Sustainable Chains of Value

A Strategy for a Globally Competitive Provincial Economy

Mpumalanga Province

Final Draft-December 2008

Background:

The macroeconomic landscape

At the dawn of democracy, the economic debate in South Africa was focused on the relationship between economic growth and socio-economic development. This debate was a necessary precursor to democracy because one of the key considerations and preoccupations in policy development and implementation is the issue of prioritisation and sequencing based on causality (i.e. which interventions/programs lead to which desirable outcomes). Simply put, if the evidence was to overwhelmingly suggest that economic growth tends to be followed by better performance on development indicators such as poverty, hunger, education, health, gender equity and environmental sustainability as well as personal development, it would make sense to focus on economic growth as a precipitator and precursor to human development. The evidence could also suggest that higher levels of economic growth become easier to attain and sustain when some variables, including the human development indicators are actively addressed.

The democratic government got preoccupied with stabilising an apartheid economy that was on a downward spiral. From the apartheid regime we had inherited an economy characterised by a serious balance of payments constraint; globally uncompetitive business practices; outdated production technology; high inflation and interest rates; a vulnerable exchange rate; unsustainable government budget deficits; and relatively high government debt service costs. Furthermore, the government's assets and liabilities were in a state of disarray, making it near impossible to access global financial capital at a rate lower than the local capital market.

Macro-economic stability not only restored global credibility in capital markets and the investor community but also led to a new impetus for economic growth, allowing government to collect decent revenues. However, the average real annual economic growth rate of South Africa for the period 1996 to 2006 was quite modest at 3,2 percent (*StatsSA*).
Though necessary, economic stability was an insufficient precondition for higher levels of growth and unfortunately not a substitute for an economic development strategy. The formal/first economy grew without integrating the majority into the mainstream of productive

employment. Social security grants, rather than productive employment became the primary tool of undermining poverty.

Unfortunately, in the process of stabilising the economy, a key link appears to have been lost between the apartheid socio-economic architecture and the fundamental structure of the economy the democratic state inherited. What was previously characterised by the liberation movement as internal colonialism or colonialism of a special type had clearly spawned a dichotomous economy that was characterised by economic duality or two economies in one. The result was growth that was not only pedestrian but also not inclusive of the majority. To a large extent as demonstrated further in the document, the growth was pedestrian precisely because it was not inclusive of the majority. Hindsight is indeed perfect sight. Fifteen years down the line, not only have we sufficient local experience suggesting what the best path could be but we also have sufficient accumulated global experience from which we can adopt the best practices.

Introduction:

The Strategic questions

Crafting a provincial economic development strategy raises a number of critical questions that have to be answered upfront. These questions help to form the parameters and overall direction for the provincial strategy:

- Strategy is not only about how best to move from the current scenario to a better future scenario but also how to be better than those competing with us. It is therefore impossible to talk strategy without defining the competition (in economic or business terms), or 'the enemy' (in military terms where the idea originates). The question, deriving directly from the above point is whether the province should strive to be locally or globally competitive. The overarching assumption made in the crafting of this strategy is that the province seeks to achieve excellence by adopting best practices. The question is whether it is sufficient to craft a strategy that seeks to make Mpumalanga the best or one of the best amongst the nine provinces of South Africa or should Mpumalanga seek to compete with Hong Kong, Malaysia, Ireland and some of the city states and provinces of the world. Who are we competing with? Are we ready and able as a province to think globally while acting locally? The answer to the above question will also guide us as to whether the province should adopt and model its economic performance on national or on global best practices.

- The next most fundamental question relates to how we see the role of government in economic development. This question is essential because it is common for policy-makers and government officials to talk of projects that government must develop and drive in order to achieve growth and development. What then should be the extent of government involvement in the economy? Most economic analysts and policy makers never address this question overtly and explicitly because it is such an ideologically loaded minefield. Unless we seek to adopt the Ostrich attitude however, it should be apparent that it is impossible to discuss economics that are devoid of politics. On the one extreme of the continuum of role definition for government is the preference for a minimalist *laissez faire* government that creates an environment that is conducive for economic agents to make both demand and supply decisions in order to maximise their satisfaction as either consumers or producers. On the other extreme is the highly interventionist government that not only seeks to be an active player in the economy by actively regulating the rest of the players in the economy, including a redistributive role but also as a supplier of goods and services. A scan of the literature on *the developmental state* suggests a dichotomy between a view of state intervention to enhance market performance in order to achieve growth and another view of state intervention to regulate markets in order to reduce poverty and inequalities. To be of practical value in terms of provincial economic development programs, the question can be posed as follows: What is the most effective way for the same interventionist developmental state to both enhance market performance to achieve growth while at the same time intervening to integrate the poor and marginalised into more productive economic activities. These difficult questions must be addressed in the context of the provincial economic development strategy.

- The third critical strategic question is to what extent should the national macro-policy environment be considered as a given that cannot be influenced significantly by the province? If and to the extent that the province has minimal influence on national policy is it important to understand the strengths, weaknesses, opportunities and threats that accrue to and are posed by the national economy in order to craft an excellent provincial economic development strategy? Is it viable for the province to lobby national government with regard to particular policy and economic outcomes that the province seeks to achieve?
- The next question builds the bridge between strategy and operations and should be a lot easier to answer after the preceding questions: In relation to the government's role in the economy does success lie in a greater sector or a greater spatial focus? What is the healthy balance between the two and the role of Towns, Cities and peri-urban areas versus rural areas in the provincial economic growth and development?

The growth imperative

'Growth is not an end in itself. But it makes it possible to achieve other important objectives of individuals and societies. It can spare people en masse from poverty and drudgery. Nothing else ever has. It also creates the resources to support health care, education, and the other Millennium Development Goals to which the world has committed itself. In short, we take the view that growth is a necessary, if not sufficient, condition for broader development, enlarging the scope for individuals to be productive and creative'.
(Growth report-International Growth Commission)

It is common knowledge that sustainable human development is impossible without expanding the economic pie through growth. On the other hand, a society which achieves higher levels of development in the form of higher levels of education and training, health and welfare and low levels of poverty and inequality is better poised for further growth economically. The symbiosis between growth and development is such that it is difficult to propose a sequence that growth should precede development.

In general, human development is both an input and an essential output of economic growth. Given the negative impact that economic duality has on economic growth, it should be clear that in the South African context development and reduction of inequalities is a growth imperative.

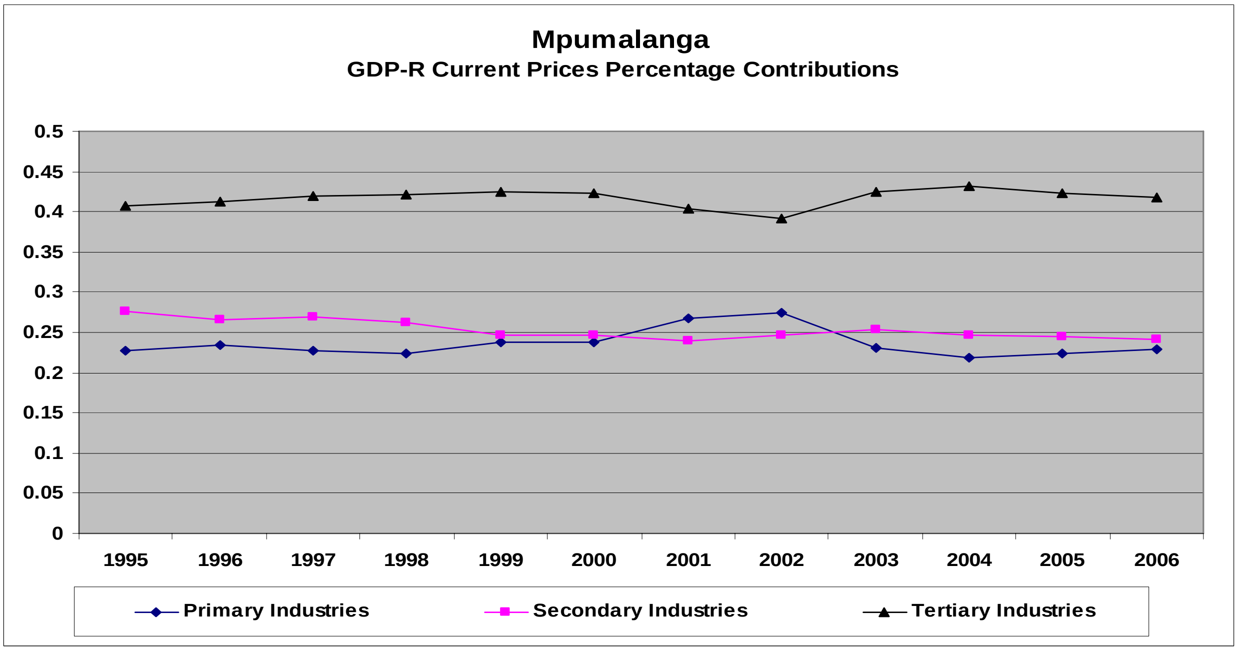
If however, government was to leverage and pursue the one outcome that has the greatest impact on all other development objectives that outcome would have to be high rates of economic growth. In general, as a group the people of Mpumalanga will become richer faster if the provincial government implements high growth policies. This is corroborated undoubtedly by global experience. Higher and faster levels of inclusive economic growth are statistically significant and good for the achievement of a whole range of other developmental policy objectives. The pursuance of the growth objective should therefore not be viewed as being at variance with or to the exclusion of poverty reduction or the broader human development objectives.

Global experience shows that it is possible to have high growth of 7% and more sustained over a twenty five year period. The following are some of the key features of such growth:

- Firstly, high growth is easier in an environment of labour abundance (i.e. skilled and competitively priced) and when it is export-led. **Rapid job creation in labour-intensive export industries** in not only feasible but ideal going forward.
- Secondly, fast global learners catch up quickly with those ahead. **Foreign education in a globalised** world is therefore not a bad thing at all.
- **Urbanisation** always accompanies industrialisation and is unavoidable.
- Growth involves **transformation of the structure of the economy**, old outmoded industries die and new ones emerge. There is no room to be sentimental about industries if competitive pressures force their transformation or discarding/replacement
- Since a high growth economy is '*a moving target'* policy flexibility is essential; good policies can become bad if applied for too long. As the economy grows, wages increase and the comparative advantage in labour-intensive industries, is lost. Growth must now come from knowledge and skill-intensive sectors and services. Strategies that were useful for labour-intensive sectors can become not only irrelevant but obstructive. **Portable skills across the entire labour force** are an essential shock absorber to minimise the displacement of people in such transformation.
- In the early stages of high growth, the pace of (public and private) investment is the primary determinant of growth. Sustained high growth is impossible without significant rates of public investment—in infrastructure (not only roads but ICT infrastructure), education, and health to crowd-in private investment. With education the qualitative outcome (literacy, numeracy etc) is more important to growth than the quantity/number of learners.
- High growth sustained over time requires patience for a long planning horizon by a political leadership with the will to get society to buy-in to vision of inclusive growth. There are no short cuts or quick fixes.
- High growth economies generally have a (public and private) savings rate of between 20-25% of their income.
- If Mpumalanga were to be viewed as a small state with little capacity to diversify the economy, the need to follow global experience by forming a regional economic block with Mozambique and Swaziland becomes even more urgent.

The structure of the Provincial Economy:

The Sectoral dimensions of the provincial economic structure:



Source: Stats SA GDP Third Quarter Nov 2007

The provincial economy of Mpumalanga has elements of an advanced economy in that it is dominated by tertiary industries in the form of the services sector such as tourism, finance, real estate and business services. In most advanced economies however the next biggest industries are the secondary industries (manufacturing), followed by tertiary industries (mining, agriculture, forestry etc). What betrays the distorted nature of the provincial economy and its relative backwardness is the fact that the secondary industries (manufacturing), the real engine of growth are almost at the same level of contribution as the tertiary industries.

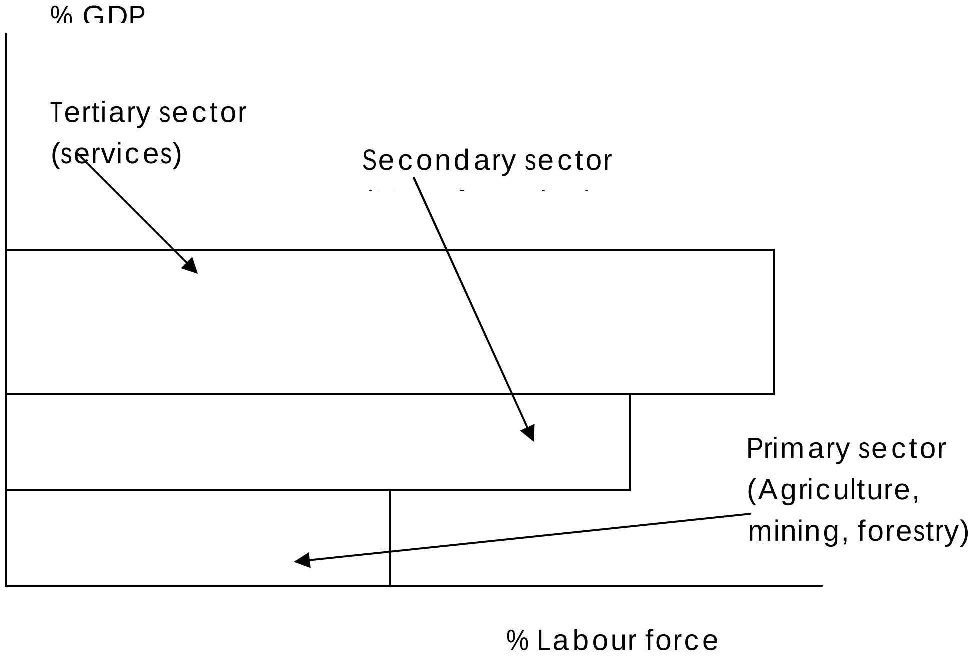
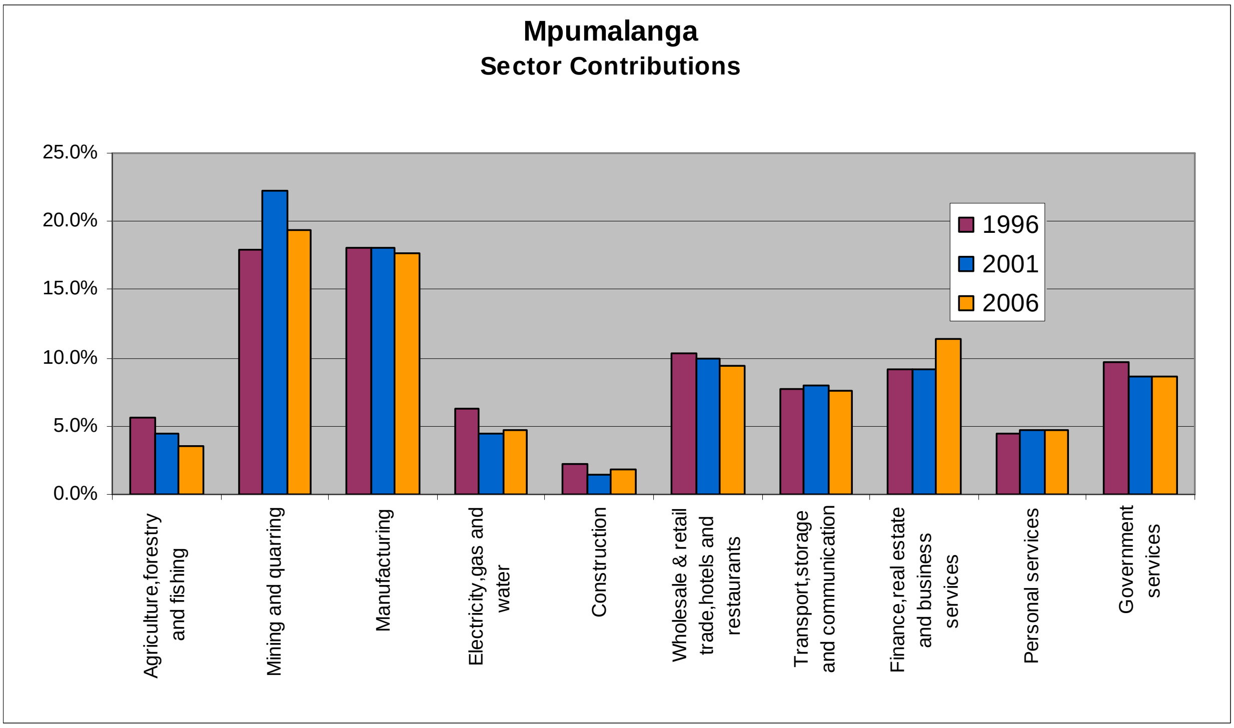


Figure : A tertiary sector driven economy, services have a greater share of the labour force and GDP. This is the most developed and diversified level of development.

The fact that Secondary industries percentage changes have been increasing from 2003 at 0.4% to 2006 at 5.1%.while Tertiary industries have shown an improvement by the increase in percentage changes over the years from 2.0% in 2000 to 6.4% in2006 clearly suggests that the challenge is to grow the provincial manufacturing capacity.



Percentage changes of Primary industries have declined from 3.1% in 2000 to -2.4% in 2001, increased to 1.6% in 2002 and reached 3.9% in 2005 only to decline to -1.2% in 2006. Secondary industries percentage changes have been increasing from 2003 at 0.4% to 2006 at 5.1%.While Tertiary industries have shown an improvement by the increase in percentage changes over the years from 2.0% in 2000 to 6.4% in2006.

Source: Stats SA GDP Third Quarter Nov 2007

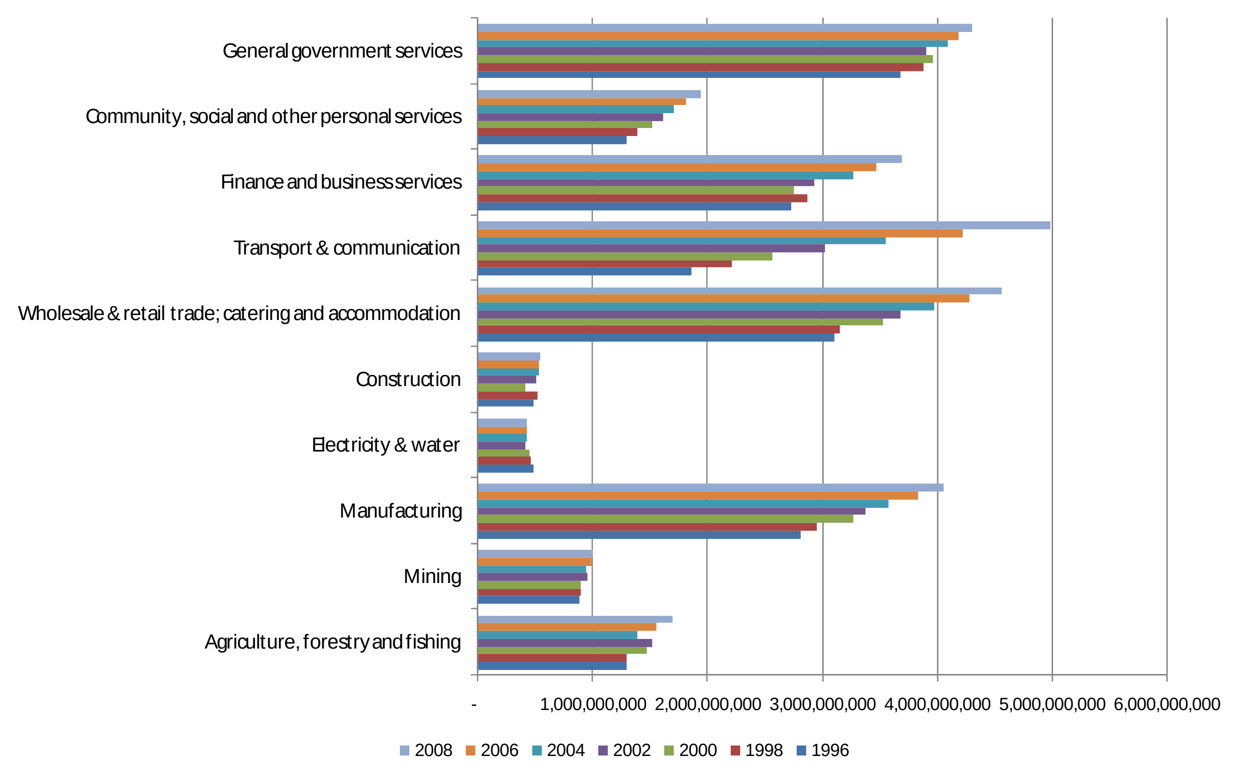
Several sectors in the province look set to benefit from increased global demand:

- Construction should continue to benefit from higher levels of fixed investment associated with large public and private infrastructure investment programmes.
- Given the global and local demand for energy, as well as the commodities price boom mining is in a good position to expand output. In reality however rate of infrastructural investment in mining has not matched demand.
- Global demand for steel is growing at a rate of 6% per annum. This should benefit the provincial steel industry.

The spatial dimensions of the provincial economic structure

Ehlanzeni District Municipality:

When the GDP sectoral contributions are considered in the district, it is apparent that Ehlanzeni has the most diversified therefore most resilient of the three district economies.



Source: Urban-Econ calculations based on Quantec 2008.
GDP sectoral contribution 1996 to 2008.

The following sectors are important to the economy of the district:

- Transport and communication
- Wholesale & retail trade; catering and accommodation
- General government services
- Manufacturing.

From 1996 to 2008 the economy of the district has grown at about 3.39%. The largest growth was in the following sectors:

- Transport and communication
- Finance and business services
- Construction
- Wholesale & retail trade; catering and accommodation

According to the DTI's Khulis' Umnotho project, EDM has comparative advantages in agriculture, construction, trade and the commercial services sectors. It is evident that the unemployment rate for the Ehlanzeni District Municipality is 42.7% which is slightly lower than that of the Mpumalanga Province 43.1%.

The **main employers** in EDM are agriculture, community; social and personal services, wholesale and retail trade and manufacturing. Manufacturing in the district is however vulnerable since it is based mainly in the form of agro-processing driven and dominated by TSB's sugar production and timber production by SAPPI.

Nkangala District Municipality

The following significant points about the District economy are lifted from the DTI's Khulis,Umnotho program:

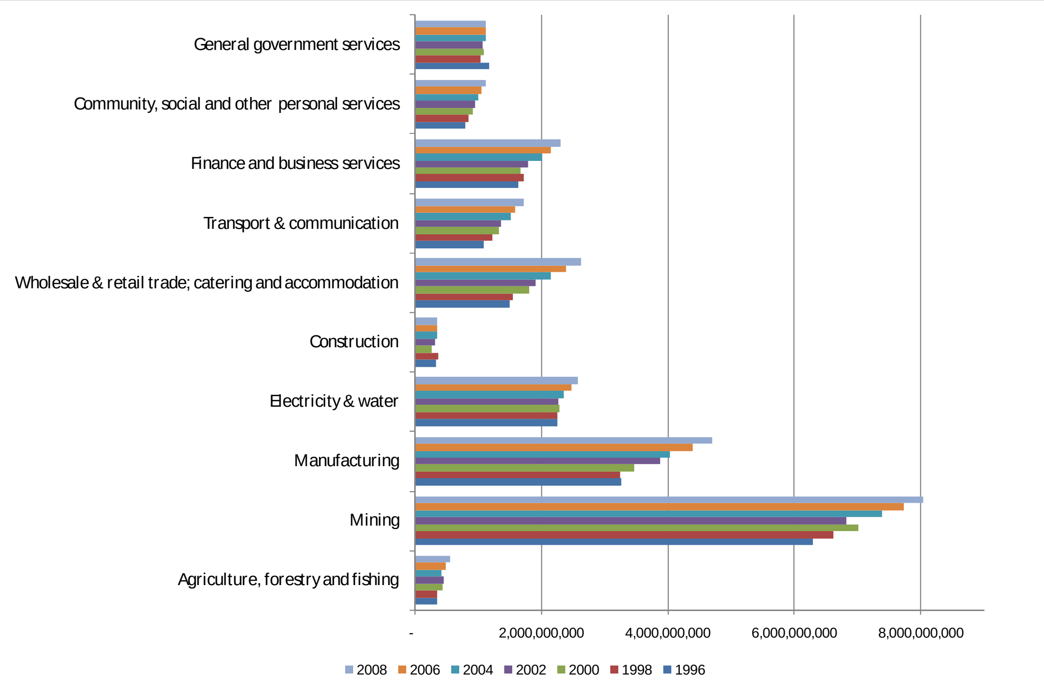
- During 2004 Emalahleni municipal area was the largest in terms of the total labour force and the second largest is Thembisile local area.
- There has been a growth experienced in terms of the number of employed as well as the unemployed people throughout the district between 2001-2004. Four local municipalities have experienced growth in employment opportunities than unemployment growth during the period under review. These areas were:
  - Delmas
  - Emalahleni
  - Steve Tshwete
  - Emakhazeni
- With reference to Thembisile and Dr JS Moroka areas, unemployment growth was higher than the employment growth over the period of three years. These localities have to generate more employment opportunities in order to maintain the current employment levels and to absorb the new entrants into labour market.

With regard to the most recent sectoral contributions to the Gross Domestic Product of the Nkangala District, the diagram below provides more insight.

From the diagram it is clear that the highest contributing sectors are:

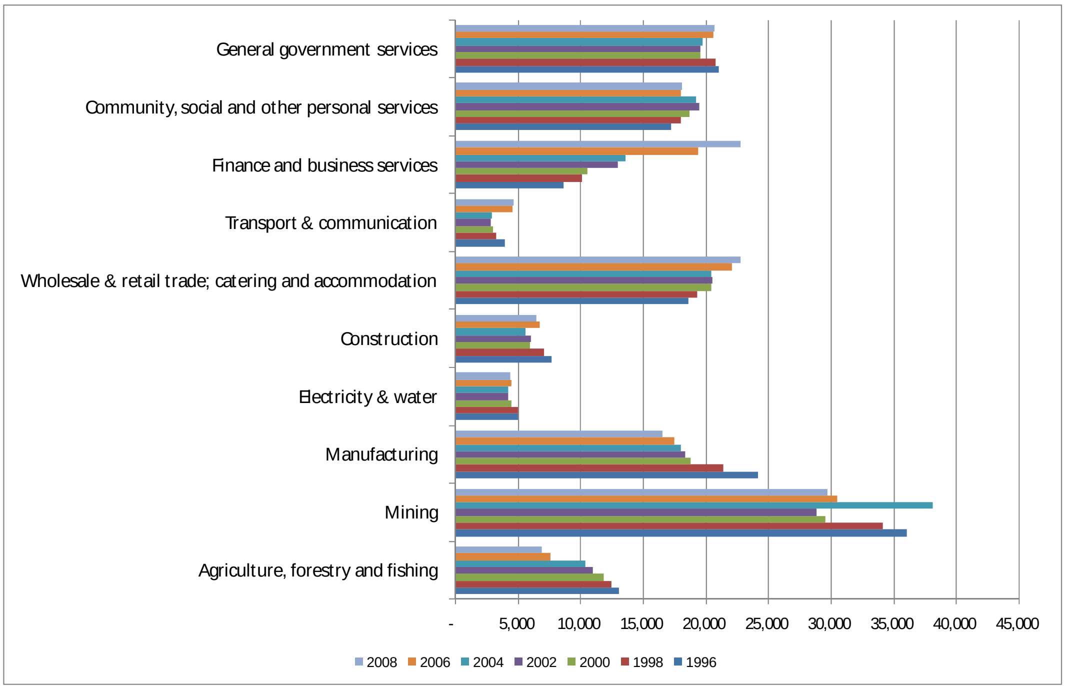
1. Mining
2. Manufacturing
3. Electricity
4. Wholesale and retail.

Diagram 1 – GDP sectoral contribution 1996 to 2008.



Although it is clear from the preceding diagram that there had been growth with regard to the GDP of Nkangala District, it is important to compare this with the sectoral employment situation. The following diagram provides more insight.

GDP sectoral contribution 1996 to 2008.



From the diagram it is clear that there were only a few sectors that experienced positive employment growth over the past few years, with the following sectors making the largest employment contribution:

1. Mining (although it has experienced negative employment growth) is still a big employer
2. Wholesale and retail trade
3. The finance and business services sector showed high employment growth in the last few years.

According to the DTi's Khulis'Umnotho program, the successful completion of the **seven Anchor Projects** as identified by the District may potentially provide the economic injection required to promote growth in other sectors of the economy. These include establishing:

- a facility for the manufacturing of catalytic converter components, in the light of more stringent environmental standards;
- a multi-nodal facility including a truck port and high technology logistics hub;
- a facility for the agro-processing of essential oils;
- a multi-purpose service centre;
- a large-scale convention centre;
- the Moloto Corridor Rail System (this project is currently in feasibility phase); and
- the Highlands Gate and Estate Development, a private development to boost the tourism potential of Dullstroom (this project is currently the only project that is being implemented at the moment – this is a private sector driven project).

Gert Sibande District Municipality

Gert Sibande exhibits comparative advantages in agriculture, mining, manufacturing and electricity. SASOL is by far the anchor of the district economy and the manufacturing in the district is dominated by SASOL's petrochemicals, synfuels and plastics. The Govan Mbeki municipal area, with the main centres of Secunda, Embalenhle, Trichardt, Kinross and Bethal, is a key economic and industrial hub of Mpumalanga. Most of South Africa's major gold and coal deposits are found under the 2,000 square kilometers (800 square miles) of the Mpumalanga Highveld, much of which is mined in opencast pits which is where this region is situated.

The municipality notes that several large mines extract coal and the district is the country's critical source of gold, anthracite and torbanite. As a consequence this part of the country fulfils an important role in energy production (fuel and electricity). The petro-chemical and related industries at Secunda are an important part of the area's success. There is large-scale afforestation (pine, water and blue gum) in the eastern parts of the district. Gert Sibande contributes 33,2% to the provinces total gross value added. Farming is of note as the main maize producing districts lie in this area. Increasingly, the manufacturing sector is becoming more dominant, as an important economic sector, as well as the tourism and recreation industries. A large number of resorts, guesthouses, health spa's and hiking trails have been established to take advantage of the rural tranquility experienced here.

Msukaligwa Municipality, with Ermelo as the main town, is an important food and timber-producing center. It is located in a water-rich area in the midst of the Vaal River system, and warrants the development of agricultural and related activities. The Nooitgedacht research station of the department of Agriculture, 4km from the town, conducts research into crop production and animal husbandry.

Mkhondo Local Municipality's primary economic activities are timber, coal, food and wool production, centred on the town of Piet Retief. Volksrust is the main town of Pixley Ka Seme Local Municipality, with maize, sorghum and fruit production, as well as cattle and sheep farming, the main activities. Tourism is a growing sector, with bird watching opportunities at Wakkerstroom, and game viewing, being particularly popular. General and mixed farming are carried out in the fertile Dipaleseng Municipal area; Lekwa's urban areas are Standerton and Morgenson, with food production, textiles and related mills, coal production and electricity generation are the main economic activities.

Carolina is the administrative centre of Albert Luthuli Municipality; its economy relies on timber and coal production as well as tourism; various conservation projects, historic buildings, cultural diversity, and small enterprises such as weaving and painting aimed at the tourist market, enhance the area's appeal for visitors.

Growth opportunities vs poverty incidence

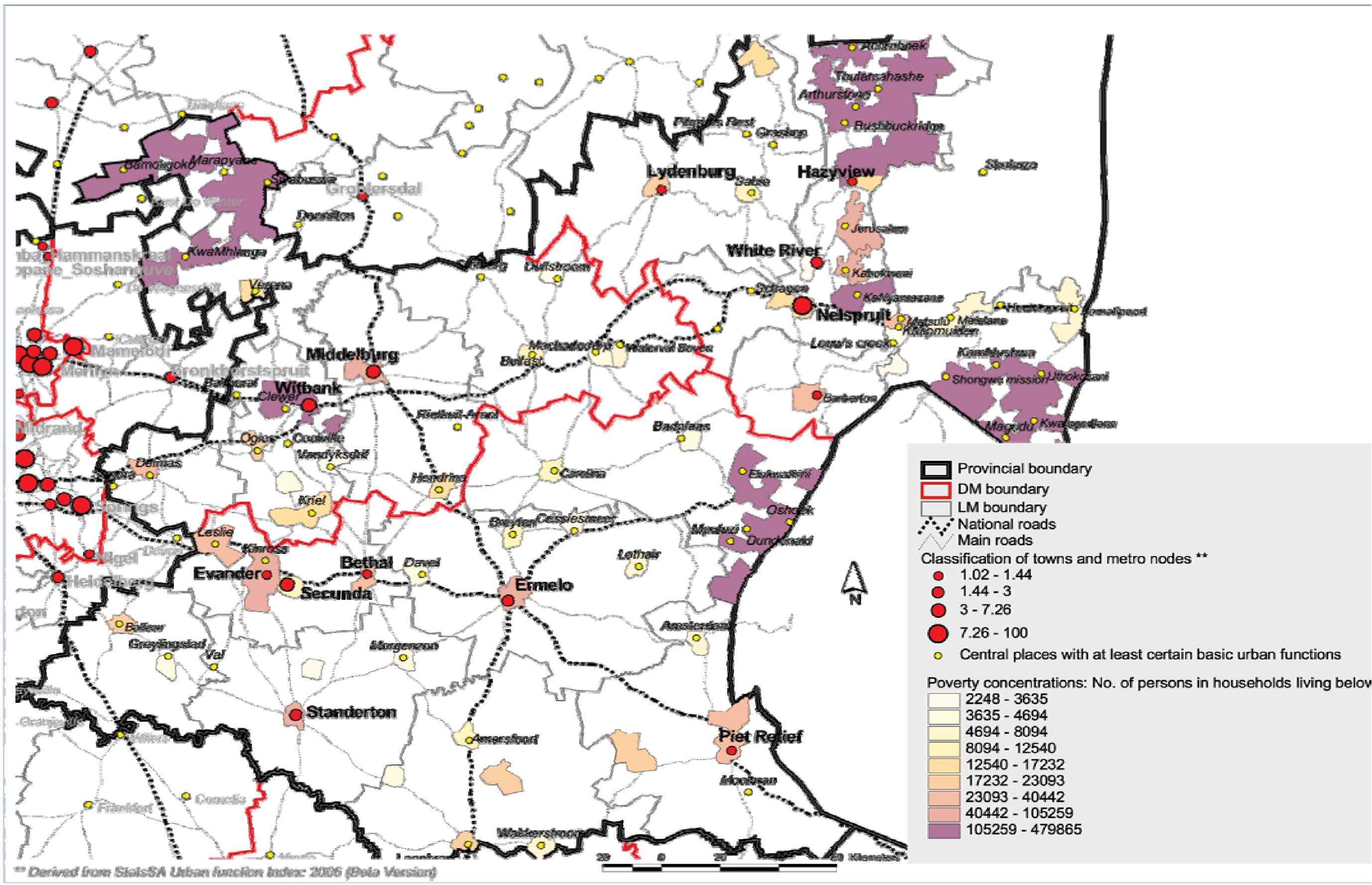
Of particular concern to this strategy is the geographic location of economic growth opportunities versus the geographic location of the majority of the people, especially the poor (those living below the Minimum Living Level). National studies show that not only are the majority of poor people located in the high value generating urban areas, but the migration pattern is continuing in that direction from poor rural locations. In addition, most of the wealth of the country is produced in a small percentage of the country’s area, where these poor are located. More specifically, 93% of the national economy is located on 30% of the land. It is no wonder that 79% of the population, including 70% of those living below the minimum living level, lives in this 30% where there is a perceived potential for livelihoods

Mpumalanga has a slight variation to this national trend. While the majority of our population, including the majority of the poor, is located in areas of low economic activities, they continue to migrate to areas of high economic activities such as Nelspruit-White River metropolis, the Witbank-Middleburg metropolis , and Secunda and surroundings. These realities of urbanisation and spatial economic disparities pose a real development dilemma. In our quest to facilitate economic growth we need to recognise that urban areas provide the greatest potential for growth while at the same time tackling rural poverty

Firstly, the highest **concentrations of poverty** (people living under the MLL) are in the following four broad areas of the province:

(1) Broader KwaMhlanga, Siyabuswa, Bamokgoko, located in Nkangala DM;
(2) Bushbuckridge, KaNyamazane and
(3) Nkomazi in Ehlanzeni DM and
(4) Oshoek in Gert Sibande.

Significant poverty concentrations: Persons in households living below the Minimum Living Level (MLL)



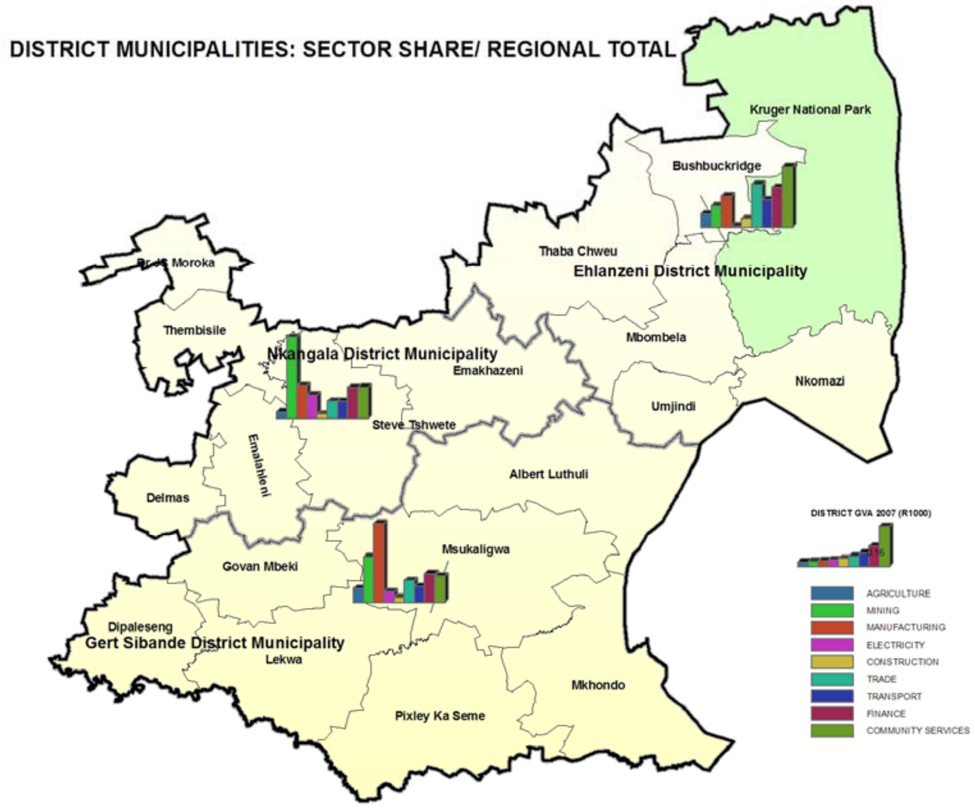
On the other hand, the highest concentrations of economic growth opportunities are in the following areas:

(1) Broader Emalahleni and Steve Tshwete, located in Nkangala DM. According to the Urban Renewal Program based on 2001 figures, the two areas alone contributed 3.4% to the national GVA.

(2) The second is Govan Mbeki in Gert Sibande District. According to the Urban Renewal Program, the Secunda and Evander areas together contributed 2.2% to the national GVA

(3) Finally, Mbombela in Ehlanzeni DM. According to the Urban Renewal Program, Nelspruit alone contributed 3.4% to the national GVA

Since Mpumalanga's share of the national economy has remained fairly stable over ten years, not much deviation from the above figures is anticipated.



Part 1: Short to medium term (3-5 years)-Provincial Industrial Development Strategy:

Purpose

The purpose of the Provincial Industrial Development Strategy is to ensure that regions attain their full economic potential through interventions that address market failures to achieve a twofold objective:

- Firstly, to address regional disparities in development, and
- Secondly to attain global competitiveness

Sector Synthesis Plan

Sectoral Overview:

From a sectoral point of view, The DTI's Regional Industrial Development Strategy captures the challenge appropriately by observing that the challenge is not to have an economy with as many industrial sectors as possible, but rather to have a number of sectors with very strong competitive advantages. Since sustained competitive advantages are a result of knowledge-based development a key challenge is to build and constantly upgrade the knowledge infrastructure in a limited number of key sectors.

An analysis of the different sector reports suggests that the reports largely still relevant in 2008 and beyond. As stated in detail elsewhere in this document, we must be mindful of the fact that growth sectors of the past are not necessarily growth sectors of the future. As a result some sectors may decline along the way as new competitive sectors emerge. To their credit, all the sector reports went a long way towards elaborating areas of intervention that could propel the sectors towards a higher growth strategy, without developing actual implementation plans. So far it is only in the area of tourism that a comprehensive strategy and implementation plan was developed based on the sector reports.

To add value to the process therefore, instead of repeating what has already been elaborated upon in the sector studies, this Sector Synthesis Plan will present key elements of implementation plans as part of short term interventions in the different sectors in order to make it easy for departmental implementation. The original recommendations are presented below with minor amendments taking into account the latest information on global trends (e.g. the impact of using food crops for bio-fuels on food prices).

Customised Sector Plan: Agro-Processing

Selected sub-sectors and rationale as originally presented in the Sector Report:

Sub-Sector	Justification	Scope
Grains	**Mpumalanga is a major producer of maize and has a significant potential in wheat and barley.**	**Maize, Sorghum, Wheat, Barley**
Oilseeds	**The province is a major producer**	**Soybean, Sunflower, Canola, Ground Nuts**
Fruits & Nuts	**The Province has a wide variety of fruits including citrus. The potential for temperate climate fruits is high.**	**Citrus, Apples, Macadamia**
Vegetables	**With the Maputo Development Corridor and the Kruger Mpumalanga International Airport (KMIA) the potential for fresh vegetable production is high.**	**Potatoes, Tomatoes, Onions, Leafy, beans, peas**
Floriculture	**Similarly with the KMIA and proposed Industrial Park flower production for export is a significant opportunity**	**Roses, Carnations, Fynbos (protea, etc)**
Aquaculture	**While the Province is land-locked it has the right climate and water resources for fresh-water fish farming and processing for export and national markets, e.g., trout.**	**Trout, Tilapia**
Cash-Crops	**The Province is quite active in cash-crops such as sugarcane and has a significant potential in cotton and other**	**Sugarcane, Cotton, Tobacco**

Sub-Sector	Justification	Scope
	innovative crops.	
Red Meats	**With the prevalence of sugarcane plantations, livestock such as beef production under feedlot is prevalent and meat value-addition is going on. Other red-meats are also produced and can be intensified.**	**Beef, Mutton, Lamb, Venison**
White Meats	**Poultry production provides ample opportunity for small and new entrants. The processing can be down-scaled to SMME levels.**	**Poultry (Broilers, Layers), Pork (Porkers, Baconers)**
Dairy	**The Province is particularly poised for economic comparative advantage in milk production due to sugarcane residues and climate as well as demographics of the Province.**	**Fresh Milk, Long-life Milk, Products (cheese, ice-cream, snacks)**
Non-Edible Animal Products	**Leather hide and other by-products are prevalent in conjunction with livestock production already in place in the Province.**	**Hide, Skin, Leather, Wool**
Agro-Forestry	**The Province leads nationally in the production of timber and related raw materials. It therefore has ample potential for value-addition to these commodities.**	**Plantation Forestry; Paper, Pulp, Woodchip; Saw-milling; Charcoal, Timber Board; Mining Timber; Treated Poles, Wooden Furniture**
Agro-Based Pharmaceuticals	**Cultivated and indigenous medicinal plants and crops present a**	**Cultivars, Wild Crops**

Sub-Sector	Justification	Scope
	wide possibility of economic opportunities. This is a relatively new field that can be exploited to the benefit of new entrants in agriculture and agro-processing.	
Biofuels	**This field has a high potential of growth with the increase in cost of fossil-based crude oil on the world market. There is a prevalence of alternative Biofuels that can be produced and processed in the province, e.g., soyabean and sugarcane based.**	▪ **Bio-ethanol from sugarcane, sugarbeet and maize** ▪ **Bio-diesel from soyabean, sunflower, jatropha**

The Research findings:

As stated in the sector report *'The value chain of the agro-processing sector (following the SIC classification) is characterised by Primary, Secondary, and Tertiary (Manufactured) activities. In terms of analysis, 14 sub-sectors were evaluated along this value chain. Generally, there is a mix of vertical integration and non-integration along the value chain. For example, generally there is very little integration in Fruits & Nuts, but more significant integration in Sugarcane. Therefore, just as the level of integration varies between sub-sectors, it also varies even within a sub-sector'*.

The research findings on Agro-Processing can be summarised thus: As the Sector report notes *'despite Mpumalanga being the leader in many agricultural primary produce, this is not translated into downstream value added products (**the value addition is done in other provinces, or outside the country**). Thus, there are a plethora of opportunities to create a number of integrated value chains through clustering in particular.'*

Below are some of the specific research findings per sub-sector:

Sub-Sector	*Main findings*
Bio Fuels	• *Policy Incentives necessary to stimulate the sector* o *Excise duty exemption* o *Levy/Subsidy* o *SA Obligation – Biofuels Certificates trading* o *Tender System – Batches or 2005-2013 directives* • *Required Partnerships* o *Community-Based Organisations* o *Rural NGOs* o *Technical/Academic Institutions* o *Gov Organisations and Departments* o *Financial Institutions: Banks & Micro-Lending* o *Planners and Policy-Makers*
Oilseeds	• *Large shortage of plant protein, especially soy oil cake* o *necessary to switch from low value and high throughput crops such as maize to soybean production* o *will enhance both the local meat and plant protein markets* • *Mpumalanga already plays a key role in the supply of soybean and soybean products* • *Increasing the production levels in disadvantaged rural areas* o *enormous additional potential could be realized by as much as 1 million additional hectares of additional oil crop production* o *Job creation & Poverty alleviation*
Grains	• *Overall Value Adding limited – despite lead in primary production (e.g. Mpumalanga is the 2nd largest maize producer, yet there is little valu addition on Maize in Mpumalanga)* • *Dominated by large commercial companies* • *Emerging farmers more – low in production* • *Secondary and tertiary processing dominated by large companies*
Fruit & Nuts	• *Citrus* o *Innovation required to maintain the good status* • *Apples* o *Underutilised capacity in packing – shortage of supply* o *Under-growing given perfect climatic conditions in the Highveld* o *Investment in infrastructure required* o *Potential to be a country leader* • *Macadamia* o *Tree planting in land claim farms* o *Fastest growing fruit production* o *A vista of value adding opportunities*
Vegetables	• *General* o *Overall decline in production* o *Lack of Strategic Information - Production and Marketing* o *Nelspruit Fresh Produce Market not Effective* • *Potatoes* o *11% processed – room for further value adding* o *Most traded at FPM (30%+)* o *Better Production and Market Data – Potato SA* • *Tomatoes* o *Average ranking in the country* o *Poor Prod. & Market Data – Deliberate?* • *Onions* o *Old data – need for current market information*
Agro forestry	• *Largest provincial share - Total Plantation Area* • *Sawn timber - 40.3%*

Sub-Sector	Main findings
	• *Local Beneficiation to Timber – Very Low!* • *Value Adding Potential - High* • *Agro-furniture Growth Potential - High* • *Branding Potential - Major Growth Factor* • *Establishment of Timber Cluster* o *Driven by market concern* o *Encompass SMMEs, small low cost millers, charcoal producers, etc* o *Stimulation and the regeneration of small villages in remote and underdeveloped areas a great potential*
Red Meats	• *Underutilisation of value adding capacity – limited supply of livestock into value chain* • *Land claims may affect supply even more – need to capacitate land claim beneficiaries* • *Deregulation has led to overcapacity of abattoirs – concern of safety and hygiene by small abattoirs* • *Numerous Gov initiatives for emerging market – effort not coordinated*
White Meats	• *Mpumalanga produces 25% of SA Maize* • *80% of SA soyabeans* • *Poultry and Pork production – low for Comparative Advantage* • *Free range (poultry, eggs, pork) - Fastest Growing* • *Other High growth Areas:* o *Processed meats* o *Convenience meals* o *Ready-cooked meals* • *Top Technology – Pasteurisation of Eggs* • *Growth Market Potential – SADC member countries*
Dairy	• *Milk production shifted from inland to coastal areas* • *Barriers to new entrants - very high* • *Industry is subject to the price – cost squeeze phenomenon* o *real input prices - up* o *real product prices - down* • *Overproduction of milk country-wide* o *Innovative value adding opportunities required* o *Pricing mechanism required* o *Producer value-add investment through delivery discounts possible*
Floriculture	• *High cost of entry (Infrastructure, Human Capital)* • *Comparative advantage because of product range* • *Specialist knowledge and input critical* • *Need for collaboration amongst growers to increase freight volumes*
Aquaculture	• *Mainly for recreational purposes (tourism driver)* • *Main species is trout (Dullstroom, Lydenberg, and to some extent Waterval Boven)* • *Great potential for growth (water scarcity a negative factor)* • *5 decades of provincial experience* • *Sound technology base* • *Lack of policy direction on aquaculture* • *Underutilisation of capacity by fish farms owned by Mpumalanga Parks Board*
Agro-Pharmaceuticals	• *GE (not GMO) maize, cotton, and tobacco farms provide opportunities (systems for protein production)* • *Opportunities for harvesting/cultivation of indigenous species like wild ginger* • *ARC is conducting research on cultivation of indigenous plants* o *Farming opportunities for local communities* o *Need for regulatory framework for GE*

Sub-Sector	Main findings
Non-Edible Animal Products	• *South Africa is the second largest automotive leather manufacturer in the world* • *Mpumalanga is an important sheep-farming area in South Africa with Ermelo being one of the largest wool-producing districts. Wool is produced in all areas accept for Baberton, Groblersdal, Nelspruit, Nkomazi and Witbank* • *The local industry (South Africa, including Mpumalanga) is gaining the attention of international sourcing agents* • *Increase in demand on the automotive front has seen a big move by the existing tanneries to produce for this sector, which has created a shortage on the local market for footwear and clothing* • *Hides and skins are only produced in Belfast and Piet Retief* • *Mohair is only produced in Ermelo*
Cash Crops	• *Mpumalanga is the second highest producer of sugarcane to KZN. The sugarcane industry has been concentrating on the KZN development schemes and it is high time similar programmes are implemented in Mpumalanga* • *The sugarcane production operations are located in the Komatipoort and Malelane in the Nkomazi region. The cane plantations are located along the Crocodile and Komati Rivers.* • *Mpumalanga and Limpopo Provinces are considered as the main tobacco producing provinces of South Africa* • *Cotton production can be an opportunity for new (emergent) farmers as it has low initial capital outlay requirements.* • *There is need for coordinated approach to cotton development and promotion*

Areas of opportunity

As stated in the report, the main opportunities lie in the areas of value addition, especially in bio fuels, fruit and nuts (particularly apples), and cash crops (particularly tobacco) and inception projects are recommended in these areas in the report.

The report notes that although value is identified in secondary and manufacturing opportunities, there is scope for improving production output and efficiency in primary activities. For instance, it was found that there is a decline in primary production in red meat stock (beef, sheep, etc) in Mpumalanga province. In fact, in all the sub-sector, primary production capacity is important to ensure growth in secondary and tertiary activities. Hence, the importance of sectoral clustering to ensure that growth is experienced across the value chain. We note here that the use of food crops in bio-fuels appears to account significantly for the recent food price crisis. Non food alternatives have to be found.

For government to intervene effectively, the blockages that need to be unblocked along the value chains must be understood clearly:

- As noted in the findings, there are a plethora of opportunities to create a number of integrated value chains through clustering in particular. Since there is very little vertical integration in some products such as Fruits & Nuts, but more significant integration in products such as Sugarcane, **assisting, for instance, sugarcane farmers to build and operate a sugar-mill that belongs to and benefits the farmers** will be easier and have a greater impact on the incomes of the farmers than a putting a juice factory that does not belong to the fruit farmers.

- The current global food price inflation as well as the imbalance between supply and demand is an opportunity that clearly suggests that there is room for increased output at the primary level where actual farm production occurs. It is here that **increased agricultural productivity through more land under cultivation, improved technologies to achieve higher yields as well as better management** is both necessary and viable.
- The focus of the intervention must be to increase increase agricultural output of the identified crops in the province by identifying underutilised/fallow land and allocate the crops per suitability.

Customised Sector Plan: Tourism

Main findings

Mpumalanga Province enjoys a number of competitive advantages in the tourism sector including:

- Being home to the world- renowned Kruger National Park;
- Having some of the best-rated wildlife resorts in the world such as Mala Mala and Londolozi in the Sabi Sand Reserve.
- The splendour and variety of the scenic and natural beauty.
- The increasingly recognised rich historical and archaeological heritage of the Province
- Proximity to the neighbouring countries of Mozambique and Swaziland as important sources of foreign tourists

While Mpumlanga has to some degree managed to exploit its strong tourism asset base, it nevertheless faces challenges in certain areas. In terms of Provincial distribution, the percentage of foreign tourists visiting the Province has dropped from 21% in 2002 to 14,9% in 2005. Over this period it dropped from 3rd to 4th in terms of the number of foreign visitor arrivals. Based on the quarter 1 2006 foreign arrivals figures, the Province has managed to retain this position. Using the same source, it is encouraging that Mpumalanga managed to increase its percentage share of foreign tourist visitors to 15% from 14% in the first quarter of 2005.

On the domestic front in 2005 the Province was ranked 8th in terms of the total number of annual trips by domestic travellers. Even with some its most prized attractions like Kruger National Park, Blyde River Canyon and God’s Window; there has been a 3% to 6% drop in visitor numbers.

In terms of economic impact, tourism contribution to GDP-R increased only slightly between 2003 and 2004 from 7.4% to 7.5%. A slight decline in the percentage contribution of direct employment in tourism to total employment took place standing at 15% in 2003 and 14% in 2004.

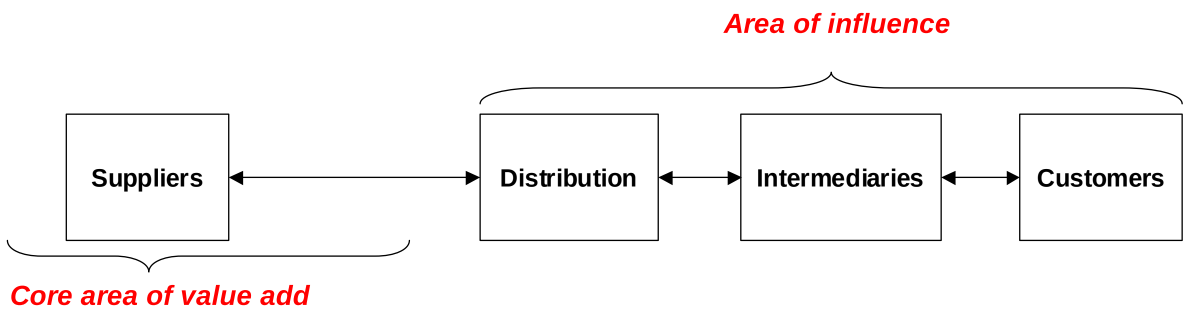
Some of the key challenges identified through discussions held with stakeholders include:

- A historical over-reliance on the Kruger National Park (and other common natural attractions) that may have had the result of insufficient investment and diversification into complimentary products
- Sub-optimal public and private institutional infrastructure, communication and relationships
- Lack of a unifying common vision and development plan for tourism shared between all key stakeholders – government, private sector and communities
- A lack of high level managerial and strategic tourism sector skills and experience
- Unfavourable air access to the province
- Fragmented marketing messages which may be symptomatic of a lack of effective cross stakeholder relationships and representative structures
- Lack of institutional memory as a (part) result of high turnover of officials affected by restructuring
- Lack of substantive transformation of the tourism sector over the last decade

Areas of opportunity

The value chain was analysed in terms of areas within which further value (beneficiation) could be added (Figure 1.1 below) towards growing the sector, increasing employment and advancing transformation and empowerment. The areas of distribution, intermediaries and customers in the value chain can be seen as those areas that can (and should) be targeted in terms of marketing and promoting the Province to increase the number of tourist visitors. The core role of distribution and intermediaries is to ensure the supply product gets to the market and that the market has the necessary information to make informed purchase decisions.

According to the MTPA, there were 162 Tour Operators[1] in Mpumalanga in 2002 (Institute for Tourism and Leisure Studies, Potchefstroom University, 2002). Along with Professional Conference Organisers (PCO's), it is important to encourage the location of such intermediaries within the Province. Doing so supports the incentive to attract tourists from outside the province and also grow internal volumes. Of course there will always be a need to have externally based intermediaries who may be closer to and understand more of potential domestic and international source markets.



Potential value add areas in the value chain

The intermediary component of the value chain comprising tour operators constitutes a potential area within which SMME development can take place; particularly focusing on increasing awareness and innovation of product and geographic spread outside of the dominant Nelspruit / Lowveld area. Group affiliation is however an important part of accessing business. Role players in the province encompassing government, private sector supplier groups and community structures must provide a united and compelling value proposition to influence intermediaries to communicate and sell tourism to the Province to customers.

[1] The figure of 162 appears to be too high and could include trip operators rather than only tour operators.

The core areas of value add in the chain for Mpumalanga resides in the supplier component with a focus on accommodation as this part of supply underlines the ability to attract targeted overnight (non VFR) tourists.

Beneficiation in the context of tourism can be understood in terms of rejuvenation of the existing product through repackaging and expansion (through complimentary products). As indicated in the value chain diagrams above, suppliers are made up of accommodation, transport, and trip operators as well as attraction providers. The experience of the tourist hinges on the extent to which these are packaged as a seamless whole and value for money realised. The supplier component of the value chain is another opportunity for potential SMME development especially in the areas of smaller scale accommodation e.g. B&B’s, guesthouses and lodges, tour & trip operators and interpreters of historical / heritage sites. Access to the market via distribution and intermediary components of the value chain for SMME’s is obviously critical to their long-term success.

Customised Sector Plan: Petro Chemicals

Main Findings

Most actors in this industry, in part due to the massive amounts of capital usually required to enter the industry, are very large multinational corporations (MNCs) with access to huge resources and whose production facilities span the globe. Mpumalanga's major competitive advantage in this sector, especially in fuels, is the fact that Sasol is present in the province and has a meaningful investment there.

In terms of liquid fuels there is significant exploration and development activity by several multinational companies along the West African coast. According to the Centre for Global Energy Studies, US$ 20 billion will be spent in Angola in the next five years to make Angola the second biggest oil producer in Africa after Nigeria. Sasol is also co-operating with certain producers to do joint ventures in GTL, notably in Qatar. There is of course also major work being undertaken in bio fuels and alternatives to oil based energy sources and major R & D is being conducted around the world on the effective production of energy from alternative sources. Mpumalanga fuel operations consist of Sasol Synthetic Fuels in Secunda Coal based) with a capacity of 150 000 barrels/day. Another Natural gas and condensate based refinery is PetroSA in Mossel Bay with a capacity of 45 000 b/d. The Sasol Synthetic Fuels operations in Secunda are integrated plants, producing a range of fuel products, petrochemicals/polymers, as well as by-products such as phenol/derivatives, ammonia/fertilisers/explosives and others. The original Sasol 1 operation in Sasolburg has stopped fuel production, and is now a primary chemical production site.

In polymers and rubber major investment is taking place in the Middle and Far East. China and Thailand have installed new capacity and have increased existing plants for SBR/PBR manufacture. Malaysia currently exports all its natural rubber, but has invited investment for synthetic rubber production in the hope that this could lead to a tyre manufacturing plant being installed. Significant investment for LDPE/LLDPE production has taken place recently in the Middle East because of the availability of free gas. Middle Eastern domestic markets are small and most of those products are therefore exported. In some of the lower volume primary polymer and rubber markets there is little investment taking place elsewhere, due to over-investment in the Far East. Sasol Polymers in Mpumalanga is the only domestic producer of ethylene, which it uses for its own polyethylene production and to supply Dow with ethylene.

Most organic chemicals are commodities, with a major focus on the supply of monomer for the primary polymers sub-sector. Generally a global overcapacity exists in almost all commodity organic products, which is exacerbated by the downturn in the global economy. In addition, high production costs (i.e. USA - high natural gas prices; EC – high value of the Euro) in developed countries are causing a downsizing and closure of plants. Investment by developed countries is therefore at historical lows, while significant investments are occurring in developing countries, of which most notable are the Middle Eastern feedstock-rich countries. Sasol is making incremental investments in some of these areas in Mpumalanga but any investment in this category is likely to be based on imported feedstock (crude oil or condensate), while markets have to be found mostly in exports at unfavourable prices. Polymer investment is occurring in Mpumalanga with Sasol’s Project Turbo.

Developments regarding renewable fuel sources could have a significant impact on investment trends in Mpumalanga specifically ethanol production from sources such as sugar, maize and wheat. The major issue is related to subsidies to compete against conventional fuel sources. Around 5 million TPA of new capacity for fuel-ethanol was added in 2003.

Beneficiation and new investment opportunities arise mainly from market and attractive feedstock opportunities. South Africa has a distinct lack of primary sources of petrochemicals, and where they exist; there is a low level of rivalry, which results in high prices for downstream consumers. The major issues are a lack of ethylene (Sasol has excess propylene, but insufficient ethylene), as well as a general shortage of aromatics. There is therefore a definite opportunity to invest in primary feedstock plant, such as an ethylene cracker and an aromatics (BTX) unit. The most viable option would be via an integrated oil refinery/petrochemical complex. The regional market is currently marginal in terms of sustaining such an investment, but with good economic growth it should be viable over the medium term.

Apart from further expansion at Sasol (both coal and natural gas based), there is also potential to exploit available feedstock within the PetroSA/Mossgas operation. Mossgas has a similar potential in many products to the Sasol operations. SA imports significant quantities of basic organic chemicals. Some of these could offer local manufacturing opportunities, even without a major new cracker/BTX unit.

Because so many chemicals are commodities and competition is so fierce, shifts in production to low cost producing areas where input costs and logistics are cheaper, are commonplace. So too is the trend towards capacity optimisation and the shifting of production to various venues around the world by bringing capacity on stream again, if exchange rate fluctuations and other financials require it.

Areas of Opportunity

The presence of Sasol in Mpumalanga Province represents a major opportunity set for the manufacture of inputs which Sasol needs, but which are currently imported, and this is where priority attention should be focussed. Sasol is a world class and global actors in the chemicals industry, which is a globalised industry by definition. Mpumalanga should investigate the potential for specific chemicals to be made in the province which is currently being imported from outside the province for use by Sasol and other large firms. Some examples are:

- Cleaning chemicals and services
- Water treatment chemicals and services (also for other large manufacturers and mines in the Province)
- Catalysts
- Input chemicals

There are additional opportunities for investigation in the pre-mixing and packaging of process chemical compounds and in the production of water treatment chemicals. As well as investigating the production of inputs for large firms, Mpumalanga could beneficiate further downstream, and could investigate the possibility of producing value-added petrochemical-based products using Sasol's polymers and other chemicals. Sasol produces a wide range of chemicals, and it is possible to develop new products for both local and international markets based on these. Mpumalanga is a good location for production of bio fuels, and a number of technologies exist or are being developed that could be used in the province. Finally, there appears to be a solid opportunity for SMME development in services, but this is very poorly researched at this time and requires further investigation.

Customised Sector Plan: Mining and Quarrying

Main Findings

Mpumalanga Province is home to the richest coal field in Southern Africa and coal is by far the provinces single largest product in volume and value terms, and its single largest export. All major and some junior mining houses are represented in the province to a greater or lesser degree. Operations are technologically on a par with the best in the world. The single largest constraint to improved efficiency and productivity for the coal mining industry in Mpumalanga is the poor performance of the internal rail linkages in South Africa. Also of some concern is the ability of South African and Mozambican ports to process coal exports. There are extensive plans for expansion of coal mining underway in the province as prices for coal have firmed since the most recent oil price increases and new investment is an attractive option for the mining houses.

Coal from Mpumalanga is used primarily to produce electricity and very large quantities are produced for Eskom and used in electricity generation. The quality of this coal is generally poor and it could not be exported, but can be used by Eskom. Sasol uses large quantities of coal for its coal liquefaction process to transform coal into fuel. Finally, the highest grades are washed and sorted and sent primarily to the EU as export.

Most regions attempt to be self sustaining in coal – especially when coal is used extensively for the production of electricity, the main end use of coal overall. Mpumalanga produces extensive supplies of coal for Eskom power stations, but also is able to provide significant exports of quality coal to major world markets, although the European Union, with its need for high quality low sulphur coal, is by far the major market for Mpumalanga coal.

Coal mining is successfully negotiating a changed policy environment in South Africa and Mpumalanga. New entrants are typically black empowered, and the major traditional players such as Anglo Coal have been forming joint ventures with new black owned entrants over some considerable time and most new explorations and mine developments have significant black ownership percentages.

Areas of Opportunity

Coal is used primarily as a source of energy for various other industries, and few opportunities for beneficiation of coal itself. Those that exist need to be carefully evaluated in the light of commercial sustainability over time before any intervention is considered or they will fail to attract reliable investment. Overall, the coal industry globally and in Mpumalanga is a mature industry and there are no observable market failures in the industry. Due to the capital intensive nature of the industry, access to significant capital sums is a pre requisite for entry and this limits SMME type opportunities. Small scale mining in coal is illegal, unprofitable and dangerous.

The opportunities for Mpumalanga in coal are fundamentally linked to SMME and BBBEE development, through improved access to Mpumalanga coal mines procurement. There is significant potential in carbon steel fabrication and the production of mine support systems from wood and steel, as well as the production of certain niche chemicals, in Mpumalanga. Over 80% of value added metal and wood products leave Mpumalanga in primary form, only to be re-imported to the province once they have been transformed elsewhere. This represents the single largest lost opportunity in job creation and SMME development for the province.

Downstream beneficiation opportunities using coal as an input material as opposed to a source of energy are very limited and not sustainable in Mpumalanga.

Customised Sector Plan: Wood and Wood Products

Main Findings

There are 1,140 firms in South Africa operating in various areas of the wood products industry There is a large number of sawmilling firms, which outnumber downstream manufacturers. It is clear that timber is being exported in cut form with relatively little value add occurring downstream by furniture manufacturers or cabinet makers.

Mpumalanga produces the majority of South Africa's wood (about 40%). However, little value is added to the primary input material (planks) within the province, most is exported either to other provinces or international markets which perform the (labour intensive) value-adding activities. The majority of value added manufacturing of wood products is to be found in KwaZulu-Natal, Gauteng and the Western Cape.

Mpumalanga accounts for only 13% of wood products companies despite producing over 40% of the county's timber. Most exports from the Province are in the form of round logs, sawn timber and paper. This is the case in Mpumalanga even though global exports of furniture grew from $11,27 billion in 1980 to $79,96 billion in 2004 indicating that global demand is strong and that exports are a serious commercial reality.

The top export country was Italy at a value of $2,159 billion followed by eight European countries. The USA in fifth place was the exception. Total exports from Europe were nine times higher than that from Asia (9,2% of the global market for exports) while Europe has an 82,2% share of global furniture exports. Global trade in furniture has been steadily rising since the late 1980's- and now stands at approximately US$ 80 billion, up from US$ 20 billion in 1988, a 400% increase.

Furniture has traditionally been a resource and labour-intensive industry that includes both local craft-based firms and large volume producers. It represents a major opportunity for SMMEs. Nonetheless, mass producing furniture became a viable manufacturing strategy with the advent of flat-pack or ready-to-assemble designed furniture and this also represents a major opportunity within Mpumalanga.

This product innovation paved the way for firms to design, manufacture and ship products in large quantities. Firms that mass-produce flat-pack furniture tend to supply products for the low- to medium-price markets. Solid wood furniture manufacturers have retained important niche market segments primarily for high-end, expensive and design-led products. These specialized products tend to be purchased locally while mass-produced large-volume products are sold locally and for export.

From 1981 to 1989 furniture industry employment increased steadily by 26% from around 34 000 to 43 000 in contrast to the total economy where employment started declining from 1989. Despite the unfavourable economic conditions, the furniture industry retained most of its employees since 1998, but due to a drastic decreases in exports since 2002, employment has started decreasing; from 42 000 in 2002 to 38 000 in 2004. This compares with the total economy where despite growth in the economy, employment decreased by 1 million or 12% from 8,4 million in 1990 to 7,4 million in 2001.

Ongoing investment in design and new technology is required to establish this industry in Mpumalanga in any meaningful way and this investment is effectively a non negotiable factor in the development of this industry in the province. In particular in Mpumalanga, where unemployment is roughly 40%, the multiplying effect of job creation in this sector is considerable and too important for the provincial economy to neglect. Present negative trends in outputs from the industry mean that a large part of present employment may be lost if these declining trends are not arrested, as well as a substantial opportunity to create sustainable employment in the province.

Areas of Opportunity

There is a major lack of implementation focus on the opportunities inherent in adding value to wood in the production of wood furniture in Mpumalanga. . This means that opportunities for the development of knowledge and skills are being lost along with the jobs and enterprise opportunities which would accompany the development of these value added activities. Implementation in this sector is insufficient at this time to make any major contribution to Mpumalanga's development thrusts. Examination of the Wood Products value matrix indicates some areas of potential opportunity for Mpumalanga. These are:

- Manufacture of timber products for construction, e.g. trusses, doors, windows, flooring, skirting boards. These would be aimed at local and neighbouring markets.
- Manufacture of pallets (there is a major shortage of pallet supply and demand is likely to increase in the near future)
- Manufacture of poles (especially for mine support)
- Manufacture of a range of flat-pack furniture, possibly using solid woods as well as board. This would require a large investment and substantial incentives. In addition, design skills are critical, and these would have to be attracted (even if on a contract basis, or outsourced) and developed in the longer term.

Customised Sector Plan: Metals and Metal Products

Main Findings

The production of iron and steel forms a key input into many products and forms the bulk of basic metal forming in South Africa. Domestic steel producers are, however, vulnerable to the cyclical nature of the industry, in terms of domestic and international demand as well as price fluctuations. The situation is aggravated by the fact that approximately 40% of the country's products are traded in a un-beneficiated form on international markets.

South African steel production has been increasing slightly over the past years, however has remained below full capacity utilisation. It is uncertain how the planned capital investment in infrastructure programme of government will affect capacity utilisation for steel production in South Africa but it seems likely that domestic demand for steel products across the board will increase.

The vast majority of South African carbon steel (over 90%) is produced in Mpumalanga, by MIttal/Iscor and Highveld Steel. All South African stainless steel is produced in Mpumalanga too, by Acerinox/Columbus. However, little value is added in Mpumalanga and most conversion of primary material takes place in Gauteng. There is a significant opportunity lost to Mpumalanga in this regard and in fact, Mpumalanga has become a net importer of steel in value terms.

The numbers employed in the South African metals sector dropped sharply between '98 and 2000 but then began to increase steadily again. This growth in labour absorption is however, not expected to increase as technology changes have already begun to automate processes and this will result in fewer jobs available over time. However, growth in the downstream Metal Products sector will have very positive effects on employment figures, as these firms employ much higher levels for the capital employed.

In downstream metal products, basic metals are the most important inputs. Therefore the pricing of these basic metals has a significant effect of the competitiveness of downstream firms. Local firms are charged much higher prices than in other major industrial economies despite South Africa's low production costs. This can be attributed to Mpumalanga's distance from these economies and the market power of basic metal firms. South African buyers of basic metals generally pay more than buyers in the EU (deterring investment in South Africa). There is therefore a large gap between the capital-intensive upstream production of basic metals and the more labour-intensive down stream production of value added metal products.

The steel industry in South Africa has the potential to compete on a global scale. South Africa has relatively cheap input costs and therefore can use such advantages to increase global competitiveness. At present the majority of products being exported are in a un-beneficiated form. The value add that downstream products create is far more substantial than that of un-beneficiated upstream products. Mpumalanga should therefore look at pursuing value-added activities within the iron and steel sectors.

Areas of Opportunity

The presence of Mittal, Columbus and Highveld steel, as well as the ready availability of all raw materials inputs to the steel making processes, suggest that the major opportunity in Mpumalanga lies in the addition of value to primary materials produced in the province. While stainless steel is a material that is technically difficult to work with, the same is not true of standard carbon steels. This, combined with the relatively low cost of entry to carbon steel product manufacturing, suggests a major opportunity open to SMMEs in the province.

As noted above, most steel products leave Mpumalanga in primary form, and are further processed in other areas, largely Gauteng. Mpumalanga then re-imports the value added products, or the products are exported from Gauteng to overseas markets. Certain products represent immediate opportunities and some examples are:

- Tubes, pipes and hollow profiles
- Pipe fittings
- Tanks, casks, boxes, and containers
- Stranded steel wire
- Fencing wire
- Iron or steel cloth, grill, fencing and expanded metal
- Screws, bolts, nuts, rivets, washers, etc
- Sewing, knitting needles, etc, hand use, iron or steel
- Springs and leaves for springs, of iron or steel
- Table, kitchen, household items of iron or steel

Tool making is a key supporting industry for both metals and plastics beneficiation sectors and there is a National Tooling Initiative which was formed after the tooling study was completed to implement tooling training nationally. The key to this project will be a toolmaker training initiative in Middleburg (linked to the NTI) with an additional linkage to the already successful Coal Technical College (CTC) which the metal sector is also already using for skills training. Of particular interest therefore will be the opportunity for Mpumalanga to partner with the Tool and Die Association of South Africa, in the rejuvenation of the South African Tool and Die industry, and the development of SMME service companies to undertake maintenance and repair of carbon steel items for the large firms in the province.

A major constraint for Mpumalanga is the availability and quality of technical skills available even those at a relatively low level, as well as basic business skills of new entrepreneurs.

Implementation Framework

Economic Clusters

The concept of economic clusters has been part of new economic growth theory and the new economic geography and practice for some time now, with phenomenal results. Globally researched evidence suggests strongly that the benefits of industrial clustering lie largely in the fact that co-location is beneficial to firms' innovative success is. Scholars of this trend note that what underlies the clustering phenomenon are mechanisms that facilitate the interchange and flow of information between firms, while maintaining inter-firm rivalry (Porter, 1990). 'If the transfer of technological knowledge is greatest for firms in close geographic proximity, then location within a cluster of related firms in a limited geographic neighborhood is expected to enhance productivity' (Aharonson, Baum and Feldman).

It is on the basis of the above that the proposed Provincial Industrial Development Strategy is based on the establishment of Special Economic Zones on the basis of two key determining factors: On the one side are the Customised Sector Plans based on the recommendations of the Sector Studies and on the other side are the locational competitive factors (i.e. spatial determinants). The Economic Clusters therefore afford each region the benefits of agglomeration/concentration in a given space together with the benefits of sector-wide support. It is the confluence of Urban Economic Strategy and Business Strategy.

Guiding Principles

- Bottom up approach dependent on regional innovation systems or clusters. The aim is to enhance local endogenous potential, building on locally available skills and other resources to achieve organic growth and not to be initially reliant on external investment.
- The governance of the Special Economic Zones shall be decentralised with the detailed design and implementation of development plans becoming the responsibility of partnerships between district and local governments and the local private sector, supported by the Provincial government and the DTI.
- Support shall be focused on high performance regions while bringing up the lagging ones.
- The Special Economic Zones shall not be limited to manufacturing alone. They shall be supported by differentiated, innovative and efficient services, especially IT services.

The conceptual/institutional arrangement of the SEZ/economic cluster:

Level 1: Large companies that trade /export beyond the region.

Level 2: The second layer of the cluster is made up of the many companies that supply the main exporters. Depending on their actual geographic location these may form local supply chain. In terms of size these are medium and micro enterprises sustained by contracts with the big companies above.

Level 3: The supportive network of critical local linkages made up of public and private sector institutions serving as the foundation of cluster competitiveness. This network is made up of:

- Human Capital development (Education, skills training and entrepreneurship)
- R & D and technology, including adoption of new technologies, research institutes, and commercialisation of research
- Financing, including access to conventional, venture capital and to support new business and business expansion
- Business climate, including extent of industry (over)regulation and taxation as well as incentives.
- Infrastructure, including hard infrastructure such as roads, transit, airports and telecommunication, but also soft infrastructure such as social programs and local institutions, and
- Quality of life, including housing, school, recreation, neighbourhood vitality, safety, parks, open spaces, arts and culture, civic pride, and the quality of the built and natural environment

To the extent that it is at level three that the foundations and enabling environment for the success of the cluster reside, it is here that government plays a key role. This role entails government being a lead investor and part of this role may be to provide the actual physical production facilities on a landlord-tenant basis.

Spatial Determinants:

Growth focus

Given the spatial distribution of the sectors, the Special Economic Zones/clusters will be located in accordance with the sectoral strengths of the given identified localities. It is hereby proposed that the following clusters are established based on the principles and institutional arrangements above. Consultations with relevant stakeholders must precede clustering.

NKANGALA (Middleburg-Witbank): Iron and Steel + Heavy machinery IDZ

GERT SIBANDE (Secunda): Chemicals Cluster/ IDZ

EHLANZENI : ICT, Consumer Electronics + Tourism, Agroprocessing IDZ

NKANGALA-GERT: Engineering/Mining

Poverty reduction focus

Given the highest **concentrations of poverty** (people living under the MLL) as indicated earlier it is proposed that rural development nodes for focused investment are established in the following areas:

(1) Broader KwaMhlanga, Siyabuswa, Bamokgoko, located in Nkangala DM;

(2) Bushbuckridge and

(3) Nkomazi in Ehlanzeni DM and

(4) Oshoek in Gert Sibande.

<u>Part 2</u>: Long term; (beyond 5 years)-*Developing a globally competitive province*

Economic Duality:

The overarching structural constraint in the South African economy

Whereas South Africa does not have two economies in a strict technical sense the 'two economies' construct is more than just a metaphor. Also known as 'e*nclavity'*, in South Africa, this economic duality is more complex than simply racially defined. It is a disparity between an enclave of our economy which is **globally connected, high-value generating, formal, big, capital intensive and largely (but not exclusively) urban** in a sea that is **inwardly focused, low-value generating, informal, small, labour intensive and largely (but not exclusively) rural**. Unlike economies that operate as integrated systems, the duality of the South African economy derives primarily from several critical **systemic disconnections** or disjunctures that define the fundamental structure of the South African economy:

- **The value-chain disjuncture** lies in the fact that unlike in more integrated economies that historically developed in a balanced way, small enterprises and the informal economic activities of the majority in South Africa are either at the lowest end of the value chain or lack any value-chain linkage to the high value formal economic activities. As a result they are mainly survivalist and having little prospect of growth and sustainability.
- The majority are primarily confined to low-value economic activities by the low levels of educational attainment and skill. The **education and skill constraint** serves as a barrier to entry into the higher end of the value chains.
- **The spatial disjuncture** remains a key feature of the economy, whereby the majority of the black population lives in areas of low value and unproductive activities, physically separated from the higher value formal economy.

- A direct macroeconomic consequence of duality has been **extreme demand deficiency** due to the fact that a large part of the population is sheer numbers with low buying power. Notwithstanding the numbers, they are not a market for goods and services due to low disposable incomes. It is a fact, as observed in The Growth Report, that *'growth strategies that rely exclusively on domestic demand eventually reach their limits since the home market is usually too small to sustain growth for long, and it does not give an economy the same freedom to specialize in whatever it is best at producing'*. In the case of South Africa, as our Gini coefficient (measure of inequality) attests, the domestic demand is extremely small relative to more integrated economies of similar size, especially when social security grants are discounted.
- The relative **low labour absorptive capacity** in the South African economy is a direct result of economic duality. For every rand invested, fewer jobs are created than would have been the case in a more integrated economy that experiences inclusive growth patterns. The multiplier effect tends to be much lower amongst the members of the population in the less developed sectors than the rest. To the extent that their economic activities operate outside of established and more advanced markets, they represent unproductive activities from the point of view of markets. In fact such activities tend not to be affected by, let alone affect the more advanced, market driven and higher value added economic activities. This explains our economy's **low capacity to absorb labour**.

- Duality has precipitated **low levels of policy responsiveness** throughout the economy because only the high value formal part of the economy responds well to macroeconomic (monetary or fiscal) policy interventions. To date the majority of the consumers and enterprises in the second economy do not change their behaviour in accordance with macroeconomic indicators such as interest rates because they are not directly affected.

It is the above duality of the economy which served as a major structural brake to economic growth. The above constraints can be referred to as structurally in-built market failures that warrant an aggressively activist developmental state in order to achieve high levels of inclusive growth.

The paradigm shift:

From a natural-resource based economy to innovation and the knowledge economy

The economic challenge facing our societies is commonly and generally understood to be about how to meet unlimited wants in the context of limited resources. This can also be referred to as how to meet unlimited demand given limited supply, since supply and demand are the basic constructs of economic theory. Historically, capacity to supply goods was based on natural resource endowment, also known as comparative advantage. If nature had accorded a particular territory very little by way of land, minerals etc, that area would not be able to compete. In time however, the human capacity for creativity and innovation has altered the basis for competitiveness. Today, the wealthiest countries are by far the least endowed in terms of natural resources; a new world of possibilities has opened up. In modern economies therefore, economic resources should not be understood to be 'natural resources'.

Global experience seems to suggest conclusively that the limitations of resources is primarily dependent on the human factor. Put differently, resources will indeed be limited if the policy and planning paradigm is confined to the available (and inevitably limited) natural resources of a given area. Human creativity and innovation are however, unlimited. Arguably, not having been able to break free of her historic reliance on natural resources as a source of advantage, South Africa and its provinces such as Mpumalanga has lagged behind its competitors…caught in the colloquial 'time warp'.

An ironic, direct result of becoming a resource-based economy in the absence of a diversified manufacturing base is an economic phenomenon known as '*the paradox of plenty*'. Another, more instructive name for this policy-critical and yet counter-intuitive phenomenon of natural resource endowment being negatively correlated to economic performance is *'the Dutch disease'*. Given their exportable nature, natural resources tend to lead to the deindustrialization (i.e. destruction of manufacturing capacity) of a nation's economy because the natural resources raise the value of that nation's currency, making manufactured goods less competitive with other nations, thus increasing manufactured imports and decreasing exports. This is a case of the Dutch disease, a term that originated in Holland after the discovery of North Sea gas.

Clearly, natural resource endowment is not a determinant of prosperity, therefore an ill-advised starting point for an economic strategy. This point is worth belabouring from the outset because it is the single most important paradigm shift that both policy makers and business people have to make for South Africa in general and Mpumalanga province in particular to achieve economic breakthrough. It is such a shift that will place us in the league of global winners and separate us from losers. More than the low levels of economic growth and the high levels of unemployment, our single biggest enemy is conventional wisdom. It is exactly this policy lethargy that leads to the failure to break new economic ground because of doing the same things in the same old way and expecting a different result, which result is not forthcoming. The evidence is overwhelming: Natural resource rich countries are relative poor performers.

Manufacturing: The engine of growth

In contrast to the static nature of comparative advantage in natural resource-based economies, the dynamic nature of competitive advantage embodied in manufacturing generates higher value. This is because even in its most basic form manufacturing is characterised by innovation through higher levels of productivity to transform inputs into better outputs. The higher difference between input costs and the market value of products in manufacturing results in greater wealth creation since such value is in turn distributed to the factors of production (labour and capital).

As can be shown from historic records, an exponentially large amount of wealth was created in a short period following the advent of industrialisation, than through centuries of feudal agricultural production.

In time, most economies of Europe and North America in particular, and later parts of East Asia and to a rather limited extent Latin America and Africa, evolved through various paths beyond agricultural economic bases into manufacturing. The industrial era had dawned. For reasons beyond the scope of this discussion, large parts of Africa, Asia and Latin America remained trapped in the semi-feudal mode of agricultural production and extractive activities such as mining and logging.

A key feature of manufacturing was and remains the fact that more value is added through the transformation of raw materials into finished goods than in primary economies that are dependent on natural endowments (mining and agriculture). The industrial era however, also went through a struggle between the old and the new.

At first, and this is still the case in most underdeveloped countries, there was over-reliance on input costs as a source of advantage. This was again based on access to raw materials and cheap (largely unskilled) labour. Today, the importance of this form of backwardness, known as beneficiation, is generally highly exaggerated. Important as it may be for underdeveloped economies, it belongs to antiquity and is not a sustainable basis for modern global competition. Although selling your minerals unprocessed is even more backward, no single modern economy is globally competitive on the basis of beneficiating its mineral resources. In fact, when one looks back at the dawn of the industrial era, it is hard to imagine that the steam engine, the key invention of the time, was brought about in order to beneficiate steel because there was too much supply of the latter which was then regarded as an advantage. On the contrary, the steam engine probably emerged because there was a confluence of transportation needs in the market, raw material availability and technological capability, in other words, supply and demand.

Relatively however, more skill was and still is required in manufacturing, including mineral beneficiation, than in agriculture and rudimentary mineral extraction. The skill input of course is generally positively correlated to value added.

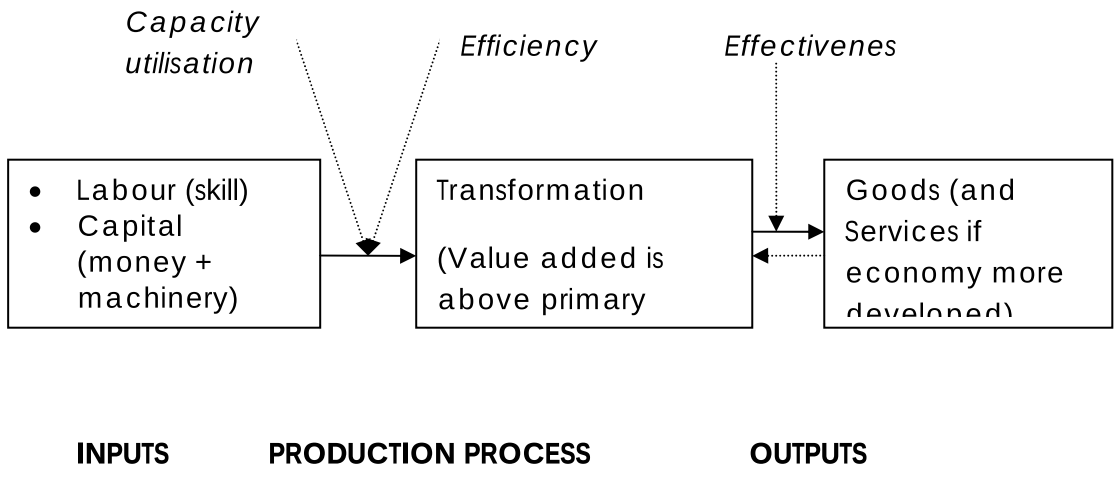


Figure 2 A typical manufacturing process (Note the range of inputs and value added)

The importance of manufacturing goes beyond value added per product. Manufacturing is generally regarded as the engine of growth due to its backward and forward linkages to the other key sectors and due to its internal symbiosis. Whilst primary sector outputs (mining and agriculture) get processed and refined in manufacturing, manufacturing outputs easily become inputs in other sub-sectors of manufacturing and in both primary and tertiary (services) sectors of the economy.

Since South Africa as a whole and Mpumalanga in particular is afflicted with economic duality and its attendant low labour absorptive capacity referred to above, a large part of the economically active population is underemployed in the non-formal sector or just plain unemployed. The underemployment is largely characterised by unproductive labour of a semi-feudal and subsistence nature that is not captured by (capitalist) markets. In the case of Mpumalanga the majority of the people are in the former homeland areas with little or no sources of sustainable livelihoods.

Under such circumstances, the process of industrialisation should be viewed as a process of capturing and transforming the non-formal sector (which is a remnant of the past purely agricultural production and land dispossession) through commoditising labour by integrating it into capitalist markets. As the non-formal sector transforms, surplus value/excess profits are generated in both the formal and non-formal sectors, affording investors the opportunity to invest more (accumulation of capital). This can only occur through value linkages between the non-formal and formal, where outputs from one become inputs in the other and vice versa. Over time, the distinction between the formal and informal should disappear. This is what is also referred to as '*virtuous cycles of linkages arising on a number of fronts'*.

There is one other reason why it is necessary to diversify the economy beyond primary extraction activities. A diverse economy is better able to withstand macroeconomic shocks such as interest rate or exchange rate changes. When some sectors are affected negatively, others respond positively, thus ensuring that the overall impact is muted and balanced.

The Strategic objective: A globally competitive province

In a highly globalised world Mpumalanga must not only seek to be the best amongst South African provinces but must be globally competitive. There is very little choice since both investors, buyers and even tourists sitting in various parts of the world have a choice between various buying, investment and visiting destinations that compete with the provincial offerings. Moreover, it is only when we understand and adopt the practices of winning nations that as a province we can also be an oasis of excellence in South Africa.

To its credit, relative to other provinces in South Africa, such as Limpopo, the North-West, Eastern Cape and Northern Cape, Mpumalanga has a diversified economy with less dominance of mining and agriculture and a good share of the economy going to manufacturing. Since our concern is global competitiveness however, in this respect Mpumalanga exhibits a dangerously undiversified resource-based economy. Undoubtedly, the beneficiation of natural resources is better than the export of raw materials. Even at its best, the nature of manufacturing in Mpumalanga is itself undiversified and uncompetitive in the form of such beneficiation of natural resources as opposed to advanced exportable technologies that change the way people live and work.

The moot question becomes whether the province, through such an undiversified resource-based economy is not only contributing the Dutch disease towards the rest of the South African economy through uncompetitive exchange rates but also experiencing deindustrialization as a province. The resource focus referred to tends to crowd out manufacturing activities thus undermining learning through manufacturing and economies of scale. In such a situation, natural resource extraction diverts capital (human, physical and financial) away from manufacturing.

Amongst the names it has attained over the years, this policy-critical and yet counter-intuitive phenomenon of natural resource endowment being positively correlated to poor economic performance has also been dubbed ‘the paradox of plenty’. One of the reasons for more being less with natural resource endowment is the fact that since minerals are an easy source of revenue, including foreign exchange, a lot of the country’s human and financial capital gets diverted from manufacturing industries and other cutting edge, knowledge intensive industries into resource extraction. In the process, very little is invested in technological creativity and innovation.

In South Africa, the obsession with natural resources, be it land, minerals, animals and even the sunshine, is not limited to policy makers alone. A critical mass of our economy’s human resources is confined to mining and other extractive industries. As a matter of fact some of the best brains in our economy are ‘wasted’ in perfecting the art of extracting minerals out of the ground when the rest of the world is competing on the conceptualisation and design of advanced technologies to improve the way people live and work.

It is also worth noting that the economy of Mpumalanga will remain a high-risk economy to the extent that it is not diversified from dependence on one sector of the economy into a multiplicity of economic activities combining primary (natural resource-based), secondary (advanced manufacturing) and tertiary (advanced services) activities. It is thus an economy that is vulnerable to minor changes in the business environment. A diversified economy tends to be resilient and able to absorb external shocks.

In the absence of a well developed manufacturing sector, the economy of Mpumalanga will not able to transmit value generated in one sector through to the other sectors the way it would if internal value chains existed.

Mpumalanga as a developmental state

Defining the role of government in the first economy

In order to fully appreciate the extent to which Mpumalanga has progressed economically and the magnitude of the imperative to achieve higher levels of growth and development, it is necessary to place the province in the global as well as country economic context.

For a developing country such as South Africa and an underdeveloped province such as Mpumalanga, economic advancement must take the form of leapfrogging. It is primarily an effort towards and beyond a socio-economic destination that other provinces, regions and countries have already reached or even surpassed. This must be done in a shorter time period and using a non-linear route than was historically the case for most developed countries. In other words, it is a leapfrogging exercise that should brook neither a pedestrian path nor a mediocre destiny. Certain historically relevant stages may have to be condensed or skipped altogether in order to move to the front of the queue. It is common knowledge that such leapfrogging is possible because other previously underdeveloped countries of the world, especially in the east such as South Korea, have done it already. It becomes wise therefore to learn from those who have traversed the path before.

In order to define the role of the government of Mpumalanga in relation to the economy of the province we have to acknowledge that the duality of our economy forms a stubborn backdrop. A dual role for the developmental state therefore becomes unavoidable. The provincial government must be **developmental in the first economy primarily as a facilitator of growth** and be **developmental in the second economy primarily as a facilitator of the integration of the marginalised into the mainstream**. None of the roles is welfare driven and the two roles are mutually reinforcing.

The economy of Mpumalanga is made up of a relatively developed formal economy in the form of large scale farming enterprises, mining, manufacturing and services. Like the rest of the South African economy however, labour absorption rates remain stubbornly low and growth rates globally uncompetitive. A key task of government in relation to the first economy is to create an enabling and conducive environment for economic growth. Global best practice in this respect is that ***Government must view itself as a facilitator of private***

economic activity such as investments, easy access to finance and the smooth flow of goods, services information and knowledge rather than a key economic actor in its own right. Given the need to leapfrog and the pervasive structurally in-built market failures in our economy, the Mpumalanga government must be more aggressive and interventionist as a facilitator of private investment.

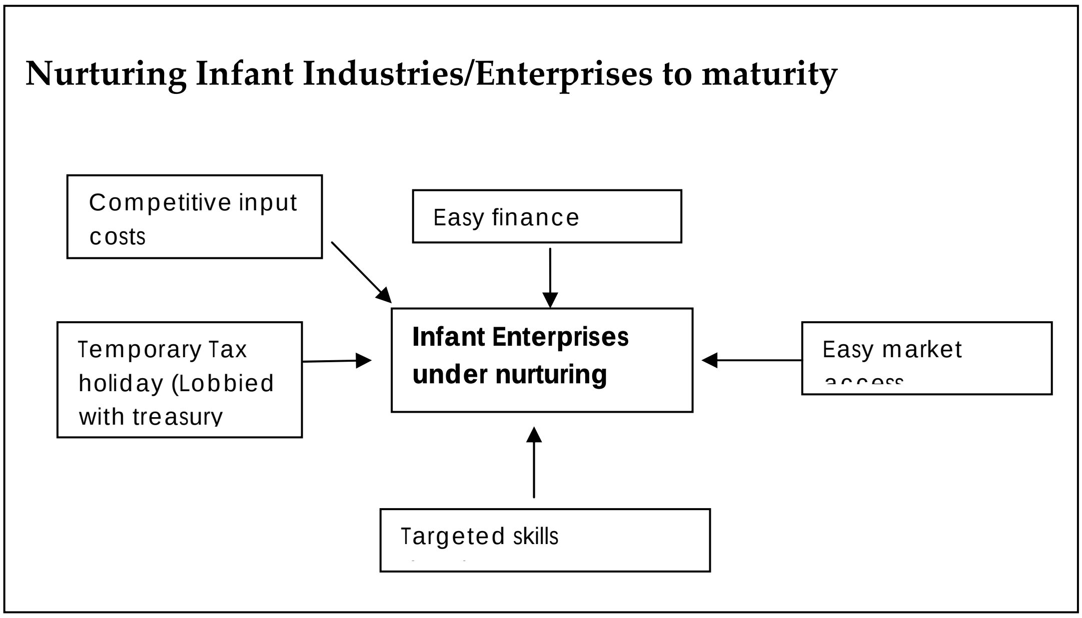
The intervention referred to above should however not be primarily in the form of regulations and legislation. Formal economies are so regarded because they are regulated. Globally though, it is the freer, least regulated formal economies that achieve the highest levels of growth. It is for the same reason that even in Mpumalanga, the informal unregulated economy has a relatively higher level of employment and growth than the formal one. It is in recognition of their unintended consequences that Regulatory Impact Assessments have become a prerequisite of any regulation, including the impact of municipal by-laws on enterprises of all sizes, SMME's included.

The nature of intervention in the first economy by the developmental state in Mpumalanga should ideally take the following form:

- Starting with this strategy, to continuously identify new globally competitive industries to be nurtured.
- Nurture and hand-hold the identified industries with a special focus on the reduction of the cost of doing business and increasing productivity.
- Provide the entire public infrastructure to enable the operations of identified major private investments.
- Reduce the initial set-up costs of major new investments by entering into PPP agreements and providing seed capital.
- Mobilise/Negotiate guarantees and act as a guarantor of private debt finance for major investments.
- Buy land for and enter into long term leases with the potential investors into the major projects.
- Crowd-in private investment by acting as a lead investor in a given space economy (e.g. the government complex in Nelspruit precipitated the entire riverside precinct.)
- Facilitate the negotiations of global partnerships with local investors.

- Structure and facilitate BBBEE partnerships with investors.
- Establish an investors' one stop shop to enable easy access to information and help fill forms and negotiate with the relevant national, provincial and local authorities on behalf of investors.

Most the above interventions can be project-managed for implementation purposes.



Second economy interventions: Sustainable SMME development through value-chain integration into the first economy

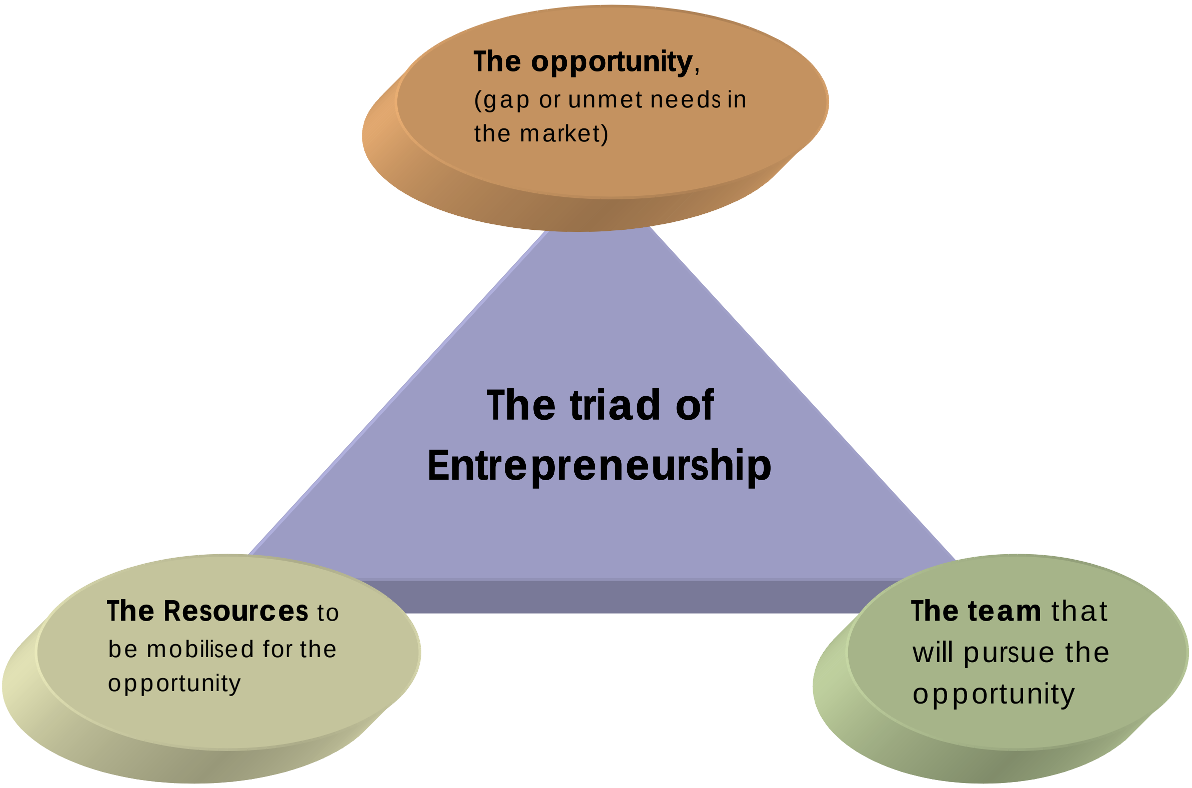
Economic duality presents one of the key policy dilemmas and paradox of our times. Labour intensive sectors and enterprises of the economy generally have a high labour absorptive capacity. In other words, they generate more jobs for each rand invested than capital intensive enterprises. However, capital intensive enterprises generate more value and wealth for every rand invested (for capital in the form of higher returns on investment and for labour in the form of higher salaries and wages).

There is a rider though. Capital intensive enterprises are also skill intensive, while labour intensive ones are person-power intensive. The dilemma arises when policy choices contrast the challenge of unemployment to the overall challenge of poverty. To focus on labour intensive sectors and enterprises would dent unemployment but amount to the mass spread of poverty through widespread low wages and salaries and would render us internationally uncompetitive. To focus on capital intensive enterprises would generate more wealth for the few that have invested and are employed thus accentuating inequality and the unsustainable mass dependence on social security grants.

At the core of this dilemma is the need to answer the question, how can Mpumalanga undermine economic duality in such a way that economic growth and development goals are simultaneously achieved. In the context of both the first and second economies the answer lies in an integrative approach that combines entrepreneurship with socio-economic development.

Developmental entrepreneurship

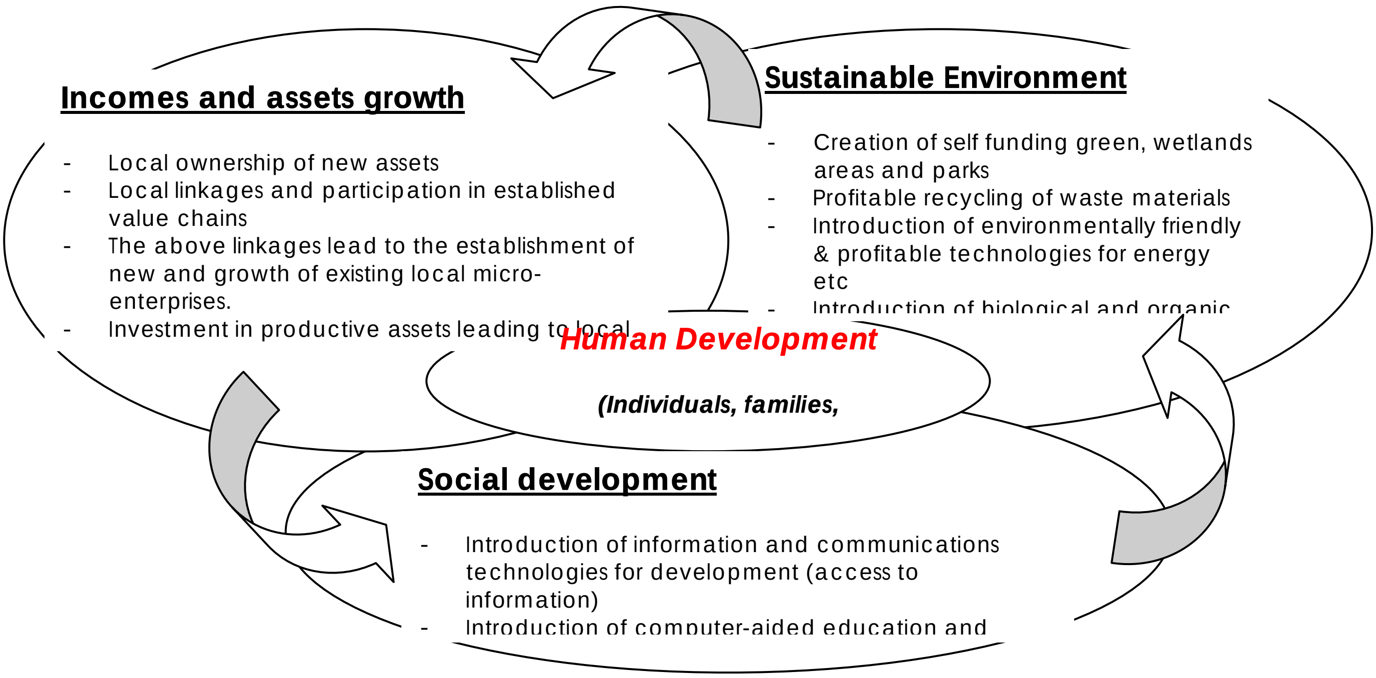
Conventionally, entrepreneurship is best captured by the schematic representation below, driven primarily by an entrepreneur who identifies an opportunity in the market in the form of a gap created by unsatisfied or unmet customer needs. The entrepreneur them builds a team around him with the relevant competencies to pursue the opportunity. Lastly, the team mobilises the physical and financial resources to pursue the opportunity. Reality is not always this neat but that is the general picture. Whereas the opportunity and meeting the needs of customers provides the beacon to which all efforts are directed, the team is the critical success factor. Most entrepreneurs in South Africa pursue the beacon in a narrow sense that does not address broader socio-economic challenges confronting their customers. They just hope their customers come back again tomorrow for more purchases.



In most townships and rural areas, shopping malls and complexes represent *__the single biggest private investment__* that those areas will ever experience in a long, long time. Unlike investment in productive capital, retail is the easiest way of entering underdeveloped but growing markets. It is for this reason that the paradigm of entrepreneurship and development must be redefined into developmental entrepreneurship. **A shopping complex in a township or rural area should not be the same as a mall in upper income suburbia. It must be developmental in concept, design and functionality.** It must be a viable mixed use facility, a source of hope and solutions to societal problems, a communal meeting place and part of a space from which members of the community draw both convenience and livelihoods. In partnership with developmental entrepreneurs, one of the key interventionist responsibilities of the developmental state is to redirect and reconfigure value chains from their established patterns into new directions locally. A bit of value chain manipulation to ensure that locals are mentored with some baby-sitting into acting as suppliers and service providers for the big investors will do a lot of good. It is worth the inconvenience and even delay in project implementation.

There is no business reason why the malls that proliferate in our townships and villages have to source everything from tomatoes to simple mirrors and jerseys from their traditional big suppliers when locals can participate effectively in these value chains. There is also no reason why local subcontractors cannot engage in supplying some of the goods and services that go into mining and processing activities, from IT services to industrial cleaning.

A Developmental Market-based Ecosystem



The above ecosystem achieves the following:

- Usage of retail in townships and villages to diversify the production base of the local economy.
- Linkages between local demand and local supply
  - Minimising economic leakages.
  - Organic growth
  - Shared growth
- Linkages between Big enterprises and Micro-enterprises.

- The two economies must be integrated through the establishment of value chain linkages between their respective enterprises. A graphic example would be (second economy) village cattle farmers who establish a leather tannery to supply (first economy) automakers with leather for their luxury car seats.
- In order to achieve easy entry and reach the multiple goals of sustainability, and acceptable levels of capital/labour intensity the focus must be on **low- to medium-technology exportable consumer products with substantial local demand** such as:
  - Childrens' toys and
  - Kitchen appliances
  - Simple consumer electronics

The above strategy is sustainable because it is premised on short term import substitution and local demand expansion with a long term export orientation.

Strategies must be developed to make low value economic activities relevant and linked to higher value ones, in order for the former to ‘add value’ to the latter.

This cannot be done without big enterprises coming to the party. The tendency to outsource low value functions and retain high value ones in-house is a fundamentally unproductive starting point that does not result in a win-win situation. Big enterprises need to be clear about the business they are really in and leave the rest to specialised SMME’s that can build capacity and competencies with a knowledge that markets for their goods and services are relatively guaranteed. Over time they will become highly specialised.

If one goes to advanced and more integrated economies, typical SMME’s would take the form of multi million (Dollar, Euro, Yen or Yuan) highly specialised component suppliers to big complex firms that combine civil, mechanical or electrical manufacturing and engineering activities to produce whatever they do. In some cases, the component suppliers would be so integrated into and even dependent on the operations of the big companies that one would be unable to differentiate them. In fact, it is such integration into and dependence on a big brother that explains the long term sustainability and viability of SMMEs in such countries. Documented evidence on modular production systems suggests that in some parts of the world the relationships are so strong that they do not even have written contracts despite the magnitude of the amounts of investments and revenues involved.

On the other hand a supplier linked to such big brother could be a small family enterprise that is equally specialised in whatever they do. How many South African so-called SMMEs have such experiences of mutually beneficial value chain connections to big globally competitive enterprises?

New frontiers of competitiveness

The Knowledge Economy

After a while, a large part of manufacturing input and value added became and continues to be made up of more and more intangibles in the form of sheer knowledge and skill. Information and communications technologies further revolutionised the value of manufactured goods beyond their physical inputs. Differences between goods went beyond quantitative into qualitative attributes. It is in this context that price competition alone became antiquated as quality became a critical source of advantage, *competitive advantage* (rather than comparative). It was now more the skill and knowledge that went into the transformation process than just access to (cheap) inputs, including labour, which mattered. Countries such as India and China are distinguishing themselves as global players in this arena.

Increasingly, knowledge and the ability to learn fast and adopt as well as introduce new technologies into the market has become a key competitive advantage. Interestingly, markets are prepared to buy knowledge separately from physical goods. The software revolution in Information and communications technology is a typical example. Data entry and processing and call centres are probably some of the most demanded yet lowest value services in this category.

Although the knowledge economy is increasingly distinguishing itself as more than just services provided to either industry or agriculture, conceptually it can be thought of as an expansion of the tertiary sector. Never before in human history however, has knowledge in its own right been accorded so much value by markets.

Building the provincial information society: Implementation Framework

- The aim is to develop an inclusive provincial information society strategy that is **integrated, comprehensive** and **feasible**.

The Economic development rationale

  – Comprehensive production and market information access to diversify production and exports, with a focus on market access for goods to industrialised countries

The technological challenges

The following are some of the technological challenges that need to be addressed by the information society:

- A Mpumalanga shared broadband wide area network to offer a value proposition in terms of application hosting to faith based organisations, NGOs, CBOs, farmers, schools, hospitals, clinics, traditional authorities, community libraries, provincial departments, municipalities, parastatals, street vendors, civil societies and communities in general, etc.
- Web content in Mpumalanga official languages and technology for physically challenged citizens
- Establishment of Mpumalanga shared call centre/contact centre
- Establishment of Shared Service Centre for capacity building, optimal usage of limited resources and release resources for service delivery
- Consideration of provision of free basic Internet access service (FBI) offerings and funding/charging models suitable for the rural poor.

- Implementation of a learner centric information system, tracking learner performance and remedial needs from early childhood centres to tertiary institutions, cutting across both private and public schools, using a unique learner identifier.
- Establishment of Mpumalanga Living Lab for development of entrepreneurs and production of ICT cadres (software engineers, network engineers and network technicians) in massive volumes to attain a critical mass of ICT support capability by 2010 (there is a forecast of a national shortage of 24% of networking skills by 2009)
- Development of a nascent ICT industry in Mpumalanga for skills retention through the Living Lab implementation programme

Institutional considerations

- The establishment of Premier's Advisory Council on Technology and Innovation
- Appointment of two MEC's as champions of the Programme

- **Four core enabling factors**

Four core enabling factors have been identified as impacting on the provincial capacity to create the conditions that promote the development of an Inclusive Information Society.

- infrastructure
- policy and regulatory environment
- ICT investment and
- Human capital development.

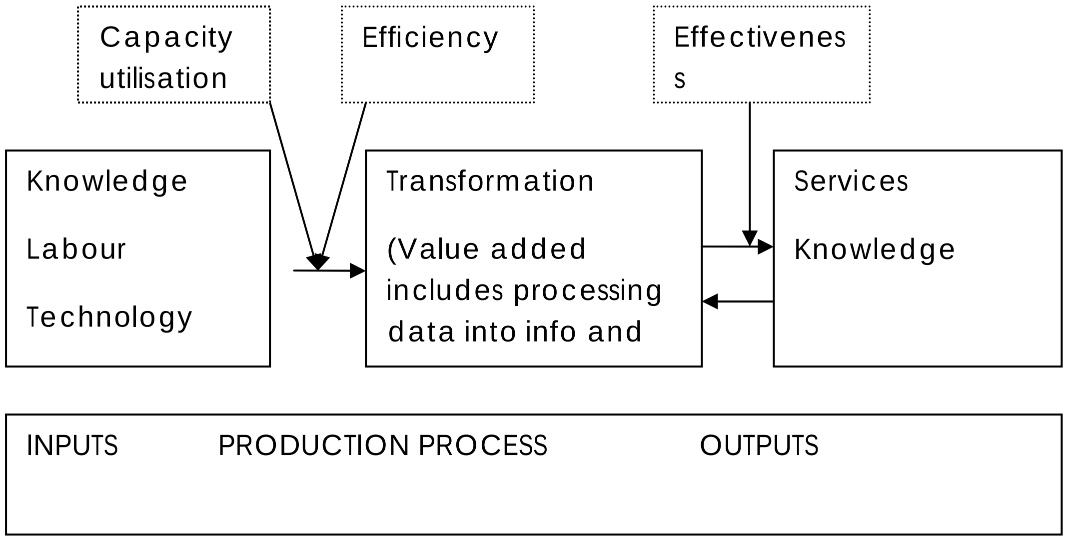


Figure 4 A typical knowledge economy (Note that knowledge can be an input and an output, the difference being the quality thereof)

Summary of proposed long-term interventions:

1. *Economic Clusters:*

a. NKANGALA (Middleburg-Witbank): Iron and Steel + Heavy machinery IDZ
b. GERT SIBANDE (Secunda): Chemicals Cluster/ IDZ
c. NHLANZENI : ICT, Consumer Electronics + Tourism, Agroprocessing IDZ
d. NKANGALA-GERT: Mining

2. *Long-term growth enablers:*

a. Provincial Information Society
b. Education revolution with the following focus:
    i. A capture-all province-wide literacy and numeracy campaign.

ii. A province-wide infusion of technology studies in the provincial schools
iii. The urgent establishment of a provincial university. (The benefits far outweigh the costs)
iv. Government driven and sponsored international and local scholarships for the following studies:
    1. Manufacturing related technology and engineering studies.
    2. A special study group (at Masters and PhD level) to conduct a detailed macro and micro-study of the South Korean and other Eastern development models for adaptation in the province.

3. *Easy entry projects for global competitiveness:*

a. Production of low- to medium-technology exportable consumer products with substantial local demand such as :
    i. Childrens' toys and
    ii. Kitchen appliances

4. *Second Economy Integration:*

a. Second Economy Linkages &
b. Developmental Entrepreneurship

Application of the Strategy to the Agriculture Sector

Global context of agriculture

Globally, the single biggest defining feature of the agriculture sector is the global food crisis characterized by unprecedented high food prices. While presenting opportunities for previously unheard of profits for farmers, the high prices are equally a threat to food security due to the challenge of affordability. Some of the consumers in developing countries have had to start skipping meals or resorting to non-nutritious alternatives. The high price rises have been most pronounced with the cereal crops — maize, wheat, rice, sorghum, etc, which are the basic diet of billions of people. While the use of maize and other food crops for bio-fuels has received much of the blame, it has now become apparent that a whole range of factors have coincided to produce the high food prices.

As observed by agriculture economist Joachim von Braun, director-general of the International Food Policy Research Institute in Washington, these factors include rising oil prices; improved living standards in China and India; poor weather in major food exporting countries, increased speculation in agricultural commodity markets by large investors; and decades of underinvestment and declining yields in agriculture in poor countries. All these factors have resulted in food supply not coping with demand, hence food inflation.

National context of agriculture

In the national context, until recently our country has been a major food exporter with relative self-sufficiency in food. While we as a country are not experiencing major food shortages high food prices still imply a shortage for a lot of people due to lack of affordability. Recently however, in addition to the rising food prices a key development in the South African agricultural sector has been rising input costs, ranging from diesel to stock feeds. A common denominator to these increased input costs appear to be imported nature of the inflation.

According to recent reports the imports of oil seeds for the protein requirements into animal feeds have escalated to a point where the agricultural balance of payments got into a deficit. In other words, the agricultural sector in South Africa is in the unhealthy situation of importing more than it is exporting. It is worth noting that the oil seeds for animal feed that are being imported can be produced well and in large quantities in areas such as Mpumalanga. Both developments show that organised agriculture and government need to develop capacity to respond quickly to major market changes.

Provincial context: Key challenges of agriculture in Mpumalanga

Balancing growth with transformation

Agricultural growth opportunities

Mpumalanga has a highly balanced and diversified agricultural economy with a variety of crops and livestock/livestock products produced. According to the Mpumalanga Agricultural Development Corporation, (MADC) summer cereals are important crops, followed by sugar cane and others. .

As in the rest of the country, a key challenge facing the agricultural sector in Mpumalanga is to grow agricultural output while at the same time transforming the sector to ensure meaningful black participation. In other words, the undeniable imperative for growth must not compromise the imperative for transformation, and vice versa. As in the rest of the country, agriculture in Mpumalanga must be both globally competitive and internally transformed.

The sector studies highlighted above focused largely on agro-processing. There is a case to be made for a broader application of the economic development strategy to the agricultural value chain, including primary agriculture.

Growth opportunities vs poverty incidence

In general, this economic development strategy seeks to balance the growth imperative with the equity imperative. In order to achieve this, the geographic location of economic growth opportunities versus the geographic location of the majority of the people, especially the poor (those living below the Minimum Living Level), is of particular concern. National studies and trends show that not only are the majority of poor people located in the high value generating urban areas, but the migration pattern is continuing in that direction from poor rural locations. In addition, most of the wealth of the country is produced in a small percentage of the country's area, where these poor are located. More specifically, 93% of the national economy is located on 30% of the land. It is no wonder that 79% of the population, including 70% of those living below the minimum living level, lives in this 30% where there is a perceived potential for livelihoods

As indicated at the main document, Mpumalanga has a slight variation to this national trend. While the majority of our population, including the majority of the poor, is located in areas of low economic activities, they continue to migrate to areas of high economic activities such as the Nelspruit-White River metropolis, the Witbank-Middleburg metropolis , and Secunda and surroundings. These realities of urbanisation and spatial economic disparities pose a real development dilemma.

Generally, urban areas provide the greatest potential for growth while at the same time rural poverty remains significant. From an agricultural point of view it means that admittedly large scale formal agricultural activities provide the greatest potential for economic growth, yet the small-scale and community-based farming activities have a greater potential to impact on poverty.

Again, as indicated in the main document, the highest concentrations of poverty (people living under the Minimum Living Level) are in the following four broad areas of the province:

- Broader KwaMhlanga, Siyabuswa, Bamokgoko, located in Nkangala DM;
- Bushbuckridge, KaNyamazane and
- Nkomazi in Ehlanzeni DM and
- Oshoek in Gert Sibande.

Maximising advantages of location

Global best practices to achieve high levels of growth suggest that it is best to focus on areas of highest potential and exploit existing strengths. In order to achieve that in the provincial space economy of agriculture we must first appreciate the location of agricultural activity **in space**. The information on the Spatial distribution of agriculture is sourced primarily from the MADC.

Ehlanzeni District Municipality (EDM)

Formal agriculture:

Mpumalanga has among the best fruit and vegetable products in the world. The sub-tropical Lowveld area produces the largest percentage of the total horticultural products in the province. More than half of the gross income is derived from potatoes and vegetables. Farming includes an abundance of citrus fruit and many subtropical fruits such as mangoes, avocados, guavas, paw-paws, pecan and macademias, litchis, bananas, paw-paws, guavas, granadillas as well as paprika, pepperdew, coffee, tea and deciduous fruit.

- Nelspruit is the second-largest citrus-producing area in South Africa and is responsible for one third of the country's export in oranges. The Institute for Tropical and Subtropical Crops is located in the city.
- There are also many types of vegetables that are produced in this area.
- Sabie and Graskop provide a large part of the country's total requirement for forestry products
- A large sugar industry is also found at Malelane in the east;

Community/small scale farming

The re-establishment of high value crops at Bushbuckridge

The ARC's Institute of tropical and sub-tropical crops is involved in the a project to re-establish high-value crops in Bushbuckridge. The Injaka Estate is a large area of fertile farm land that has been restored to the original community owners. Despite the abundance of crops such as macadamia, bananas, mango, avocado and several others, members of the community still need to have correct production practices instilled in them in order to improve productivity and incomes. Training (fertilization, irrigation, horticulture, pest and disease management), technology transfer and market linkages are some of the critical interventions required to elevate them to higher levels of productivity. The ARC reports that a nursery was erected as part of creating business opportunities and to ensure plant material for the next season.

Nkangala District Municipality (NDM)

Formal agriculture:

Steve Tshwete Local Municipality is the main contributor to agriculture. The Southern and Northern Highveld regions are the main producers of field crops such as maize, grain sorghum, barley, wheat, soya beans, sugar cane and ground nuts. Groblersdal is an important irrigation area, yielding crops such as citrus, cotton, tobacco, wheat and vegetables.

Community/small scale farming

The main area of small scale farming is in the former Kwa-Ndebele areas. Not much support is given to these activities.

Gert Sibande District Municipality (GSDM)

Formal agriculture:

In the agriculture of the district, maize production is the most significant contributor. Mkhondo Local Municipality's primary agricultural activities are timber, food processing and wool production and these are centred in Piet Retief. This is also a production area for tropical fruit and sugar. Carolina-Bethal-Ermelo is mainly a sheep-farming area, but potatoes, sunflowers, maize and peanuts are also produced in the region

Volksrust is the main town of Pixley KaSeme Local Municipality and the main agricultural products are maize, sorghum and fruit production as well as cattle and sheep farming. General and mixed farming are carried out in the fertile Dipaleseng Municipal area.

In the west of the province between Standerton and Ermelo there are large Friesland and Jersey herds of cattle that mainly produce for the nearby Gauteng market. Standerton, in the south, is known for its large dairy industry. The north-western and central regions of the province have large beef producers based on the extensive maize production in the highveld with both breeding herds and fattening activities using maize and other residues. Some of the largest feeding operations in South Africa are located in the area

Mpumalanga is a major wool producing area with the processing centre of the industry situated in Ermelo. This centre also serves the adjacent wool producing areas in the Free State and the rest of the production areas of the province. The province produces about 6% of South Africa's total wool production of 44,0 million kilograms. Lastly, the province has about 235 000 pigs making it the fourth largest pork producing area in South Africa. Pig production is made effective by the ready access to feeds from the extensive maize, groundnut, beans, cotton and sunflower production in the province.

South Africa's poultry meat production in 2005 was estimated at 1,2 million tons. Out of the 700 million birds slaughtered annually, 447 million (63,8%) came from Mpumalanga. The bulk of this production originates from seven major producers located near Standerton and Delmas. On the other hand, egg production in the province is estimated at 20 million eggs per annum. There is an opportunity for small-scale/emerging farmers to participate in this industry either as contract growers of broilers/layers or as suppliers of feed

Community/small scale farming

The highest concentrations of small-scale farming are in the Oshoek area. Again not much support is given to these activities.

CONCLUSION: Intervention Framework

STRATEGY: (Opportunities vs Constraints)

Strategy must be driven primarily by the quest to exploit opportunities rather than the obsession to ameliorate weaknesses. Pervasive constraints of a fundamental and long term nature must however be tackled head on to create capacity to pursue opportunities.

Primary objective:

Food security and global competitiveness

Secondary objectives:

Of the main factors cited as causes of the recent global food price escalation, those that fall under the provincial sphere of influence include the threat posed by **long term underinvestment and declining yields** in agriculture. In other words, **agricultural productivity** is the most obvious point of entry in defining the role of the provincial government in agriculture. In addition, transformation of the sector to bring significant numbers of previously disadvantaged players into the agricultural value chain remains a major backlog.

In order to enhance agricultural productivity two areas of investment are critical for emerging farmers:

- Agricultural Infrastructure: Irrigation infrastructure (Especially fencing, reservoirs, pipes, sprays and in particular, pivots)
- Inputs for the first year/season of production for new/emerging farmers (especially seeds and fertilisers)
- An important intervention to enhance agricultural productivity is the introduction of farming methodologies that preserve natural resources (soil and water). Generally known as **Biologically Chemically Integrated Farming** (a concept that is based on **farming with nature rather than against her**), these methods will:
    - Dastically cut input costs (including water) and at the same time,
    - Ensure sustainable farming practices through management programs that favour healthy, fertile living soils.

Special Agricultural Zones/Economic Clusters

The concept of economic clusters has been part of new economic growth theory and the new economic geography and practice for some time now, with phenomenal results. Globally researched evidence suggests strongly that the benefits of industrial clustering lie largely in the fact that co-location is beneficial to firms' innovative success. Scholars of this trend note that what underlies the clustering phenomenon are mechanisms that facilitate the interchange and flow of information between firms, while maintaining inter-firm rivalry (Porter, 1990). 'If the transfer of technological knowledge is greatest for firms in close geographic proximity, then location within a cluster of related firms in a limited geographic neighborhood is expected to enhance productivity' (Aharonson, Baum and Feldman).

The key question is whether clustering and special zones can be applied to agriculture with the same level of positive results as achieved in industry? The spatial rationale of clustering of farmers in geographic proximity on a Product basis (Product-based co-operatives) is to exploit advantages of co-learning and pooling of both input and marketing resources

The following interventions need to be considered as possible points of entry for special agricultural zones/clusters:

- Will government be amenable to a small-scale pilot of a private sector driven/run commodity based agricultural cluster based in one geographic area made up of the following;
    - Leverage of locally resident competencies from first-economy/formal farmers (Black and White) as partners to facilitate the pooling of farm management skills towards similar projects.
    - Re-configured commodity groups paying special attention to emerging farmers
    - New input co-ops that are designed to reduce input costs by pooling resources.
    - Commercially driven extension services, possibly with profit-sharing incentives based on particular deliverables. Given the general failure of government extension services, is a private/Farmer driven initiative an option for consideration?
    - Farmer driven and solution oriented agricultural research based on direct input by the farmers.

Annexures:

Annexure A:

The High-level Agro-processing Value Matrix

Primary	Secondary	Manufactured
Grain Crops		
Maize	Reduction Malting Dehulling	Branded Foods & Feeds Beverages Non-Food Items
Wheat		
Sorghum		
Barley		
Millet		
Other		
Oilseeds		
Soyabeans	Oil Pressing Cake Separation Short-term Preservation	Branded Cooking Oil Confectionery Animal Feeds
Groundnuts		
Sunflower		
Canola		
Other		
Fruits and Nuts		
Citrus	Packaging Juicing Short-term Preservation	Branded Wines/Juices Blended Products Long/term Preservation
Vines		
Macademia		
Apples		
Avocado		
Peach		
Guava		
Other		

Primary	Secondary	Manufactured
Vegetables		
Leafy	Cleaning/Separation Packaging/Packing Cutting/Reduction Puree/dehydration Preservation	Branded Products Canned/Frozen Blended to Taste Long-term Preservation
Fresh Beans		
Tomato/Onion		
Spices		
Melons		
Pumpkins		
Other		
Floriculture		
Roses	Packing Seed Separation Seed Grading Short-term Preservation	Arranged Flowers Branded/Certified Seed Scent Extraction
Carnations		
Other		
Aquaculture		
Fresh-water Fish	Dressing Packaging Preservation	Branded Food Products Branded Feed Long-term Preservation
Sea-water Fish		
Other		
Cash Crops		
	Press & Purify Lint & Yarn Cure & Grade	Brand & By-products Textiles & By-products Cigarettes Branding
Sugarcane		
Cotton		
Tobacco		
Other		
Red Meats		
Beef	Slaughter Grading Curing Cutting/Separation Chilling	Branded Products Restaurant/Catering Preservation
Mutton		
Venison		

Ostrich		
Other		
White Meats		
Pork	Slaughter Grading Cutting/Separation Chilling	Branded Products Restaurant/Catering Preservation
Poultry		
Eggs		
Other		
Dairy		
Cow's Milk	Pasteurizing Skimming Fat-Reduction Packaging	Branded Products Snacks/Ice Cream Yoghurt/Cheese Beverages (Blended)
Goat's Milk		
Other		