacities of an area can be considered a function of a number of variables including soil types, climate, access to service infrastructure, distance to markets, and access to **suitable water** (both ground and surface water). By comparison, the actual portfolio of commodities and the volume produced in an area (given its inherent capacities), is a function of a different set of variables including effective demand and price levels per commodity, financial and technical abilities of the particular farming community, policies and support provided by government, etc. From the above it is clear that, given the last set of variables, agricultural production capacities and abilities are **area specific**. It is therefore important to identify the various **agricultural production areas** as they impact upon the macro land-use patterns (e.g. irrigation regions and extensive cattle production).

Casual observations indicate a gradual movement away from cattle farming towards game farming. A survey done by the Mara Research Station has indicated that there are about 2 400 game ranches in the Limpopo Province (1997), totaling an area of about 4.1 million ha (i.e. 29.7% of the province's land area). About 40% of these game ranches are owned by persons that reside outside of the province. The area most affected by this trend represents the form of a horseshoe, running from the western area at Thabazimbi (including the Waterberg area), upwards and along the Limpopo River and down along the KNP up to the border of Mpumalanga Province.

The district generates an intermediate contribution towards the provincial agriculture sector (11.1% in 1980 and 18.6% in 1994). The most important agricultural commodities are nuts (about 50% of provincial production), and subtropical fruit (26% of provincial production). The most important production area for these commodities is the Levubu Valley.

3.3.7 Areas with Significant Tourism Potential and Conservation Value

Generally speaking, the tourism potential and conservation value of an area is largely a factor of the natural beauty. This would imply either well planned (e.g. rehabilitated or specifically developed for tourism) or minimal human intervention in the area (e.g. urban, agricultural, mining development, etc). Broadly speaking, there are three macro tourism cum conservation initiatives currently being pursued in the province namely:

- **Golden horseshoe:** This is a strip of land with relative low human density that runs from Thabazimbi northwards along the Limpopo, turning south again and

the area. The development of this area for tourism and conservation purposes is a source of conflict as mineral deposits occur in the area, and because the local population wants to use the area for grazing purposes. Unresolved land claims also hamper future development.

- **Dongola Trans-national park:** The ultimate objective is to establish a trans-national park that is jointly shared by South Africa, Zimbabwe and Botswana. The park will be located roughly at the confluence of the Sashe and Limpopo rivers. The initial core of the project will be the existing Vhembe Nature Reserve.
- **Establishment of the Soutpansberg Conservaria:** This initiative is largely driven by the private sector, and the ultimate goal is to consolidate the tourism and conservation efforts in the Soutpansberg area (the area between the N1 and the Alldays road).

3.3.8 Areas with Significant Manufacturing and Trade Development

The potential for manufacturing development is determined by a number of factors including access to and cost of service infrastructure, access to primary and intermediate inputs, distance to markets, availability of a labour force, availability of suitable sites, and government support, policies and legislation. The potential for trade development on the other hand is determined by a different portfolio of factors including the amount of local buying power, effective consumers, profile of consumer demand (e.g. durable and non-durable goods), accessibility and cost of service infrastructure, government support, policies and legislation.

The activity of manufacturing underwent drastic changes in the last number of years, largely as a result of South Africa's (re)entrance into the global economy. The official policy of government changed from "import replacement" to "export promotion". In line with this shift in policy, the support provided by government changed from "demand-side incentives", which encouraged firms to produce for a highly protected domestic market, to "supply-side incentives", which encourage firms to produce for the international market. A key element of the former policy was the so-called Regional Industrial Development Programme (RIDP), the essential objective of which was to promote economic development in or near the former TBVC states and self-governing territories by way of the establishment of industrial development points. Eight such Industrial Development Points (IDP's) were identified in the former Region G. In the current Vhembe District, three of these RIDP's occur namely at Makhadu, Musina and Thohoyandou. The newly introduced "supply side measures" include a Tax Holiday Scheme (THS), the Small / Medium Manufacturing Development Programme (SMMDP), and the Accelerated Capital Allowances. Whereas the last two incentives apply to all manufacturing concerns, the THS only applies at pre-selected points. Four towns in the Limpopo Province qualify for the THS.

The activities of Manufacturing and Trade do not represent the drivers of the provincial economy as they respectively, contribute only about 7% and 10% towards the provincial economy (1994).

A study done by the IDC in 1996 found that the forward and backward linkages within the provincial economy are very weak. As a measure, the intermediate consumption (within the province) of manufactured goods (manufactured within the province) is only about 1.7%, total consumption about 3.5%, whilst about 85% of manufactured goods are exported to other provinces. On the input side, the study found that the importation of goods and services represents about 60% of the value of (manufacture) production.

Very little information is available on the extent and composition of the informal and marginal sectors, particularly those involved in the activities of manufacturing and trade. However, casual observation indicates a significant increase in the general levels of activity, particularly so informal trading in fruits, vegetable and clothing.

In general, the (formal) economy of nodes located in the former homeland areas was (and still is) largely based on the investment and activities generated by the establishment of the former homeland governments. These economies can therefore be considered "artificial", as they were largely based on political rather than economic considerations. As such, these economies were not sustainable, and they were vulnerable to political decisions, such as the geographic location of government functions, the absolute size of government, and government projects. Of particular importance in this regard is the total amount of disposable income earned by government officials, which implies considerable local buying power. However, experience indicates that although the larger nodes in the former homelands may have large trade complexes, in general they experience a significant net outflow of buying power which can be ascribed to a number of reasons. The most important factor relates to migration labour (as people tend to shop where they work), and the fact that government officials regularly went to larger nodes such as Polokwane and Gauteng where they did some of their monthly shopping. This trend was compounded with the location of government headquarters in Polokwane.

Based on the earlier comments about the location factors of manufacturing and trade, it follows that manufacturing and trade concerns are not distributed evenly in the economic space of the province, but tend to locate at certain points. For the purposes of this project, it is important to locate the positions of these points.

It has to be appreciated that the absolute number of concerns involved in manufacturing and trade change constantly. The figures on the number of concerns should therefore be interpreted as ordinal and not cardinal. In particular, the information available on the number of concerns established in terms of the former RIDP is very old (1987) and it can be assumed that very few of these concerns are still operational.

The Vhembe District generates an intermediate contribution towards provincial manufacturing at 13% (1994) and a considerable contribution towards provincial trade at 27% (1994).

In terms of the former RIDP, the towns of Makhado, Musina and Thohoyandou qualified as IDP's. Neither of these nodes are considered particularly successful as up to 1987, Makhado only managed to attract 23 concerns, Musina 16 and Thohoyandou 22.

The LimDev established 154 manufacturing concerns in 15 locations in Vhembe District, of which the most important are Thohoyandou (21), Thengwe (23) and Makhado (18). These concerns generated an estimated number of 448 direct employment opportunities.

In terms of the new "export promotion policy", only the town of Thohoyandou qualifies for the THS. The assessment done in Phase 2, Step 2 of the Spatial Rationale (1999) indicated the modus manufacturing concerns to be food, followed by basic metals and fabricated metals.

Casual observation indicates a net inflow of buying power to the towns of Makhado, Thohoyandou and probably to a lesser extent Musina, but a net outflow of buying power from the district to nodes such as Polokwane and Gauteng.

3.3.9 Conclusion regarding Economic Development

The following conclusions can be drawn from the Economic Development in Vhembe District:

- The local economy can be considered relatively concentrated as a result of the significant contribution generated by Services. This renders the economy extremely vulnerable to any factor which may decrease the monetary value of salaries paid in the Government Services.
- The nodes of Makhado and Thohoyandou largely dominate the spatial economy. Other important nodes are Musina and to a lesser extent Masisi.
- The only other activity, apart from Services, that indicates significant growth is Trade. It can be assumed that the largest percentage of this activity is generated in the two nodes mentioned above.
- Thohoyandou is one of only four nodes in the Limpopo Province that qualifies for the Tax Holiday Scheme in terms of the new industrial development policy. However, it is doubtful if this will attract meaningful industrial investments to the area.

- Over time the contribution of Agriculture has decreased significantly. However, the district represents an important production area for certain horticulture products such as macadamia nuts, as well as for forestry.
- The district has significant coal reserves in the Limpopo and Soutpansberg coalfields. Although high quality coking coal is found in these coalfields, their feasibility is marginalized by the long distances to markets. These fields may become more feasible in the longer term as the coalfields on the Highveld and in Northern Natal become exhausted. At present, there is only one coal mine namely Tshikondeni Mine that produces coking coal to ISCOR.
- Other mineral production includes Geo Carpo Magnesite Mine and Venetia Diamond Mine. It is also believed that the Limpopo River has significant diamond deposits and already some prospecting is performed to the west of Musina. Indicated in map 6.
- The district has a number of nature reserves and conservation areas that are of note such as Makuya Park (which is considered to be one of the flagship reserves in the Province and is earmarked for commercialization), Matshakatini Nature Reserve, Sagole Spa, Tshipise and the planned Dongola Transnational Park. See map 4.

3.4 EXISTING POLICIES, RESOLUTIONS AND BYLAWS

The following legislation deals with various sectors of development, all of which have a spatial impact:

- The Constitution
- Municipal Structures Act 117 of 1998 (as amended)
- Municipal Systems Act No 32 of 2000
- Development Facilitation Act No 67 of 1995 (DFA);
- Land Use Management Bill, 2003
- National Water Act 36, 1998
- National Transport Transition Act, 2000
- Housing Act 107, 1997
- White Paper on Disaster Management, 1999
- Environmental Conservation Act 73, 1989
- National Environmental Management Act 107, 1998
- Biodiversity Act, 2004
- National Heritage Resources Act, 1999.

Of the above legislation this Spatial Development Framework will mainly be guided by the Municipal Systems Act of 2000, the DFA, and the Land Use Management Bill. The other legislation is listed to emphasise the need to examine other legislation relevant to spatial planning when undertaking any more detailed spatial planning involving different sectors.

3.4.1 National Policies

In terms of policies at the national level the policy document most directly affecting spatial planning is the National Spatial Development Perspective (NSDP), prepared in 2003. This document outlines a spatial vision for the whole of South Africa and outlines strategies to achieve the vision.

3.4.2 The National Spatial Development Perspective

The NSDP 2003 provided a spatial vision and framework to steer detailed policies and investment decisions towards the achievement of common national objectives. In accordance with this vision the NSDP envisaged a situation where South Africa will become a nation in which investment in infrastructure and development programmes support government's growth and development objectives by:

- Focusing economic growth and employment creation in areas where this is most effective and sustainable;
- supporting restructuring where feasible to ensure greater competitiveness;
- fostering development on the basis of local potential; and
- ensuring that development institutions are able to provide basic needs throughout the country.

The NSDP 2006 supports and advances the realization of this vision by providing a systematic overview and framework for understanding and interpreting the national space economy. It furthermore provides a far finer-grained analysis to enhance its role as providing a basis for strategic dialogue within government about where to focus infrastructure investment and development spending and optimise intergovernmental impact within specific localities. This it can of course only do if it is used as such by all in government in all forms of planning, budgeting and implementation. The NSDP should be understood both as a policy directive in terms of its methodology and an indicative tool in terms of its content. That is:

- The principles and methodology of the NSDP should inform the development plans, policies and programmes of all spheres and agencies of government as a matter of policy;
- The details of economic potential and demographic patterns in localities to be the subject of ongoing dialogue among state and non-state actors; and
- Districts and metropolitan areas should be positioned as the geographical units for building an understanding of the nature and distribution of potential and demographic patterns across the country.

The NSDP is thus South Africa's attempt to construct a national spatial-development perspective with a three-fold purpose in mind:

- To provide common principles and mechanisms to guide infrastructure investment and development spending across government;
- To provide a description of the spatial manifestations of the main social, economic and environmental trends which should form the basis for a shared understanding of the national space economy; and
- To provide an interpretation of the spatial realities and the implications for government interventions.

The NSDP 2006 contains an update of the original data and clarifies critical issues that emerged during the iterative process within the three spheres of government. It consists of the following three components:

1. **Part one:** "Framing". This section discusses the purpose, principles and mechanisms of the NSDP. Included is a brief introduction to national spatial development perspectives, with a specific focus on the role of national spatial perspectives such as the NSDP within the broader developmental environment.
2. **Part Two:** "Description and analysis". This section summarises the current spatial reality. This is done through the provision of a snapshot of some recent demographic, settlement, environmental, economic and government investment trends, which includes an overview of the following:
 - Human settlement trends/dynamics and resulting settlement patterns;
 - The national space economy and key trends and challenges in this regard;
 - The state of the natural resource base in relation to current spatial trends; and
 - Patterns of infrastructure and development spending.
3. **Part Three:** "Interpreting the space economy". This section provides an interpretation of the space economy using the reading of the spatial realities and the key dynamics and trends in Part Two, as well as signals for meeting government's social and economic objectives.

In addition, the following annexures of various data and mapping tools, background documents and key statistical information are available electronically on CD:

- **Annexure A:** The data analysis and mapping methodologies that were used in the spatial analysis;
- **Annexure B:** A brief overview of international spatial development planning instruments and debate;
- **Annexure C:** A reflection on spatial engineering by the apartheid government in the National Physical Development Plan, 1975;
- **Annexure D:** The executive summary of the January 2005 Harmonisation and Alignment Report that outlines the interventions to improve alignment of the NSDP, PGDS and IDP and to clarify the role of the Provincial Growth and Development Strategies (PGDSs) and district and metropolitan municipalities' Integrated Development Plans (IDPs) in an all-of-government development planning regime;
- **Annexure E:** District and metropolitan municipality-specific statistics and trend and projection mapping on magisterial districts; and
- **Annexure F:** Statistics for areas of national economic significance.

The national spatial development perspective (NSDP) is the "tool" that provide guidance for planning and development at the national level.

3.4.3 Provincial Policies

A wide range of planning legislation exists in Limpopo Province. The table below contains details of the particular legislation:

Table 3: LEGISLATION ON PROVINCIAL LEVEL

a) Ordinance 15 of 1986 (Town Planning and Townships Ordinance)	
Status	Still in force
Authority responsible for enactment	Provincial Government
Areas of jurisdiction	The Ordinance was only applicable in former "white, coloured and Indian areas" in the former Transvaal province. However, it could, in terms of the Local Government Transition Act, Act 209 of 1993, also be made applicable in former "black areas". It would be, however, not possible to use the Ordinance to apply for the rezoning of erven not taken up in town planning schemes proclaimed in terms of the Ordinance. New schemes would have to be drafted and in terms of the Ordinance to bring such areas under the "umbrella of the ordinance".

Purpose and relevant content	Relevant Regulations	Current practise	Assessments
<p><u>Purpose</u> In its broadest sense this ordinance is used as an instrument to create and regulate land-uses in a co-ordinated and harmonious manner in such as way as to most effectively promote the health, safety, good order, amenity, convenience and general welfare of an area, as well as efficiency and economy in the process of development. Devolution of decision making and rationalisation of procedures were the two main objectives of the instrument.</p>	<p>Regulations make provisions for detailed procedures.</p>	<p>The Ordinance is used for land use management and new land development.</p>	<p><u>Procedure</u> 1. The application process is seen as "slow" because no time frames are set, advertising requirements take long and decision makers and officials lack knowledge on the Ordinance. 2. Systems created to handle applications could work well if the local authority is the approval body and other government departments are not involved. When these departments and other institutions need to comment, the process is slowed down substantially as time frames are not adhered to.</p>
<p><u>Content:</u> 1. The Ordinance provides mechanisms for new land development through provisions for town-ship establishment and for the control of land within approved town-ships in terms of town planning schemes.</p>			<p>3. The professional costs involved in the application procedure are seen as "high". 4. The quality of decisions is regarded to be better in areas where town planning schemes exist. Decision making is seen as easier for developed urban municipalities than undeveloped rural municipalities due to systems and structures being in place in the afore-mentioned areas. 5. Politics are believed to play a bigger role in decision-making than technical inputs.</p>
<p>2. It provides a very structured process to change the land use through the town planning scheme as well as for changes to the control instruments and sets out the process for new development 3. The Ordinance draws a distinction between authorized and non-authorized local authorities. 2. It provides a very structured process to change the land use through the town planning scheme as well as for changes to the control instruments and sets out the process for new development 3. The Ordinance draws a distinction between authorized and non-authorized local authorities.</p>			

b) Less Formal Township Establishment Act (No. 113 of 1991)	
Status	Still in force

Authority responsible for enactment	Provincial Government. This Act was made applicable in terms of Proclamation R159 of 31 October 1994. Most Provisions have been assigned to the provinces, however, those sections of the act that deals with suspension of laws as well as registration of title have not been assigned (Sections 3(5), 9(2) and (3), 12(2A) and (3), 19(6A) and (7), and 26(2) and (3)).		
Areas of jurisdiction	Whole province		
Purpose and relevant content	Relevant Regulations	Current practise	Assessments
<u>Purpose according to preamble:</u> "To provide for shortened procedures for the designation, provision and development of land, and the establishment of townships, for less formal forms of residential settlement; to regulate the use of land by tribal communities for communal forms of residential settlement; and to provide for matters connected therewith." <u>Relevant Chapter Content:</u> 2. Shortened procedures for less formal settlement 3. Shortened procedures for less formal township establishment 4. Settlement by indigenous tribes 5. Miscellaneous provisions	None	1. Was used for the designation of land by the province and for the speedy development of such land, bypassing usual planning procedures. It is, however, no longer in use as the DFA can be regarded as a faster mechanism. 2. Permission has to be obtained from the MEC before starting with the process.	<u>Process:</u> It does not provide adequately for public participation and bypasses local authority involvement.
Amendments	Constitution of the RSA, No 200 of 1993 Proclamation R159 of 1994 Development Facilitation Act 67 of 1995 Land Survey Act, No 8 of 1997 Prevention of Illegal Eviction from and Unlawful Occupation of Land Act 19 of 1998		

c) Subdivision of Land Ordinance (Ordinance 20 of 1986)	
Status	Still in force
Authority responsible for enactment	Administered by the Provincial Government. The Ordinance was assigned to be provincial in terms of Proclamation 109 of 1994. Authorized local authorities may make their own decisions regarding applications submitted in terms of the Ordinance. Those not authorised to do so, provide their inputs to the provincial government who is the decision-making authority.

Areas of jurisdiction	Old Transvaal. The Ordinance was only applicable in former "white, coloured and Indian areas" in the former Transvaal province. However, it could, in terms of the Local Government Transition Act, Act 209 of 1993, also be made applicable in former "black areas".
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Purpose and relevant content	Relevant Regulations	Current practise	Comment
<p><u>Purpose:</u> To provide procedures to enable subdivision of farm land as stipulated in Section 2 of the ordinance.</p>	Regulations stipulate requirements for the application procedure.	Applications for the subdivision of land are lodged in accordance with procedures stipulated in Section 2 of the ordinance, as well as the regulations.	<p><u>Process:</u></p> <ol style="list-style-type: none"> 1. The process is regarded as "effective". 2. Other procedures for, or prohibiting of subdivision i.t.o. other legislation eg. Act 70 of 1970 and conditions in some Title Deeds, creating confusion for both applicants and relevant authorities. 3. Specific sections in the Ordinance that were made under Section 2(1)C "where the land forms part of an area defined in the Schedule to the Black Land Act, 1913 (Act 27 of 1913), or an area defined in the First Schedule to the Development Trust and Land Act, 1936 (Act 18 of 1936)" were seen as in need of clarification.
Links to other legislation	TPTO, 1986: The definition of an authorised local authority is contained in this Ordinance.		
d) Public Resorts Ordinance 18 of 1969			
Status	Still in force		
Authority responsible for enactment	Provincial Government, Department of Local Government and Traditional Affairs		
Areas of jurisdiction	Applies in former Transvaal.		
Purpose and relevant content	Relevant Regulations	Current practice	Assessments
<ol style="list-style-type: none"> 1. To establish a private resort or a resort established by the 'Administrator' and to establish a Council for Resorts. 2. It regulates the establishment of provincial public resorts. 		<ol style="list-style-type: none"> 1. It is used for land use management. 2. The MEC of the provincial Department of Local Government and Housing has decision making powers and makes decisions based on technical advice from officials. 3. After approval the resort must be incorporated by a Local Authority in its area of jurisdiction who then becomes the responsible authority. 4. Prosecution in cases of misdemeanour is still 	<p><u>Process:</u></p> <ol style="list-style-type: none"> 1. The applications process was regarded as "slow", due to extensive consultation process with various government departments and on Environmental Impact Assessment (EIA) that has to be done. No time limit is set for processing of the application. 2. The cost of the applications is viewed as "reasonable", as value is added to land through approval of the application. 3. Decision making is regarded as of a high quality, as decisions are based on technical advice. 4. Some problems are experienced regarding the definition of a resort.

		the responsibility of the provincial government, while the local authority must exercise control.	
Links with other legislation	Environmental Conservation Act 73 of 1989: Applicants must submit EIAs to the relevant authorities in terms of this Act. A resort could also be established i.t.o. permission of the 'Administrator' (Premier).		

3.4.4 Limpopo Spatial Rationale, 2002

The Vhembe District Spatial Rationale is a component of the Limpopo Province Spatial Rationale prepared in 2002. This spatial rationale's outline provides an updates status quo of development within the district as well as current and desired settlement patterns.

3.5 POPULATION DENSITIES

Population density in the VHEMBE DISTRICT MUNICIPAL area is portrayed in terms of the following:

- **Settlement density**, indicating the number of people per hectare for settlement areas only; and
- **Municipal density**, indicating the number of people per hectare in the total municipal area.

Settlement (e.g. town and village) densities vary from settlement to settlement as it is primarily determined by factors such as erf / plot sizes, formal and informal open spaces, unutilized land in between plots, non-residential uses, etc.

In most instances the settlement density for formal townships will be higher, primarily because of smaller erven and better utilization of the available land.

The population density for settlements and local municipality areas in the VHEMBE DISTRICT MUNICIPALITY area are as follows:

- Musina Local Municipality registers the highest average settlement density (64,17 people per hectare) and is followed by Makhado and Thulamela Local Municipalities, respectively with 19,83 people/hectare and 18,56 people/hectare. The lowest settlement density is registered in the Mutale Local Municipality, viz. 16,93 people per hectare.

- Municipal densities, however, do not reflect a similar tendency on individual local municipal areas. The reason being, that the total area of an individual municipality has a major influence in determining municipal density. The highest municipal density is registered in the Thulamela Local Municipality with 1,95 people per hectare compared to the total average density for the VHEMBE DISTRICT MUNICIPAL area of 0,56 people per hectare. Musina Local Municipality registers by far the lowest municipal density with 0,05 people per hectare. This can be ascribed to the large farming area with a very low density, which is also part of Musina's area of jurisdiction.

3.6 SETTLEMENT AND SPATIAL PATTERNS

The spatial pattern can be described as the physical manifestation of various form-giving processes and forces, or which economic and political processes and forces are the most dominant in the establishment of a spatial pattern. Although the spatial pattern is permanent in its nature, it changes constantly over time, mainly due to the nature and extent, as well dynamics of these processes and forces. These changes can take various forms. The existing spatial pattern is a result of these processes and forces, and in turn generates the potential for and/or restricts the functioning and development of these processes and forces.

The basic elements of a spatial pattern is comprised of *nodes, networks and areas* which in their turn are made up of macro land-uses such as settlements (e.g. residential, industrial and business land-uses) agricultural areas, mining areas (activities), conservation areas and communication/transport networks.

The purpose of the Limpopo spatial rationale is, therefore, to identify an optimal spatial pattern, which by implication means that the land needed for the various macro land-uses, such as settlements (e.g. residential areas, industrial and business zones), agricultural development, mining activities, nature conservation areas, etc. should be preserved for existing, as well as future development in order to prevent or minimize sterilization of these areas/land-uses.

Most of these macro land-uses such as mineral deposits and high potential agricultural land are much localized and is, therefore, subject to sterilization if it is not zoned timeously for these specific purposes.

The spatial rationale (inclusive of a macro spatial plan) for the Limpopo Province was finalized in 1999. The purpose of this project is, therefore, only to review and update the original spatial rationale in view of the many changes that have taken place since the compilation of the spatial rationale.

A settlement hierarchy has, therefore, been identified which includes all types of settlements including both proclaimed towns and rural villages. The settlement hierarchy (macro spatial plan) for the Limpopo Province has become a fairly well established concept with departments in the province. Most departments

acknowledge the proposed hierarchy of settlements and consider it in decision making when involving the spending of public funds (e.g. housing projects, provision of bulk infrastructure, etc). The settlement hierarchy will, however, be reviewed and updated as a result of recent changes such as new legislation, re-demarcation of municipalities, etc. Furthermore, the potential impact of land reform has to be understood and considered in terms of its influence on land-use patterns and the spatial development framework.

3.6.1 Hierarchy of Settlements and Settlement Densities

3.6.1.1 Approach followed with the Identification of a Settlement's Hierarchy

Settlement hierarchy is usually identified based on the classification of individual settlements (i.e. towns and villages). This would mean that the approximately 2400 towns and villages in Limpopo would have been individually classified in terms of a proposed hierarchy. Polokwane would have been the highest order settlement with second order settlements such as Mokopane, Thohoyandou, Tzaneen, Makhado, etc. Third order settlements would have included places such as Jane Furse, Giyani, Lebowakgomo, etc.

Fourth order settlements would have included larger isolated settlements such as Elandsfontein, Van der Merweskraal, Bakenberg, Moganyaka, etc. with the fifth and last order settlements being all the villages which are relatively small, and dispersed throughout the various districts, with no economic base at all.

This kind of approach would have resulted in a very detailed classification categorizing the individual towns and villages in terms of the relevant order in a five-tier hierarchy. The approach would have resulted in a very scattered settlement hierarchy. Although a number of criteria are used for the classification of settlements in terms of a hierarchy, it is also appropriate to choose a classification for a hierarchy which is suitable for the level of planning and the specific circumstances. The levels of planning vary from a macro level (e.g. national or provincial levels) to a more detail level being smaller districts, regions or individual municipal areas.

A total of approximately 2400 settlements (e.g. towns and villages) exist in the Limpopo Province, and are scattered throughout large parts of the province, although villages are primarily isolated to the former homeland areas.

The existing settlement pattern in the province, however, reflects a distinctive pattern where some of the settlements are grouped or located relatively close to each other, with a substantial number of people residing in these settlement groups. It was therefore decided that for the purposes of the spatial rationale (which is a macro spatial planning exercise) to opt for the identification of clusters (e.g. nodes where a group of settlements are located relatively close to each other). These clusters were identified based on criteria of the 1999 Spatial Rationale Study

(Scenario Formulation). The highest order settlements in the settlement hierarchy are, therefore, mainly settlement groups (clusters) although individual settlements, especially with the existence of larger towns, are also included in the first and second order settlements. The clusters were further divided into two separate categories, viz. **growth points** (first order settlements) and **population concentrations** (second order settlements), both being part of the cluster concept. *Growth points are the highest order in the settlement hierarchy, with population concentrations being the second order in the proposed settlement hierarchy.*

3.6.1.2 Description of Various Settlement Types

The first and second order settlements in the proposed hierarchy are described and explained as follows:

- **Growth points** are towns/villages or a group of villages located relatively close to each other where some form of economic, social and institutional activities, and a substantial number of people are usually found.

These growth points seem to have a natural growth potential, but do not develop to their full potential due to the fact that capital investments are made on an ad hoc basis without any long term strategy for the area as a whole.

The identified growth points should be stimulated by amongst others, providing a higher level of service infrastructure which will ensure that appropriate services are available for potential business and service/light industrial concerns. The higher level of services, relative to other settlements in the area will also attract residential development to these growth points, with the implication that certain threshold values in population be reached, to provide for higher levels of social, physical, institutional and economic services.

- **Population concentration points** are towns/villages or a group of villages located close to each other, which have virtually no economic base, but a substantial number of people located at these villages. These population concentrations are mainly located adjacent to tarred roads or intersections of main district routes, which provide accessibility to job opportunities. These nodes should also be given priority in terms of infrastructure provision with a higher level of services, although not at the same level as for growth points. This approach should be followed to attract people from other smaller villages with a lower level or no service infrastructure.

3.6.1.3 Comparison of Population Features between Local Municipalities in the Vhembe District Municipality Area

A summary of the estimated 2001 population, number of settlements, household size and average number of people per settlement per local municipality in the VHEMBE DISTRICT MUNICIPAL area. It is evident from the census 2001 that Musina

has the smallest number of settlements (7) and also the smallest population, viz. 40836 people. Although the average number of people in the 7 settlements in the Musina Local Municipal area is 5834 people in 2001, it is misleading as the majority of the people residing in settlements are living in Musina/Musina-Nancefield.

Thulamela is by far the largest local municipality with 579575 people and is followed by Makhado Local Municipality with 496198 people. Mutale on the other hand is also relatively small, although bigger than Musina with 75643 people. The total population for the 4 local municipalities in Vhembe District Municipality amounts to 1 192 252 for 2001.

The largest settlements are located within the Thulamela and Makhado Local Municipalities. Large settlements in Makhado Local Municipality includes Chavani (10672 people), Makhado (11368 people), Magoro (14049 people), Olifantshoek (8692 people), Tshakhuma (16047 people) and Waterval Urban (9562 people). The following settlements in the Thulamela Local Municipality are fairly large, viz: Makwarela (17014 people), Malamulele (8655 people), Mukula (8914 people), Maungani (8008 people), Muledane (11558 people), Shayandima - 2 extensions (32887 people), Tshikonelo (8659 people) and Tshisahulu (8934 people).

Thulamela Local Municipality with 27 large settlements and Makhado Local Municipality with 23 large settlements have 96% of all the large settlements with 5000 people and more in the VHEMBE DISTRICT MUNICIPALITY.

3.7 DISTRICT WIDE-EXISTING NODAL POINTS

In terms of the Limpopo Spatial Rationale the above nodal points identified in table 4 are the existing nodal points. It is also indicated in Map 10.

Table 4: Existing nodal points

GROWTH POINTS	MUSINA MUNICIPALITY	MAKHADO MUNICIPALITY	MUTALE MUNICIPALITY	THULAMELA MUNICIPALITY
Provincial Growth Point	Messina	Makhado		Thohoyandou
District Growth Point		Elim/Waterval		Sibasa Malamulele
Municipal Growth Point		Vuwani Dzanani Hlanganani/Bungeni	Mutale Masisi	Mhinga
Local Service Point	Tshipise	Vleifontein Waterpoort Valdezia Oliphanthoek Manyuka		Lwamondo Ext/Dzwerani Phaphazela Xikhundu

Source: Limpopo spatial rationale (2002)

3.8 BULK INFRASTRUCTURE

3.8.1 Water

Water Infrastructure is not meeting the population growth. The source of water is not meeting demand of the population, i.e. Vondo RWS, Mutshedzi RWS and Mutale RWS. The source of water is not meeting the RDP standard; as a result, water is being supplied below the RDP standard. The 2001 stats result for water infrastructure is inclusive of access beyond 20m RDP while 2005 only figured the 200m RDP and above. For example, in Mutale, 85% of all households had water to an acceptable standard. In 2001 the RDP standard was implemented and this figure drops to 60% of households. See map 8.

Table 5: ACCESS TO WATER SERVICE DELIVERY

YEAR	1996		2001		2005	
Level of Service	Basic and Above	Below Basic	Basic and Above	Below Basic	RDP and Above	Below RDP
Total households	179 938	32 313	154 785	110 103	172 219	136 320
% of Households	84,7	15,3	58,4	41,6	55,8	44,2

Source: District Municipality I D P

Challenge of water service delivery

The status quo report for **Section 78 Process** will be completed in December 2005. Recruitment and retention of technical skills for project planning, implementation and supervision has posed a serious challenge. Most of the officers from Department of Water Affairs and Forestry do not have the right skills and knowledge and there is a lot of miss-allocation and misplacement of officers. The other issues are age group since most of officers are over fifty years and some are no longer in good health

No schemes have been transferred to VHEMBE DISTRICT MUNICIPALITY as yet. The geographical terrain of VHEMBE DISTRICT MUNICIPALITY is mountainous, semi-desert and flat. The district Water Service Development Plan (**WSDP**) was last developed and adopted by the Council in **2002** with Water Service Plans (**WSP**) of the local municipalities and has not yet been revised up to date. The tables that follow below show some of the challenges faced by VHEMBE DISTRICT MUNICIPALITY as far as water service delivery is concerned and this is in terms of **Masibambane Programme Progress Report**.

Table 6: RESOURCE ALLOCATION AND IMPACT ASSESSMENT: WATER

Municipality	2000/01		2001/02		2002/03		2003/04		2004/05		2005/06	
	Budget (000)	People (000)	Budget (000)	People ('000)	Budget ('000)	People ('000)	Budget ('000)	People ('000)	Budget ('000)	People ('000)	Budget ('000)	People ('000)
Vhembe												
Makhado	2 797	8 800	8 921	22 400	44 683	300	26 349	25 747	20 241	98 000	26 349	25 747

						000						
Mutale	873	3 200	4 435	1500	19 397	12 542	20 172	7 945	9 597	7 000	20 172	7 945
Musina	3 919	37 213	2 200	40 874	4 424	14 903	17 307	8 320	1 769	14 326	17 307	8 320
Thulamela	21 244	249 617	29 656	249 617	15 834	22 494	18 342	90 610	23 710	15 000	18 342	90 610
TOTAL	28 833	298 830	43 212	314 391	84 338	337 397	82 170	132 622	55 317	134 326	82 170	132 622

(2001 STATS SA)

**Table 7: POPULATION RECEIVING FREE BASIC WATER PER LOCAL MUNICIPALITY:
2004/2005 FINANCIAL YEAR**

MUNICIPALITY	TOTAL HOUSEHOLDS	TOTAL INDIGENT HOUSEHOLDS	HOUSEHOLDS / INDIGENT SERVICE	BUDGET	EXPENDITURE
Thulamela	144 667	51 530	51 530	7 000	11 000
Musina	14 903	2 198	2 198	1 270	2 198
Mutale	129 665	5 519	6 773	6 136	1 780
Mutale	20 795	2 682	8 231	0	1 846
TOTAL	308 539	61 929	68 732	14 106	16 824

Source: District Municipality IDP

3.8.2 Sanitation

The figures for 1996 considered the pit latrines as basic sanitation, whereas in 2001 pit latrines were excluded. The improvement in 2005 on the provision of sanitation is because of the inclusion of the VIPs, for example in Makhado, flush toilets improved from 8.6% in 2001, septic tank and chemical toilets improved from 0% to 3%, VIPs to 8,1% and pit latrines reduced from 79,2% to 62,4%. See map 9.

3.8.3 Municipal Infrastructure and Housing

Municipal infrastructure and housing is regarded as a problem throughout the Limpopo Province, although the problem or shortfall with respect to water supply, sanitation facilities, electricity provision and housing vary between municipal areas. The availability of these facilities and estimated need will be briefly discussed in this part of the document.

3.8.3.1 Water Supply and Sanitation Facilities

The Dept. of Water Affairs and Forestry (DWAF) in the Community Water Supply and Sanitation (CWSS) Strategic Study states that **the need for water is measured in the number of people who do not comply with the standards** referred to in the White Paper on Water Supply and Sanitation (see map 8 and 9). These standards are referred to as the RDP level and for the purposes of water supply the following 5 criteria define the minimum RDP level, viz.:

- **Quality:** 4 water quality classes to qualify the potability of water (e.g. classes 0 and 1 are ideal, class 2 is for short term use only and class 3 is unacceptable for domestic use);
- **Quantity:** a minimum quantity of 25 litre per person per day;
- **Distance:** water must be within a distance of 200m from the dwelling/house;
- **Reliability:** access to the water resource for at least 98% of the time (1 in 50 year resource reliability); and
- **Flow:** the availability or flow of water at a communal tap should at least be equal to 10 litre per minute.

The sanitation types that are below the minimum RDP level are buckets, pits or the veld/none. The sanitation types that satisfy the minimum RDP level include the following, viz.:

- Ventilated improved pits [VIP];
- Double ventilated improved pits [DVIP];
- Digesters;
- French drains;
- Suction tanks;
- Small water-borne; and
- Full water-borne.

The water and sanitation situation for settlements per local municipality in the VHEMBE DISTRICT MUNICIPALITY area is provided in terms of the following categories:

- Level of water supply below RDP standard;
- Level of water supply meeting RDP standard or above RDP standard. Each settlement has, therefore, been evaluated and the water supply situation is indicated in terms of the categories (e.g. 57 people below or not meeting minimum RDP level, and 199 people meeting minimum RDP level or better, in respect of the total number of people per village);
- The quality of the available water has been classified according to two categories being 0-10 litre per person/day and 10-25 litre per person per day. (e.g. the total number of people per settlement has been classified according to these two categories in terms of the daily water supply);
- Information per settlement on the distance of the water supply point from individual dwellings (e.g. number of people within 0-200m and number of people per village 200-500m or further from a water supply point); and
- The availability or reliability in terms of access to water for at least 98% of the time or less than that has also been used as criterion. The total number of people in the village has also been categorized in terms of their compliance with this criterion.

a. Water needs per local municipality in the Vhembe District Municipality area

The water needs per local municipality in the VHEMBE DISTRICT MUNICIPALITY area are shown following important conclusions which can be drawn regarding the need for water from the information below:

- 87% of the Vhembe District's population does not meet the RDP level of water supply, as only 13% of the population meet the minimum RDP standard or better:
 - Musina Local Municipality is best off with only 6% of the people not meeting RDP water supply levels, whilst Mutale with 100% and Thulamela with 89% of the population not having water meeting RDP levels of water supply, are worst off;
- The available water in terms of daily supply also requires serious attention as 38% of the population in the Vhembe District receive 0-10 litre per person/day, 16% receive 10-25 litre per day and only 46% is on RDP level and has 25 litre or more per person per day:
 - Mutale Local Municipality is worst off as 82% of its population only receive 0-10 litre of water per person per day. It is followed by Makhado and Thulamela which have 43% and 33%, respectively of the population only receiving 0-10 litre per person per day;
- The availability (in other words reliability in terms of access to the water source for at least 98% of the time) is also a cause for concern in the VHEMBE DISTRICT MUNICIPALITY as 68% of the population do not have reliable access (e.g. below 98% of the time) to water:
 - Musina Local Municipality is best off with 94% of its population having reliable access to the water resource for at least 98% of the time. Mutale and Thulamela are worst off with 85% and 69%, respectively of its population not having reliable access to available water resources;
- Most of the population in the VHEMBE DISTRICT MUNICIPALITY is not well off in terms of the distance of the water supply point from individual dwellings, the reason being that only 55% of the population in this district is within 0-200m from a water supply point. Only Musina local municipality has 95% of the population within 0-200m from a water supply point. Mutale is worst-off with only 38% of its population being within 0-200m from a water supply point.

Approximately 81% of the population do not have access to water with a flow at a communal tap that meets RDP standards (e.g. at least equal to 10 litre per minute).

b. Sanitation needs per local municipality in the Vhembe District Municipality area

The sanitation needs per local municipality in the VHEMBE DISTRICT MUNICIPALITY area information indicates that 72% of the population in the VHEMBE DISTRICT Municipality area does not meet minimum RDP levels of sanitation as defined. Approximately 28% of the population is at RDP level or better than RDP level of sanitation.

Mutale and Makhado Local Municipalities have the largest need for sanitation services as 98% and 83% respectively of the total population do not meet RDP sanitation standards or better. It is followed by Thulamela with 72% of the population not meeting RDP sanitation standards or better. Musina Local Municipality is best off with 93% of the total population meeting RDP sanitation standards or better.

It is evident from the information on sanitation levels that the local municipalities with large formal townships are better off, due to the fact that the population in these townships is provided with water-borne sewage systems. The informal settlements in Thulamela and Makhado are in a very similar situation than the settlements in the Mutale Local Municipality, as most informal settlements do not meet RDP sanitation levels.

3.8.3.2 Electricity Supply and Telecommunication Infrastructure

▪ Electricity

Electricity is largely generated by ESKOM and distributed by ESKOM and a number of the local municipalities. Electricity and energy is also provided by means of the following sources, viz.:

- Grid electricity, which is supplied from power stations. The largest power station of its kind in the country is the Matimba Station at Ellisras, which supplies electricity to various towns in the north-western part of the country (most northern sections of the North-west Province and the western areas of the Limpopo Province);
- Non-grid electricity which basically includes petrol and diesel generators; and
- Other alternative sources of energy, which amongst others includes batteries, paraffin, coal, wood, candles, gas, etc.

Although approximately 55% of the settlements in the Limpopo Province are supplied with electricity, the majority of these settlements are only partially electrified.

The electricity supply and TELKOM facilities at settlements in local municipalities in the VHEMBE DISTRICT MUNICIPALITY area provides an indication of the settlements per local municipality provided with electrification infrastructure. An indication is also given of the levels of electrification infrastructure per settlement and vary from very little (+/- 2%) to settlements which are completely electrified. It is also evident that most of the settlements in the non-urban areas are not well provided with electrification infrastructure.

An analysis of the information indicates that approximately 54,71% of all the settlements in the VHEMBE DISTRICT MUNICIPALITY area are provided with some electrification infrastructure. It is only Mutale Local Municipality where only 24,69% of the settlements are provided with some electrification infrastructure. All the other local municipalities are better off with approximately 60% and more of the settlements being provided with some electrification infrastructure.

▪ **TELKOM Facilities**

Information on the settlements is provided by TELKOM facilities. The available information merely indicates whether a settlement has TELKOM facilities or not. Information on the accessibility and extent of these facilities where it is available at settlements is not readily available. The available information, however, provides some guidelines as to the extent of the provision of these facilities at settlements.

An evaluation of the availability of TELKOM facilities in settlements revealed that approximately 51,57% of the settlements in the Vhembe District Municipality area are provided with some TELKOM facilities. In the Mussina Local Municipality the Musina/Musina-Nancefield settlements are well provided with TELKOM facilities but the three other settlements to the east of the municipal area do not have any TELKOM facilities. Almost 50% of the settlements in the Makhado, Mutale and Thulamela Local Municipalities have TELKOM facilities with Mutale being worst off with only 46,91% of the settlements having TELKOM facilities.

3.8.3.3 Housing

Although the provision of housing is a priority in the Limpopo Province neither the Dept. of Local Government and Housing or the Municipalities have accurate information on the available housing stock and/or housing backlogs. Decisions regarding the provision of housing in the province are mostly taken on an ad hoc basis e.g. the allocation of housing funds for the provision of subsidized housing. Project proposals for housing mostly originate from developers and local municipalities and are in most instances evaluated with very limited information. It is only after approval and before or during implementation that major stumbling blocks are identified.

The existing policy guidelines on housing provision in the province is vague and questionable in some respects, such as to what extent it complies with national aims and objectives. The reason for this statement being the following trends and tendencies, viz.:

- Approval of subsidized housing projects in non-urban areas with little infrastructure, if any at all, and with no reasonable prospects of longer term sustainable development at these settlements;
- The perceived absence of a rationale in terms of which available housing funds are proportionally allocated to various districts and local municipalities;
- The construction of a very large number of subsidized houses in non-urban areas which do not permit individual ownership or require upgrading of these settlements; and
- Enormous housing backlogs building up at urban areas due to influx of people to these areas resulting in large numbers of informal dwellings/shacks in backyards and on open land.

A proper understanding of housing backlogs in the province and in local municipality areas can only be obtained after some research has been done. It will amongst others also require that an understanding be developed on the status of traditional dwellings in terms of quantifying housing backlogs. Furthermore, the concept of extended families which is a general phenomenon in the Limpopo Province in the rural/non-urban areas must also be clarified insofar as it may contribute to the housing backlog and/or the need for housing.

Informal dwellings/shacks are a reality and need to be addressed as a matter of priority, specifically insofar as this form of housing exists within the boundaries of formal townships. It represents a real housing need/backlog.

The information on the housing types reflects the following tendencies in the VHEMBE DISTRICT MUNICIPALITY area, viz.:

- Approximately 42,77% of the houses in the VHEMBE DISTRICT MUNICIPALITY area are erected on separate stands. Mutale Local Municipality has the most traditional dwellings (65,97%) followed by Thohoyandou with 56,41% and Makhado with 41,13% traditional dwellings;
- The Musina Local Municipality has the largest number of informal dwellings/shacks in backyards or erected elsewhere and represents approximately 14,34% of all the housing in the municipal area. This situation could have improved as a project linked housing project was approved for Musina since the census was done in 1996. The fact is that informal dwellings/shacks still exist on a reasonably large scale in the Musina Local

Municipality area and indicates to a definite need for housing in Musina. All the other local municipalities have informal dwellings/shacks but only make up between 0,2% and 1,74% of all the housing in these municipal areas.

The housing projects funded by the Dept. of Local Government and Housing in the VHEMBE DISTRICT MUNICIPALITY also gives an indication of the status of the settlement in terms of the hierarchy of settlements, (e.g. first, second or third and fourth order node) as well as the type of the housing project, being a formal or informal (flood relief housing) project.

All the local municipalities in the Vhembe District Municipality area have received funding from the Dept. of Local Government and Housing for housing projects. The information indicates to a relative good division of housing subsidies between the various local municipal areas in terms of population size, although not equally as good in terms of settlements with potential for longer-term sustainable development. Thulamela has received approximately 53% of all the subsidies for formal housing projects. Furthermore, 68,5% of these housing subsidies in the Thulamela Local Municipality have been approved for settlements which form part of first order nodes. In Messina all subsidies were approved for Musina/Musina-Nancefield, which is a first order node. In Makhado Local Municipality approximately 59% of the housing subsidies have been approved for settlements in second order nodes. It is very important that most of the funding has been approved for settlements in either first or second order nodes.

In the Mutale Local Municipality almost all the funding for housing projects has been approved for 3rd and 4th order nodes. Although circumstances are unique in the Mutale Local Municipality area, due to the fact that the majority of settlements are relatively small, the allocation of funding has to be questioned, especially the fact that 1500 subsidies have been approved for Tshikunde.

Subsidies for informal (flood relief) housing have been approved for Makhado, Mutale and Thulamela with most of the funding being allocated to Thulamela. This local municipal area was also most affected by the floods in 1999.

3.8.3.4 Conclusion regarding Infrastructure

Notwithstanding the fact that the Vhembe District Municipality includes various formal townships (e.g. Makhado, Waterval, Musina, Thohoyandou, Malamulele, etc.) which are reasonably well supplied with water, sanitation facilities and electricity, the need for these facilities are still very high throughout the municipal area. Most of the non-urban/ rural settlements do not comply with minimum RDP levels of water supply and sanitation facilities.

The available information on electricity supply indicates that approximately 55% of the settlements are provided with some form of **electrification infrastructure**. Approximately 45% of the rural settlements do not have any electricity infrastructure

at all. A large percentage of the settlements where some electrification infrastructure is available also have only a small number of households provided with electricity. This tendency confirms that there is an enormous need for electricity at settlements in the VHEMBE DISTRICT MUNICIPAL area.

The Vhembe District has a large number (104881 or 49,39%) of **traditional dwellings** according to the 1996 Census information. Approximately 42,77% of the houses in this district are situated on separate stands and indicates potential for formalization and upgrading of these settlements to enable ownership, in future. **Informal dwellings/shacks** (both backyard and elsewhere) representing approximately 2,12% of all the houses in the district seems not to pose a serious problem, except for Musina town which requires immediate attention.

The approach followed with the identification of a **settlement hierarchy** is not without its shortcomings, but provides a very good basis and point of departure in the establishing of an optimal spatial pattern for the Limpopo Province. The spatial framework (e.g. macro spatial plan) should inform all departments and parastatals w.r.t. decisions on the provision of bulk infrastructure development, macro land-use planning, housing provision programmes, community-based Public Works programmes, school and health facility building programmes, etc. It provides a framework for macro spatial development in an attempt to rectify the existing unbalanced and "unnatural" macro spatial pattern with spatial enclaves of certain groupings (e.g. former homelands)

3.9 COMMUNITY FACILITIES

This part provides an overview on important community (social) facilities in the Vhembe District Municipality area. Community facilities are mainly described in terms of their availability within the district municipality area. Insofar as information is available, the accessibility of these facilities to communities is also discussed (community facilities are indicated in map 5).

Community facilities discussed in this part includes the following:

- Health facilities;
- Educational facilities;
- Safety and security facilities;
- Postal facilities; and
- Municipal and government offices.

The availability and location of these community facilities in relation to existing communities/settlements (and more specifically priority development nodes) is very important for the formulation of a **macro spatial development framework** for the VHEMBE DISTRICT MUNICIPALITY area.

3.9.1 Health Facilities

The health situation in the Limpopo Province compares poorly to most other provinces in terms of the indicators usually used to measure the health system. On the other hand the actual health situation is different between various district municipality areas and, therefore, also within individual local municipal areas. The health situation is, however, more problematic in the non-urban/rural areas compared to the urban areas where the health facilities are generally in a better condition.

The provision of adequate health facilities to all settlements is a problem because of the large number of settlements (varying in size), with the majority of them being relatively small, and scattered throughout the district. The VHEMBE DISTRICT MUNICIPALITY has a total of 739 settlements scattered over an area of approximately 2, 141 million ha.

Health facilities for both primary, as well as secondary health care (e.g. hospitals, health centres and clinics), found in the VHEMBE DISTRICT MUNICIPALITY area. The settlement in which a facility is located or closest to the facility is also indicated.

A simplified calculation of the number of people per hospital per local municipality would not provide a true reflection of the actual situation, as hospitals provide services to communities across municipal boundaries. The availability of hospitals on a district municipality level for the total population in the district is a better indication of the availability of hospitals. According to calculations there are approximately **119000 people per hospital** in the Vhembe District. The latter does not include any private hospital. If private hospitals are included the ratio will improve, although the majority of the people do not have access to private hospitals.

The average number of people per clinic in the Vhembe District amounts to **1 clinic for every 11700 people**. A very interesting tendency is the differences in the ratios for the number of people per clinic in local municipal areas. Mutale Local Municipality is in the best position as it has 1 clinic for every 7300 people compared to Musina with only 1 clinic for 13600 people. The situation is very similar for the other local municipalities, including Thohoyandou/Malamulele and Makhado, with respectively 1 clinic for every 12900 people and 1 clinic for 11800 people.

The accessibility of health facilities (e.g. in terms of the application of planning norms/criteria per facility) in the VHEMBE DISTRICT MUNICIPALITY area is reflected on the map. The following planning norms/criteria used by the Dept. of Health have been applied to determine the accessibility of communities within local municipality areas to the various health facilities, viz.:

- Communities within 20km radius and those outside 20km radius from an existing hospital;
- Communities within 10km radius and those outside a 10km radius from an existing health centre; and
- Communities within 5km radius and outside a 5km radius from an existing clinic.

The valuation of the application of these norms to determine accessibility is, however, restricted as other factors such as topography, roads, etc. is not considered. Consequently, specific communities may not be accessible to some of these health facilities although they may be located within these distance norms.

Approximately 65,63% of the communities in the VHEMBE DISTRICT MUNICIPALITY area are within a 20km radius from an existing hospital. Mutale and Messina Local Municipalities, however, have many communities, viz. 69,57% and 57,14% respectively, which are not within a 20km radius. Makhado and Thulamela Local Municipalities both only have approximately 30,57% and 22,19% of the communities situated outside the 20km radius.

All the local municipalities have at least one or more health centres with 4 out of the total of 8 health centres being located in the Makhado Local Municipality area. The majority of the communities in the VHEMBE DISTRICT MUNICIPALITY therefore do not have good access to a health centre. This is not necessarily a problem, depending on the accessibility of both hospitals and clinics to these affected communities.

Approximately 76,18% of all the communities are within a 5km radius from a clinic in the VHEMBE DISTRICT MUNICIPALITY area. Musina and Mutale Local Municipalities are again the worst off, with approximately 43% of the communities situated outside the 5km radius from a clinic. Makhado and Thohoyandou/ Malamulele both have approximately 81% of the communities situated within a 5km radius from a clinic. Communities are, therefore, reasonably well served with clinics in these two local municipal areas.

The main factor contributing to communities being outside these norms applied for hospitals and clinics is the fact that there are a large number of settlements scattered throughout a large area in these mostly non-urban local municipalities. Many of the smaller settlements have mobile clinic services, which is more appropriate. It is not cost effective to build a clinic in every settlement, (especially those with less than a 1000 people).

3.9.2 Educational Facilities

Schools are classified in terms of three main categories viz.:

- Primary schools;
- Secondary schools; and
- Combined schools.

The spatial pattern or distribution of settlements in the Vhembe District reflects the location of the various categories of schools in the district municipality area. Relevant information on the number of schools, learners, educators and classrooms per local municipality in the VHEMBE DISTRICT MUNICIPALITY area was obtained in the year 2000. The information shows that inadequate information or response was obtained w.r.t. nine (9) schools in the district municipality area. The number of schools per local municipal area is related to the population of that municipal area (and more specifically the number of children of school-going age).

The learner, educator and classroom information was in turn used to determine learner/educator and learner/classroom ratios per local municipality in the VHEMBE DISTRICT MUNICIPALITY area. Although the ratios for the individual municipal areas differ, it is a significant fact that both primary and secondary school learner-to-classroom ratios compare reasonably favorably to the national norms used by the Dept. of Education. The departmental norms w.r.t. learner-to-classroom ratios are 1:40 for primary schools and 1:35 for secondary schools. The learner to classroom ratio for the Vhembe District for primary schools is 1:35 learners with the lowest ratio in Messina with 1:24,78 and Thulamela with 1:36,53 being the highest learner to classroom ratio.

The learner-to-classroom ratio for secondary schools in the VHEMBE DISTRICT MUNICIPALITY is one classroom for every 40,68 learners. The highest learner to classroom ratio is again in the Thulamela Local Municipality (1:41, 47) with the lowest learner to classroom ratio in the Musina Local Municipality (1:28, 46).

It is evident from the above-mentioned ratios for the individual local municipalities that with the exception of schools in the Thulamela Local Municipality that the learner/classroom ratios are all within the norms of the Dept. of Education. The learner to educator ratios is also within the departmental norms.

Information on the schooling facilities and more specifically infrastructure such as electricity, water, sanitation, telecommunication, etc. is also available for all the schools within the district municipality's area. The name of the school, location and existing facilities, as well as relevant other information is, therefore, available for every school. This information indicates that the condition of the buildings of the majority of the primary and secondary schools are in a very poor state. Furthermore, serious problems are experienced at many schools w.r.t. infrastructure such as water, sewage, electricity, telecommunication, etc. These information w.r.t. individual schools could be very useful with the compilation of integrated development plans for local municipal areas.

3.9.3 Tertiary Educational Institutions

The tertiary educational institutions in local municipal areas in the VHEMBE DISTRICT MUNICIPALITY are evident from this information that only Musina and Mutale Local Municipalities do not have any tertiary educational institution. Thulamela Local Municipality on the other hand has 2 tertiary educational facilities, viz. the Venda University and Techniven.

Most of these tertiary educational institutions are also located in larger settlements and, therefore, have large population concentrations. Physical infrastructure such as water, sanitation, electricity, telephones, etc. is also available.

3.9.4 Safety and Security Facilities

Crime levels in South Africa and also throughout the Limpopo Province are high and a cause for great concern for stability and economic development. Escalating crime and perpetuating violence is a threat to the basic human rights of law-abiding citizens and communities, against which these crimes and violence are committed.

The Limpopo Province is very poor compared to most other provinces in South Africa and also underdeveloped in many ways. It is, therefore, important to improve economic growth and development in order to provide more job opportunities and ultimately reduce unemployment and increase household income in general.

Police Stations and Magistrate Courts are provided throughout the province. The police stations and magistrate courts per local municipality in the VHEMBE DISTRICT MUNICIPALITY area is indicated on maps. All the local municipalities have police stations and include both "mother" (main) and satellite police stations. The large local municipalities such as Makhado and Thulamela both have a substantial number of satellite police stations mainly in the non-urban areas. The VHEMBE DISTRICT MUNICIPALITY has a total of 21 "mother" police stations and 15 satellite police stations. Satellite police stations are linked to "mother" police stations to provide a support service to communities in the surrounding area.

The physical location of magistrate courts per local municipality in the VHEMBE DISTRICT MUNICIPALITY also form part of the Justice Department which is responsible for the day to day running of the court system and the department's functions are performed in conjunction with magistrates. All the local municipalities in Vhembe have magistrate courts with six out of a total of 10 magistrate courts situated in the Makhado Local Municipality area. All the magistrate courts are also situated in

settlements with police stations and the reasons for this is obvious, as these two departments have to work closely to perform their functions.

Provision for new police stations and magistrate courts has to be linked very closely to the spatial development framework for the Limpopo Province and the local municipalities.

3.9.5 Postal Facilities

The dispersed settlement pattern has a very negative impact on the provision of postal facilities and telecommunication infrastructure. Settlements are too far apart and too small to reach the economic threshold that is required to provide them with proper post and telecommunication infrastructure.

Post office facilities per local municipality in the VHEMBE DISTRICT MUNICIPALITY area have post office facilities (mostly in the larger settlements), it is not very accessible for a large number of smaller communities.

Furthermore, postal agencies are also provided throughout the VHEMBE DISTRICT MUNICIPALITY area. These postal agencies are provided mostly at larger settlements, but some are also situated in smaller settlements. These postal agencies provide a more restricted service, but nonetheless a very important service to these communities.

3.9.6 Municipal and Main Government Complexes/Offices

The re-demarcation of local government areas resulted in the creation of 32 municipalities in the Limpopo Province, comprised of 26 local municipalities and 6 district municipalities. Two of these are cross-border district municipalities.

The **VHEMBE DISTRICT MUNICIPALITY** has 4 local municipalities, viz:

- Makhado Local Municipality;
- Musina Local Municipality
- Thulamela Local Municipality.
- Mutale Local Municipality

Thulamela is by far the largest in terms of population, and is followed by Makhado with the other two local municipalities more or less the same size.

The district municipality offices are situated in a first order settlement (viz. Thohoyandou) and all four of the local municipality offices are also situated in first order settlements. The location of the municipal offices is, therefore, in line with the macro spatial development framework formulated with the compilation of the Spatial Rationale (1999).

Most of the important government complexes/offices are also situated in first and second order settlements. Some of the lower order settlements also provide accommodation to smaller offices of the various government departments.

3.9.7 Conclusion regarding Community Services

Most community facilities are reasonably well supplied and located to ensure decent levels of accessibility to the majority of communities. Some communities, however, experience problems with primary health care facilities such as clinics and need to be addressed in future.

Although schools (both primary and secondary) are reasonably well supplied also the number of classrooms and educators, thus ensuring compliance with the standards of the Dept. of Education, other serious problems exist. There is a lack (backlog) of infrastructure at many of these schools. The provision of these facilities is very important to ensure decent standards and a healthy school environment, which is conducive for performance by the learners.

Measured against acceptable norms and standards meaningful scope exists to improve the provision and also quality of many of the community facilities in non-urban areas, and areas more specifically in priority development nodes.

3.10 ENVIRONMENTAL SENSITIVE- AND CONSERVATION AREAS

The environmental of the Department of Economic Affairs and Tourism is the responsible institution in Limpopo Province for environmental matters. (See map 3).

They are currently in the process compiling a State of the Environment Report (SoER) for Limpopo Province. This report will provide details of the conditions of the environment and natural resources. It will also do an evaluation on the status of the environment.

- The first phase of the report is now completed where all relevant aspects related to the environment has been addressed.

This information will be incorporated during the assessment of development in Vhembe District. Future proposals will also be done in an environmental sensitive way.

3.11 MAIN SPATIAL ISSUES FROM LOCAL MUNICIPALITIES

3.11.1 Thulamela

The development trends have given rise to a few challenges that the municipality will have to address in the short term. Some of these include:

- Redirecting growth and development towards the precious disadvantaged areas and areas of economic opportunity while focusing on the redevelopment of deteriorating areas within the municipal area.
- Integrating urban areas and introducing higher density developments and mixed uses.
- The prevention of illegal occupation of land and the relocation and prohibiting of informal settlements in flood line areas.
- Addressing the issue of land ownership.
- Alleviating poverty and creating economic opportunities within the rural areas.
- Ensuring the sustainable use of resources and the integration of environmental, land use and transport management systems
- The creation of job opportunities needs to get priority as many qualified people leave the municipal area in search for work elsewhere.

Key Issues that need to be addressed by the SDF

The following two spatial aspects need to be addressed within the SDF, namely:

- **The need for spatial reconstruction** i.e. addressing the unequal distribution of resources and facilities, contain low-density sprawl, addressing the lack of opportunities in disadvantaged areas and increasing the use of public transport.
- **The formulation of the land use management system** i.e. refers to the speeding up of land use applications, die adoption of a more flexible and investor-friendly approach, the integration of environmental and transport planning as part of land use planning and the enforcement of land use regulations.

3.11.2 Mutale

Challenges faced by the Municipality

The development trends have given rise to a few challenges that the municipality will have to address in the short term. Some of these include:

- Formulation of place marketing and industrial recruitment strategy.
- Integrating settlement areas and introducing higher density developments and mixed uses.

- The prevention of illegal occupation of land and the relocation and prohibiting of informal settlements in flood line areas.
- Addressing the issue of land ownership.
- Alleviating poverty and creating economic opportunities within the rural areas.
- Compete for new investments and strengthening the existing and emerging businesses within the area.
- Ensuring the sustainable use of resources and the integration of environmental, land use management systems.
- The impact of HIV/AIDS and to plan timeously for the social and economical problems associated with it.
- The creation of job opportunities needs to get priority as many qualified people leave the municipal area in search for work elsewhere (migrant labour).
- To improve the quality of municipal services in some areas, particularly infrastructure i.e. roads, electricity, water and other social services.

Key Issues that need to be Addressed

The following are the key issues that the municipality should address within the SDF, namely:

- **The need for Spatial Reconstruction**

The first aspect refers to addressing the unequal distribution of resources and facilities contain low-density sprawl, addressing the lack of opportunities in disadvantaged areas and increasing the use of public transport.

- **The formulation of the Land Use Management System**

The formulation of the land use management system will help to the speeding up of land use applications, the adoption of a more flexible and investor-friendly approach, the integration of environmental and transport planning as part of land use planning and the enforcement of land use regulations.

3.11.3 Makhado

Spatial Development Framework

The purpose of the spatial development framework is to provide localised development principles including guidelines for spatial restructuring and integration

as well as a spatial representation of objectives and strategies that have a spatial dimension.

The main objective of the spatial development framework in the Makhado Municipality is to attain better structure on the envisaged role that Makhado will continue to serve a regional function to the surrounding areas (e.g. trade services, banking, manufacturing, storage, transport, etc) and generate a significant number of direct employment opportunities for the local communities. This framework implies that social, economic and physical intervention will need to be made at strategic locations within the Municipality.

A major spatial-related problem in the study area is the dispersed nature of settlement, especially in the rural areas.

Spatial development strategies

The following strategies guide the spatial development of the Makhado Municipality:

- The promotion and development of the Trans-Limpopo Spatial Development Initiative activity spine
- The encouragement of higher densities and mixed land uses in selected areas
- Development of retail, commercial and informal sector opportunities and facilities in selected areas and encouragement of the diversification of land uses within selected areas
- The infill of formal residential development
- The creation of decentralised (rural) development nodes and activity centres where the development of higher-order activities (retail, commercial, industrial, etc.) is encouraged

More specifically, these strategies can be translated into several development elements which will form part of the development strategies. The developmental elements include the following:

Settlement hierarchy and nodes

The main aim with the settlement hierarchy and nodes is to give direction to development expenditure which will contribute to a better spatial hierarchy of settlement and the improved utilisation of scarce land resources. In determining the hierarchy of settlements the following guidelines and opportunities are used:

- Settlements of unique character
- Settlement with unique growth potential
- Function and services
- Population
- Transport links
- Tourism

- Agriculture

Land reform

The guiding principles contained in chapter one of the DFA provide the standard against which all development must be measured. In short these principles include the following:

- Integration of the physical, social, economic and institutional aspects of planning
- Integration of urban and rural areas
- Compacting the city and optimising the use of available resources
- Sustainable development
- Provide affordable services for all members of the community

Industrial development

Identify areas for possible future industrial development

Agricultural development

The natural resource base renders the region with a comparative advantage for the production of particular agricultural commodities such as subtropical fruits and nuts. The Limpopo Province produces seventy percent of South Africa's avocado, pear and tomato crop and seventy five percent of citrus fruit. Other crops include tea, coffee, bananas, sisal, cotton, guavas and tobacco.

Protection of conservation and recreation areas

All the ecologically sensitive areas such as flood areas, wilderness areas and ridges are identified as conservation areas.

The main spatial objectives and strategies relevant to the municipality and identified through the IDP process are of such a nature that they cannot accurately be graphically illustrated. This problem is further compounded by the lack of available detailed maps of the study area as well as the absence of formalized town planning activities at local government level. It is strongly recommended that town planning functions be incorporated in the Makhado Municipality as a matter of urgency.

The municipal is currently busy to compile the LUMS.

3.11.4 Musina

Spatial Issues:

- Temporal population movements from neighbouring countries are possibly imposing additional stresses on the community facilities within the municipality and needs to be addressed.
- Numbers of suspected illegal immigrants settling in Musina are increasing pressures on housing and social facilities.
- Despite the above the adjoining countries also provide opportunities with respect to movement of trade and tourists between SA, Botswana and Zimbabwe.
- The border post areas need to be improved and made more efficient while enhancing economic opportunities for the municipality.
- It appears that the focus of population growth is within the urban areas of Musina namely Nancefield and Musina town, at the expense of the smaller rural settlements.
- The correlation of state and large institutional land holding with land claims suggests opportunities for the municipality to intervene in the acquisition of land for resolving some of the land claims and meeting the need for additional service settlements.
- The agricultural areas within Musina are limited and need to be preserved and therefore should be taken into consideration in the spatial planning of the area.
- The national road (N1) running through the area presents some commercial opportunities for development in the areas adjacent to it.
- Mining within the municipality appears to be on the decline, with many mines shut down, however there is potential for coal mining should the road infrastructure be improved.
- There is a cluster of rural settlements around the Domboni which have poor access to basic services. These settlements are dormitory residential areas, with limited supporting land uses.
- Related to the above, the vast area of low population densities within the more rural areas of the municipalities, i.e. western area, combine to make the potential provision and maintenance of infrastructure and other municipal services very costly. Future settlement development should thus be concentrated in a few locations where bulk infrastructure is already available and where services can be maintained in as cost-effective a way as possible.
- The municipality contains a number of nature reserves, conservancies and game farms, which is a comparative advantage over other municipalities.

- The Golden Horseshoe Initiative – a conceptual spatial framework that aims to provide a receptacle for a diverse portfolio of tourism and related activities as a major opportunity in the area. Area extends from the western, northern and eastern borders of the Limpopo Province.
- Future spatial planning in the municipality should protect the natural resources in the area and promote tourism. Recreational development in those areas, which has potential for it (e.g. the areas adjacent to the numerous river catchment areas, watercourse and nature reserves in the area.
- Overall there appears to be a greater provision of infrastructure and facilities in the eastern area creating a spatial imbalance between the west and eastern areas in terms of settlement and infrastructure development, which may need to be addressed should tourism development around Mapungupwe/Dongola Complex develops.
- There is poor accessibility to social and economic activities for rural populations.
- Under-utilization of the railway network and inefficient public transport.
- The majority of social facilities are located around Musina town and to the east of Musina. Nineteen education facilities exist in Musina municipality, of which only four are located to the west of Musina. There are three medical facilities within the municipality, two of which are in the town of Musina. One magistrate's court is located in Musina.
- There appears to be a shortage of education and health facilities in terms of the minimum access distance to these facilities, in the western portion of the municipality (western half of Ward 1).
- Other shortages of social facilities include libraries in wards 1 and 2; postal facilities (or at least post box facilities) in the same areas.
- Additional pension pay-points should be sought along the northern edges of the municipality and in the far western areas in order to achieve equal distribution across the municipality.
- The rural settlements tend to be of a clustered nature and sparsely distributed outside of the eastern portion, within the municipality.

3.12 RECOMMENDED HOUSING DEVELOPMENT

Challenges facing housing are amongst others poor coordination between the Department of Local Government and Housing and municipalities. The poor

coordination consists of lack of support and capacity for municipalities in rendering service on behalf of the department. The results are incomplete housing projects or blocked projects. Communicable land tenure system delays housing implementation due to inaccessibility of land. Spatial planning and land use management also pose a serious challenge to housing provision.

VHEMBE DISTRICT MUNICIPALITY
LIST OF HOUSING PROJECTS

MUNICIPALITY	2000/2001			2001/2002			2002/2003		
	ALLOC	DELIV	BUDGET	ALLOC	DELIV	BUDGET	ALLOC	DELIV	BUDGET
MUTALE	864	320	13,824,000.00	500	385	8,800,000.00	500	310	10,150,000.00
THULAMELA	2989	1267	44,986,000.00	1650	1859	27,200,000.00	800	519	16,240,000.00
MAKHADO	4310	4064	68,960,000.00	1250	1147	20,800,000.00	900	367	18,270,000
MUSINA	0	0	0.00	0	0	0.00	300	300	6,090,000
	8163	5651	127,770,000.00	3400	3391	56,800,000.00	2500	1496	50,750,000.00

MUNICIPALITY	2003/2004			2004/2005			2005/2006		
	ALLOC	DELIV	BUDGET	ALLOC	DELIV	BUDGET	ALLOC	DELIV	BUDGET
MUTALE	800	755	18,480,000.00	700	147	17,570,000.00	300	0	8,835,000.00
THULAMELA	2200	2003	50,820,000.00	800	562	20,080,000.00	400	14	11,780,000.00
MAKHADO	1600	1327	36,960,000.00	800	158	20,080,000.00	1265	232	38,989,550.00
MUSINA	0	0	0.00	0	0	0.00	300	0	9,578,700.00
TOTAL	4600	4085	106,260,000.00	2300	867	57,730,000.00	2265	246	69,183,250.00

3.13 ROADS AND TRANSPORT NETWORKS

The following table provides details of the various roads which will be upgraded in Vhembe District over the next ten years by Roads Agency Limpopo.

ROAD No.	ROAD PARTICULARS	LENGT H KM	DEVELOPME NT STRATEGY	UPGRADING PLAN				
				05/06	06/07	07/08	08/09	09/10
D370 8	Mukula to Thsidzini to Tshaulu to Mhinga serves a large number of communities	33		25	30	20		
D4	Malamulele (giant reef)-Malamulele Town to Malamulele Tovuwani and Elim to Bandelierkop service road for a number of people to Elim hospital and shopping facilities	54	SDR	49	28	31		
D500 2 and D368 1	Donald Fraser to Phiphidi to Tshisahulu it is the highest trafficated gravel road inaccessible when wet.	23	High traffic problem road	19	21	20		
D368 9	Matavhela to Muswodi to Folovhodwe serves a large number of communities	27	SDR Tourism		20	35		
D158 ,D21 7	Schiermonikoog to Kromhoek to Grootpan serves the Ga-kibi hospital. It serves a nature reserve	68	Tourism	18	22	20	30	46
P227 /1	Makonde to Masisi main access from communities to Thohoyandou and Tshikondeni mine	55	GHS, SDR					

ROAD No.	ROAD PARTICULARS	LENGT HKM	DEVELOPMENT STRATEGY	UPGRADING PLAN				
				05/06	06/07	07/08	08/09	09/10
D11/ D315 / D382 7 and D374 /D37 49	Mooketsi to Sekgosese to Mamaila to Olifantshoek to Magoro to Njhakanjhaka and Nkuzana to Tshipuseni to Levubu	35	Tourism	40	30			
D375 6	Mavambe to Thohoyandou	12	Tourism	19	16			
D370 ,D36 53 and D364 4	Mhinga to Lombaard to Altein to Shangoni KNP GATE	26	Tourism			30	33	
D370 7	Lambani to Vhurivhuri	18						20

Source: Road agency Limpopo

3.14 TOURISM SECTORS IN VHEMBE DISTRICT

In many instances, political or municipal boundaries have created artificial barriers that cut across geographical areas, which should normally be regarded as tourism destinations. Looking at tourism planning from a District Municipality point of view is, therefore, a step forward compared to the creation of both development and marketing strategies for individual local municipalities. However, this does not entirely solve the problem and the following few examples indicate situations where cross border cooperation is essential. This could be either between local or District Municipalities.

- The "**Venda Heartland**". This will be proposed as an important destination and attractions or products such as Dzata, Lake Fundudzi, Thate Vondo Forest, Nwanedi and Phiphidi Waterfall, for example, actually lie within the three separate Local Municipalities of Makhado, Thulamela and Mutale. If Tshipise is regarded as a component of this destination then Musina Local Municipality would also be involved.

- As far as **Rock Art, Archaeological and Historical Routes** are concerned, all four Local Municipalities within Vhembe would need to be involved as well as Blouberg Municipality where the Makgeng is a critical part of the rock art attractions and Kruger National Park as the custodian of the Thulamela Archaeological site.
- The proposed new **Gate into Kruger Park at Shangoni** would physically be in the Thulamela Local Municipality and yet the main access road would be via Giyani that falls under Greater Giyani Local Municipality.
- **Middle Letaba Dam** is also a “border-line” case with the northwest (left) bank being in Makhado Local Municipality and the south-east falling within Greater Giyani. Future planning of any waterside resorts or facilities would need to ensure adequate consultation and joint planning.

The Tourism Marketing and Development Plan prepared for Makhado Local Municipality in 2004 included a comprehensive database of tourism operations as well as the results of a guest profile research study amongst a representative cross-section of accommodation operators.

Calculations to determine an approximate value of the tourism Sector included the following factors:

- Total numbers of beds available = 1,569
- Average occupancy = 51,5%
- Average per person per night rate = R220.00
- Split between business, leisure and in-transit as the spending per person varies between each category

These factors produced a total value of R 117,239,995 per annum and this allowed certain growth objectives to be set in terms of increasing numbers of visitors, length of stay, average spend and the percentage of income retained within the local economy. With regard to this latter issue, it was very difficult to obtain a meaningful figure regarding retained income and the degree of leakage of tourism revenue out of the local economy. This issue is discussed in greater detail later. Using published information on the number of accommodation establishments, approximate number of beds and average bed and room rates, it has been possible to estimate the following numbers of beds:

- | | |
|---|--------------------|
| ▪ Mapungubwe area (up to Dongola Ranch in the east) | =514 beds |
| ▪ Musina and Mutale | =629 beds |
| ▪ Thulamela | =358 beds |
| ▪ Total | =1,501 beds |

In round numbers there are approximately 3070 beds within the Vhembe District if the above figures are added to the known 1,569 beds in Makhado area.

Without undertaking more detailed research amongst the operators owning these additional 1,501 beds, the percentage business vs. leisure and the average occupancies and rates can only be estimated based on the Makhado figures. A

problem is that in the case of the Musina/Mutale area as well as Thulamela, one substantial establishment in each area owns almost 50% of all beds and a reluctance on their part to disclose bed or room occupancies makes the averages a matter of guesswork.

However, based on the Makhado rates per bed of R220 and the average bed occupancy of 51,5% the total estimated earnings from accommodation income for Vhembe is R126,958,315.

The additional spend on meals, entertainment, gifts and excursions has been calculated at an additional 83% of the accommodation spend. This is R105,375,401 and yields a total tourism income of R232,333,716 for the Vhembe District.

The process of calculating the value of retained tourism income within the Vhembe economy would require an extensive survey that takes into account a number of variables. A small sample survey amongst five operators has been inconclusive for the following reasons:

- Small establishments tend to buy meat, eggs, dairy products, fruit and vegetables from local suppliers and it is reasonable to conclude that the majority of such items are actually grown or produced locally.
- Dry goods are purchased mainly from local wholesalers although some goods are bought at retail outlets and some are delivered by Polokwane or Gauteng based suppliers.
- Frozen foods such as fish tend to come from Polokwane.
- Cleaning materials are purchased locally from either retail or wholesale suppliers whilst the larger establishments may have contracts with Gauteng suppliers.
- Soft drinks are mainly purchased locally, with spirits and wines coming from Polokwane or Gauteng distributors. In some cases wine is ordered direct from the Cape.
- Items such as uniforms, blankets, sheets and towels are often purchased direct from Gauteng for large orders and from Polokwane for smaller replacement stocks.

Although several establishments do buy locally as far as possible there are very few cases of a relationship having been built up by an operator and a local "emerging" farmer or producer. Operators are keen to forge such linkages but there have been problems with quality and continuity of supplies. One lodge operator noted that he is a hospitality industry operator who demands a regular and guaranteed supply of fresh vegetables. "I don't have the time or the technical ability to teach some local entrepreneur how to grow the sort of tomatoes I need. However, if an appropriate NGO is prepared to train these emerging producers to deliver what I need, when I need it and at the price I am prepared to pay, then I will be happy to change my supplier."

A further complication relates not to the actual area of purchase but the area of production. In other words, a case of wine purchased in Makhado from a retail bottle store would only result in the mark up by the restaurateur and the bottle storeowner remaining within the local economy. The cost of the wine plus railage etc. would accrue beyond the District.

A final point concerns the overall cost of sales in relation to the price charged to the guest and this is information that is not always easy to extract.

Transport and Communications

Although traffic counts along major routes such as the N1 have been done they are of little value for tourism planning or development purposes as they lack any qualitative breakdown that may indicate what percentages are tourists, local commuter traffic and commercial traffic etc.

Instead, estimates of the relative strengths of tourist flows have been made based on previous research amongst tourism product operators and from informal observations.

In order to obtain a more accurate assessment, it is recommended that research be undertaken at key road junctions and along major routes at some time in the future. It is noted that a similar recommendation has recently been made to the Mopani District Municipality and a joint project would be of great value in helping tourism product and destination managers and marketers to better understand the nature, shape and size of tourism flows.

The following Table includes the main road numbers, or the start and end points with the estimate of flows in relation to each other. The "benchmark" figure is 5 for the section of N1 between Polokwane and Makhado and the other flows are rated in relation to this figure. Comments on future growth are also offered where relevant.

Table 4-86 Main tourist routes

Route	Flow strength	Comments
N1 Polokwane – Makhado	5	The prime tourism destination within the District is Makhado and environs. Traffic flows to and from Makhado would also include tourist traffic to and from Zimbabwe, such as it is at present. More effective marketing of the Makhado/Land of Legend destination as well as a return to normality in terms of recreational travel in Zimbabwe would boost flows along this route.
N1 Makhado – Musina	2/3	This flow would include tourist traffic to and from Zimbabwe, hunting visitors to game farms north of the Soutpansberg and visitors heading for Tshipise, Nwanedi and the Pafuri Gate of Kruger Park.

Route	Flow strength	Comments
R524 Makhado – Thohoyandou	2/3	Mainly business tourists to Thohoyandou and Sibasa, VFR traffic to and from Gauteng and tourist traffic to Punda Maria Gate and northern Kruger Park. This would appear to be the preferred route for visitors from Gauteng and "the south" to and from Punda Maria, compared to the route via Giyani on the R81, which is shorter. The opening of a new gate into KNP at Shangoni could impact negatively on the flows via Thohoyandou to the far north. In addition "smart marketing" by the Giyani operators could further impact on the flow through to Nandoni Dam and Punda Maria Gate.
R578 Giyani – Elim – Makhado	1	This is not regarded as a tourist flow of any significance, although there are higher volumes of tourists between Makhado and Elim and on to members of the Ribolla Route or the Soutpansberg-Limpopo Birding Route between Elim and Luvuvhu – especially Albasini Dam. The Rixile Route presently being promoted between Phalaborwa and Giyani may, in time, be extended as far as the Middle Letaba Dam, Tshimbupfe or Elim. Communication between the two route "managers" is indicated.
R521 Polokwane – Alldays	2/3	The main tourist traffic will be en route to Mapungubwe and the Tuli Block in South-east Botswana with a small proportion heading for hunting farms east and west of the R521 and lodges along the Mogalakwena river. This is the route that will carry the highest short to medium term growth in tourist traffic as Mapungubwe and the operators within the Limpopo Valley Conservancy capture increasing market attention. The full realization of the Limpopo/Shashe Trans-frontier Park will also impact positively on traffic flows. Although Alldays village does not fall within Vhembe it has tourism growth potential which could be matched if Vivo (part of Vhembe) develops as a preferred refreshment stop. Tourism opportunities for the Buysdorp community are also linked to this expected increase in tourist flows.
R572 Pontdrif – Musina	2	The Mapungubwe National Park entrance gate, other commercial lodges and hunting farms are located along this route. Traffic from the south may use either the R521 or the N1 via Musina depending on their exact destination along the R572. The midpoint of the R572 is almost exactly the same distance from Polokwane along either route. A disadvantage of the N1 is the two toll gates although it is a faster and probably safer route with the section across the Soutpansberg being very scenic. It is known that tourists prefer not to use the same route for outward and homeward journeys so a round route could be packaged and promoted.
R522 Makhado – Vivo	1	This route will carry local tourist traffic from Makhado to the lodges on the southern side of the Soutpansberg as well as to Schoemansdal. It is also promoted by the local tourism association as one of the day "loops" for short stay visitors in and around Makhado. Future development of Spies Dam as a birding site, Kranspoort and Buysdorp would see stronger flows but visitors to and from Mapungubwe are not likely to regard this as an optional route.
R523 Waterpoort Road north of the Soutpansberg	0/1	This may be part of a day circuit for visitors staying in Makhado and the baobab trees and the saltpan area are worthy of a visit. Other tourist traffic to local lodges and hunting farms use this route. The future development of a route following the "Footsteps of the Ancestors" may meander briefly into this area to visit either (or both) Machedema or Verdun Venda ruins.

Route	Flow strength	Comments
R525 Mopani – Pafuri	1/2	This route from the N1 to Tshipise, as well as the R508 linking Musina directly to Tshipise would carry the majority of tourist traffic. A small number would use this route to reach Nwanedi although upgrading of the roads between Sibasa and Nwanedi make these the preferred direct route. There is also a small flow east of Tshipise to game farms along the Limpopo and into the Pafuri gate of Kruger Park. It is reported that this flow is increasing steadily as the lodges within the Makuleke concession, the African Ivory Route Camp at Mutale Falls and other lodges and camps outside Kruger gain in popularity. Traffic through Pafuri into Mozambique is also increasing and accommodation outside the Park's western boundary is the preferred overnight stop as this allows travellers to reach the Mozambique/Kruger border post early in the morning. Parts of this route would benefit from the development of historical and archaeological routes linking Mapungubwe to Thulamela via Dzata, Nwanedi and Sagole.
R523 Wylliespoort – Sibasa	1	At this stage tourist flows along this route are very low although the eastern end between Sibasa and Dzata will carry slightly stronger flows. Increased flows will be dependent on the development of the "Land of Legend" destination and an historical route linking Dzata and Tshieundeulu with Mapungubwe. It is also noted that any visitors "from the south" heading for Dzata and Lake Fundudzi area will prefer the Vitvlag road linking the N1 north of Makhado to the R523. Once again, a series of "clover leaf" day excursions from Makhado should certainly include a circuit including Wylliespoort, Dzata, Sibasa, Thohoyandou and back to Makhado via Tshakuma or Luvuvhu and Elim. Such day excursions will be totally dependent on more effective packaging of products, attractions and experiences.

The following sub-sections will outline the known main sites or attractions in each of the four Local Municipality areas, as well as the "key features" and the "future potential of each of the sites. The extent to which each of the attractions are "open and operating" for the public and what "short term actions" may be needed to make the site more attractive or better utilised are also described.

CHAPTER 4

THE DESIRED SPATIAL GOALS

4.1 GROWTH POINTS AND DEVELOPMENT CORRIDORS IN VHEMBE DISTRICT MUNICIPALITY.

The three categories of growth points are briefly described in terms of their relative importance/priority in the proposed hierarchy:

Provincial growth point (PGP): a provincial growth point is the highest order in the hierarchy and therefore also the most important type of growth point. PGP's all have a sizable/reasonably large economic sector providing jobs to many local residents, fulfils a regional and some even a provincial service delivery function, have a large number of social (e.g. hospitals, tertiary educational institutions) facilities, as well as institutional activities such as government offices and local and/or district municipal offices. The majority of these provincial growth points also have a large number of people. Growth points include settlements such as Polokwane, Mokopane, Bela-Bela, Makhado, Musina, Thohoyandou, etc.

District growth points (DGP): these growth points already have meaningful economic activity with some job creation, various higher order social facilities such as hospitals, health centres, and tertiary educational institutions. Most of these district growth points also accommodates some government offices and in many instances also the district and/or local municipal offices. In most instances these district growth points also have a large number of people grouped together in the growth point.

Municipal growth point (MGP): in terms of the various categories of growth points the municipal growth point has a meaningful but relatively small economic sector compared to the district, but more specifically the provincial growth point. Municipal growth points serving mainly large farming areas often have a sizable business sector providing a meaningful number of job opportunities. These growth points also have some higher order social and institutional activities. In most instances these growth points also have a substantial number of people, but in some instances such as Northam, the emphasis is on the economic sector (e.g. business and mining activities in the area) with a relatively small number of people, although the growth point serves a large rural/farming community. In traditional rural areas the economic sector is relatively small with only a few businesses, but a substantial number of people with a natural growth potential if positively stimulated. Growth points and development corridors are indicated in map 10.

4.1.1 Musina Local Municipality

Provincial Growth Point

- Musina

Local service point

- Tshipise

Municipal Development Corridors

ID	Corridor	Description
1	Makhado to Musina	Along road N1 from Makhado to Musina
2	N1 to Masisi	Along road R523 Tshipise to Pafuri gate

4.1.2 Mutale Local Municipality

The municipality has two municipal growth points, which are Masisi and Mutale. The municipality has 2 population concentration points, which are Folovhodwe and Mulodi. It is also composed of villages and few farms. The municipality is linked to other areas with road networks. The municipality does have a population of approximately 131781 people. The proposed growth points of the municipality are:

- Tshandama/Tshilamba municipal growth point
- Masisi municipal growth point
- Makuya local service point
- Muswodi growth point
- Tshixwadza local service point
- Folovhodwe local service point

Development corridors

ID	Corridor	Description
1	Tshipise corridor	From Tshipise to Sanari
2	Shadani / Makuya corridor	From Shadani to Makuya

4.1.3 Thulamela Local Municipality

The municipality has a provincial growth point which is Thohoyandou and two district growth points which are Sibasa and Malamulele and one municipal growth point which is Mhinga; we also proposed two municipal growth points which are Makonde and Tshaulu. List of growth points within the municipality

Provincial growth point

- Thohoyandou

District growth point

- Sibasa
- Malamulele

Municipal growth point

- Mhinga
- Makonde
- Tshaulu

Local service point

- Lwamondo extension/Dzwerani
- Phaphazela
- Tshitereke
- Xikundu

4.1.4 Makhado Local Municipality

Growth points

a) Proposed Major Growth Points

❖ MAKHADO

The town of Makhado is situated along the N1 North at approximately ±110 km from the Beit Bridge border of South Africa and Zimbabwe. The makhado Town has a trade relationship with the cities in Zimbabwe

❖ Vuwani

Vuwani is situated in the eastern side of makhado town, it's one of the Makhado Municipal growth point; Vuwani town is composed of different activities like police station; community halls; commercial activities, Magistrate offices etc

❖ Elim / Watervaal

Elim is one of Makhado municipal growth point; it is situated in the southern side of Makhado town; Elim town composed of different activities such as hospital, agricultural, commercial etc

❖ Dzanani

Dzanani is one of Makhado municipal growth point; it is situated in the northern side of Makhado town; Makhado town composed of different activities such as hospital, agricultural, commercial; Police station; Magistrate offices etc.

b) Proposed Minor Growth Points

❖ Madombidzha/Kutama and Sinthumule

The Madombidzha area situated in the western side of Makhado town; it is approximately ±30KM from Makhado Town; Madombidzha is one of the local service points for Makhado town.

❖ Hlanganani / Bungeni

It is situated in the south east of Makhado town; the area is composed of different activities such as community halls; commercial activities etc

4.1.5 Proposed Local service point

- Tshakhuma
- Waterpoort
- Chavhani
- Vleifontein
- Oliphanthoek

VHEMBE DISTRICT MUNICIPAL PROPOSED GROWTH POINTS

The Vhembe district growth points, municipal growth points and local service points are indicated in map 10.

Proposed corridors

ID	Corridor	Description
1	Makhado to Musina	Along road N1 North Makhado
2	Pundamaria corridor	Along road R524 East of Makhado to Thohoyandou
3	Makhado to Capricorn	Along road N1 South of Makhado to Polokwane
4	Makhado to Elim	Road R578 south east of makhado to Giyani
5	Elim to Vuwani	From Elim heading East through villages to Vuwani
6	Dzanani to Sibasa	Along road R523 East of Dzanani to Sibasa

Table 9: Proposed nodal points

GROWTH POINTS	MUSINA MUNICIPALITY	MAKHADO MUNICIPALITY	MUTALE MUNICIPALITY	THULAMELA MUNICIPALITY
Provincial Growth Point	Messina	Makhado		Thohoyandou
District Growth Point		Elim/Waterval		Sibasa Malamulele
Municipal Growth Point		Vuwani Dzanani Hlanganani/Bungeni	Mutale Masisi Muswodi	Mhinga Makonde Tshaulu
Local Service Point	Tshipise	Vleifontein Waterpoort Valdezia Oliphanthoek Tshakhuma	Folovhodwe Makuya Tshixwadza/Dzamba Tshipise	Lwamondo Ext/Dzwerani Phaphazela Tshitereke Xikundu

Source: fieldwork (2007)

4.2 ROAD AND TRANSPORT NETWORK

Road and transport network is indicated in map 7.

Table 10: ROADS TO BE UPGRADED IN THE NEXT 5 YEARS

ROAD No.	ROAD PARTICULARS	LENGTH KM	DEVELOPMENT STRATEGY	UPGRADING PLAN				
				05/06	06/07	07/08	08/09	09/10
D3708	Mukula to Tshidzini to Tshaulu to Mhinga serves a large number of communities	33		25	30	20		
D4	Malamulele (giant reef)-Malamulele Town to Malamulele Tovuwani and Elim to Bandelierkop. Service road for a number of people to Elim hospital and shopping facilities	54	SDR	49	28	31		
D5002 and D3681	Donald Fraser to Phiphidi to Tshisahulu. It is the highest trafficated gravel road and inaccessible when wet.	23	High traffic problem road	19	21	20		
D3689	Matavhela to Muswodi to Folovhodwe. Serves a large number of communities	27	SDR Tourism		20	35		
D158, D217	Schiermonikoog to Kromhoek to Grootpan. Serves the Ga-kibi hospital and nature reserve	68	Tourism	18	22	20	30	46
P227/1	Makonde to Masisi. Main access from communities to Thohoyandou and Tshikondeni mine	55	GHS, SDR					
D11/ D315/ D3827 and D374/ D3749	Mooketsi to Sekgosese to Mamaila to Olifantshoek to Magoro to Njhakanjhaka and Nkuzana to Tshipuseni to Levubu	35	Tourism	40	30			

D3756	Mavhambe to Thohoyandou	12	Tourism	19	16			
D370, D3653 and D3644	Mhinga to Lombaard to Altein to Shangoni KNP GATE	26	Tourism			30	33	
D3707	Lambani to Vhurivhuri	18						20

Source: Roads Agency Limpopo – 2005 to 2010

4.3 PRIORITY ISSUES FOR INVESTMENT

VHEMBE DISTRICT MUNICIPALITY PRIORITY ISSUES PER CLUSTER

INFRASTRUCTURE	SOCIAL CLUSTER	ECONOMIC CLUSTER	INSTITUTIONAL CLUSTER
1. Water Supply	1. Fire and rescue services	1. Economic Growth and increase employment	1. Strategic Leadership and Programmes Management
2. Sanitation Supply	2. Disaster Management	2. Agriculture	2. Organisational Development
3. Electricity supply	3. Health and Social Development facilities and services	3. Tourism	3. Skills Development
4. District Roads and storm water infrastructure	4. Inadequate educational facilities and high level of illiteracy	4. Mining	4. Service Delivery Excellence and Performance Management
5. Provision of housing	5. Provision of sports and recreation	5. Agro-Processing (Manufacturing)	5. Inter-Governmental Relations and Communication
6. Telecommunication network		6. SMMEs	6. Increase Financial Capacity and Management
7. Solid waste management infrastructure			

Source: IDP VHEMBE(2006/2007)

4.4 CONFIRM FUNCTIONAL NODAL POINTS

The following main functional nodal points are:

- Makhado – Provincial growth point
- Thohoyandou – Provincial growth point
- Messina – provincial growth point
- Tshilamba / Tshandama- municipal growth point
- Sibasa – municipal growth point
- Malamulele – municipal growth point
- Dzanani/ Vuwani- municipal growth point
- Elim – District growth point

4.5 AGRICULTURAL & TOURISM

(i) Agriculture

Support for the booming agricultural activity in the Luvuvhu area could contribute to a thriving regional economy. There are quite a number of agricultural activities in the district which require coordination and updating. While commodity support to emerging farmers is acknowledged, strategies need to be extended to ensure market linkages and sustainable enterprises. An audit is needed on the number of farm workers working in the area as well as the status of living conditions to ensure appropriate planning and service access for these communities. Agricultural potential is indicated in map 4.

(ii) Tourism

The economic opportunities presented by the location of the Punda Maria Kruger Gate could have significant benefits for surrounding communities.

It is therefore recommendable for the Vhembe District Municipality to be encouraged to capitalize on the Punda Maria and Shangoni Gates that ensure access to Kruger National Park by ensuring appropriate infrastructure and access points to surrounding communities. The same opportunities could have significant benefit to the communities living around the revamped Shangoni Gate and the Makuleke village. The Archaeological Work Heritage site of Mapungubwe presents a unique opportunity for socially responsible tourism initiatives.

The Big Tree at Mutale Municipality demonstrates unique tourism attraction in the District. Appropriate infrastructure around the Big Tree is a major backlog to attract more tourists.

Current mining activities in the Vhembe District include the following: diamond, coal, salt, granite, stone crushing, vermiculite and gravel burrow pits. Although other mining activities are not active there is quite a number amongst them that are operational and producing outputs.

Economic infrastructure investment around the coal mining activity in Tshikondeni and the diamond mine of Venetia that service Blouberg, Mutale and Musina respectively could substantially impact on the employment trends in the area. Relations with mining authorities in Tshikondeni and Venetia need to be formalized between Musina and Mutale municipalities to enable a joint ownership for economic development initiatives across the district.

Reserves and substantial deposits are found on coal as well as an undisclosed deposit of iron ore but it is currently not earmarked for exploration. In terms of Mining Charter substantial benefits will accrue to the local economy of the district as the Charter compels them to invest in and utilize local entrepreneurs in their supply chain implementation strategy. The following projects have been identified to add further value to this sector by extending the downstream value chain:

- Beneficiation of marble and granite mined at local level instead of exporting the raw blocks
- Extending the vermiculite operations
- Diamond processing
- Further exploration of the iron ore deposits at Tshimbupfe

4.6 ENVIRONMENTAL SENSITIVE AREA

These are the areas that need environmental policy intervention, the mountainous areas of Vhembe which is presently attracting tourists from local, provincial, national and international. Just like in other pillars of development government and community intervention should play a major role in conservation areas within the Vhembe District Municipality. See Map 3

CHAPTER 5

IMPLEMENTATION STRATEGIES AND PROGRAMME

5.1 REVISION OF EXISTING POLICIES OR STRATEGIES

A range of policies and planning documents has been compiled for the municipal area. The SDF will guide future Landuse changes within the municipal area. The SDF therefore replace the land development objectives (LDOs).

Objectives compiled in terms of the Development Facilitation Act, 67 of 1995. Other policy and documents not specifically mentioned here need to be guided by the objectives and principles contain in SDF. These documents will there be open for interpretation. However, some will remain applicable till more detailed plans have been drawn for those areas affected.

(a) Legislations & policies

Principle	PRINCIPLES	LOCAL STRATEGIC GUIDELINE/PRINCIPLE
DFA1: 3(1)(b)	Policy, administrative practices and laws should discourage the illegal occupation of land, with due recognition of informal land development processes.	No settlement/occupation of land will be allowed in the Mutale Municipal Area without following a legal establishment process; Land for settlement should be provided at a rate that meets the demand.
DFA: 3(1)(c) (iii)	Policy, administrative practice and laws should promote efficient and integrated land development in that they promote the availability of residential and employment opportunities in close proximity to or integrated with each other.	New land development in the municipal area should be directed towards the existing district and provincial road system to enhance the efficiency of public and private transportation.
LUM2: 7(b)	Areas where people live and work should be close to each other.	

¹ The Development Facilitation Act, 1995 (Act No. 67 of 1995)

² The Land-Use Management Bill, 2001

Principle	PRINCIPLES	LOCAL STRATEGIC GUIDELINE/PRINCIPLE
DFA: 3(1)(c) (iv)	Policy, administrative practice and laws should optimize the use of existing resources including such resources relating to agriculture, land, minerals, bulk infrastructure, roads, transportation and social facilities.	New land development should be located as such to optimize the utilization of existing infrastructure (e.g. roads, schools, water, clinics, etc.);
LUM: 8(c)	Spatial planning, land-use management and land development processes and decisions should be determined by the availability of appropriate services and infrastructure, including transport infrastructure.	New land development should take inherent qualities of land parcels into account, e.g. minerals, good quality soils, etc.). Are the availability of existing services and infrastructure, including public transport, taken into account during the planning of the land development project?
DFA: 3(1)(c) (vi) & (vii)	Policy, administrative practice and laws should: discourage the phenomenon of "Urban Sprawl" in areas and contribute to the development of more compact towns and cities, and Contribute to the correction of the historically distorted spatial patterns of settlement.	New land development should promote the compaction of all residential settlements in the Mutale Municipal Area.
LUM: 7(a)	Land development should promote development of compact human settlements, combating low intensity urban sprawl.	
DFA: 3(1)(c) (viii)	Policy, administrative practice and laws should encourage environmentally sustainable land development practices and processes.	Any land development should: minimise interference with the natural environment; avoid settlement in places of hazard or high risk, e.g. flood plains; avoid settlement on unique natural habitats of flora and fauna; avoid air and water pollution; and promote recycling of waste in forms in which they can be reabsorbed into the natural environment.
HA ³ : 2(1)(f)	Housing development should consider and address the impact on the environment.	• An environmental Scoping Report should be compiled for the identification and development of new refuse disposal sites;
LUM: 5(d)	The protection of existing natural, environmental and cultural resources should be the primary aim in spatial planning, land-use management and land development processes and decisions.	

Principle	PRINCIPLES	LOCAL STRATEGIC GUIDELINE/PRINCIPLE
NEMA ⁴ : 2(3) NEMA: 2(4)(iv)	Development must be socially, environmentally and economically sustainable. Avoid or minimise generation of waste, re-use or recycle waste where possible and dispose waste in a responsible manner.	<ul style="list-style-type: none"> Recycling of waste should be promoted throughout the municipal area.
DFA: 3(1)(h)	Policy, administrative practice and laws should promote sustainable land development at the required scale.	<ul style="list-style-type: none"> Are all physical conditions which might affect the development taken into account, e.g. floodlines, geological conditions, hazardous mining areas, etc?
3(1)(j)	Each proposed land development area should be judged on its own merits and no particular use of land, such as residential, commercial, conservation, industrial, community facility, mining, agricultural or public use, should be regarded as being less important or desirable than any other use of land.	<ul style="list-style-type: none"> No specific land-use will be promoted/prioritised as a matter of principle at the expense of other land-uses.
DFA: 3(1)(k) WPLP ⁵	Land development should result in security of tenure, provide for the widest possible range of tenure alternatives, including individual and communal tenure, and in cases where land development takes the form of upgrading an existing settlement, not deprive beneficial occupiers of homes or land or, where it is necessary for land or homes occupied by them to be utilised for other purpose, their interest in such land or homes should be reasonably accommodated in some other manner. Tenure reform must allow people to choose the tenure system which is appropriate to their circumstances.	<ul style="list-style-type: none"> Security of tenure should be promoted by new land development; Upgrading of land tenure schemes, or any other land development project, should minimise the dislocation of existing occupants; If dislocation of occupants is inevitable, alternative and secure arrangements should be made to accommodate such "beneficiary" occupants. The provision of the Communal Land tenure Act should be explored to promote various land tenure options

³ Housing Act, 1997 (Act No. 107 of 1997)

⁴ National Environmental Management Act, 1998

⁵ White Paper On South African Land Policy, April 1997

Principle	PRINCIPLES	LOCAL STRATEGIC GUIDELINE/PRINCIPLE
HA: 2(1)(c) (i)	Housing development should provide as wide a choice of housing and tenure options as is reasonably possible.	
WPLP	Land is a basic human need and government must address landlessness to remedy the unacceptable unequal distribution of land in South Africa.	<ul style="list-style-type: none"> • Does the land project assist landless people to obtain access to and security in land? • Land claims should be processed expediently
HA: 2(1)(e) (vii)	Higher densities in respect of housing development should be promoted to ensure the economic utilisation of land and services.	<ul style="list-style-type: none"> • Higher residential densities should be pursued in new housing developments - the needs of communities should however be taken into account.
HA: 2(1)(e) (ix)	The provision of community and recreational facilities in residential areas should be promoted.	<ul style="list-style-type: none"> • Community and recreational facilities should be provided in residential areas according to prescribed standards.
LUM: 5(e)	Land used for agricultural purposes should only be reallocated to other uses where real need exists and prime agricultural land should remain in production.	<ul style="list-style-type: none"> • See LUM principle
NEMA: 2(4)(a)	<p>During any land development the following factors should be considered:</p> <ul style="list-style-type: none"> • Avoid or minimise the disturbance of landscapes and sites that constitute the community's cultural heritage. 	<ul style="list-style-type: none"> • An environmental Scoping Report should be compiled during the planning of new projects that indicates the impact on the environment and cultural heritage sites; • Are the conditions and the principles of the National Heritage Resources Act, 1999 taken into account?
NHRA ⁶	<p>The Heritage Impact Assessment (HIA): If an EIA is not called for in terms of the Environmental Conservation Act, 1989, the Mineral Act, 1991 and the Development Facilitation Act, 1995 then an HIA must be conducted in the following circumstances:</p> <ul style="list-style-type: none"> • Any linear development exceeding 300 meters (a pipeline, power line, etc); • Any construction of a bridge or structure longer than 50 metres; • Any development exceeding 	<ul style="list-style-type: none"> • See NHRA requirements.

⁶ National Heritage Resources Act, 1999 (Act No. 25 of 1999)

Principle	PRINCIPLES	LOCAL STRATEGIC GUIDELINE/PRINCIPLE
	5000 square metres; <ul style="list-style-type: none"> Any rezoning, change of land-use or township establishment in terms of local by-laws or the DFA; When SAHRA requires that an EIA or HIA should be conducted. 	
NHRA	If an EIA or HIA is not required or called for in the urban environment (structures) then you need a permit for any alteration or demolition of any structure older than 60 years (section 34 of the NHRA).	<ul style="list-style-type: none"> See NHRA requirements.

The policies and legislation regime assessed above has serious impact on the content of the SDF. In the main the assessment define the parameters of what the SDF should contain and also lay the foundation for the principles for Land-Use management system (LUMS). These will be crystallized into development guidelines and LUMS principles.

5.2 FORMULATION OF LAND-USE MANAGEMENT SCHEME

Despite the demise of Apartheid and ongoing attempts at reform, and although the land development processes involve similar procedures, different sets of legislation apply to land development in South Africa.

- Land development in the former Trust Areas, National Home Lands and Independent States, were, and is still, governed by the Black Communities Development Act, Proclamation R293 of 1962. Towns were proclaimed under section 4(1) of R293, hence the term an "R293 town", and all town planning and township establishment was carried out in terms of this piece of legislation.
- In the rest of the country land development mainly took place under the relevant Provincial Ordinances and other legislation dealing with land development

The formulation of Landuse management scheme will help the municipality to regulate land uses and also help the municipality to prevent the illegal Landuse.

Mutale municipality

- They don't have LUMS

Thulamela municipality

- The municipality is currently busy for the compilation of town planning scheme or LUMS.

Makhado municipality

- The municipality is currently busy for the compilation of town planning scheme or LUMS.

Musina municipality

- They don't have LUMS

5.3 LINK BUDGET WITH THE SDF

With the sectoral alignment and prioritisation of programmes, it is important to ensure that budgets are aligned. This implies that all relevant line functions department must coordinate their budgets to ensure that the initiative is in its totality. The capital budget alignment of the projects such as precinct development, housing and roads infrastructure is crucial in implementation.

The Vhembe IDP needs to prioritise different projects for proper implementation and also to respond to community needs. It is important that projects are prioritised before implementation. The Makhado Municipality only managed to list all the projects to be implemented without actual prioritisation. This situation will have to change to ensure a development driven budget.

5.4 MONITORING AND EVALUATION TOOLS

Monitoring in the IDP context refers to the gathering of data and the subsequent organising of data into sets of information about certain action / events / situations through out the year. This information measures progress with the implementation of programmes and projects through a series of indicators. This will assist Vhembe district municipality to determine whether the outcomes strived for have been achieved. The monitoring and evaluation programme is continuous through out the year. Outlined below are some of the critical aspects to assist in monitoring and evaluation.

SDF must be linked with Geographic Information System (GIS). GIS is defined as an information system that is used to input, store, retrieve, manipulate, analyze and output geographically referenced data or geospatial data, in order to support decision making for planning and management of land use, natural resources, environment, transportation, urban facilities, and other administrative records

5.5 RELEVANT SECTOR PLANS

Sectors are defined as fields of intervention aimed at either specific human needs or as specific ways of satisfying human needs. Sectors, as fields of intervention, are frequently related to specific planning and implementation agencies heading up such interventions.

- ❖ Sector planning requirements contained in national sectoral legislation in respect of municipal functions such as water and environment should be dealt with as part of the SDF process, where they are relevant to the local priority issues.
- ❖ Specific sectors which fall beyond the ambit of local competencies, such as education, may be directly related to the priority issues identified in the municipal area. As the municipality is not the implementation agency, attention will still need to be given to the planning process, to facilitate alignment and coordination with other spheres of government.

Table 5.1: National Sector Departments

DEPARTMENT	LEGISLATION	COMMENTS
Water Affairs & Forestry	Water Services Act (108 of 1997)	Water Services Development Plan is required by this act. The local authority should develop this plan parallel to the IDP Process
Housing	Housing Act (107 of 1997)	Local government should set targets against which it can be monitored by the National Department
Land affairs	N/A	N/A
Transport	National Land Transport Transition Act (22 of 2000)	National integrated land transport systems are being planned which will be used inter alia to implement and monitor the implementation of the national transport policy
Environmental Affairs and Tourism	No Legislative Requirements	DEAT's obligations to the International Commission for Sustainable Development should be used as guides during implementation. Other guidelines and principles including: NEMA and the EIA guidelines on development.
Minerals and Energy	Electricity Act (41 of 1987)	Powers are given to the minister and the NER through this act. The quality of supply and quantity of service standards for licensees has been set by the NER.
Auditor General	Constitution, Auditor-General Act (12 of 1995) and the Municipal Systems Act	The Systems Act requires that the performance targets of the municipality are reflected in their internal auditing processes and that the extent to which they meet those targets is to be audited by the Auditor General
Treasury	Municipal Finance Management Act	Currently municipalities submit their budgets on an annual basis, the act Requires municipalities to report monthly on their financial health.

Makhado IDP (2006/2007)

5.5.1 WATER SERVICES DEVELOPMENT PLAN

The water services development plan for Makhado has been prepared as a separate document to the IDP. The reader requiring more information is referred to this document which is available at the Municipality. The main findings of this document include the following:

- ❖ A set of data sheets containing targets
- ❖ Existing and future consumer profiles and service levels
- ❖ Water balance, water sources and quality
- ❖ Water service infrastructure
- ❖ Demand management
- ❖ Institutional management
- ❖ Finances and affordability

5.5.2 INTEGRATED TRANSPORT PLAN

This program is preliminary, as no gravel road maintenance has yet been implemented. It is intended that such a maintenance plan should be implemented soon as possible. In some of the villages no roads exist or they have been badly damaged by the recent floods. In these cases roads are being built or rebuilt. In other villages roads exist but require maintenance by regravelling or grading.

5.6 PROPOSAL ON HOW SDF SHOULD BE MARKETED

The SDF must be marketed to the following institution:

- Ward committee
- Media
- Notice/ Posters advertisement
- Community participation

5.7 SPATIAL DEVELOPMENT GUIDELINES

Below are the key/strategic environmental issues that should receive attention in the formulation of the SDF of the municipality. Environmental sensitive areas are indicated in map 3.

5.6.1 SENSITIVE ENVIRONMENTS/AREAS

In the context of this study, *sensitive environments/areas* comprise areas and/or features that are important from a natural (conservation), economic and cultural perspective. By identifying these due action can be taken so as to ensure that environmental sustainability, health and safety are not compromised, and that natural and cultural resources (as well as economically viable resources), are not endangered.

The following environments are normally seen as sensitive environments:

- Areas within the natural floodplains of streams or rivers
- Wetlands and pans
- Heritage/Archaeological sites
- Mountains, ridges and koppies
- Officially proclaimed nature conservation areas, botanical gardens, conservancies, bird sanctuaries and a 100m buffer zone around such areas
- Areas where Red Data species are known to occur (including a 270m buffer zone around such)
- Historical sites as proclaimed by the National Monuments Act or the National Heritage Resources Act no. 25 of 1999
- Cultural features (graveyards, historical sites, place of worship)
- High potential farmland
- Private conservation areas & nature reserves (mainly due to the positive contribution they make towards conservation & eco-tourism).

5.6.2 SPATIAL GUIDELINES IN RESPECT OF MOUNTAINOUS AREAS

The Municipality has to be in a position to advice developers regarding sensitive components in its area of jurisdiction.

Effective land use management is an important issue in as far as the control of incompatible land uses is concerned. This includes a wide range of possible conflict scenarios such as;

- increasing pressure for development in natural areas,
- densification of certain residential,
- adequate infrastructure and economically viable engineering infrastructure,
- the establishment of potentially "less desirable" land uses e.g. cemeteries, garages, informal residential settlements, etc.

To address the lack of proper land use zonation in the areas adjacent to the Soutpansberg mountain, it is of utmost importance that a "Spatial Development planning framework" be formulated for these areas.

In view of the continued growth in population in the study area and the subsequent growth in the number and sizes of rural, semi-urban and urban settlements, it deemed important that the mountainous areas in the municipality area be denoted as "sensitive" and that development proposals alongside (or in close proximity to these areas), be treated circumspectly.

It is therefore recommended that a detailed study be conducted/commissioned that would formulate detailed guidelines/criteria for the consideration of development applications/proposals alongside or in close proximity to mountainous areas e.g. the Soutpansberg. The study should also include SPATIAL ZONES indicating where different types of development can be undertaken and where none should be allowed (e.g. wilderness areas). There should be clear zonation criteria that would regulate development in these areas.

The result of such a study would ensure that the environmental effects of activities on mountainous areas are taken into consideration before decisions regarding development proposals are taken.

The result of such a study should also be included into the review of the municipality's IDP & SDF.

5.6.3 RIVERINE SYSTEMS & RIPARIAN ZONES

The riparian zone is an important ecological link between the river and the terrestrial component of a catchment. In addition it provides a necessary buffer between the river itself and any potential impacts that might originate from within the catchment. The protection of the riparian zone should be a management priority, where management responses should include;

- the minimisation of future development within the riparian zone, and
- control and management of existing activities that occur within the riparian zone, such as grazing, sand winning and mining.

All these activities change the structure and functioning of the riparian zone - sometimes irreversibly. It is therefore not only the responsibility of the municipality but also landowners; farmers; developers; rural communities and various government departments to ensure the integrity of the riparian zone.

The conservation status of a river is defined as an assessment of the degree to which it has been modified from its hypothetical natural state.

The main problems at rivers within the study area are related to;

- stream bank erosion,
- the removal of riparian vegetation,

- nutrient loading,
- catchment erosion, and
- Riverbed modification due to the accumulation of sediment.

These factors can predominantly be related to agricultural practices.

Riparian Zone Habitat Integrity and Riparian Vegetation Integrity considers the severity of impacts on riparian features such as the modification of the volume of water, a change in the flow regime (i.e. natural flow patterns), channel modification, water quality, reduction in vegetation and invasion by alien plants. All of these have an impact on the natural riparian habitat features of rivers.

The integrity of the in stream habitat is vital for maintaining biota and a healthy river system. Aquatic flora and fauna are often highly specific in terms of their habitat preferences, for example the depth of the water, type of bottom substrate and velocity of flow. In stream flow patterns are often affected by impoundments which alter the variability and quantity of flows.

5.6.4 SOLID WASTE MANAGEMENT FACILITIES

In terms of Section 20 of the Environment Conservation Act waste must be disposed of at a registered waste disposal facility. The issuing of a permit for a waste disposal facility is currently the responsibility of DEAT with inputs from DWAF. The municipality should ensure that the landfill sites serving the settlement nodes within its area of jurisdiction are approved and registered under section 20 of Environment Conservation Act, 1989 (Act 73 of 1989).

The villages in the rural areas do not have a formal waste removal system and observation indicates that most households burn their waste. Effective waste management by means of the establishment of several new (accessible) permitted landfills should receive attention. Ideally new landfills should be established in locations that aren't too close to areas of human settlement (for health) reason, but also no too far away in order that they cannot be used effectively for the disposal of waste.

Landfill site selection is the fundamental step in the development of a landfill. This step has far reaching economic, environmental and public acceptance implications. The landfill site selection process is only complete once DWAF has found a site feasible on the basis of a feasibility study. Final landfill sites should only be selected after appropriate candidate sites have been identified and given due consideration. The criteria which influence landfill site selection include economic, environmental and public acceptance considerations. The commissioning of a suitable service provider to identify suitable locations for the establishment of new landfills is recommended. The results of such an investigation should be incorporated into the SDF when the last mentioned document is reviewed.

5.6.5 NATURE RESERVES AND CONSERVANCY AREAS

Development in and in close proximity to private conservation areas & nature reserves should also be done very carefully so as not to impact negatively upon them (mainly due to the positive contribution they make towards conservation & eco-tourism).

The municipality should consider the imposition of buffer zones as well as specific zonation criteria (e.g. maximum densities, building heights permitted, types of development permitted, etc.) in areas identified as being nature reserves and/or conservancy areas.

Organizational arrangements should provide for the involvement and participation of a range of public authorities, local communities and private interests in the design of the land use zonation guidelines in for the area abutting nature reserves and conservancy areas.

5.6.6 AGRICULTURAL DEVELOPMENT & ACTIVITIES

The following issues have been identified regarding agriculture in the municipality area.

- Some areas of the riparian zone along water courses, has been removed for agricultural purposes. Destruction of riparian vegetation during the clearing of farming plots is regarded as an environmental problem with a high "significance".
- There is no formal provincial programme in place to research, develop and promote water efficiency across all sectors of agriculture.
- Ecosystem characteristics are often not considered in new agricultural projects.
- There is little or no consideration of biodiversity aspects when undertaking agricultural projects/initiatives.
- In order to ensure compliance with NEMA, a broader co-operation is required in the initial planning phase of projects between the municipality, Dept. of Agriculture and the Dept. of Environmental Management in the province.

5.6.7 ENVIRONMENTAL MANAGEMENT PLANS FOR PHYSICAL DEVELOPMENT PROJECTS

The undertaking of physical development (construction) projects e.g. water infrastructure provision, roads, sewerage infrastructure, LED related projects, etc, have potential to impact negatively on the environment and subsequently the

municipality's environmental performance. This culminated in the identification of the need for:

- standardisation of the format and content of Environmental Management Plans (EMP's) for municipal construction projects; and
- the integration of EMP's into the municipality's construction contracts so that EMP's would be implemented for all construction projects, and that environmental rehabilitation costs could be factored into contractors' budgets.

5.6.8 PROJECTS THAT REQUIRE ENVIRONMENTAL ASSESSMENTS

Environmental authorization must be obtained in order to undertake any activity listed in Government Notices R. 386 and R. 387 of 21 April 2006. Lawfully environmental authorizations will also be required for any activity that has been identified by the Minister or an MEC in terms of section 24(2)(a),(b) or(d) of NEMA and published in a government gazette. If there is uncertainty as to whether authorization is required, advice should be obtained from the relevant competent authority before the activity is undertaken.

An application for environmental authorization must be made before the activity commences. An activity may not commence until an environmental authorization has been obtained as it is illegal in terms of NEMA and the Regulations to start an activity without an environmental authorization.

All applications for environmental authorization must be supported by an assessment. The Regulations provide for two types of assessment processes i.e. the *basic assessment process* and the *scoping and EIA process*:

- The purpose of *basic assessment* is to provide a mechanism for the complete but concise assessment of activities.
- A *scoping and environmental impact assessment* process is reserved for activities which have the potential to result in significant impacts, and which are complex to assess. Scoping and environmental impact assessment accordingly provides a mechanism for the comprehensive assessment of activities that are likely to have more significant environmental impacts.

5.6.9 FORMULATION OF AN INTEGRATED ENVIRONMENTAL PROGRAMME (IEP)

It is imperative that the municipality has access to sufficient environmental information to allow for strategic and project level development planning. ***The formulation of an Integrated Environmental Programme (IEP) is therefore deemed important.*** Such an IEP will provide a Local Municipality with a decision support tool to evaluate the outcomes of the IDP Process in terms of its