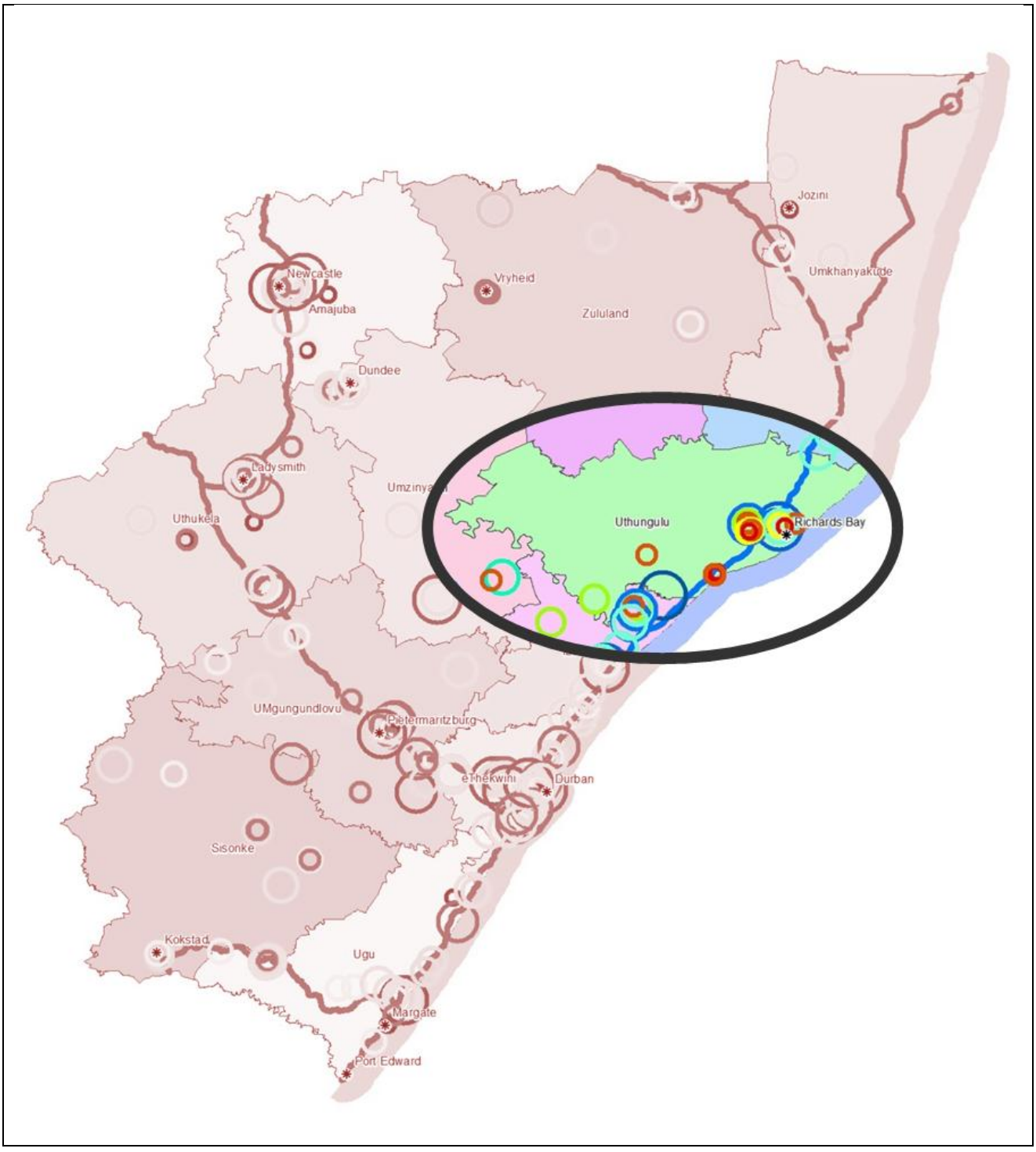
KZN PSEDS

PROFILING DISTRICT ECONOMIC DRIVERS



UTHUNGULU DISTRICT MUNICIPALITY

A SPATIAL ECONOMIC OVERVIEW

MARCH 2012

KZN DEPARTMENT OF ECONOMIC DEVELOPMENT & TOURISM
PROFILING DISTRICT ECONOMIC DRIVERS

PHASE 5 – SPATIAL ECONOMIC OVERVIEW
UTHUNGULU DISTRICT MUNICIPALITY

MARCH 2012

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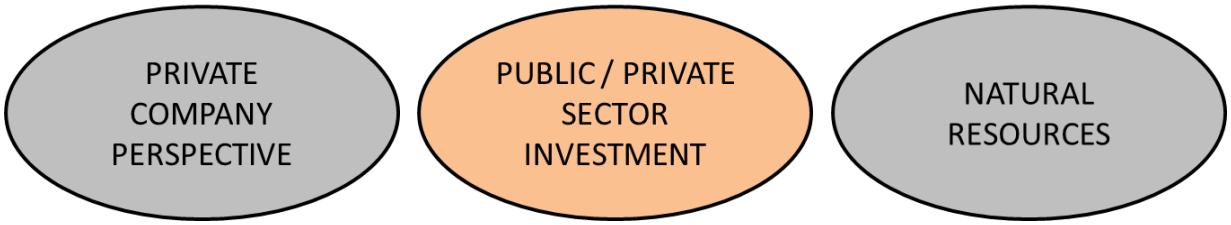
1. BACKGROUND AND APPROACH

1.1. OBJECTIVES FOR REPORT

The overall vision for this initiative, and therefore ultimately this report, is to provide reliable data at district municipal level to inform and update the provincial PSEDS as the basis for planning future economic development and growth in the province. There is a strong acknowledgement that the linkages between economic development, spatial development frameworks and natural resource availability are fundamental to future sustainable development.

The overarching objective of this project, as contained in the terms of reference for this brief, is "...to extensively profile the economic drivers and resource endowments (natural capital) of the ten KwaZulu-Natal Districts plus the eThekwini Metro". As noted above this will be undertaken with the view to updating the PSEDS and informing planning and decision making in government.

Economic drivers are considered from three perspectives:



1.2. APPROACHES TO COMPILING THE REPORT

The information in this report was compiled using different approaches:

For the Private Company perspective:

- The identification of companies viewed as drivers or potential drivers by stakeholders;
- The refinement of the list of major companies in the province;
- A survey that included a total of 510 firms identified; and
- The analysis of information from the survey (and location of companies on GIS).

For the Public / Private Sector Investment perspective:

- An assessment of the strategic planning of municipalities;
- A survey of municipalities to identify economic development challenges and significant historic, current and future initiatives; and
- A series of workshops with municipalities to share findings and obtain spatial planning inputs.

For the Natural Resources perspective:

- Using land cover as a base an expert panel was requested to consider the potential of each land cover type to produce and/or deliver different categories of ecoservices and score this; and
- The assessment outcomes were considered using the recommendations emanating from other components of the assessment.

2. DISTRICT ECONOMIC OVERVIEW

2.1. INTRODUCTION

An initial overview of the district economy is provided in this section of the report. The aim is to provide a contrast within which the sample survey of companies was undertaken. The District economy is considered in terms of the following:

- Spatial Economic Features;
- District Economic Contribution; and
- District Economic Structure.

2.2. SPATIAL ECONOMIC FEATURES

Key spatial features of the uThungulu District impacting on economic development include:

- The concentration of commercial and industrial economic activity along the coastal corridor, centred around Richards Bay and Empangeni. The drawcard for this focus of economic activity is the port of Richards Bay which specialises in bulk cargo. There is also the N2 corridor which is a major regional transportation route. In addition, Richards Bay was originally established not only as a harbour, but as a focus of heavy industry which provides a base for downstream economic activity. To add economic strength to the port facilities, an IDZ is in the process of being developed to encourage further business and industrial growth linked to the harbour.

- Reinforcing the strength of this corridor is the high potential agricultural land which is also largely located within this corridor with patches further inland extending into the Nkwaleni valley as well as some isolated patches in northern and north-eastern Nkandla and parts of Imfolozi and Ntambanana local municipal areas. This has also meant that agri-processing industries are focussed in this corridor with Felixton sugar mill and the Mondi Pulp and Paper Mill in Richards Bay, as well as the Silvacell wood chipping plant.

- Another key spatial feature which has significant economic influence in the district is the presence of heavy minerals (rutile, zircon, ilmenite and magnetite) in the coastal sands along the length of the uThungulu coastline. These sands are already being exploited along the coast north of Richards Bay in the Mbonambi / Sokhulu area where Richards Bay Minerals have been mining for the past 30 years, and where they have established a smelter to process the minerals. Mineral rights also exist along the Lake Cubhu – Umlalazi river stretch of coast as well as slightly inland in the Port Durnford area (currently under timber), as well as to the south of Mtunzini in the Fairbreeze area (currently under sugar cane and timber). Exxaro KZN Sands have a smelter just outside of Empangeni to process their minerals from the Hillendale (north-west of Esikawini) mine and potentially, from the Fairbreeze mine once they have the final approval. A key product of the smelter process is titanium.

- In terms of key access corridors:

    - The N2 along the coast has already been mentioned as the primary transport route into and through the region.
    - In addition, there is an important secondary corridor (R66) from Gingindlovu through Eshowe and Melmoth past Ulundi and on to the Zululand District and Vryheid.
    - Tertiary corridors extend from Melmoth west towards Nkandla and swinging south-east and down to Eshowe where it rejoins the R66. There is also a route from this road just south of Nkandla Forest which dips down into the Thukela Valley and across into the Umzinyathi District at Jameson's Drift. Another route follows inland of the N2 from the R66 to join the Empangeni-Nkwaleni valley road. These routes combine to form extensions of the R66 tourism route which takes in many places of historical and cultural interest, as well as some spectacular scenic views.
    - Another corridor (under construction) is the P700 tourism route which goes through Ntambanana to ultimately join up with the tourism area around Ulundi.
    - The rail links north and south from Durban up to Swaziland, as well as the bulk coal transport line inland from the harbour to the coalfields in Northern Natal, Mpumalanga and Gauteng are also key spatial features. The coal line is fully extended; the coastal rail link is underutilised.

- The Richards Bay airport: this airport takes regular flights from around KZN as well as to Gauteng. It has recently received approximately R 11 million in funding to upgrade facilities.

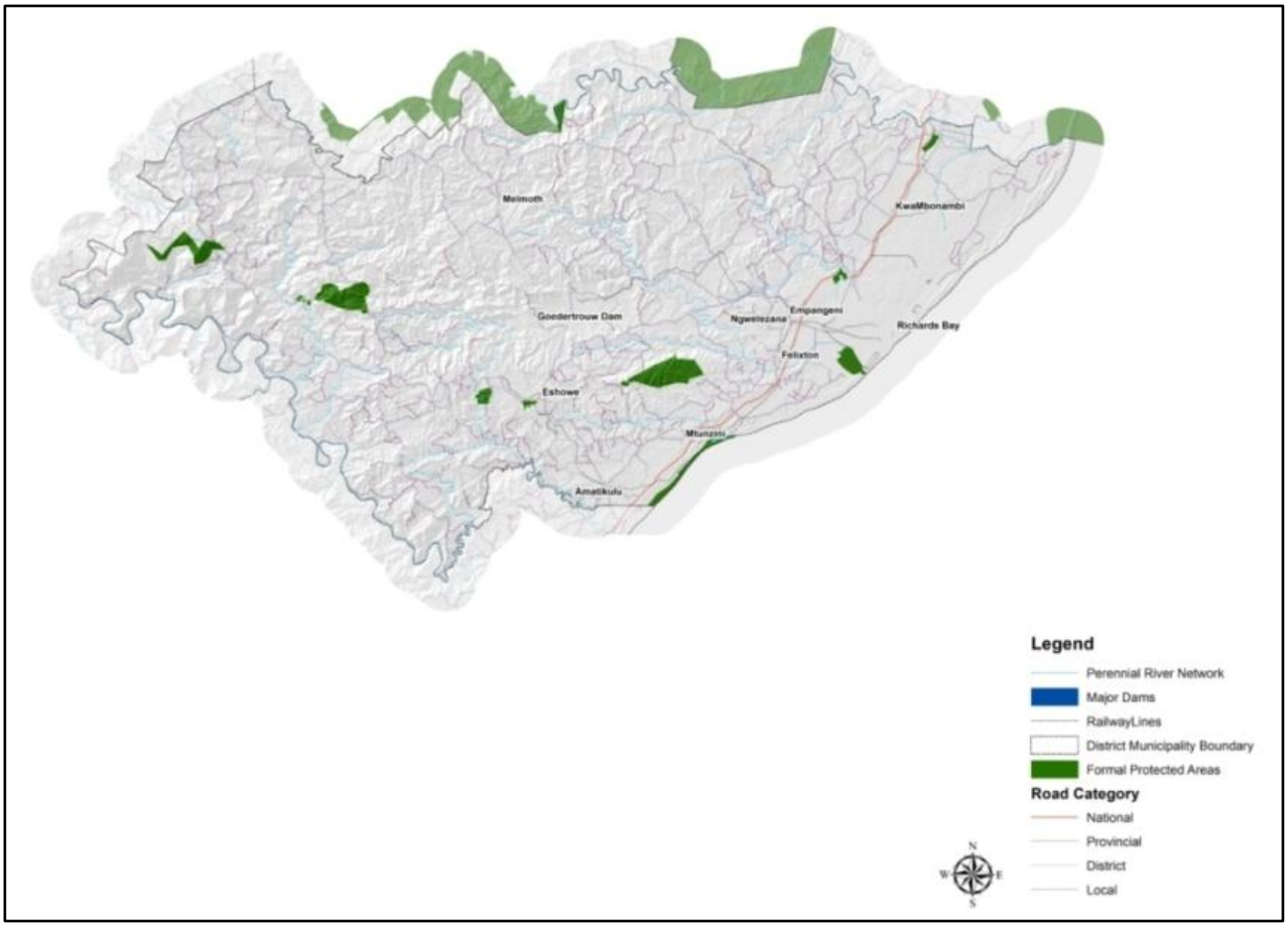
- Tourism routes: while this has been mentioned above, it is important to note that the spatial location of a number of historical and cultural places has led to the development of the R66 Zulu Heritage Route as one of the priority projects for the district. This route helps to connect the rural hinterland with economic activity generated along the coastal corridor.

- Conservation and tourism assets: uThungulu has limited proclaimed tourism assets compared to, for example, Umkhanyakude district to the north. However, the southern end of the Hluhluwe-Imfolozi Park complex, the Isimangaliso Wetland Park and Opathe Game Reserve all touch on or extend slightly into uThungulu District. There are also the considerable assets of three key indigenous forests at different altitudes – Ngoye, Nkandla and Qudeni, with the smaller Entumeni and Dlinza forests. Combined with the Umlalazi Nature Reserve and the concept of maintaining biodiversity corridors, these provide important habitats for the Zululand Birding route which is a major drawcard for birders from this country and abroad. Combined, this places uThungulu in a good spatial position as a tourism and specialist conservation destination, as well as a stop-off point for destinations further north and west.

- Spatially, there are also large areas of communally held land under the jurisdiction of the Ingonyama Trust. While these are identified more as areas of greatest need in the IDP, it is important to recognise that there is undeveloped agricultural potential in these areas which can provide a springboard for improving the quality of life and the development of rural communities who are largely marginalised from the benefits of the coastal corridor.

- There are enormous demands on water in the region which necessitates water transfer schemes – from the Thukela catchment to the uMhlathuze catchment via the Goedertrouw Dam (Lake Phobane) through the Middledrift Scheme, and from the uMhlathuze catchment into the Umlalazi catchment for the proposed mining operations south of Mtunzini. There is potential for additional dams (eg. on the lower reaches Thukela) which is a subject which has been discussed at various times. Water supplies are a potential constraint, although uThungulu, located on the east KZN coast, is in a better position than some areas where water places a more severe limitation on growth.

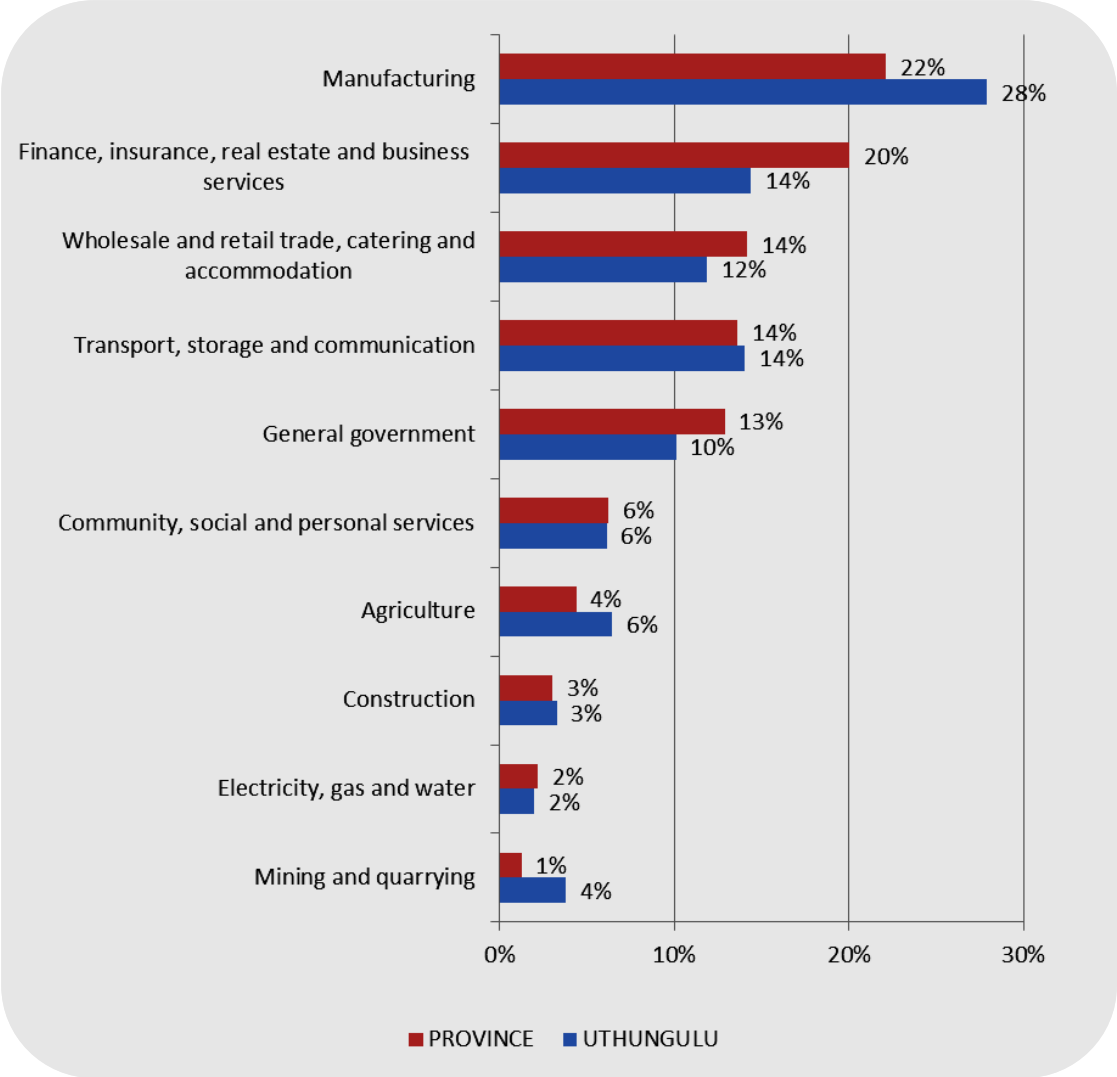
MAP 2.1: SPATIAL ECONOMIC FEATURES



2.3. DISTRICT ECONOMIC CONTRIBUTION

- In overall terms the uThungulu District makes a limited contribution to the economy of KwaZulu-Natal, i.e. R20.3 billion of a total of R267 billion or 7.6% of the provincial economy.
- Based on the 2010 GVA figures it can be said that uThungulu is a secondary provincial driver in the manufacturing sector (28% compared to 22% for the province as a whole).
- The comparative figures suggests that manufacturing, transport/storage/communication, finance and real estate as well as wholesale and retail (including accommodation), and the general government sector, all make a contribution of more than R15.8 billion to the District economy.

DIAGRAM 2.1: 2010 GROSS VALUE ADDED

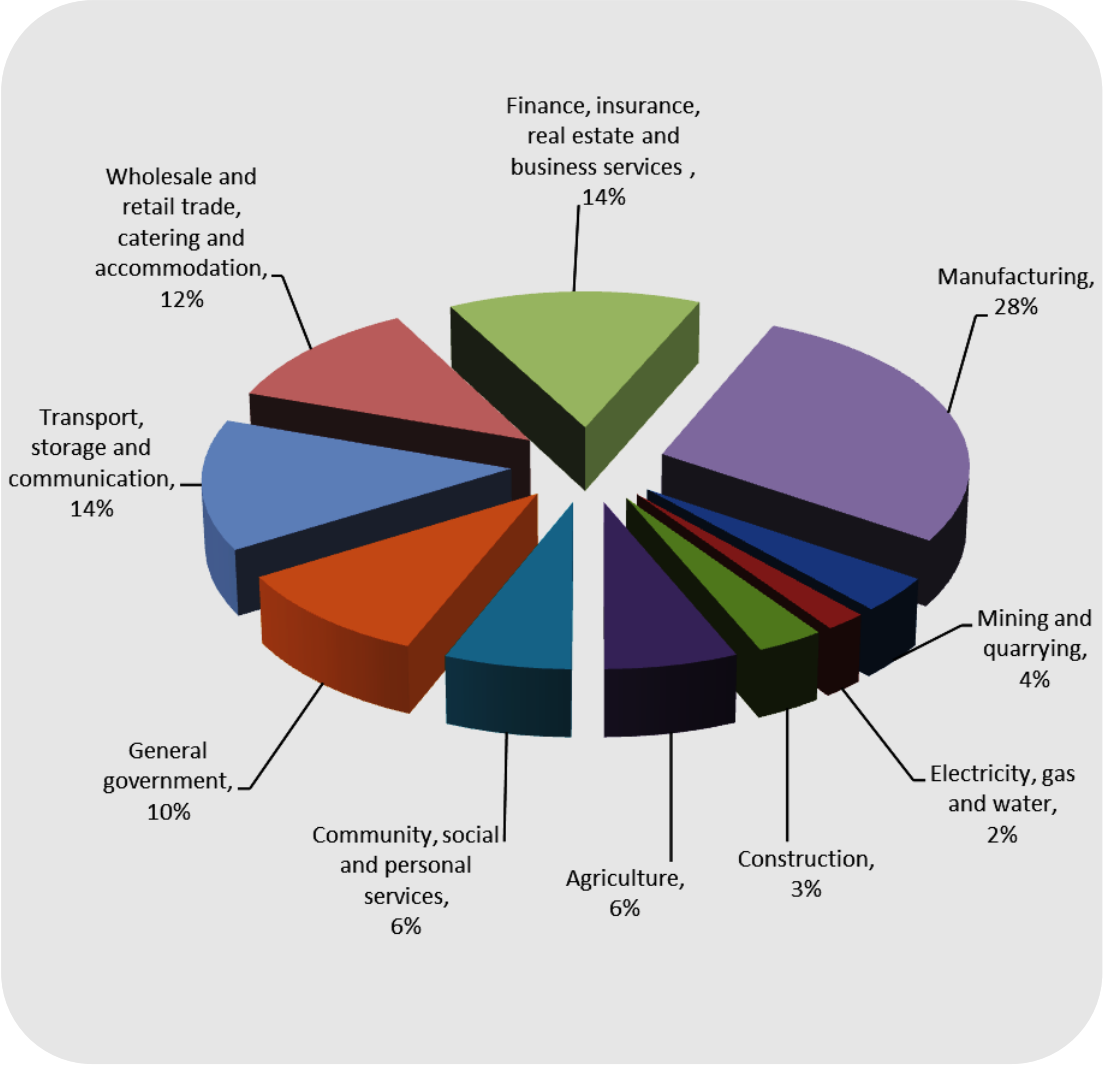


Source: Quantec 2010

2.4. DISTRICT ECONOMIC STRUCTURE

- The diagram reflects the economic structure of the uThungulu District based on 2010 GVA figures.
- As reflected in the previous section the dominance of the manufacturing, transport, storage and communication as well as finance and real estate, sectors are evident.
- It is important to note that the two sectors generally viewed as the "drivers" of the economy, viz. tourism (included in wholesale and retail) and agriculture, makes a significantly lower contribution to the economy when compared to the contributions of manufacturing and finance and real estate.
- General government (10%) and community, social and personal services (6%) together makes a significant, 16%, contribution to the District economy.

DIAGRAM 2.2: 2010 GROSS VALUE ADDED TOTAL GVA OF R20.3 BILLION



Source: Quantec 2010

It should be noted that the GVA data (above) does not necessarily have a bearing on companies in the sample which were identified as drivers. The criteria used to identify drivers was different to the method used to formulate the GVA. This must be born in mind when analysing key sectors and companies that drive the economy. For example, agriculture, and tourism companies dominate the "top companies" of the sample whilst manufacturing and services dominate the GVA sectors.

3. A MAJOR COMPANY OVERVIEW

3.1. INTRODUCTION

The basis of the major company interviews was a comprehensive questionnaire that extracted a range of information from companies deemed to be drivers, or companies belonging to sectors driving the economy. It must be noted that a number of companies perceived to be potential drivers chose not to participate in the survey. This District report reflects on the following information relating to major companies in order to provide a basis for future spatial economic development planning in the District:

- A General Perspective of the Economic Sectors
- Companies Interviewed
- Sectors and Products
- Spatial Distribution of Companies
- Key Characteristics of Companies
- Major Companies
- Companies Exporting
- Infrastructure and Other Challenges
- Interviewee Comments

Based on the above information a "major company perspective" of economic drivers is provided.

3.2. SECTORS AND PRODUCTS – A GENERAL PERSPECTIVE

3.2.1. MANUFACTURING SECTOR

The manufacturing sector is a major sector within uThungulu district as it contributes to nearly a third of the district GVA. Richards Bay was established in the 1970's as a bulk port and heavy industrial centre. The sector is dominated by the bulk coal export facilities at Richards Bay Coal Terminal, the woodchip manufacturing and exporting facilities (Silvacell), the aluminium smelters of Billiton's Bayside and Hillside facilities, the Mondi pulp and paper manufacturing mill in Richards Bay, the Richards Bay Minerals mining and processing facilities located on the coast just north of Richards Bay, Foskor's fertiliser factory and Exxaro's central processing complex just outside of Empangeni on the Nkwaleni road which processes minerals from its KZN Sands mining operations near Felixton/Esikhawini. Clearly the mining and agricultural sectors are the main providers of raw materials to this manufacturing base.

3.2.2. AGRICULTURAL SECTOR

The agricultural sector is considered a driver of uThungulu's district economy but it's relative contribution has been in a decline and currently it contributes only 6% to the district economy. It's actual value is much higher, however, when one considers the use of agriculturally-based products throughout all economic activities and sectors. The sector is dominated by commercial sugar and timber, mostly grown along the coast, but also extending inland to the Melmoth area. The long term trend is that rain-fed sugar production is in decline mode, the sharpest decline being in the millers own cane production as well as in

small scale growers production. uThungulu produces mostly rainfed cane; the same trend is not evident in the irrigated cane production in Mpumalanga. Total deliveries to the two mills in the region – Felixton and Amatikulu – have fallen by nearly 1 million tons in the space of 5 years from 2005/06 to 2009/10. In the communal lands where small cane growers have been encouraged through the sugar industry, there is widespread evidence of abandoned fields with a 39% decline in small grower yields over the past 5 years. Apart from weather considerations, the industry is faced with a cost/income squeeze; twenty years ago 7 000 tons cane per annum gave a farmer a comfortable standard of living; to achieve the same standard today requires nearly 20 000 tons cane production per annum. A similar parallel exists in the timber industry where plantations smaller than 40 000 ha are regarded as sub-minimal management units. In the timber industry, the depressed economic conditions impacted heavily on the timber operations with sales nearly 2.4 million tons less in 2009 than in 2008 (14% drop).

While there are a range of reasons for the agricultural decline, an important factor is that the land reform programme has had limited success with many farms that were transferred being now abandoned and unproductive.

3.2.3. TOURISM SECTOR

The tourism sector has potential but is also faced with the difficult economic conditions which has seen an overall decline in tourism numbers, both international and domestic. While uThungulu sees tourism as a driver of the economy, it is much less so than the neighbouring Umkhanyakude district. To illustrate, currently any cruise liners are serviced by tour companies from Durban who take the passengers on day trips to the game reserves and locations outside of the district, in Umkhanyakude. While there are Big 5 attractions in uThungulu, they are largely within privately run game reserves such as Thula-Thula. A complaint from one of the tourism business respondents was that this area seems to be largely left out of the main tourism brochures on offer at the main points of entry into KZN – it does not fall within the ambit of the Ethekwini – Dolphin Coast attractions; it is not advertised as being a part of the Zululand Battlefields route (Isandlwana etc) and is just south of the main game reserves. Its tourism potential is therefore largely unrealised given the considerable competition to the north, south and west of the district. However, there has been considerable planning and investment through the R66 Heritage route, including the resuscitation of the KwaBulawayo Tourist Centre at Bhekeshowe, the Zululand Birding route and the proposed establishment of a craft warehouse in Richards Bay.

3.2.4. COMMERCIAL SECTOR

Note: The commercial sector in this context is used as a generic term for most businesses included the following sectors (as defined by the Standard Industrial Classification): (1) financial intermediation, insurance, real estate, and business services, (2) wholesale and retail trade (excl. Hotels and restaurants), (3) community, social and personal services.

The commercial sector is concentrated largely in Empangeni and Richards Bay, followed by Eshowe and Melmoth. Centres such as Nkandla and other rural settlements have experienced considerable growth in the formal commercial sector with a large informal sector attached.

3.2.5. GOVERNMENT SECTOR

The government sector is also concentrated in the major centres, but in keeping with government policy, there is an increasing number of smaller government satellite offices in the smaller rural settlements with the express purpose of bringing government services closer to the people who need to use them.

3.3. COMPANIES INTERVIEWED

A total of 38 companies were interviewed in the uThungulu District in order to obtain a better understanding of the types of major firms, their characteristics and challenges faced by them. The list below reflects the name of the company interviewed, the annual turnover, employment, product/service delivered and the sector to which it relates (in terms of the Standard Industrial Classification [SIC]). This list should serve as a basis for the District to develop and maintain a major company database. The following categorisations were used:

- Company Turnover categorised in terms of: Small (less than R5m), Medium (R5m to R100m) and Large (R100m+);
- Company Employment categorised in terms of: Small (less than 20 people), Medium (21 to 100 people) and Large (100+ people).

TABLE 3.1: COMPANIES INTERVIEWED (SEE ANNEXURE A FOR DETAIL ON DISTRIBUTION OF SAMPLE IN LOCAL MUNICIPALITIES)

COMPANY NAME	2010 ANNUAL T/O (REVENUE OR SALES)	EMPLOYEES RANGE	PRODUCT CATEGORY
Agriculture, hunting, forestry and fishing			
Brocklee Farms	Medium	Medium	Agricultural Commodities
Garden Cove	Small	Small	Landscaping services
Ngoye Farmers cc	Medium	Medium	Chemical Products
Ntingwe Tea Estate	Medium	Large	Tea
Community, social and personal services			
Twinstreams	Small	Small	Environmental Education
Construction			
Empangeni Plant Hire	Medium	Medium	Equipment rental
HDS Plant Hire	Medium	Medium	Equipment rental
SA Wire Zululand	Small	Small	Fencing
Grinaker LTA	Not provided	Small	Construction Services
East Coast Irrigation	Not provided	Medium	Construction Services
Manufacturing			
Tongaat Hulett - Amatikulu Mill	Large	Large	Sugar and Related
KandK Holding SA (Pty) Ltd	Small	Small	Sporting Equipment
Bell Equipment	Large	Large	Equipment Manufacturing
MAGL Engineering	Not provided	Not confirmed	Engineering Services
Multi Axle Manufacturers	Small	Small	Equipment Manufacturing
Dynamic Fibre Mould	Large	Large	Egg boxes
Mondi Packaging	Large	Large	Corrugated Cardboard
Dormac Marine and Engineering (Pty) Ltd	Medium	Medium	Equipment Manufacturing
Empangeni Workwear Manufacturing	Small	Small	Clothing
Bayside Aluminium	Not provided	Large	Aluminium Products

COMPANY NAME	2010 ANNUAL T/O (REVENUE OR SALES)	EMPLOYEES RANGE	PRODUCT CATEGORY
BHP Billiton	Not provided	Not confirmed	Metal Products
Foskor	Not provided	Large	Chemical Products
Tata Steel KZN	Not provided	Large	Ferrochrome
Mining and quarrying			
Richards Bay Minerals	Not provided	Not confirmed	Minerals
Exxaro KZN Sands	Not provided	Large	Metal Mining
Transport, storage and communication			
Richards Bay Air Carriers	Not provided	Small	Air Charters
Richards Bay Coal Terminal	Not provided	Not confirmed	Transport Services
Wholesale and retail trade; repair of motor vehicles, motor cycles and personal and household goods; hotels and restaurants			
The Richards - Protea Hotel	Medium	Medium	Tourism Accommodation +
One On Hely	Small	Small	Tourism Accommodation +
Amble Inn	Small	Medium	Tourism Accommodation +
Supa Quick Tyre Dealers	Small	Small	Tyre services
ML Office Suppliers	Medium	Small	Office furniture and equipment
Paint Centre	Small	Small	Paint
Haigs Mower & Chainsaw Centre	Medium	Small	Gardening Equipment
Farmers Agricare	Medium	Medium	Chemical Products
Dowson & Dobson Industrial	Not provided	Small	Equipment
Bearing & Oil Seal Supplies	Small	Small	Equipment
Mtunzini Mica	Small	Small	Hardware

3.4. SECTORS AND PRODUCTS – A SURVEYED COMPANY PERSPECTIVE

Considering the approach adopted in identifying major companies, i.e. through consultation with local level stakeholders, there is a high level of certainty that the majority of the larger companies in the District have been identified and interviewed. However, one or two of the largest companies (e.g. BHP Billiton), were not interviewed despite repeated attempts to obtain an interview. The following table indicates the number of companies identified per sector and sub-sector and then provides an indication of the extent of "clustering" that occurs in sub-sectors of the economy.

From the following table, and the more detailed information obtained through the questionnaire, it is suggested that, based on an assessment of the companies included in the sample, the key sub-sectors in the sample in which major companies are located are:

- Agriculture, hunting, forestry and fishing (specifically forestry and sugar)
- Manufacture of food products, beverages and tobacco products
- Manufacture of furniture; manufacturing n.e.c.; recycling
- Manufacture of wood and of wood products etc
- Manufacture of other non-metallic mineral products
- Manufacture of textiles, clothing and leather goods
- Hotels and restaurants

TABLE 3.2: STRUCTURE OF SAMPLE PER SECTOR AND SUB-SECTOR

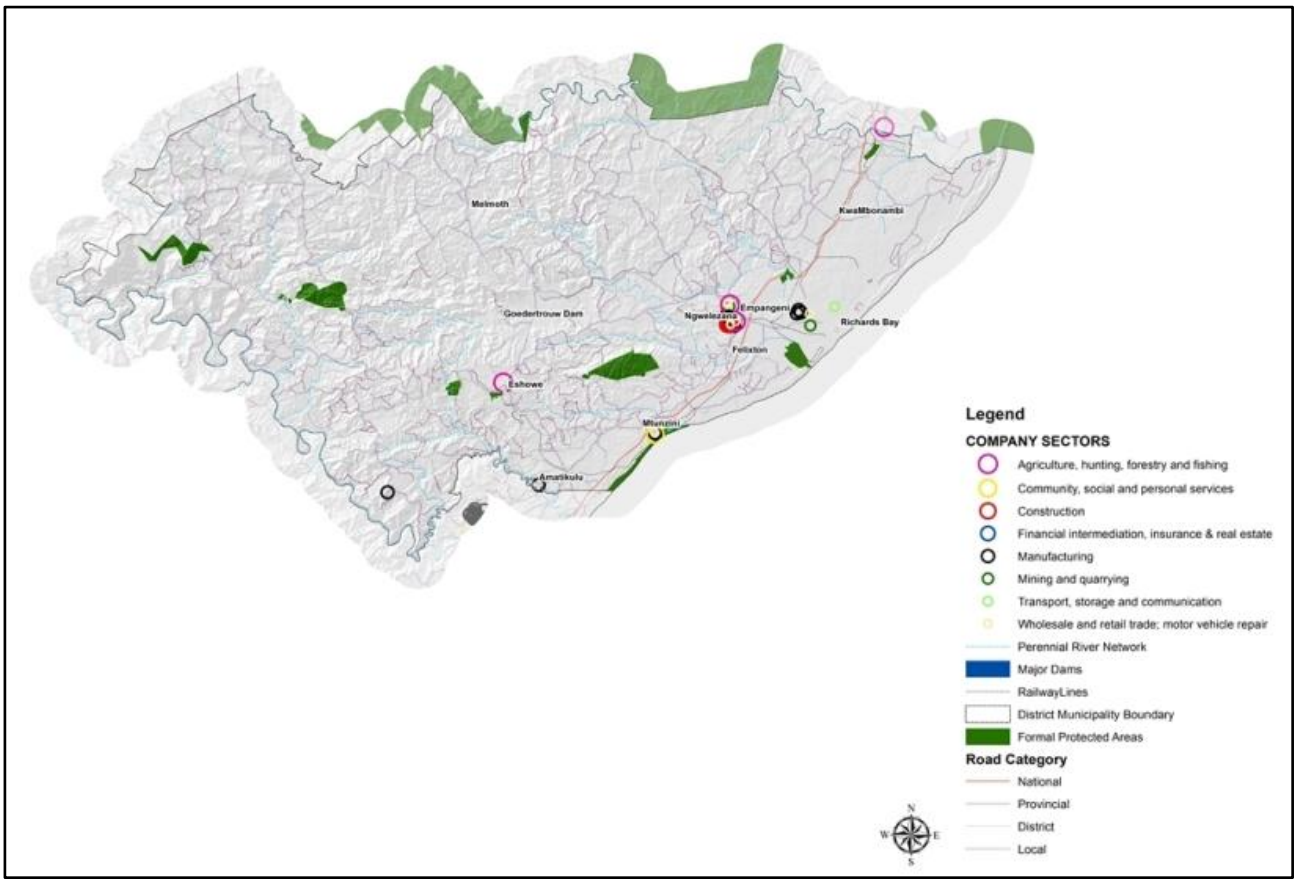
SECTORS AND SUB-SECTORS	NO. OF COMPANIES
Agriculture, hunting, forestry and fishing	**4**
Agriculture, hunting and related services	3
Forestry, logging and related services	1
Community, social and personal services	**1**
Education	1
Construction	**5**
Construction	5
Manufacturing	**13**
Manufacture of transport equipment	3
Manufacture of basic metals, fabricated metal products, machinery and equipment and of office, accounting and computing machinery	3
Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials; manufacture of paper and paper products; publishing, printing and reproduction of recorded media	2
Manufacture of textiles, clothing and leather goods	2
Manufacture of coke, refined petroleum products and nuclear fuel; manufacture of chemicals and chemical products; manufacture of rubber and plastic products	1
Manufacture of electrical machinery and apparatus n.e.c.	1
Manufacture of food products, beverages and tobacco products	1
Mining and quarrying	**2**
Mining of metal ores, except gold and uranium	2
Transport, storage and communication	**2**
Supporting and auxiliary transport activities; activities of travel agencies	1
Air transport	1
Wholesale and retail trade; repair of motor vehicles, motor cycles and personal and household goods; hotels and restaurants	**11**
Retail trade, except of motor vehicles and motor cycles; repair of personal household goods	6
Hotels and restaurants	3
Wholesale and commission trade, except of motor vehicles and motor cycles	2
TOTAL	**38**

3.5. SPATIAL DISTRIBUTION OF SURVEYED COMPANIES

SECTORS

- The majority of the major companies identified in uThungulu are located in the uMhlathuze municipal area dominated by Empangeni and Richards Bay.
- Major manufacturing companies are located in the Richards Bay area allied to the harbour, with the exception of sugar mills located closer to the source of raw materials, but still in relative proximity to the N2.
- While there are no clear figures of rural/urban split in population in the latest district IDP, from the municipal split it appears that the rural population is larger – probably around 65%, if one assumes that most of the uMhlathuze population resides in the towns and surrounding informal settlements (uMhlathuze has 39% of the district's population) and that the remaining municipalities are largely rural with the urban areas of these contributing 5 – 6% only. It is interesting to note that the population of uThungulu increased by about 10% between 1998 and 2008; at the same time, uMhlathuze's growth rate was higher, while Umlalazi and Nkandla's population declined.

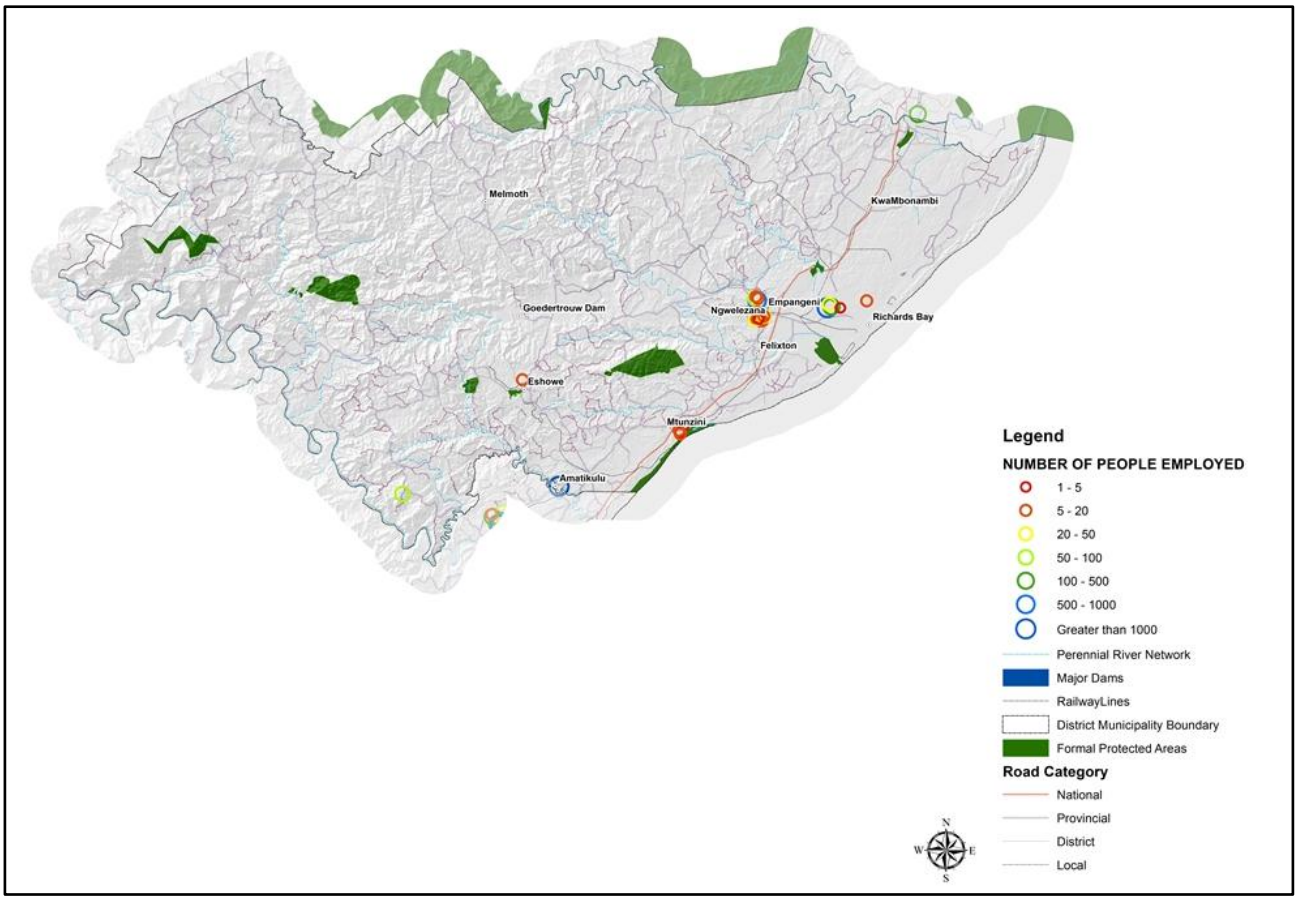
MAP 3.1: SPATIAL DISTRIBUTION OF SURVEYED COMPANIES BY ECONOMIC SECTORS



EMPLOYMENT

- The contribution that major companies make to employment in the District is confirmed. It is noted that these employment opportunities are mostly located in the uMhlathuze municipal area.
- The major employers in the District employ between 150 to 2300 people.
- Considering a total estimated 2009 employment of around 158 028 people in the District (Quantec 2009), the 38 companies in the uThungulu District that supplied the information on the number of people employed (the sample), employs an estimated 5 983 people or 5% of the total employment of the District.

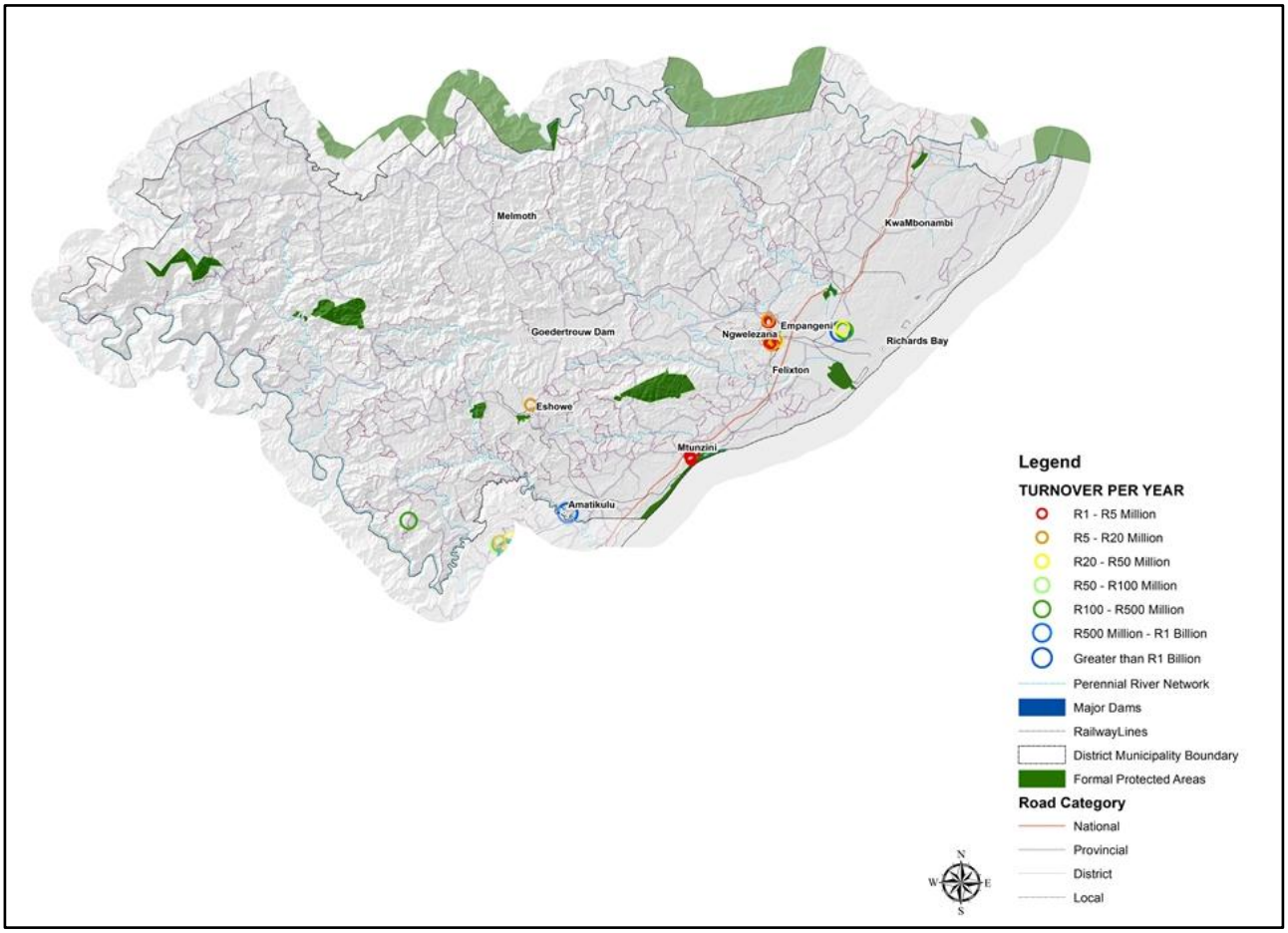
MAP 3.2: SPATIAL DISTRIBUTION OF SURVEYED COMPANIES BY NUMBER OF PEOPLE EMPLOYED



TURNOVER

- Those firms with a turnover of more than R100 million are located in Richards Bay/Empangeni, with Tongaat Huletts the exception being located at the source of the raw material at Felixton and Amatikulu mills.
- The impact of the sugar industry on the District economy is again confirmed through the turnover figures of the above two major sugar mills in the area which brought in more than R 1 billion revenue in 2010.
- On a provincial level the survey established that major retailers generally have a turnover of between R50 million and R100 million and employ between 50 and 100 people. Considering that uMhlathuze Municipality has the bulk of major retailers in the district the wholesale and retail sector makes an important contribution to that local municipal economy with some contribution in the Umlalazi Municipality with the retail chains that are located in Eshowe.

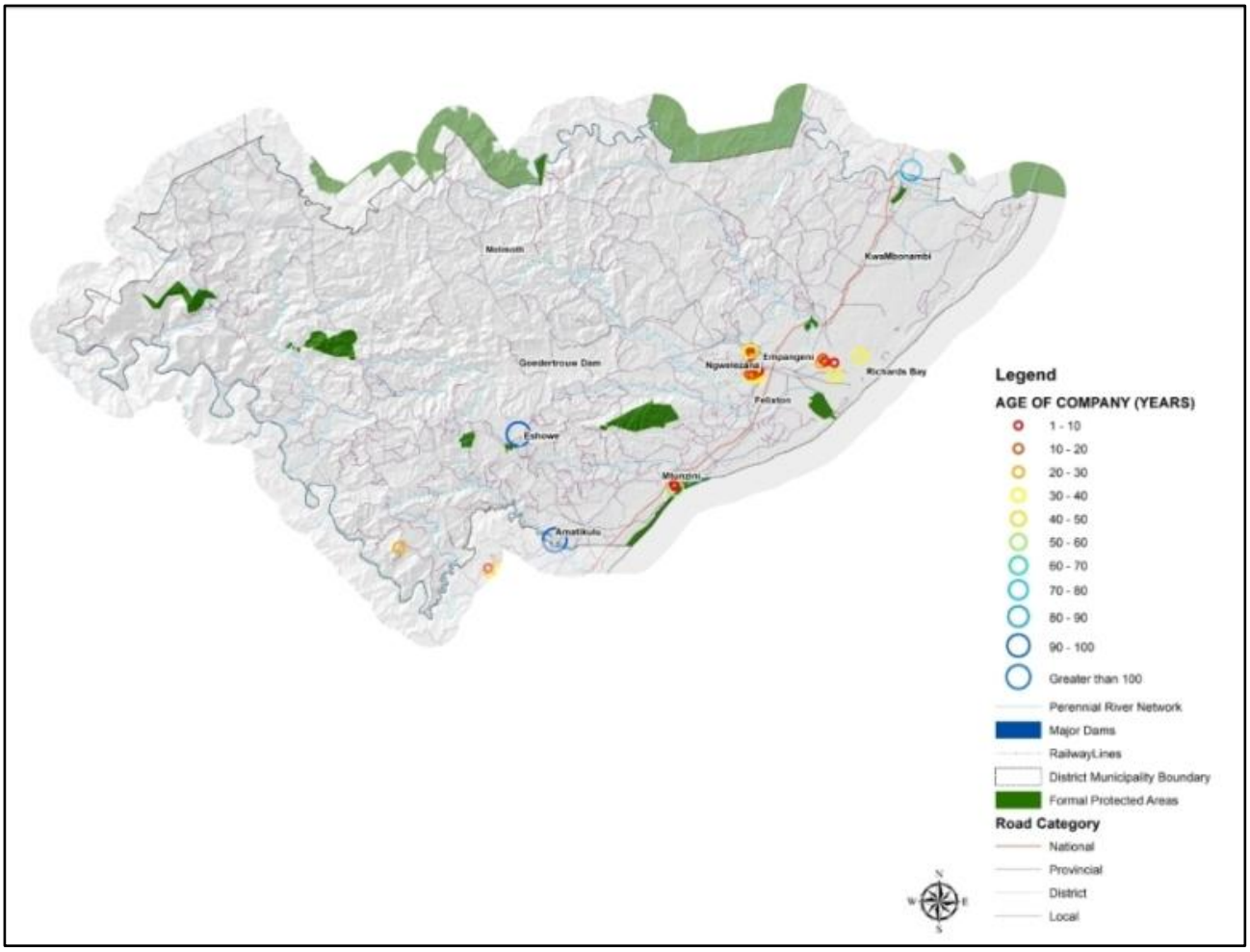
MAP 3.3: SPATIAL DISTRIBUTION OF SURVEYED COMPANIES BY TURNOVER PER YEAR



COMPANY AGE

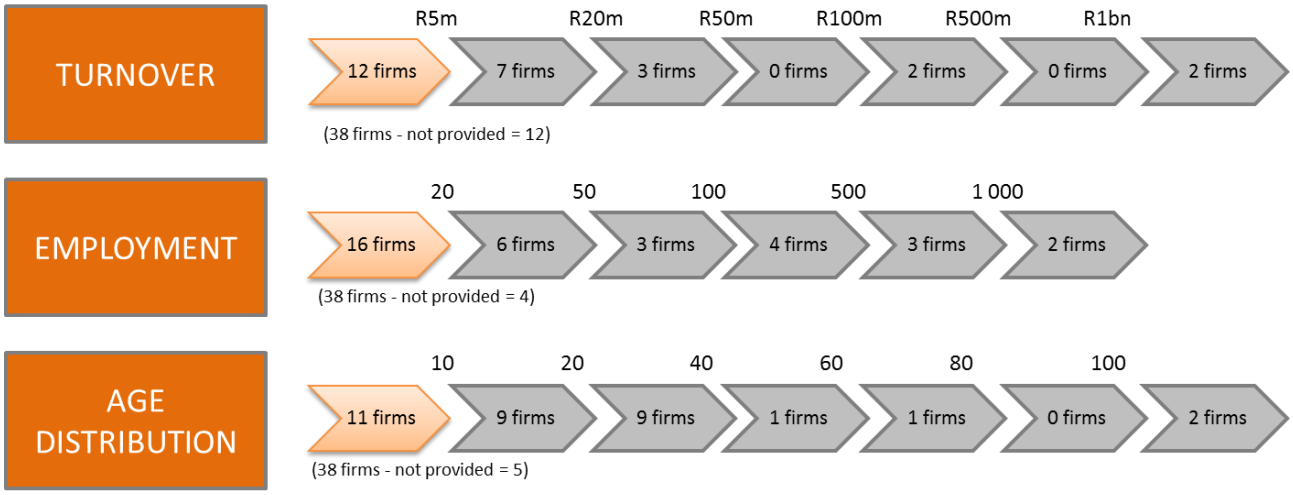
- In the diagram it is reflected that 33% of the companies interviewed are younger than 10 years and a further 27% younger than 20 years. This suggests that new business opportunities are still being explored and that the economy of the area is vibrant.

MAP 3.4: SPATIAL DISTRIBUTION OF SURVEYED COMPANIES BY AGE OF COMPANY (YEAR)



3.6. KEY CHARACTERISTICS OF INTERVIEWED COMPANIES

DIAGRAM 3.1: KEY CHARACTERISTICS OF INTERVIEWED COMPANIES



OBSERVATIONS:

- Major companies in uThungulu supply a diverse range of products and services.
- Of the 38 companies interviewed 12 (32%) did not provide information on turnover. Judging by other companies who did provide information and comparing them, it can be assumed that probably 8 of those companies which did not provide information, are in the large company category with turnovers of over R 100 million.
- Over a third of those interviewed fall in the small company category with less than R 5 million turnover and just under a third fall in the medium income category.
- The majority of major firms included in the sample employ between 1 and 20 persons.

3.7. MAJOR COMPANIES SURVEYED

The table below lists the major companies in uThungulu based primarily on number of people employed.

TABLE 3.3: MAJOR COMPANIES SURVEYED BASED ON NUMBER OF PEOPLE EMPLOYED

COMPANIES LISTED EMPLOY BETWEEN 2300 AND 150 PEOPLE)		
NO	**COMPANY**	**OVERVIEW**
1	Bell Equipment	The top of the list of major employers is dominated by large scale multi-national mining and manufacturing companies. At present uThungulu is a centre of mining and large scale manufacturing in KwaZulu-Natal and the employment in this sector almost dwarfs other sectors of the economy. The agri-processing sector is represented by the two Tongaat Hulett mills, Amatikulu and Felixton, of which only Amatikulu was interviewed. The Ntingwe Tea Estate claims a total employment of 800 people.
2	Bayside Aluminium	
3	Exxaro KZN Sands	
4	BHP Billiton	
5	Richards Bay Minerals	
6	Richards Bay Coal Terminal	
7	Ntingwe Tea Estate	
8	Foskor	
9	Mondi Packaging	
10	Tongaat Hulett - Amatikulu Mill	
11	Dynamic Fibre Mould	
12	Tata Steel KZN	

3.8. UTHUNGULU COMPANIES EXPORTING

PRODUCTS EXPORTED:

Only eleven companies indicated that they are exporting products. The products exported include:

- Aluminium products;
- Corrugated cardboard;
- Egg boxes;
- Chemical products;
- Sporting equipment;
- Equipment manufacturing;
- Tea; and
- Ferrochrome.

The percentage of production exported by these firms is generally below ten percent and therefore insignificant. Not one of the companies can be classified as an exporting company (i.e. more than 50% of production is exported).

TABLE 3.4: UTHUNGULU EXPORTING

DISTRICT	EXPORTERS	COMPANIES	% EXPORTERS
uMgungundlovu	21	63	33%
uMzinyathi	6	18	33%
uThukela	14	42	33%
Zululand	7	23	30%
uThungulu	11	38	29%
iLembe	13	45	20%
Amajuba	11	41	27%
eThekwini	29	119	24%
Ugu	4	48	8%
uMkhanyakude	1	17	6%
Sisonke	1	20	5%
KZN Province	**118**	**474**	**25%**

3.9. INFRASTRUCTURE CHALLENGES

UTILITY CHALLENGES

Including water, electricity, sanitation.

- 25 of 38 companies interviewed indicated that they experience challenges with utility services.
- 52% of the challenges listed related to electricity eg. Costs, supply.
- 16% of the challenges listed related to water issues, supply and water quality.
- 20% related to cost of services.

TABLE 3.5: UTILITY CHALLENGES

UTILITY CHALLENGE	MENTIONS	%
Electricity	4	16%
Electricity costs	4	16%
Electricity erratic	3	12%
Water supply	2	8%
Telecommunications	2	8%
Electricity limitations	2	8%
Sewerage	2	8%
Solid waste removal	1	4%
Water	1	4%
Solid waste disposal	1	4%
Water quality	1	4%
Service costs	1	4%
Street lighting	1	4%
TOTAL	25	100%

TRANSPORT CHALLENGES

Only 9 out of 38 companies mentioned transport challenges, suggesting that this is not a significant problem in uThungulu.

The transport challenges mentioned related to:

- Road maintenance
- Fuel / transport costs
- Durban harbour delays and costs

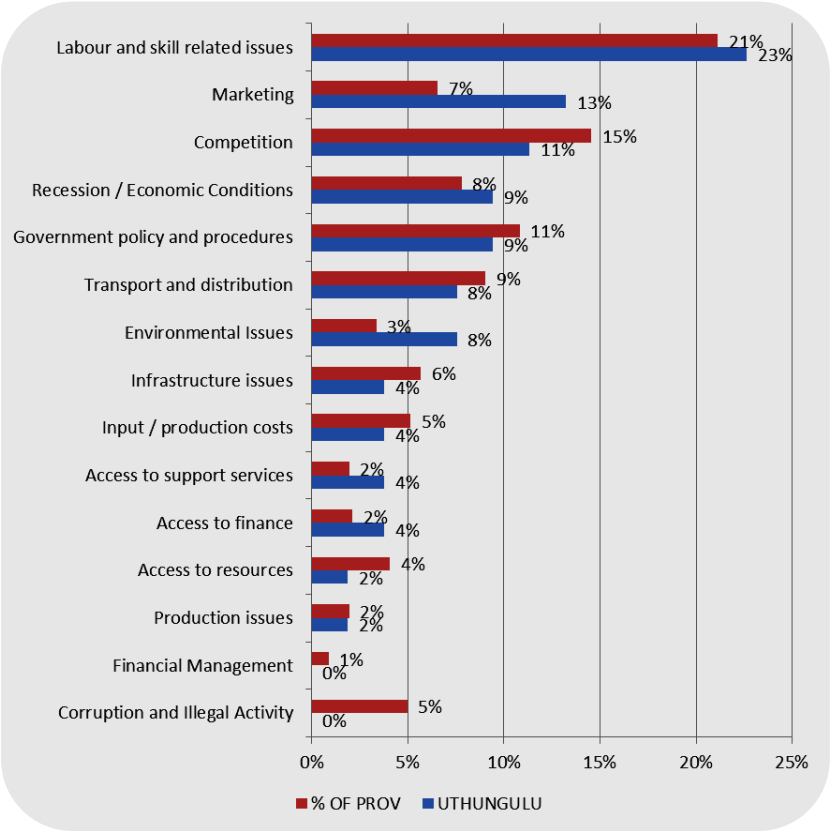
TABLE 3.6: TRANSPORT CHALLENGES

TRANSPORT CHALLENGE	MENTIONS	%
Road maintenance	4	44%
Fuel / transport costs	1	11%
Fuel / transport costs + Road Maintenance	1	11%
Durban harbour delays	1	11%
Challenges regarding transport equipment	1	11%
Harbour costs	1	11%
TOTAL	9	100%

3.10. OTHER CHALLENGES

Other challenges that emerged from the interview were:

DIAGRAM 3.2: OTHER CHALLENGES



3.11. INTERVIEWEE COMMENTS

Some of the general observations made by respondents regarding the District economy included:

- Most of the companies were located where they were to take advantage of facilities and services such as the harbour or the fact that this is the only place they can locate due to resource reasons (sugar, timber, minerals). This indicates the importance of those resources and the major infrastructural facilities to the District economy.

- Smaller businesses located in this area because of the presence of big industry and the feeling that this would be to their advantage. However, there was a feeling expressed by more than one respondent that they were not pleased with the lack of commitment of the big industries to use local small businesses as downstream suppliers. Instances were quoted where such bigger industries / companies used suppliers and service providers from Gauteng or Durban when there were local businesses who provided the same service.

- Poor road infrastructure – particularly in rural areas which further disadvantages rural farmers and producers.

- There was comment that the rail option was not an option because of its unreliability and poor management – quite a few would prefer to use rail if it was reliable and fast. It is felt that a rail link needs to be built to link Richards Bay harbour to the hinterland in terms of being able to bring in agricultural produce. This entails linking rail through to Entumeni and to the Thukela (Jameson's Drift area). A study needs to be done on this, as there is a lot of agricultural potential that can be unlocked in the rural hinterland which is being wasted because of poor accessibility.

- Water is a concern to many businesses – availability of water, particularly during drought when shortages have been experienced.

- Electricity is a big concern in terms of reliability of supply and particularly, the hugely escalating costs. Suggestions were made about dams and hydro-electric power being considered for the region.

- Refuse removal in remoter rural areas is an issue – recycling and handling proper solid waste disposal.

- Transport costs were also mentioned many times as being a problem to business.

- In addition, for agriculture, it was felt that far too little has been done to create sufficient water storage (Examples given were the never-built Mvumase Dam on the uThukela River, a dam near Catherine Booth hospital on the Amatikulu river, a weir on a tributary of the Amatikulu in the Mbongolwane area which would safeguard the Mbongolwane wetlands and water storage on the Nsuze River and dam sites on the Umlalazi River. These would safeguard water supplies not only for agriculture, but also for domestic and economic consumption and development as well as for potential hydro-electrical power generation.

- In terms of industry potential, the following was commented on:

  - General feeling that the economy is in a bad way and affecting everyone (although some are optimistic).
  - Low levels of employment mean that money does not circulate and businesses struggle.
  - Low level of support from big corporates for downstream SMME suppliers – problem as Richards Bay big companies will often use large scale suppliers or suppliers from another province. This is bad for business in uThungulu.
  - Richards Bay and Empangeni industries and business not considered as important as Durban and Pietermaritzburg – it was felt strongly by some respondents that this area loses out on some key opportunities for growth because of favouring of Durban.
  - The idea of ethanol should be explored further for the sugar mills as this industry needs a boost, particularly to encourage more growers.
  - The issue of co-generation at the mills which can not only produce sugar / ethanol but also feed back energy onto the national grid.
  - There is also considerable untapped tourism potential eg. the Goedertrouw / Lake Phobane dam which used to have tourism facilities but now there is nothing. Tourism is focused on the big game reserves. There is so much that is possible in the rural areas and smaller reserves such as the Ngoye, Nkandla, Entumeni and Qudeni forest reserves.
  - Agriculture is also greatly under utilised given the amount of land available with such a small percentage of Ingonyama Trust area being commercially farmed. Most of the productive land in the Ingonyama is unused or underutilised. The sugar cane industry is struggling to bring enough sugar to the mills yet there is much more potential.
  - For all of this “industry” potential, this must be backed up by wise land use planning, economic and financial allocation and implementation, infrastructural necessities and the drive and the will to succeed. Comment from respondents suggested that a big part of the reason for unexploited or under-exploited opportunities lay in the political, administrative and education /training spheres – not because the opportunities are not there. There are structural problems to put all the right things in place in the right location, at the right time and with the right people. This region has much more potential than what is currently produced.

3.12. A PERSPECTIVE OF ECONOMIC DRIVERS BASED ON COMPANY SURVEY

Based on the Quantec figures, and through the identification of major companies in the uThungulu District, it is evident that the major sector driving the District economy is the manufacturing sector. The food, clothing and textiles, and timber and timber products sub-sectors fulfil an important role in the local economy.

On the basis of the findings of this project, the following sectors have been identified as being the key economic drivers in the uThungulu District. Following the categorisation of companies provided by McCarthy in the introduction to the provincial report on this project the following is noted:

- Older more established companies with a sizeable number of employees and annual turnover in the uThungulu context. These companies are located in the following sectors:
    - Agriculture:
        - Farming relating to various agricultural commodities
    - Manufacturing :
        - Processing of agricultural products
    - Mining :
        - Extraction and processing of raw materials

- The newer smaller perhaps more dynamic companies creating a 'churn' effect in the district (i.e. having an impact) include those located in the following sectors:
    - Manufacturing:
        - Engineering and fabrication plants
        - Packaging
    - Transport, Storage and communication:
        - Rail services
        - Air services
    - Trade:
        - Wholesale and retail
        - Tourism and hospitality (although full potential not realised)

It is noted by McCarthy that companies in these sectors are important for the future economic growth of the economy of uThungulu in that they are often recent entrants into the market outside of the 'traditional box'. In a sense they are therefore 'testing the economic waters' and if they succeed will be the forerunners of a range of new sectors in the district.

4. A MUNICIPAL CAPITAL INVESTMENT PERSPECTIVE

4.1. INTRODUCTION

In order to consider District drivers from the perspective of municipalities a questionnaire was issued to each municipality. The information gathered through these interviews and presented in this section includes:

- A Project Based Perspective
  - Historic and Current Projects
  - Future Projects
- Municipality Identified Challenges
- Addressing the Challenges
- A Public Sector Investment Perspective

4.2. CAPITAL INVESTMENT IN THE DISTRICT

For this initiative the focus was on identifying major (focus on R20m plus) capital investment projects in the District falling in the following categories:

- New nodes / developments: including tourism, commercial and industrial nodes.
- Bulk infrastructure supporting economic development: including bulk infrastructure (excluding reticulation) for water and electricity and other infrastructure related to solid waste.
- Link and major access infrastructure supporting economic development including roads, airports and taxi ranks amongst others.
- Facilities supporting economic development including sport stadiums, markets, trading centres and the like.

TABLE 4.1: HISTORIC, CURRENT AND FUTURE CAPITAL INVESTMENTS IN DISTRICT ECONOMIC DEVELOPMENT

LOCAL MUNICIPALITY	SECTOR	PROJECT NAME	PROJECT STATUS	FUNDING SOURCE(S)	BUDGET
	Agric	Agricultural implementation	Future		R6,000,000
	Bulk infrastructure	Regional Solid Waste Rehabilitation Cell 1	Future		R30,000,000
	Bulk infrastructure	Upgrade Sewage Plants - Mtunzini, Eshowe, Ging	Future		R30,000,000
Umlalazi	Bulk infrastructure	Eshowe New Industrial Bulk Services	Future		R9,000,000
Umlalazi	Bulk infrastructure	Umlalazi (Ocean View sewer upgrade)	Future		R10,500,000
Umhlatuze	Establish new nodes	Richards Bay IDZ Expansion	Future		No info
Mthonjaneni	Facilities supporting econ. dev.	Melmoth SMME Support Centre	Future		R4,500,000
Umhlatuze	Facilities supporting econ. dev.	Cruise Ship Terminal	Future		No info
Umhlatuze	Facilities supporting econ. dev.	Richards Bay Container Terminal	Future		No info
	Infrastructure	Greater Mthonjaneni SSA4-5, 2	Future	MIG/DWA	R558,181,151
	Infrastructure	KwaHlokohloko SSA1	Future	MIG/DWA	R426,301,022
	Infrastructure	KwaHlokohloko SSA5/Umhlathuze LM	Future		R295,689,088
	Infrastructure	Mbonambi Water Phase 2	Future		R256,725,350
	Infrastructure	Mhlana Somopho Phase 3C	Future		R203,237,730
	Infrastructure	Middledrfit SSA 5+3	Future		R498,223,232
Umlalazi	Infrastructure	Eshowe SSA1	Future	MIG/DWA	R244,564,996
Ntambanana	Link / access infrastructure	P701 Corridor Development - Umfolozi to Empangeni	Future		No info
Umhlatuze	Link / access infrastructure	Regional Airport Feasibility Assessment	Future		R16,800,000
Ntambanana	Other	Waste Management Ntambanana	Future		R4,500,000
Ntambanana	Tourism	(Big 5) Game Reserve Development	Future		R3,600,000
Region	Tourism	Coastal Tourism Development	Future		R13,500,000
Region	Tourism	R66 Route Development (Birding)	Future		R5,300,000
Umhlatuze	Tourism	Cruise Ship Tourism	Future		R1,500,000
Region	Tourism/conservation	Great Forests of Zululand	Future		R1,500,000

4.3. MUNICIPALITY IDENTIFIED CHALLENGES

ECONOMIC DEVELOPMENT CHALLENGES IDENTIFIED BY MUNICIPAL SECTOR

- Implementation of LED plans was noted as the most significant challenge.
- The need to upgrade certain infrastructure to support economic development was also highlighted by interviewees. On a provincial level this challenge received the most mentions.
- Challenges relating to land issues, infrastructure, communications and services were also viewed as significant by the respondents.

TABLE 4.2: MUNICIPALITY CHALLENGES

CATEGORIES OF CHALLENGES	UTHUNGULU		KWAZULU-NATAL	
	NO OF RESPONSES	% OF RESPONSES	NO OF RESPONSES	% OF RESPONSES
INFRASTRUCTURE	2	12%	35	22%
INSTITUTIONAL/ COMMUNICATION	2	12%	11	7%
IMPLEMENTATION OF LED STRATEGY/ PLANS	3	18%	22	14%
OTHER	3	18%	11	7%
LAND ISSUES	2	12%	17	11%
RATES AND SERVICES AVAILABILITY AND COST	2	12%	9	6%
EDUCATION		0%	8	5%
RECESSION		0%	5	3%
PLANNING	2	12%	5	3%
SKILLS MIGRATION	1	6%	15	10%
UNEMPLOYMENT		0%	16	10%
LEGISLATION		0%	1	1%
HEALTH		0%	2	1%
TOTAL	**17**	**100%**	**157**	**100%**

4.4. ADDRESSING THE CHALLENGES

MUNICIPAL REQUIREMENTS FOR ADDRESSING THE CHALLENGES

In the responses as to how the challenges can be addressed the majority of respondents suggested that planning and policy support are required. In addition, capacity building, skills development and institutional support would assist in addressing challenges.

TABLE 4.3: ADDRESSING THE CHALLENGES

REQUIREMENTS FOR ADDRESSING THE CHALLENGES	UTHUNGULU		KWAZULU-NATAL	
	NO OF RESPONSES	% OF RESPONSES	NO OF RESPONSES	% OF RESPONSES
Policy Support	3	30%	11	8%
Planning	3	30%	8	6%
Capacity Building & Skills Development	2	20%	9	7%
Institutional	1	10%	15	11%
Communications, Coordination & Consultation	1	10%	6	4%
LED and LED Funding		0%	33	24%
Infrastructure/Utilities Required and Funding		0%	33	24%
Cost Of Services: Municipal Incentives		0%	5	4%
Economic Opportunities		0%	7	5%
Land Issues		0%	10	7%
Total	**10**	**100%**	**137**	**100%**

4.5. A PUBLIC SECTOR INVESTMENT PERSPECTIVE

Some of the issues that are strongly felt by the public sector in terms of providing for a more positive future for uThungulu are:

- The need to invest in the Richards Bay IDZ and to find the right incentives to attract that investment.

- The desire to have full container terminal facilities in Richards Bay. Transnet have indicated that any expansion of container terminal facilities will be in Durban (the proposed dug-out port at the former airport in Prospecton). However, the City of uMhlathuze feels that this will further widen the gap between Richards Bay and Durban, contributing to the stagnation of Richards Bay.

- The desire to upgrade the airport facilities. This has been budgeted for and is underway; again the relatively poor infrastructure and services at the existing airport are considered to hold back development in the region.

- The need to improve the rail link to the interior. It is recognised that the current coal line is operating at capacity from the bulk coal exports and there are plans for doubling up the line.

- It is also recognised that the rail infrastructure along the coast is operating at well below capacity, but there clearly needs to be upgrading if businesses are to be attracted back to rail transport from the overburdened road network.

- Concern has been expressed by the Water Services Authority, uThungulu, on the availability of water for future development, with water already being drawn from the Thukela river, and the mining activities being water intensive.

- Some respondents felt that although Richards Bay was losing ground to Durban, part of the problem lay in the availability and quality of skills in the region. While this is more of a private sector issue, it does potentially require some public sector input in the form of good quality vocational training.

5. A NATURAL RESOURCES OVERVIEW

5.1. INTRODUCTION

There exists a strategic link between the state of the District's natural capital, its ability to deliver ecoservices and the extent to which this provides resilience to the economy and/or makes it vulnerable. The interviews with major companies in the district confirmed that most major companies (economic drivers) are ignorant of this strategic link and that they are operating under the assumption that the natural resources upon which they depend, either directly or indirectly, are infinitely available. Also, it needs to be highlighted that many economic drivers are ignorant of the societal costs caused by the generation of environmental externalities for which they are not taking responsibility for. In addition to this, there are also opportunity costs as a result of lost opportunities, e.g. blue flag beach status lost or unattainable due to polluted estuaries, or viewsheds that have become compromised due to poor land management practices and which are now no longer attractive to tourists.

With the above as background this section:

- Considers the condition of the District's natural capital and the quality of related ecosystem goods and services;
- Provides an overview of ecosystem resources (including allocating a value to the ecosystem resources);
- Illustrates the ecosystem resource linkages between this District and other Districts in KwaZulu-Natal; and
- Provides some insight into the economic opportunities and constraints emanating from the future utilisation of ecosystem resources.

5.2. SUMMARY OF ECOSYSTEM RESOURCE

The condition of natural capital in the uThungulu District is reported on here with the aid of a number of tables and maps. The first of the tables presents a breakdown of the biodiversity value in real monetary terms in relation to the proportional contribution to the Provincial value and the surface area covered by the District (see Table 5.1). Thereafter summary tables showing the ecoservice and the land cover values are presented (see Table 5.2 and Table 5.3). These are followed by maps which illustrate this spatially with land cover being followed by ecoservices (see Map 5.1 and Map 5.2).

Ezemvelo KZN Wildlife completed an exercise, reported on in detail in the Provincial report, which used the values derived for the ecoservices produced and delivered from a variety of natural habitat types in the Province (EKZNW, 2011). The outputs of this exercise were then used to extract the value for each of the Districts and these are presented in table format below. This value for uThungulu equates to 7.84% of the total value for the Province which must be considered in the context of the District making up 8.7% of the Province's surface area. It must be noted that these figures provide an indicative value for the District having been derived from figures at a Provincial scale. Any assumptions and related errors made at the Provincial scale are therefore somewhat greater at the District level. A more refined exercise would need to be done for each District in order to provide a more accurate picture.

TABLE 5.1: THE MONETARY VALUE OF THE NATURAL CAPITAL BASED ON THE ECOSERVICES IT PRODUCES FOR THE UTHUNGULU DISTRICT

HABITAT TYPE	ECOSERVICE VALUE
Coastal and dune vegetation	R 109,428,063
Coastal grassland and thickets	R 317,641,931
Estuaries and mangroves	R 1,391,122,264
Forests	R 309,253,284
Grasslands	R 772,828,702
Nearshore environments and reefs	R 1,708,740,214
Riparian and floodplain veg and swamp forests	R 2,087,794,980
Sandy beach, rocky shores and surf zone	R 76,075,558
Savannas	R 1,325,727,360
Wetlands	R 1,802,748,369
Rivers	R 1,833,923,149
TOTAL	**R 11,735,283,879**

Source: Ezemvelo KZN Wildlife

In addition to the information provided above this discussion is supported by the two tables provided below and which illustrate the quantitative distribution of ecoservice score categories and land cover types respectively. The two maps that follow provide a spatial illustration of these values and features.

TABLE 5.2: AN INDICATION OF THE EXTENT OF THE ECOSERVICE SCORE ALLOCATIONS FOR THE UTHUNGULU DISTRICT

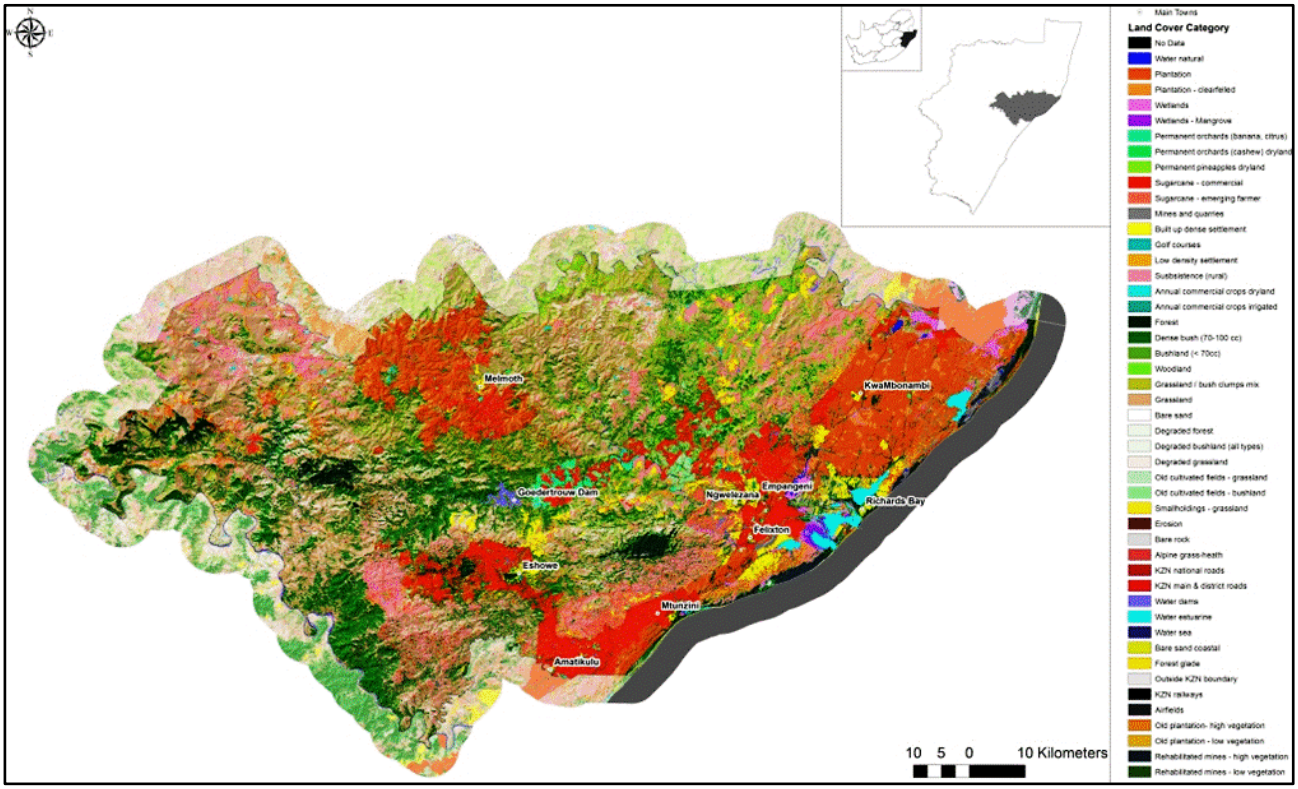
Extent of cover	ECOSERVICE CATEGORY SCORES									
	-3	-2	-1.5	-1	-0.5	0	1	1.5	2	3
Hectares	179	90740	3195	283	4933	141	17536	51937	157984	0
%	0.05%	27.76%	0.98%	0.09%	1.51%	0.04%	5.36%	15.89%	48.32%	0.00%

This table is extracted from the complete ecosystem scoring undertaken for the entire province. It provides an indication of the condition of natural capital in the district in terms of hectares of transformed land. The indications are that a large proportion of uThungulu has under gone transformation, evidenced in loss of ecoservices such as water.

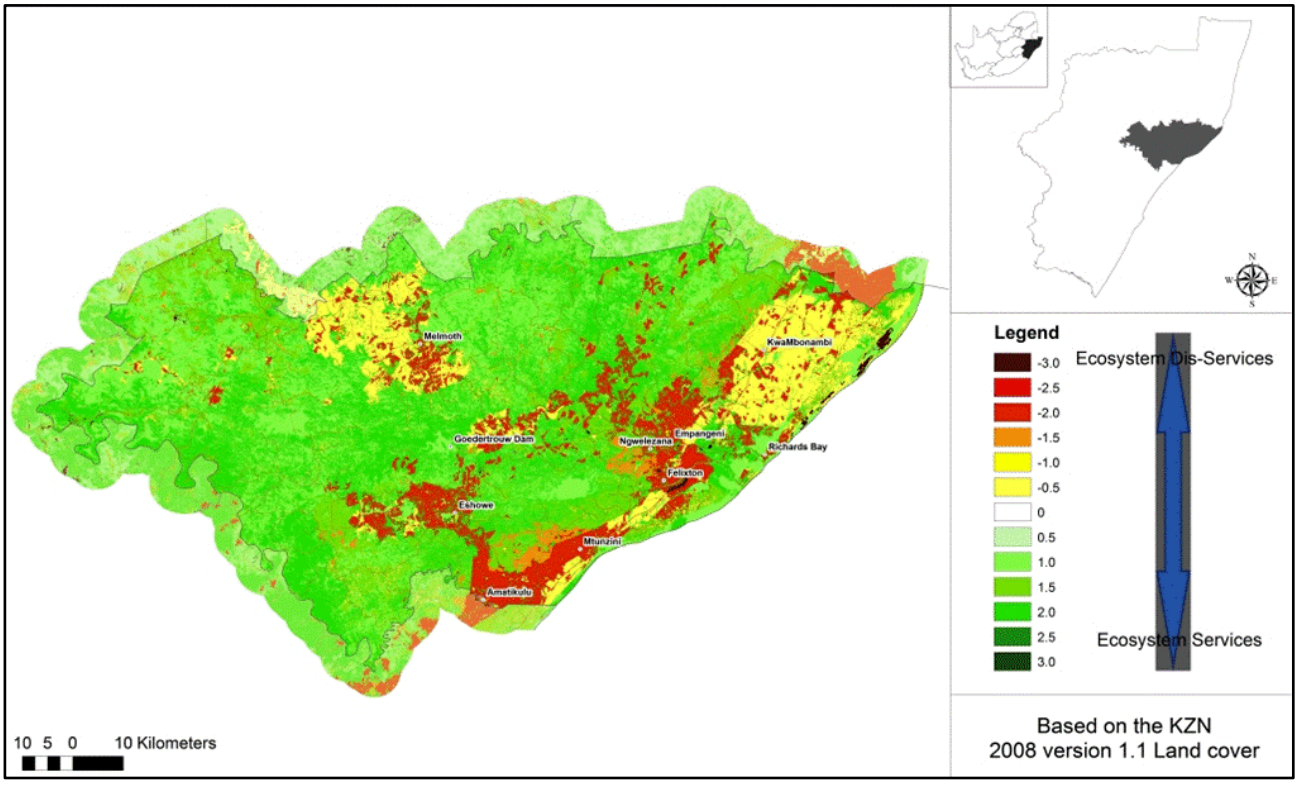
TABLE 5.3: AN INDICATION OF THE EXTENT OF BROAD LAND COVER TYPES IN THE UTHUNGULU DISTRICT

LAND COVER CATEGORY	% COVER
Natural - freshwater	0.73%
Natural - marine	0.28%
Natural terrestrial	49.27%
Natural terrestrial degraded	3.95%
Agriculture - active including commercial and subsistence	34.53%
Agriculture - fallow including commercial and subsistence	0.58%
Mining	0.04%
Settlement (including recreation and infrastructure)	10.62%

MAP 5.1: UTHUNGULU DISTRICT LAND COVER



MAP 5.2: UTHUNGULU POTENTIAL TO DELIVER ECOSYSTEM GOODS AND SERVICES



uThungulu District is vulnerable due to the fact that it is at the mercy of natural capital management in two inland Districts, namely uThukela and uMzinyathi, and the level of vulnerability is exacerbated by the fact that much of the coastal portion of the District has been transformed. Much of this transformation relates to sugar cane plantations which have been in the area for many decades and which are notoriously poorly managed from a natural capital perspective. The externalities from this land cover are thus significant as are the associated societal costs. Examples of these costs are the periodic flood events which destroy homes, take lives, remove and damage infrastructure; which could be far less severe if the role and function of natural capital was understood and maintained. In addition to this there are timber plantations, settlement and mining.

To add to this level of vulnerability is the fact that uThungulu District carries the greatest level of mining activity in the Province. Once again although this is only at 0.04% of the land cover, it is a land cover associated with an ecoservice score of -3. If time and resources allowed, this assessment could provide an indication of the extent to which the negative externalities emanating from mining activities reach beyond the actual mining footprint.

After uMkhanyakude, uThungulu has the second greatest ecosystem value for forests in KZN, emphasising its importance as a carbon sink. This provides an opportunity for local industry to offset their impacts on the voluntary carbon market in forest conservation, restoration and rehabilitation.

A good indication of the condition of an area's natural capital is the condition of its aquatic systems. Those flowing through and originating within this District are possibly the most complex in the Province. It also has a significant negative water balance with numerous inter-basin transfers augmenting its water requirements. The Goedertrouw Dam is the second largest dam in KwaZulu-Natal (304 million m3) and is fed by seven rivers of which four flow all year round. The Dam, constructed by the Department of Water Affairs on the Mhlatuze River, was completed in 1980. The dam was built to provide an assured water supply to the developing industrial complex and port of Richards Bay and for the expansion of irrigation for agriculture. In 1996, an emergency scheme was implemented to transfer water from the Thukela River to the Mhlathuze system, via the Goedertrouw Dam. Water is transferred at a rate of about 1,2 m3/s whenever the water level in the Goedertrouw Dam is below 90%, although this is an operating rule that is frequently reviewed. Sediment loads in the Mhlathuze catchment are generally low, with the poorest quality water being that imported from the Thukela River via the Middeldrift emergency scheme. This results in some sedimentation within the Goedertrouw Dam. The Usuthu to Mhlathuze WMA Internal Strategic Perspective (DWAF, March 2004) stated that at that time there was sufficient water in the Mhlathuze catchment to meet all requirements, but the resource had been over-allocated and compulsory licencing was required to rectify this situation. With the water allocations as they stand there is at present no room for industrial, urban or other expansion, and no water is available for further allocations to the rural areas or for equity schemes. Plans therefore need to be developed in order to cope with sudden increases in the demand for water so as not to delay or retard development in this area. The report stipulated that these plans must allow for possible growth scenarios and consider options such as:

- Water conservation and demand management
- Resource development in the W11 or W13 catchments
- Trading of water licences
- Additional transfers from the uThukela River
- Re-use of effluent.

Despite the major development in the Mhlathuze catchment, water quality is generally good. This is due to the fact that urban and industrial effluent is discharged to the sea.

TABLE 5.4: RECONCILIATION OF THE WATER ALLOCATIONS AND THE WATER RESOURCE IN THE MHLATHUZE SUB-AREA, INCLUDING THE FAIRBREEZE TRANSFER (ALL UNITS ARE MILLION M3/ANNUM)

Yield and Abstractions in m3/annum		Mhlathuze River System
Available Water	Local yield	227
	Transfer in	127
	Total	354
Water requirements	Local requirements / allocations	404
	Transfer out	0
	Total	404
Balance		-50

Source: DWAF, 2004

In terms of other forms of land transformation in the District it has the second highest timber plantation cover (11.39%), the third highest level of subsistence agriculture (9.25%) and the third highest sugar cane cover (7.4%); all of which contribute to the poor condition of natural capital and associated decrease in the ability to deliver ecoservices (Phase 4 Provincial Report Natural Capital).

5.3. ECOSYSTEM RESOURCE LINKAGES

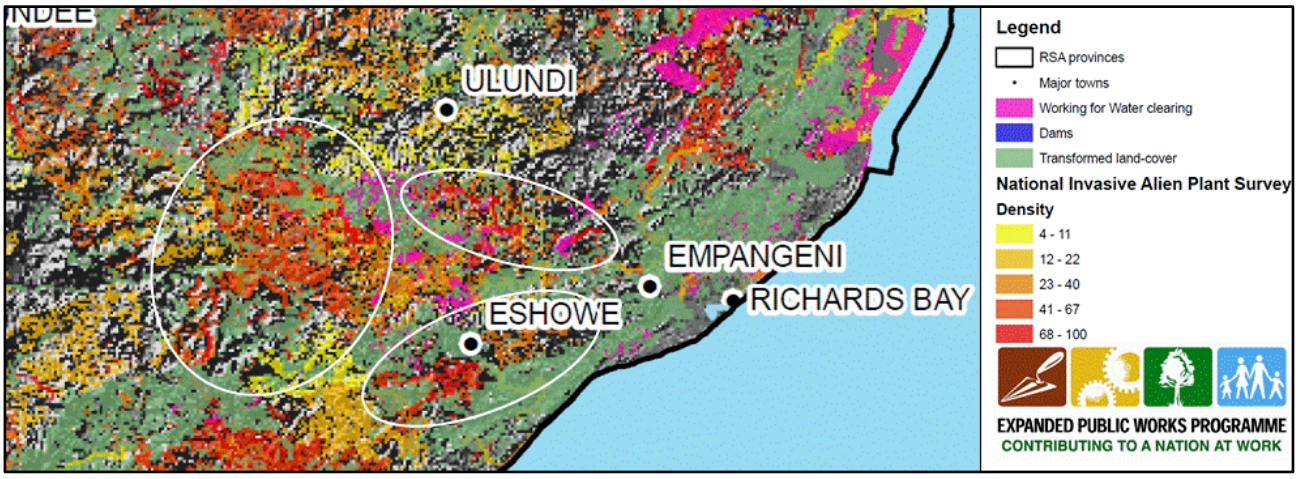
Like iLembe, uThungulu is unique in relation to the other five coastal Districts in that its links to the Drakensberg are not as clear as the others. The primary ecosystem linkages are the Mfolozi and uThukela River systems on its northern and southern boundaries, included in which is the transfer scheme into the Goedertrouw Dam from the Thukela River via the Middeldrift emergency scheme (discussed in Section 5.2 above). Although the link with the Drakensberg is not as marked as the others, water still plays a crucial role in defining the value of the ecosystem linkages in this District.

The uThungulu District is vulnerable to unsustainable land management practices in neighbouring areas, the amount of transformation by sugar and mining along the coast, and the moderate to severe amounts of alien invasive plant infestations which are wide-spread in the district. The latter observation is borne out through the spatial data provided by the national Department of Environmental Affair's (DEA) Directorate of Natural Resource Management (NRM) (2011) as illustrated in Map 5.3. The fact that Working for Water is active in the District, illustrates that this is an opportunity for job creation through the green economy.

The linkages with the marine environment are:

- Climate change and sea-level rising which poses a significant threat to the port and associated industries at Richards Bay; and
- The negative impacts arising from the fact that urban and industrial effluent is discharged to sea.

MAP 5.3: AN EXTRACT FROM THE DEA NRM NATIONAL MAP OF ALIEN INVASIVE PLANT INFESTATIONS AS OF 2011 ILLUSTRATING THE CONCENTRATION OF INFESTATION WITHIN UTHUNGULU AND AREAS BEING CLEARED BY WFW



5.4. THE RESILIENCE OR VULNERABILITY OF ECONOMIC DRIVERS AND THE OPPORTUNITIES AND CONSTRAINTS TO GROWTH

According to Section 3.12 there are a number of economic drivers that are categorised according to those that are established and those that are emerging. The discussion in this Section will consider each of these in terms of how the current condition of natural capital and related ecoservices either presents opportunities and/or constraints per sector. The sectors that are considered are:

- Established:
  - Agriculture: Farming relating to various agricultural commodities;
  - Manufacturing: Processing of agricultural products; and
  - Mining: Extraction and processing of raw materials.

- Emerging:
  - Manufacturing:
    - Engineering and fabrication plants
    - Packaging
  - Transport, Storage and communication:
    - Rail services
    - Air services
  - Trade:
    - Wholesale and retail
    - Tourism and hospitality (although full potential not realised)

For more detail see Annexure B.

6. FINDINGS AND RECOMMENDATIONS

6.1. CORE FINDINGS

- uThungulu District has experienced a similar decline to that experienced throughout KZN due to the recession.
- The primary sector, agriculture, has been in decline for some years, particularly the sugar and timber industries. This is partly due to the recession and international markets, but is also related to the uncertainty of the commercial farming sector in terms of land reform, and the fact that many farms that formed part of land reform have been abandoned or are now fallow with no production at all.
- It is critical that the recapitalisation initiative for land reform is brought to uThungulu to kick start the abandoned farms into production once more and go some way to reviving the flagging agricultural sector.
- It is also critical that there be concerted effort, with appropriate and sustained support, to encourage small scale agriculture on underutilised Ingonyama Trust land where there is proven potential.
- While manufacturing is a major economic driver in uThungulu, it is still a relatively young sector with not as much diversification as in Ethekwini.
- The IDZ is a key opportunity to boost the port and industry and commercial activity in the region; however, it requires the right kind of incentives to attract appropriate investment.
- The harbour does need upgrading with the dry dock and potentially improved or full container facilities.
- While transport was not viewed as a major concern for most businesses in the urban areas, rural road infrastructure and transport was seen as a limiting factor in the rural areas.
- There are infrastructure issues such as overburdened road infrastructure (John Ross being a case in point) and underutilised rail infrastructure, as well as concern over the long-term sustainability of the water supplies.
- Tourism is viewed as potentially a much bigger driver of development in the region, particularly in the rural areas, but a potential that is still largely unrealised.
- uThungulu needs to improve its skills base – in terms of training the right people to the right standard, so that it can compete with other centres, particularly for those downstream industries and service suppliers to the bigger enterprises.
- This is a country-wide issue, not specific to uThungulu – the price of electricity is a major disincentive for business.

6.2. KEY SPATIAL ECONOMIC FEATURES

A number of key spatial economic features of the uThungulu District must be acknowledged before recommendations are considered:

- The Richards Bay harbour and associated infrastructure and industry.
- The north-south N2 corridor along the coast.
- The east-west corridor inland along the R 66 from Gingindlovu towards Vryheid.
- The dominance of economic development in the coastal corridor but centred around the primary node of Richards Bay/Empangeni.
- The large areas under Ingonyama Trust or communal tenure in the district. In some municipalities (e.g. Nkandla) this covers the whole municipality.
- Underutilised agricultural land in the Ingonyama Trust area.
- The dominance of sugar cane and timber as commercial land uses.

6.3. A CHANGING SPATIAL ECONOMIC DEVELOPMENT STRUCTURE

The spatial development structure of uThungulu is one which will not necessarily require great spatial changes and interventions (as in new routes and corridors) but rather strengthening, expanding, or adding value to the existing spatial nodes and corridors of investment. Some of the planned developments, if and when implemented will merely strengthen the primary position of Richards Bay and Empangeni as an industrial, commercial and population hub in the region. However, the proposals to strengthen the tourism routes through the rural areas, to look at the development of economic projects in Ingonyama Trust lands (eg. Essential oils projects) and the recapitalisation of failed or failing land reform farms, are essential in order to create a more competitive rural economy that can provide more jobs and slow down the urbanisation trend.

6.4. RECOMMENDATIONS ON GOVERNMENT INTERVENTIONS

6.4.1. SUPPORT CATALYTIC PROJECTS

It is recommended that there should be support in the implementation of “catalytic” projects (or as a first step confirming the feasibility thereof). The currently identified catalytic projects are:

- Completion of the John Ross Parkway between Richards Bay and Empangeni.
- Support for the Richards Bay IDZ – in the form of the appropriate incentives to attract the right kind of investment.
- Construction of the dry dock.
- Doubling the capacity of the coal line rail link from Richards Bay to the interior.
- Improving the capacity and level of service on the rail link north and south – to Durban and Swaziland.
- Increasing the capacity of the Richards Bay airport – this is underway.

- Support the recapitalisation of the land reform farms through sustained and appropriate departmental support to the emerging farmers, including appropriate training and funding for a period sufficient for self-sustainability.
- Support for the marketing of the District tourism assets so that uThungulu is seen as a destination in itself and not just an area visitors pass through on their way somewhere else.
- Associated with this is support for the development of the tourism routes which will enhance their use as economic drivers for transportation of produce produced by rural farmers.
- Support for the investigation into co-generation energy projects in the district and sub-region.

See diagram 6.1: uThungulu economic drivers overleaf.

6.4.2. PLAN FOR LONG TERM GROWTH

Government should support planning for the long term growth of the economy of the area. This long term planning should include

- Planning (even if long-term) for a full container terminal at Richards Bay.
- Expansion of the port and harbour facilities, including expansion of the IDZ into a more viable unit.

6.4.3. ADDRESSING THE CHALLENGES

The challenges are:

- Developing skills and human resource capacity in the district to make businesses more competitive in their service provision and production.
- Increasing productive land use in the Ingonyama Trust areas.
- Upgrading and maintenance of key infrastructure to enhance the capacity of the industrial/commercial and port hub of Richards Bay / Empangeni.

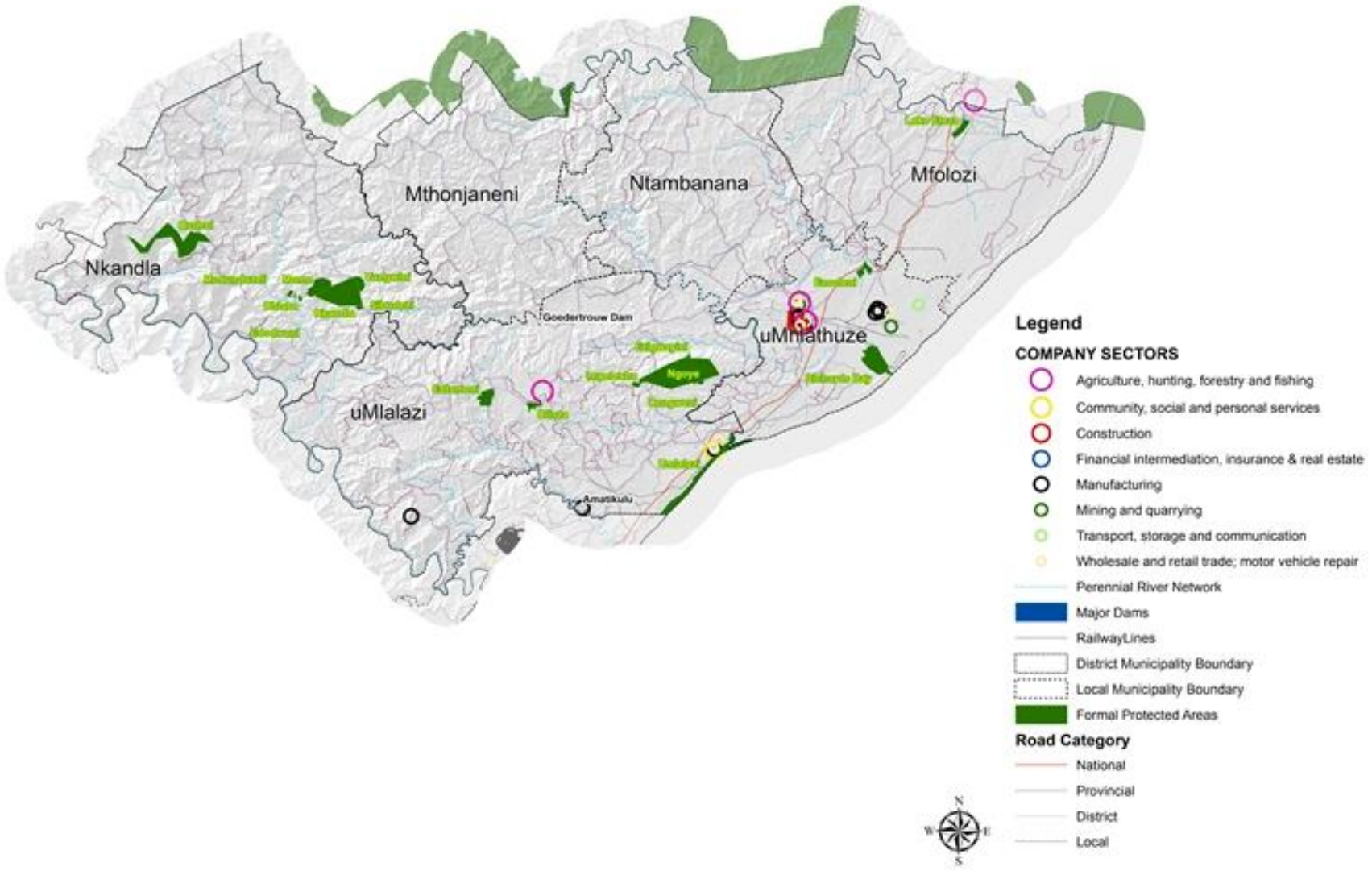
The following table summarises the main findings of this study.

DIAGRAM 6.1: UTHUNGULU ECONOMIC DRIVERS

	ECONOMIC DRIVERS	CERTAIN DRIVER	POSSIBLE DRIVER	UNCERTAIN
COMPANIES / SECTOR	Company	Bell Equipment, Bayside Aluminium, Exxaro Sands, BHP Billiton, Richards Bay Minerals		
	Sector/Sub-sector/Cluster	Manufacturing (Metal) Mining	Agriculture Tourism	
DEVELOPMENTS	Strategic Developments	Richards Bay Container Terminal Regional Airport Redevelopm	Coastal Tourism Development Big 5 Game Reserve	R66 Route Development
	Supporting Facility		Cruise Ship Terminal	
INFRASTRUCTURE	Special Economic Zones	R'Bay IDZ Expansion		
	Link Infrastructure	P701 Route Development		
	Other Infrastructure		Water Infrastructure - Various	

Key to text colours: Green = established / Orange = partially established / Red = Concept

ANNEXURE A: UTHUNGULU DISTRICT - COMPANY DISTRIBUTION BY SECTOR IN LOCAL MUNICIPALITIES



LIST: COMPANY DISTRIBUTION IN LOCAL MUNICIPALITIES

COMPANY NAME	LOCAL	PRODUCT CATEGORY
Amble Inn	uMhlatuze	Tourism Accommodation +
Bayside Aluminium	uMhlatuze	Aluminium Products
Bearing & Oil Seal Supplies	uMhlatuze	Equipment
Bell Equipment	uMhlatuze	Equipment Manufacturing
BHP Billiton	uMhlatuze	Metal Products
Dormac Marine and Engineering (Pty) Ltd	uMhlatuze	Equipment Manufacturing
Dowson & Dobson Industrial	uMhlatuze	Equipment
East Coast Irrigation	uMhlatuze	Construction Services
Empangeni Plant Hire	uMhlatuze	Equipment rental
Empangeni Workwear Manufacturing	uMhlatuze	Clothing
Exxaro KZN Sands	uMhlatuze	Metal Mining
Farmers Agricare	uMhlatuze	Chemical Products
Foskor	uMhlatuze	Chemical Products
Garden Cove	uMhlatuze	Landscaping services
Grinaker LTA	uMhlatuze	Construction Services
Haigs Mower & Chainsaw Centre	uMhlatuze	Gardening Equipment
HDS Plant Hire	uMhlatuze	Equipment rental
MAGL Engineering	uMhlatuze	Engineering Services
ML Office Suppliers	uMhlatuze	Office furniture and equipment
Mondi Packaging	uMhlatuze	Corrugated Cardboard
Multi Axle Manufacturers	uMhlatuze	Equipment Manufacturing

COMPANY NAME	LOCAL	PRODUCT CATEGORY
Ngoye Farmers cc	uMhlatuze	Chemical Products
Paint Centre	uMhlatuze	Paint
Richards Bay Air Carriers	uMhlatuze	Air Charters
Richards Bay Coal Terminal	uMhlatuze	Transport Services
Richards Bay Minerals	uMhlatuze	Minerals
SA Wire Zululand	uMhlatuze	Fencing
Supa Quick Tyre Dealers	uMhlatuze	Tyre services
Tata Steel KZN	uMhlatuze	Ferrochrome
The Richards - Protea Hotel	uMhlatuze	Tourism Accommodation +
Tongaat Hulett - Amatikulu Mill	uMhlatuze	Sugar and Related
Brocklee Farms	Umlalazi	Agricultural Commodities
KandK Holding SA (Pty) Ltd	Umlalazi	Sporting Equipment
Mtunzini Mica	Umlalazi	Hardware
One On Hely	Umlalazi	Tourism Accommodation +
Twinstreams	Umlalazi	Environmental Education
Dynamic Fibre Mould	uThungulu	Egg boxes
Ntingwe Tea Estate	uThungulu	Tea

ANNEXURE B: ECONOMIC DRIVERS AND THE ENVIRONMENTAL OPPORTUNITIES AND CONSTRAINTS TO GROWTH

RETAILERS – OPPORTUNITIES AND CONSTRAINTS

OPPORTUNITIES	CONSTRAINTS

▪ Embrace the opportunities inherent in the 'green economy' in terms of;
  ○ Ensuring that their own operations are sustainable, and
  ○ Offering products and services that meet the objective of the development of a 'green economy'.
▪ Engage with agencies that promote sustainability and enhance operational efficiencies which will reduce operating costs while providing marketing benefits.
▪ Collectively put pressure on the relevant provincial government agencies to enhance the condition of the province's natural capital to increase resilience and decrease vulnerability.
	▪ Increasing operating costs based on the increasing costs of accessing potable water.
	▪ Infrastructure failure due to flood damage resulting in transportation limitations for the movement of stock as well as the inability of staff to get to work.
	▪ Increased staff sick leave due to increasing health problems related to water quality issues.
	▪ Increased costs of imports and exports through the Durban Harbour through increased costs associated with Transnet having to invest more in dredging sediments and managing water quality problems.
	▪ Limits to growth due to current levels of over-exploitation of natural capital and increased value of that which remains untransformed.

BANKING AND FINANCIAL SERVICES – OPPORTUNITIES AND CONSTRAINTS

OPPORTUNITIES	CONSTRAINTS

▪ Embrace the opportunities inherent in the 'green economy' in terms of;
  ○ Ensuring that their own operations are sustainable, and
  ○ Offering products and services that meet the objective of the development of a 'green economy'.
▪ Engage with agencies that promote sustainability and enhance operational efficiencies which will reduce operating costs while providing marketing benefits.
▪ Collectively put pressure on the relevant provincial government agencies to enhance the condition of the province's natural capital to increase resilience and decrease vulnerability.
▪ Ensure the integration of sustainability principles in to developments through insisting on full risk assessment and sustainable management in all development funding applications
	▪ Failure to understand the risk that depleted natural capital places on the sustainability of developments increases the risk associated with the financing of such.
	▪ Failure to embrace the need to engage with the 'green economy' will result in lost marketing benefits as well as increased operating costs.
	▪ Financing un-sustainable developments.

MANUFACTURING – OPPORTUNITIES AND CONSTRAINTS

OPPORTUNITIES	CONSTRAINTS
▪ Emergence of the green economy presents an abundance of new technology that can assist manufacturing plants to become more efficient and sustainable. ▪ Sustainable operations offer improved marketing profiles that provide a competitive advantage. ▪ Reduced operational footprint in terms of energy, water and waste will increase the lifespan of manufacturing operations.	▪ Declining access to water of an adequate quality. ▪ Reduced water quantity decreases systems ability to dilute manufacturing related effluents and increases the risk of liabilities. ▪ Reduced catchment integrity increases the risk of flooding for those manufacturing plants adjacent to large systems like the uThukela. ▪ Agri-processing plants are vulnerable to declining productivity associated with unsustainable farming practices. ▪ Movement of processed goods is dependent on the absence of flood damage to the many river crossings, either moving north to Richards Bay or south to eThekwini. The loss of catchment integrity in the inland sections of the District, as well as in uMgungundlovu and uMzinyathi, places this infrastructure at increased risk.

PETROLEUM COMPANIES – OPPORTUNITIES AND CONSTRAINTS

OPPORTUNITIES	CONSTRAINTS
▪ Off-set impacts emanating from the off-shore buoy on the marine and coastal environment by investing in conservation projects of equal or greater value than the damaged that has been caused in the past and that could be caused in the future. Such conservation projects should be directly related to the enhancement of natural capital capacity to deal with potential spillages from this facility. ▪ Invest in R&D associated with alternative and renewable energy generation. ▪ Invest in technologies that ensure that all externalities from the refining process are internalised.	▪ The predicted impacts of climate change, particularly the rise in sea level and an increased occurrence of extreme weather events increases the vulnerability of the off-shoe buoy and the position of the refineries. ▪ Road and rail routes are vulnerable to extreme weather events which have the potential of disrupting the distribution of petroleum products. To a certain extent, the NMPP may also be compromised if the crossing of drainage lines has not been sufficiently adequate to ensure no damage during times of flooding. ▪ Increased awareness of the environmental externalities associated with the production and use of petroleum products especially if this sector continues to drive 'business as usual'.

AGRI-PROCESSING – OPPORTUNITIES AND CONSTRAINTS

OPPORTUNITIES	CONSTRAINTS

▪ Embrace the opportunities inherent in the 'green economy' in terms of;
  ○ Ensuring that their own operations are sustainable, and
  ○ Offering products and services that meet the objective of the development of a 'green economy'.
▪ Engage with agencies that promote sustainability and enhance operational efficiencies which will reduce operating costs while providing marketing benefits.
▪ Collectively put pressure on the relevant provincial government agencies to enhance the condition of the province's natural capital to increase resilience and decrease vulnerability.
	▪ Increasing operating costs based on the increasing costs of accessing potable water.
	▪ Infrastructure failure due to flood damage resulting in transportation limitations for the movement of stock as well as the inability of staff to get to work.
	▪ Increased staff sick leave due to increasing health problems related to water quality issues.
	▪ Increased costs of imports and exports through the Durban Harbour through increased costs associated with Transnet having to invest more in dredging sediments and managing water quality problems.
	▪ Limits to growth due to current levels of over-exploitation of natural capital and increased value of that which remains untransformed.

AGRICULTURE – OPPORTUNITIES AND CONTRAINTS

OPPORTUNITIES	CONSTRAINTS
SUGAR	
▪ Job creation through natural capital restoration work, particularly regarding the eradication of alien invasive plants, reclamation of wetlands, and natural rehabilitation of soils, i.e. reinstating the organic matter content. ▪ The removal and rehabilitation of areas currently under unpermitted plantations. ▪ The release of water, previously consumed by plantations, to alternative uses (including the ecological reserve) downstream, especially estuaries. ▪ Through the introduction of more sustainable operations, agro-chemical loads leached into river systems will decline. ▪ Decreased production costs through the implementation of sustainable farming principles. ▪ Improved marketing opportunities through association and implementation of sustainable farming programmes.	▪ Unsustainable change to natural soil characteristics, e.g. loss of nutrients, loss of soil fauna, change in chemical composition and structure, leading to the loss of opportunities for alternative productive land use and rehabilitation potential. ▪ Upstream water reduction activities, i.e. timber and sugar plantations, are placing constraints on downstream capacity for economic expansion. ▪ Stream reduction decreases dilution capacity of river systems and therefore exacerbates downstream water quality issues which translates into increased health risks and treatment costs. ▪ Reduced water quantity limits downstream abstraction opportunities. ▪ Increased sediment loads from cleared compartments and road networks resulting in loss of natural capital integrity. ▪ No further land available for expansion of the industry.

OPPORTUNITIES	CONSTRAINTS
TIMBER	
▪ Job creation through natural capital restoration work, particularly regarding the eradication of alien invasive plants. ▪ The removal and rehabilitation of areas currently under unpermitted plantations. ▪ The release of water, previously consumed by plantations, to alternative uses (including the ecological reserve) downstream.	▪ Unsustainable change to natural soil characteristics by timber species, e.g. loss of nutrients, loss of soil fauna, change in chemical composition and structure, leading to the loss of opportunities for alternative productive land use and rehabilitation potential. ▪ Upstream water reduction activities, i.e. timber plantations, are placing constraints on downstream capacity for economic expansion. ▪ Stream reduction decreases dilution capacity of river systems and therefore exacerbates downstream water quality issues which translates into increased health risks and treatment costs. ▪ Reduced water quantity limits downstream abstraction opportunities. ▪ Increased sediment loads from cleared compartments and road networks resulting into loss of water storage capacity in downstream raw water storage and reticulation systems. ▪ No further land available for expansion of the industry – closed catchment.
LIVESTOCK (primarily cattle on extensive natural pastures)	
▪ Sustainability certification increasingly required by retail outlets provides livestock farmers with an opportunity to enhance the marketability of their products. ▪ Extensive livestock farming is the land use that is most compatible with biodiversity conservation which provides opportunities for recognition for sustainable practices through the KZN Stewardship Programme. ▪ Extensive livestock farming provides a landscape that is conducive to tourism and with many such farms being in close proximity to the uKhahlamba Drakensberg Park, favourable marketing opportunities are present. ▪ This land use has the least impact on the potential for the delivery of ecoservices and farmers can market these to consumers to substantially increase the revenue that can be earned from their land, e.g. sale of watershed services, carbon storage, access to genetic material, etc.	▪ The only constraints that are imposed on the livestock farmers are those created by themselves through the implementation of unsustainable land use practices such as overstocking and the injudicious use of fire as a management tool. ▪ Directly related to the above is a loss of land cover integrity which predisposes the land to alien plant infestations. ▪ However, even the best managed properties are impacted by alien invasive plants and collaborative efforts are required eradicate these.

OPPORTUNITIES	CONSTRAINTS
DAIRY	
▪ Generation of energy from waste, e.g. biogas. ▪ Rural nature of the operation lends itself to a diversification through the introduction of farm-based tourism opportunities. ▪ Enhanced operation efficiencies lend themselves to recognition and certification thus providing improved marketability and access to discerning and sustainable markets	▪ Reduced access to water for irrigation of pastures as well as for the milking process through the loss catchment integrity. ▪ Potential liability for impacts on water quality downstream of farm based on the leaching of agro-chemicals from irrigated pastures, as well as from the dairy operations themselves, i.e. eutrophication.
COMMERCIAL CROPS (Irrigated and dryland)	
▪ Job creation through natural capital restoration work, particularly regarding the eradication of alien invasive plants, reclamation of wetlands, and natural rehabilitation of soils, i.e. reinstating the organic matter content. ▪ The removal and rehabilitation of areas currently under unpermitted crops. ▪ The release of water, previously consumed by crops, to alternative uses (including the ecological reserve) downstream. ▪ Through the introduction of more sustainable operations, agro-chemical loads leached into river systems will decline. ▪ Decreased production costs through the implementation of sustainable farming principles.	▪ Access to water through reduced catchment integrity upstream of farms. ▪ Loss of arable land through accelerated erosion and the spread of alien invasive plants. ▪ Reduced soil fertility through excessive crop production leading to a reduction in productivity and increased operating costs. ▪ Reduced water holding capacity of the soil due to unsustainable farming practices
SUBSISTENCE AGRICULTURE	
▪ Carefully selected portions of Ingonyama Trust land which have the potential to support both subsistence and small holder commercial production. ▪ The high levels of unemployment need to be converted into high levels of occupation related to food production, processing and marketing. ▪ The enhancement of current communal land management systems by introducing value to different types of land use (PDA). ▪ Well managed communal lands will present an attractive landscape that has the potential to host a variety of tourism operations, e.g. the Umgano Project.	▪ Communal tenure and unplanned land allocation systems. ▪ Concentration of existing subsistence agriculture and settlement activities within inappropriate locations, e.g. wetlands and flood plains. ▪ Poor land use practices leading to accelerated soil loss, the spread of alien invasive plants and the loss of natural capital. ▪ The overriding cultural significance of the cultural value of livestock which prevents sustainable management thereof with resultant over-grazing and associated impacts.

TOURISM – OPPORTUNITIES AND CONSTRAINTS

OPPORTUNITIES	CONSTRAINTS
▪ Environmental accreditation programmes such as the 'Blue Flag Beach' programme offers significant benefits by acting as an added attraction to a market that is becoming increasingly aware of environmental issues and standards. ▪ Reinstate natural capital along the coastline such as dune, flood plain and estuarine vegetation to increase the diversity of attractions and the resilience of the coastline and associated infrastructure.	▪ The coastline has been significantly transformed by linear urban development and has lost much of natural features which cause the loss of appeal and well as increased vulnerability to extreme weather events. ▪ The concentration of industry, commerce and residential developments along the coast and rivers increases the threat of water quality issues and the loss of tourism revenues. ▪ Unchecked land transformation and degradation continues to impact on catchment integrity with resultant loss of watershed services and reduced viability for the maintenance of standards required to meet accreditation standards. ▪ Predicted climate change related impacts such as the rise in sea level and increased incidents of extreme weather events places significant constraints on both existing and potential new tourism infrastructure.

OPPORTUNITIES	CONSTRAINTS
▪ Proximity to the uKhahlamba Drakensberg Park World Heritage Site. ▪ Linkages with Lesotho through the Maloti Drakensberg Transfrontier Project and the Maloti Drakensberg Route. ▪ The bulk of the landscape still untransformed or hosting agricultural activities which lend themselves to an aesthetic appeal for a diversity of tourism attractions. ▪ Extreme topography, clean air and relatively clean water make the area attractive to major sporting events such as the Drak Challenge and the Sani2Sea. ▪ Cultural Heritage features such as the Reichenau Mission add to the diversity of attractions.	▪ Unsustainable land management outside of the uKhahlamba Drakensberg Park World Heritage Site quickly reduces the quality of natural capital and its ability to deliver ecoservices such as clean water. ▪ The virulent spread of alien invasive plants. ▪ Cross-border crime detracts from an enabling and attractive environment to accommodate tourism activities and operations.

GOVERNMENT – OPPORTUNITIES AND CONTRAINTS

OPPORTUNITIES	CONSTRAINTS
▪ The application of NRM and EPWP (Extended Public Work Programme) funds to address threats to natural capital integrity such as the eradication of alien invasive plants and the restoration of erosion gullies, thus generating 'green jobs'. ▪ The creation of an enabling environment for and facilitating the implementation of green technologies such as rain water harvesting and biogas generation for both disadvantaged communities as well as commercial operations. ▪ Increased ability to deliver basic services through improved condition of natural capital and the delivery of ecoservices such as clean water, increased winter base flows, reduced flood risk, access to medicinal plants natural building material and fuel wood. ▪ Decreased health risks through improved catchment integrity as discussed above, as well as improved air quality.	▪ Local government capacity in terms of natural capital management. ▪ Limited cooperative governance capacity required across local government boundaries, across Depts. as well as across sectors. ▪ The virulent spread of alien invasive plants. ▪ Unsustainable land use practices that dominate the District. ▪ Cross-border crime, primarily the theft of livestock places this land use in jeopardy and in danger of being replaced by more unsustainable options, as well as impacting on tourism and sound natural capital management.

MINING - OPPORTUNITIES AND CONTRAINTS

OPPORTUNITIES	CONSTRAINTS
IDWALA CARBONATES	
▪ The mine has the opportunity of engaging with upstream land owners and users with a view to improving catchment integrity that will increase winter base flow in both river systems and decrease potential liability from pollution caused by storm water runoff from their site.	▪ Loss of catchment integrity upstream from their operation makes them vulnerable to flooding considering their position immediately adjacent to and within the floodplain for the Umzimkulwana River. ▪ Close proximity to the mouth of the river system increases the risk of liability for water quality issues associated with their operations. ▪ The loss of riparian vegetation translates into the loss of an important buffer between their operations and the river.