Chapter 1

1. WHY THE NEED FOR THE REVIEW OF THE BA-PHALABORWA LED STRATEGY AND WHAT INFORMS THE REVIEW?

1.1. Introduction

This chapter highlights strategic issues from the current LED Strategy for Ba-Phalaborwa municipal area, acknowledging the fact that there is a need to review the current LED strategy because it is outdated and overdue for review. The chapter gives an outline on processes followed in the review of the current LED strategy. The review process is expected to assist in identifying critical processes to be followed, success factors from the current LED Strategy, report implementation of projects identified, and review of LED strategies adopted for the economic development for the Ba-Phalaborwa Municipal area.

The chapter provides an economic status quo report based on the current LED Strategy, how the review processes will unfold, and key stakeholders to be engaged internally with externally and key issues to be discussed.

1.2. Purpose of the LED strategy review

The purpose of this LED Strategy review is to:

- Give an update on the existing LED strategy
- Give an account of the current economic status in the Ba-Phalaborwa Municipal area since 2007 to date.
- Align analysis of the current situation it with the national, provincial, and district's long-term vision on adopted and co-ordinated development programs.
- To create a platform for the generation and evaluation of options for future local economic development initiatives.

The above points are based on the fact that the future quality of life for communities residing within Ba-Phalaborwa Municipality depends on the ability of all stakeholders (public, private, and civil society and labour) to:

- Own up on the local economic development plans adopted to improve the municipal economic competiveness,
- Acceleration of economic growth through infrastructure investment,
- Job creation,

- Broad Based Black Economic Empowerment and
- Poverty alleviation.

1.3. Aims and Objectives for the review of the current LED Strategy

1.3.1. Aims for the review of the current LED Strategy

The aims to have the current LED Strategy reviewed are to come up with a consolidated and an aligned integrated Local Economic Development Strategy document. It is the intention of the reviewed municipal LED Strategy that municipal initiatives should be focused on service delivery to enhance investment attraction by achieving the following:

- Alignment to National and Provincial development programs
- Responding to situational changes

1.3.2. Objectives for the review of the current LED Strategy

The reviewed LED Strategy, used in conjunction with other municipal strategies should be focused to attain the strategic objectives of the Ba-Phalaborwa Municipality to:

- Capture and maximise implementation of planned economic initiatives and development needs within the Ba-Phalaborwa Municipal area,
- Create economic competitiveness on existing economic opportunities.
- Align the reviewed LED Strategy to the municipal IDP and its processes,
- Integrate the principles of the Development Charter and the Ba-Phalaborwa Spatial Development Framework.
- Serve as a strategic guideline to the realisation of the municipal integrated strategic objectives for the Ba-Phalaborwa Municipal area,
- Realise the potential economic development goals, encourage and retention of private sector investment, job creation, and sustainable livelihood.

The revised LED Strategy is expected to be used as a guiding too to supplement the following municipal strategic document:

- Spatial Development Framework
- Environmental Management Scheme
- Infrastructure Development Plan
- The Ba-Phalaborwa Development Charter
- The Ba-Phalaborwa Integrated Development Plan

1.4. Expected outcomes of the reviewed LED Strategy

The reviewed LED Strategy is expected to achieve the following outcomes:

- Outline strategic recommendations and interventions necessary to exploit on the municipal strengths and opportunities,
- To inject and create integrated and sustainable communities in Ba-Phalaborwa,
- To be used as a tool to guarantee devoted utilisation of available resources to promote local economic development in an integrated manner;
- Integrate and take into account the long-term vision for the economic development of Ba-Phalaborwa.
- Align the LED Strategy to the municipal IDP processes and processes,
- Align the LED Strategy to the Mopani District LED Strategy,
- Align the LED Strategy to the Limpopo Economic Growth and Development Plan 2009-2014,
- Align the LED Strategy to the National Development Plan (Vision 2030).

1.5. Key LED indicators to be achieved

The reviewed LED strategy should afford Ba-Phalaborwa Municipality with the following key economic indicators to achieve its competitive edge:

- Identify LED opportunities and programmes
- Develop and research business concepts, testing and prioritisation of niche opportunities
- Align the Ba-Phalaborwa municipal LED vision and goals to the District, Provincial and National objectives
- Indentify major economic projects for implementation for the coming 30 years
- Stream line implementation of economic programs in cycles of five years, based on the overall development plan for Ba-Phalaborwa

1.6. The 2007 LED Status quo report

The past economic trends and the current economic situation in Ba-Phalaborwa does not portray good prospects as long as plans for the economy diversification are finalised and implemented as a matter of priority. The economic situation will not improve consistently to become competitive, unless drastic strategies are adopted to accelerate job creation, economic growth, diversification of the economy, upgrading and maintenance of economic infrastructure, conservation of the

environment, a structured property development plan, strict implementation and adherence to the provisions of the Ba-Phalaborwa Land Use Management Scheme and poverty reduction.

The following key strategic areas in the current LED Strategy and need to be up-dated:

1.6.1. Vision, Mission and Slogan

The current LED Strategy states the following that must be reviewed:

- **Vision**
  - "Growing the economy and creating employment through wildlife tourism"
- **Mission:**
  - To ensure financial viability and sound governance for investor attractiveness
  - To render all stakeholders with quality and affordable services for enhancing a safe and better life for all
  - To manage the environment for future sustainable economic growth.
- **Slogan**
  - 'Ba-Phalaborwa – the Jewel of wildlife tourism"

1.6.2. Statistical information and data

- Most of the data indicated in the old LED Strategy is outdated and need to be updated

1.6.3. Economic data, production and indicators

- The economic data, production statistics, and indicators in the current LED Strategy are outdated; as such need to be updated.

1.6.4. Update on key economic sectors in the Ba-Phalaborwa Municipal area

- There is a need to update data on income distribution estimates, economic impact per cluster, employment data, Gross Domestic Product data per cluster,

1.6.5. Highlights on key LED implementation, challenges and successes

1.6.5.1. Infrastructure: Water

Ba-Phalaborwa has been identified as a water scarce area, with a need to develop additional infrastructure to augment future economic developments. The following challenges were identified for mitigation:

- The actual consumption of water in the Nondweni/Selwane area is much lower than what the calculated demand is with sufficient supply capacity, indicating a potential lack of an adequate capacity management system ,
- A portion of the water distribution pipelines are old (35 years and older) and in need of refurbishment,
- The water supply to Phalaborwa town is at full capacity,

- Makhushane, Maseke and Mashishimale are experiencing water pressure problems,
- Water usage in those communities fed by municipal reservoirs are not being monitored,
- Water distribution is unbalanced due to the over consumption in un-metered areas and system capacity,
- Over consumption is estimated to be about 10 Ml/d which translates to a loss of income of about R 30,000 per day,
- Non-payment for water services leads to a loss of about 5Ml/d which translates to R15,000 per day,
- Both Mopani DM and Ba-Phalaborwa LM are responsible for water supply in the area. This is causing some conflicts and lack of co-ordination between the two institutions resulting in service delivery being insufficient

1.6.5.2. Sewage

A large portion of Ba-Phalaborwa is recorded as being provided with adequate sewer services. A project on the upgrading of the Waste Water Treatment Works identified the following key challenges that need to be addressed:

- Some of the sewage pipelines are very old (dating back to the 1950's) and need to be replaced in the near future,
- Sanitation status in the traditional settlements around Namakgale and Lulekani need to be maintained.
- Sewage works at Phalaborwa town are severely over used , but the Namakgale and Lulekani works have substantial spare capacity,
- Overflow of sewerage at both the various plants as well as man holes is common with contamination of storm water drains and therefore streams and rivers in the area.
- Very bad odours from spills and blockages are having an adverse effect of the quality of life in the affected areas and are unhealthy

1.6.5.3. Roads

Ba-Phalaborwa has 315km of primary roads and 215km of secondary roads. Major roads into Ba-Phalaborwa are old and need to be refurbished. The current status of the roads and internal streets in the municipal area need to be re-assessed and are in the process of decaying.

1.6.5.4. Electricity

Ba-Phalaborwa has limited data to define the quality of supply at points in the electrical networks with statistically valid certainty. The current electricity reserve in the Phalaborwa town area is very small with the identification of over-usage during peak periods providing a systems overload scenario. The FOSKOR substation is strategically pivotal and is important for Phalaborwa town. There is potential that if power supply is lost from the sub-station, the voltage levels would decline with

dire consequences to the Phalaborwa town due to big load and long lines resulting in unstable power supply. There is no reserve energy available in the network feeding the Phalaborwa town area. An update on the 275kV initiatives undertaken between 2007 to date is necessary. An update on the refurbishment of the internal reticulation in Phalaborwa town is also necessary to re-new the 40 years old power supply infrastructure.

In order to improve the efficiency of the maintenance processes and to understand the whole electrical network, Ba-Phalaborwa has decided to appoint consulting engineers in the 2013 financial year to assist with the assessment of the existing infrastructure and draft an electricity master plan. The master plan is aimed at helping the Municipality to understand the condition of their existing assets and enable the Municipality to better plan for the servicing and preventative maintenance of their assets.

1.6.5.5. Solid waste

The waste site for solid waste in Ba-Phalaborwa has reached its full capacity. An attempt to secure a new site has failed. An update on plans to be adopted to finalise the solid waste site is necessary.

1.6.5.6. Airport

The Gateway airport is operated by Air Link. There were attempts to sell the airport to the Ba-Phalaborwa Municipality to the tune of R45m. However, pre-feasibility studies indicated that it was not a viable option. There is a need to look at other options to add value to surrounding lands to the airport, with the possibility of earmarking it for future airlift tourism and hospitality hub.

1.6.5.7. Railway Line

The Phalaborwa-Richards Bay rail route transports close to 8 million tons of freight. There is a need to update the utilisation of the railway line by the mining and other related industries within Ba-Phalaborwa. Other rail based tourism options should be researched for future development. There is currently an agreement with rail authorities and PMC for the transport of magnetite which is delivered by road to the Mica Station by a small percentage of the available trucks

1.6.5.8. Physical Environment

The overall functionality and future development in Ba-Phalaborwa is dependent and linked to the quality and quantity of available water and the provision of basic infrastructure such as roads, sewerage and electricity supply, inputs and an update on the effect of mining, environmental

concerns of all types, Mean Annual Precipitation (MAP), prolonged drought, deforestation, unplanned residential developments and periodic floods is necessary.

1.6.5.9. Air quality, sensitive inhabitants, conservation areas and Bio-Diversity

The air quality in Ba-Phalaborwa is generally good. The general mining activities and their impact on the air quality need to be re-assessed and documented with greenhouse gas emissions mitigating programmes adopted. The air pollution monitoring is a District/Provincial function.

1.6.5.10. Environmental pressures

The LED Strategy identified several environmental pressures that needed urgent attention. An update on the following identified environmental pressures is essential:

- State of the environment,
- Changes in land use,
- Deforestation,
- Alien eradication,
- Water quality and quantity,
- Air Quality,
- Waste sites,
- Safety concerns (HAZMAT),
- Phalaborwa Airport,
- Bush fires,
- Cemeteries,
- Environmental management,
- Tourism resources.
- Ignorance or abuse of legislation esp. by Tribal Authorities

1.6.5.11. Institutional capacity

A synopsis on the Municipal institutional capacity was highlighted. Ba-Phalaborwa Municipality has experienced a lot of staff turnover since 2007. There is a need to have an assessment and an update on the current capacity of Ba-Phalaborwa Municipality based on its departmental functions to achieve its long term 2020 strategic intent. A dedicated environmental official/s within the planning sector to co-ordinate actions and responses has become a vital requirement

1.6.5.12. Strategic Municipal Stakeholders

The Municipality identified important stakeholders, a recap on the functionality of existing stakeholder forums on issues related to development is necessary.

1.6.5.13. Scenario projections

The LED Strategy highlighted that Ba-Phalaborwa is expected to experience the following scenarios based on the 2007 indications and projections:

1.6.5.14. Employment

- 40% unemployment rate with possible increase to 53% by 2017,
- A total fall of employment from 36,600 in 2007 to 28,600 in 2017,
- 2500 jobs expected to be lost in the local economy,
- 80% probability of copper mining activities dropping considerably from 2015 onwards,
- Continuation of copper smelting with imported iron ore,
- Continuation of Vermiculite mining,
- Continued growth of the labour force projected to be 67,000 persons by 2017, however 30% of the force expected to lose their jobs (with outmigration of close to 1,500 people),
- 20% probability of deepening the existing copper mining shaft to continue mining activities until 2017,
- The need to implement development interventions to absorb the expected job losses that would total around 2,500,
- The need to reduce unemployment by half from 40% to 20% in 2015.

1.6.5.15. Infrastructure

Without the necessary interventions regarding infrastructure management and development, it is foreseen that:

- The effective management of infrastructure will remain under strain due to lack of capacity within the Ba-Phalaborwa LM and Mopani DM,
- Water supply in Phalaborwa and surrounding areas will not be sufficient to meet demand and will constrain development in the municipal area,
- Electricity supply will become unstable in the short term,
- Road conditions are bad and worsening,
- The current waste site is illegal. To meet legislation a new site needs to be developed,
- Sanitation conditions in the rural areas will become an increasing health risk.

1.6.5.16. Spatial trends

- Distorted spatial pattern continuing with outward growth of the peripheral areas

- Protracted land claims, causing uncertainty and further reduction in investment in the productive capacity of land
- Ad hoc unattractive development along the major connecting roads such as R71 and R40 to Phalaborwa town creating a link with the Kruger National Park,
- Undermining of development plans within the linear development areas next to the highly valued corridors (R71 and R40),
- Hap-hazard unplanned development in the smaller rural settlements along the major roads,
- Commercial and communal farming destroying large parts of the already overgrazed farming areas,
- Inadequate housing provision, leading to sprawling and mushrooming of informal settlements,
- Redevelopment and densification within Phalaborwa town has been left in the hands of private developers,
- Lost opportunities to participate in and re-direct the spatial imbalances,
- Continued development of residential housing in the industrial area under the guise that it represents site supervisory housing making it difficult to reverse,
- New landfill site developed in the centre of the area earmarked for integrated growth, thereby limiting the potential for creating an integrated urban environment,
- Degradation of open spaces due to uncontrolled urban farming practices and erosion.

1.6.5.17. State of the environment

The report is over 5 years old and must be reviewed to ensure correct information and assist with the provision of Environmental Management plans and Framework. However, it covers the following:

- Changes in land use: If current land use patterns are maintained, it is likely that significant tracts of natural areas will be lost, large areas of communal and formal grazing area will become overgrazed and over-utilized.
- Deforestation: Linked to changes in land use, with clearing of vegetation associated with opening of areas for settling, livestock grazing, and harvesting of wood for fuel (cooking).
- Alien eradication: The impact of alien infestation in the Municipal area is relatively low, however, the biggest impact is associated with infestation along watercourses in the municipal area occurring at a very rapid rate if no controls are instituted. This is however a function of the Provincial and National Departments responsible for the Rivers and Dams
- Water quality and quantity: The main pressures on water resources within Ba-Phalaborwa are linked to siltation in rivers occurring as a result of erosion, mining activities, and encroachment of alien vegetation, poor management of sanitation facilities, construction of infrastructure or facilities within watercourses, uncontrolled abstraction for agricultural activities within the municipal area, pollution by poisons, phosphates and fertilizers (leaching).

- Waste sites: Four waste sites have been utilised in the past in Ba-Phalaborwa (Gravelotte, Namakgale, Lulekane and Phalaborwa). Only the Phalaborwa waste site is currently operating, and has already exceeded its operational lifespan. Land claims have led to the suspension of the establishment of a new waste site pending the outcome of the land claim for the proposed site.
- Safety concerns (HAZMAT): There is no indication of the capability of the EMS in responding to, containing, and cleaning a HAZMAT spill. Both PMC and FOSKOR do however have fully operational HAZMAT units and are willing to assist.
- Cemeteries: Cemeteries located in Ba-Phalaborwa generally constitute a significant health and environmental risk as these are established in low lying areas adjacent to water courses. There are currently 42 Tribal owned and run cemeteries that must be monitored and assistance with upgrading provided as a matter of urgency.
- Environmental management: At present, environmental management within Ba-Phalaborwa is restricted to parks and recreation, waste site management and waste water treatment works management. As previously stated a dedicated official responsible for co-ordinating all environmental matters is an urgent operational and strategic requirement, and should be placed within the strategic unit.

1.7. The 2012-2017 LED Review Process Plan

A process plan was developed to review the existing LED Strategy. The process plan was work-shopped to the municipal internal task teams and departments. The process plan was further public parted with external stakeholders.

The review process of the existing LED Strategy for Ba-Phalaborwa is expected to be an integrated process that is transparent and inclusive. The process should be aligned to the provisions of Chapter 4 of the Municipal Systems Act, Act 32 of 2000, that requires municipalities to integrate planning "...***towards the social and economic upliftment of local communities, and ensure universal access to essential services that are affordable to all...***" and for further "...***development of a culture of community participation... and (16.(1) develop a culture of municipal governance that complements formal representative government with a system of participatory governance***".

The Ba-Phalaborwa Municipality shall review its LED Strategy internally using the available hired Human Resource Capacity led by Director Economic Development, Human Settlements and Spatial Planning.

1.7.1. Content of the LED Strategy Review Process Plan

The following Process Plan outlines processes to be followed and customised for internal and external stakeholder engagements:

1.7.2. Stages and Activities of the LED Strategy review Processes

Table 1: The stages and activities followed in the review process of the LED Strategy for Ba-Phalaborwa Municipality.

Internal Stakeholders and activities	
Stakeholders	**Activities**
Planning and Development Departmental Task Team (LED, Tourism & IDP Managers)	○ An operational team responsible for the development of the LED Strategy Review Framework, ○ Draft and implement the LED Review Process Plan, ○ Draft an LED Framework and recommend to Econ. & Infrastructure Development Task Team ○ Drafts and reviews the LED Strategy and make a presentation to the Economic & Infrastructure Development Task Team ○ Consolidate inputs
Economic & Infrastructure Development Task Team; Assistant Directors: Comprising of the LED, Tourism, IDP Managers, **Representatives from**:	○ Probes the work done by the Planning & Development Departmental Task Team on the review of the LED Strategies, ○ Make recommendations to Management,

Town Planning & Land Use, Budget & Treasury: Supply Chain, Technical Services: Roads, Electricity, Water & Sanitation & Community Services (Waste Management) MM: Risk Manager	
Management: All Directors	○ Make inputs, adopt the reviewed draft LED Strategy, and make recommendations to the Department.
Department: Planning & Development	○ Recommend the draft reviewed LED Strategy to EXCO
Ad Hoc Committee: Councillors	○ Make inputs, adopt the reviewed draft LED Strategy.
Strategic Stakeholders Forum: Rep Forum, KNP, LTA, LEDET, Local Mines, COGHSTA, Accommodation Association, Palabora Foundation, Traditional Authorities, LEDA, SEDA, Sector Departments, Mopani District, Hawkers Associations, Business Associations	○ Comment and ratify the reviewed draft LED Strategy
Advisory Board	○ Comment and make inputs for inclusion in the reviewed draft LED Strategy
EXCO	○ Recommend the reviewed draft LED Strategy to Council, the

	Advisory Board, and Strategic Stakeholder Forum.
Council	○ Adopt the reviewed LED Strategy

Table 2: LED strategy review process and Implementation Plan

1. LED STRATEGY REVIEW PROCESS AND IMPLEMENTATION PLAN FOR 2012/2013				
Period	**Activity**	**Activity Description**	**Output**	**Stakeholders**
23-31/07/2012	Planning & Preparatory Phase	Develop framework and process plan for the review of the LED Strategy	Draft Process Plan, Outline and Legislative Framework	Departmental Task Team
02/08/2012	LED Process Plan & Strategy Outline	Presentation of the Process Plan and Strategy Outline to the **Planning and Development Departmental Task Team**	Process Plan and Strategy Outline	Planning and Development Task Team
06/08/2012	LED Process Plan & Strategy Outline	Presentation of the Process Plan and Strategy outline to the **EDHSSP Departmental** meeting	Recommendations on the LED Process Plan & Strategy outline	EDHSSP Departmental staff
15/08/2012	LED Process Plan & Strategy Outline	Presentation of the Process Plan and Strategy Outline to the **Economic Development and Infrastructure Task Team**	Process Plan and Strategy Outline	Economic Development & Infrastructure Development Task Team
06/09/2012	LED Process Plan &	Presentation of the	Recommendations on the LED	Management

	Strategy Outline	Process Plan and Strategy outline to **Management**	Process Plan & Strategy outline	
12/09/2012	LED Process Plan & Strategy Outline	Presentation of the Process Plan and Strategy Outline to the **Portfolio Committee**	Recommendations on the LED Process Plan & Strategy outline	Portfolio Committee members
19/09/2012	LED Process Plan & Strategy Outline	Presentation of the Process Plan and Strategy Outline to the **Advisory Board**	Recommendations and inputs on the Process Plan and Strategy Outline	Advisory Board
26/09/2012	LED Process Plan & Strategy Outline	Presentation of the Process Plan and Strategy Outline to **EXCO and Council**	Adoption of the Process Plan and Strategy Outline	EXCO and Council
26/03/2013	Chapter 1-8	Presentation of Chapters 1-8 to the **Planning and Development Task Team**	Chapters 1-8	Planning and Development Task Team
05/04/2013	Chapter 1-8	Presentation Chapters 1-8 to **EDHSSP Departmental staff**	Chapter 1-8	EDHSSP Departmental staff
05/04/2013	Chapter 1-8	Presentation of Chapters 1-8 to the **Economic**	Chapter 1-8	Economic Development & Infrastructure Development Task Team

		Development & Infrastructure Development Task Team		
08/04/2013	Chapter 1-8	Presentation of Chapter 1-8 to **Management**	Chapter 1-8	Management
15/04/2013	Chapter 1-8	Presentation of Chapters 1-8 to the **Portfolio Committee** members	Chapter 1-8	Portfolio Committee members
23/04/2013	Chapter 1-8	Presentation of Chapter 1-8 to the **Advisory Board**	Chapter 1-8	Advisory Board
29/05/2013	Chapter 1-8	Presentation of Chapters 1-8 to **EXCO and Council**	Chapter 1-8	EXCO and Council

1.8. Conclusion

The review process followed in the development of the Ba-Phalaborwa LED Strategy is a necessary opportunity for stakeholders, communities, business representatives and SMMEs within the municipal area to make inputs in the document and own up on issues recommended for the economic development of Ba-Phalaborwa. The process is aimed at allowing identified stakeholders to participate in the reviewing process of the current Ba-Phalaborwa Municipal LED Strategy. The long-term developmental goal of the reviewed strategy is expected to be consistent with the vision and mission statements of the municipality, Mopani District, Limpopo Provincial LEGDP, the National Development Plan and the New Growth Path.

CHAPTER 2

2. LEGISLATIVE FRAMEWORK ON LOCAL ECONOMIC DEVELOPMENT IN SOUTH AFRICA

2.1. Introduction

Local economic development and the drafting of the Ba-Phalaborwa municipal LED strategy is guided by the principles and objectives of the National Development Plan, the New Growth Path, the National Spatial Development Perspective (NSDP), the Limpopo Employment and Growth Development Plan (LEGDP), the Mopani District Local Economic Development Strategy, recommendations of the District Growth and development Summit, the Municipal IDP and the Development Charter for Ba-Phalaborwa.

2.2. Key Legislative framework on Local Economic Development

2.2.1. Constitution of the Republic of South Africa

The legislative framework on Local Economic Development is based on the provisions of the Constitution of the Republic of South Africa that afford all citizens the right to basic services (such as electricity, water and sanitation). Sections 152 (c) and 153 (a) of the Constitution states that, local government must promote social and economic development, structure and manage its administration, budgeting and planning processes to give priority to the basic needs of the community, and to promote the social and economic development of the community.

2.2.2. The National Spatial Development Perspective

The National Spatial Development Perspective (NSDP) makes provision for future development of the national space economy and recommends optimum alignment between infrastructure investment and development programmes within localities.

2.2.3. The New Growth Path

The New Growth Path is aimed at:

- Targeting limited capital and capacity at activities that can assist in maximising the creation of decent work opportunities,
- Deepening and widening domestic and regional market for South African goods and services,
- The growth of employment, incomes, equality, and income distribution.
- Widens the market for South African goods and services.
- Focus on using the macro and micro economic policies to create a favourable overall environment and support more labour absorbing activities.

2.2.4. The National Development Plan (Vision 2030)

The National Development Plan (2011, p.1) presents a long-term Vision Statement of charting a new growth path for South Africa, stating that by 2030, the country should have eliminated poverty and reduced inequality by:

- Creating jobs and improving livelihoods,
- Reduce poverty , and inequality,
- Expand economic infrastructure,
- Transit to a low carbon economy,
- Create an inclusive and integrated rural economy,
- Improved quality of education,
- Provide training and encourage innovation,
- Provide quality health care,
- Build a capable state,
- Fight corruption,
- Enhance accountability,
- Transforming society,
- Uniting the nation, and
- Provide adequate social protection.

The NDP further highlights the following broad pillars:

- Creation of 11 million jobs by 2030,
- Promotion of EPWP and CWP,
- Low cost of doing business,
- Provide low household costs,
- Match the unemployed to jobs,
- Provide tax subsidy to businesses,
- Reward setting up of new businesses,
- Increased value for money for tourists,

Expand infrastructure to improve:

- Heavy-haul rail corridor,
- Water resources development,
- Bulk water supply,
- Waste water management,

- Transport links,
- Upgrade on internet broadband.
- Promote low carbon economy
- Expanding of renewable energy,
- Waste recycling, energy efficient building and solar water heaters,
- Urban and rural space transformation,
- Upgrade informal settlements,
- Move jobs to townships,
- Security of tenure,
- Irrigation schemes for agricultural development,

In terms of the National Development Plan (Vision 2030), by 2030, government should encourage creation of partnerships with communities to establish a good platform for the provision of adequate social services, social security and develop people's capabilities in to eliminate poverty and reduced inequality. The country is expected to develop and build inclusive societies and make the economy to create more sustainable jobs.

2.2.5. The National Strategy for Sustainable Development

The National Strategy for Sustainable Development (NSSD) calls for the alignment of policies, institutions, and strategies for sustainable development. The strategy serves as a guideline to manage the HIV/AIDS epidemic, ensure safe and secure environments and integration of development plans.

2.2.6. The Industrial Action Plan

The Industrial Action Plan advocates for the following:

- To contribute to rural development,
- Promote agro-processing,
- Development of cultural industries,
- Promote tourism,
- Advance technology development,
- Promotion and development of the green economy,
- Adopt energy efficient goods and services,
- Encourage mineral beneficiation,
- Strengthen linkages,

- Integration of sector strategies,
- Synergise skills development plans,
- Diversification of economies,
- Raise production levels,
- Create decent work in agriculture, mining, construction and
- Commercialisation of public innovations.

2.2.7. The comprehensive Rural Development Programme Framework

The Comprehensive Rural Development Programme Framework is aimed at:

- Making government and private development initiatives effective in the response against poverty and food security,
- Maximisation of the use of natural resources to create vibrant, equitable and sustainable rural and urban communities,
- Improve standards of living and welfare,
- Integration of development and social cohesion through participatory approaches,
- Redistribute 30% of agricultural land,
- Creation of business opportunities,
- Agrarian transformation and improved land reform based on Section 25 (4) of the Constitution of the Republic of South Africa, 1996, (Act No, 108 of 1996) which identifies a three pronged land reform aimed at: tenure reform, restitution and land redistribution.

2.2.8. The White Paper on Local Government

The objectives of the White Paper on Local Government, 1998, are to:

- Allow local government to commit to working with citizens and groups within the community,
- To find sustainable ways to meet community's social, economic and material needs
- Improved quality of lives.

Municipalities are expected to be developmental in nature with the following interrelated characteristics:

- Maximising social development and economic growth,
- Champion integrating and coordination of developmental initiatives,
- Democratise development,

2.2.9. The LEGDP

The Provincial Growth and Development Strategies provides a more rigorous assessment with local knowledge by researching the necessary measures to:

- Maximise inclusive economic environment,
- Guarantee provision of basic services,
- Create sustainable economic activities,
- Build on long-term employment opportunities,
- Addressing the past and current social inequalities.

The Limpopo Employment, Growth and Development Plan 2009-2014 (LEGDP, p.6), serves as an economic framework for the provincial government, municipalities, private sector and all organs of civil society to meet service delivery targets aimed at improving living conditions in communities.

The long-term vision of the Limpopo Employment Growth and Development Plan 2009-2014 (LEGDP, p.36) is to:

- Transform all social and economic conditions.
- Achieve industrial development priorities in mining and mineral beneficiation,
- Enterprise and regional economic development,
- Encourage public infrastructure investment,
- Invest in water resource development
- Promote agriculture and rural development,
- Encourage education and skills development,
- Provide quality health care development,
- Provide quality safety and security services,
- Manage environmental and natural resources.
- Develop and encourage the creation of the green economy and green jobs,
- Improve corporate governance,
- Improve and promote ICT and innovation.

The identified key action programmes are meant to:

- Overcome poverty
- Build sustainable, successful, competitive and integrated economic regions,
- Enable rural regions to tap into the power of the new economic innovations,
- Consolidate the economy to support growth of the industrialized economy,

- Promote labour absorbing industrial sectors and
- Shape new geographic industrial production and distribution capacities.

2.2.10. The Limpopo Provincial Spatial Rationale

The strategy identified the following as important growth points relevant for Ba-Phalaborwa Municipal area:

- Phalaborwa town as one of the provincial growth points,
- Gravelotte and Namakgale as District growth points,
- Lulekani and Seloane as a municipal growth points.

2.2.11. Ba-Phalaborwa Development Charter

The Ba-Phalaborwa Development Charter was adopted in November 2010. The development Charter declares that Ba-Phalaborwa belongs to all its inhabitants. The charter has long-term pillars to be achieved founded on principles of:

- Democratic values,
- Social justice,
- Fundamental human rights,
- Improving the quality of life for all,
- United and democratic communities,
- Restitution and empowerment of the previously disadvantaged communities.

The Charter further states that Ba-Phalaborwa Municipality is charged with the responsibility for social and economic development as detailed in the Municipal Structures Systems Act for provision of sustainable services such as:

- Water,
- Sanitation,
- Electricity,
- Urban roads and
- Storm water.

2.2.12. Ba-Phalaborwa Spatial Development Framework

The Spatial and Economic Development Initiatives states that Ba-Phalaborwa is strategically well positioned within the International, Regional and Southern African context. Promotion of corridors within Ba-Phalaborwa is a priority. The following corridors exist in Ba-Phalaborwa:

- The R40 (Kruger to Canyons route) connecting Phalaborwa-Hoedspruit-Acornhoek-Hazyview-White River and Nelspruit ,
- R71 connecting Phalaborwa-Gravelotte-Tzaneen, Polokoane –Pretoria and Johannesburg
- The new Phalaborwa-Giyani road that qualifies to be called the "Ivory Route" connecting Phalaborwa-Giyani-Thohoyandou-Makhado-Messina-Zimbabwe,
- The Ivory Route that goes through the Letaba Ranch and
- The Bush to Beach route connecting Phalaborwa-Masingir-Xai-Xai tourism route.

2.2.13. Ba-Phalaborwa Integrated Development Plan

The 2013/2014 IDP identifies the strategic intent of the Ba-Phalaborwa Municipality as follows:

Vision:

"Best tourist destination in Limpopo by 2020."

The following **Slogan** brands Ba-Phalaborwa as the:

"The Home of Marula and Wildlife Tourism"

The 2013/2014 IDP document serves as the strategic guiding document to drive an integrated development framework for Ba-Phalaborwa based on the institutional arrangements that link private and public sector developmental plans consolidated into one IDP document.

2.2.14. The Ba-Phalaborwa LED Strategy

The current LED Strategy under review has identified strategic interventions proposals within the following main economic sectors:

- **Agriculture:**

It incorporates establishment and activities that are primarily engaged in game and domestic livestock, commercial hunting, game breeding and crop farming.

- **Mining:**

Includes the extracting, beneficiation of minerals, solids, liquids and crude petroleum and gases.

- **Manufacturing:**

Defined as the physical or chemical transformation of materials or compounds into new products with higher resale value.

- **Utilities:**

Includes electricity, gas, and water supply and gaseous fuels

- **Construction:**

Includes preparation, building of complete constructions or parts thereof, civil engineering, building installation and renting of construction or demolition equipments with operators.

- **Trade:**

Entails wholesale and commission trade, retail trade, repair of personal house goods, sales, maintenance and repair of motor vehicles and motorcycles, hotels, restaurants, bars, canteens, camping sites and any other short stay accommodation.

- **Transport, storage and communication:**

Refers to activities concerned with road, railway, pipelines, travel agencies, post, telecommunication, courier services, storage, warehousing and airlift transportation.

- **Financial and business services:**

Includes intermediation, pension funding, real estate activities, renting or transport equipment, computer related activities, research and development, legal, accounting, bookkeeping and auditing.

- **Social and community services:**

Includes public administration, defence, government, agencies, education, public and private health and social work, sewage, refuse removal and disposal, sanitation, recreational, cultural and sporting activities.

The requisite intervention from the LED Strategy recommended was as follows:

- Mining reclamation of waste dumps, and an extended copper mining and Ilmenite mining
- Tourism development
- Settlement of land claims
- Marula product manufacturing and beneficiation
- Housing and property development
- Support informal trading
- Upgrading of social infrastructure

2.2.15. Ba-Phalaborwa Township Regeneration Strategy

The strategy focus on the development and regeneration of Namakgale, Lulekani and Gravelotte, previously neglected by the apartheid separate development policies. The key components of the framework included:

- Seizing of economic opportunities,
- Social growth,
- External interventions,
- Internal interventions,
- Programme thrusts and areas of interventions,
- Priorities to areas of intervention.

2.3. Conclusion

It is the intension of Ba-Phalaborwa Municipality to align the reviewed LED Strategy to the provisions of the District, Provincial and National economic development plans. The implementation of the recommended development programs should be done in five years cycles monitored and evaluated on an annual basis as part of the 2020 Municipal Vision.

CHAPTER 3

3. SITUATIONAL ANALYSIS

3.1. Introduction

This section provides an analysis of the current situation in the Ba-Phalaborwa Municipal area. The chapter projects the geographic location of Ba-Phalaborwa within the South African context. The section outlines the methodology used and followed in the review of the Ba-Phalaborwa LED strategy, and clearly identifies the study area. The chapter clarifies the strategic role the municipality has to play in the facilitation, development, and promotion of Local Economic Development.

The review of the current LED Strategy for Ba-Phalaborwa is aimed at aligning processes to have developmental initiatives in Ba-Phalaborwa integrated through IDP processes. The chapter highlights the importance of integrating town planning, socio-economic aspects, transportation, road planning, and future private and public sustainable investment initiatives.

3.2. The Study Area

Ba-Phalaborwa Municipality is a Category B municipality established in terms of Section 155 of the Constitution, situated in the North-eastern part of South Africa in the Limpopo Province. It is one of the five local municipalities in the Mopani District. Ba-Phalaborwa serves as a convenient gateway to the Kruger National Park and the Greater Limpopo Trans-frontier Park through to the Mozambique Coast.

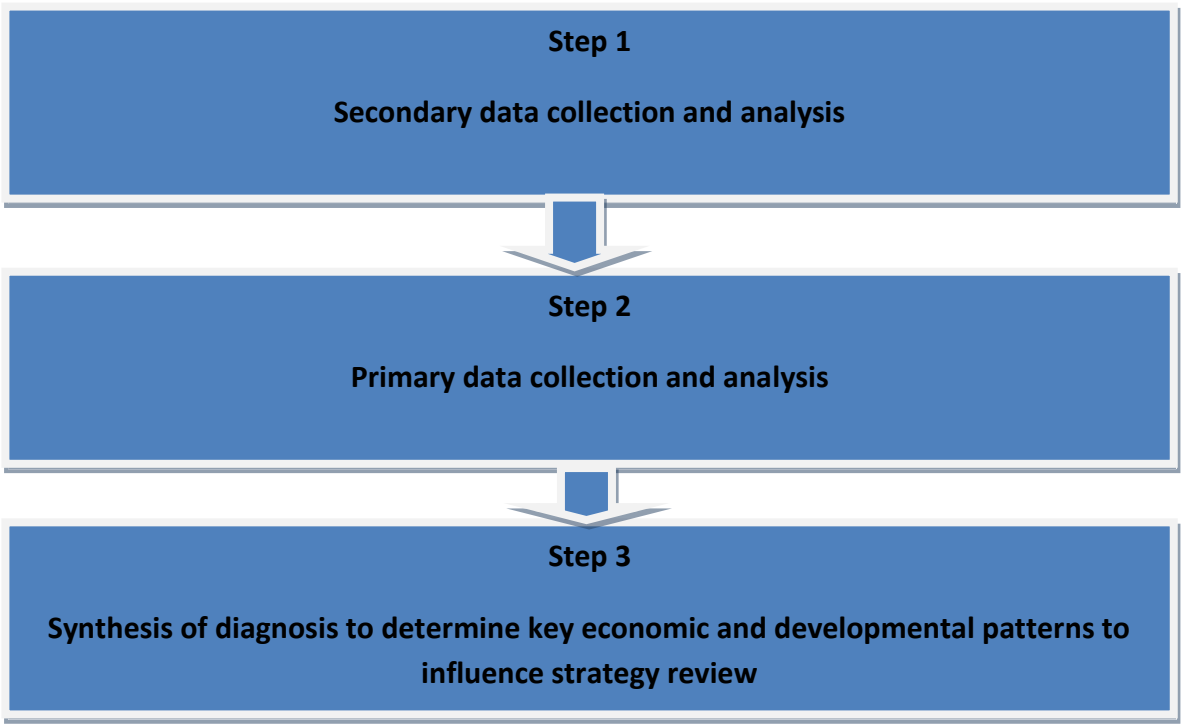
The municipality has a geographical area of 7461.6km^2, after the inclusion of the Kruger National Park as part of Ba-Phalaborwa in the 2011 demarcations. Ba-Phalaborwa is a largely rural intermediate capacity local Municipality, consisting of 23 villages and four towns (Gravelotte, Namakgale, Lulekani and Phalaborwa).

3.3. Methodology

The drafting and the review of the LED strategy for Ba-Phalaborwa followed a broader detailed consultative process. The established structures to probe the draft LED strategy comprised of internal and external stakeholders as in table 1 and 2 in Chapter 1. The following key LED structures and stakeholders are expected to be engaged in the review processes:

- Municipal officials (Ba-Phalaborwa Municipality),
- Political principals (EXCO and Council of the Ba-Phalaborwa Municipality),
- Advisory Board,
- Officials from Mopani District,
- Sector Departments (LEDET, Agriculture, DMR and COGHSTA),
- Business associations (Chamber of Business, Ba-Phalaborwa Business Forum and NAFCOC),
- Local Tourism Association,
- SANPARKS (Kruger National Park),
- SEDA and LEDA.

Qualitative and quantitative research methodologies were adopted to collect, analyse and interpret socio-economic for Ba-Phalaborwa data. Secondary and primary data sources were used to collect, analyse and interpret information as represented in the diagram below:



The remaining chapters of the reviewed LED strategy are as follows:

Chapter 3: Situational Analysis

The Chapter highlights on the methodology used on the economic analysis for Ba-Phalaborwa. The chapter outlines on the analysis of the socio-economic situation, spatial development, infrastructure development, the state of the environment and the institutional capacity of Ba-Phalaborwa Municipality.

Chapter 4: LED Strategic Plan

The chapter outlines the municipal economic SWOT analysis, developmental Vision and Mission for Ba-Phalaborwa and alternative economic strategies.

Chapter 5: Programs and Projects

The chapter outlines on the identification of major niche programs and projects with long-term goals and objectives and prioritised based on their strategic impact on the growth potential of the municipal area.

Chapter 6: Implementation Plan

The chapter sets out specific steps to be undertaken in order achieve the set goals and objectives for Ba-Phalaborwa as programmes and projects.

Chapter 7: Risk Assessment

The chapter outlines the economic risk profile for Ba-Phalaborwa with mitigating factors to offset the risks.

Chapter 8: Monitoring, Evaluation and Review

The chapter sets out key performance areas and indicators for each programme and projects with evaluation plan for the overall LED strategy

3.4. Analysing the Socio-economic situation in Ba-Phalaborwa

The 2012/2013, IDP states that the Ba-Phalaborwa Municipality is a Category B municipality established in terms of Section 155 of the Constitution. The municipality is situated in the North-eastern part of South Africa, in the Limpopo Province. It is one of the five local municipalities in the Mopani District. It serves as a convenient gateway to the Kruger National Park and the Greater Limpopo Trans-frontier Park into the Mozambican Coast through the Giriyondo border.

3.4.1. Geographic location

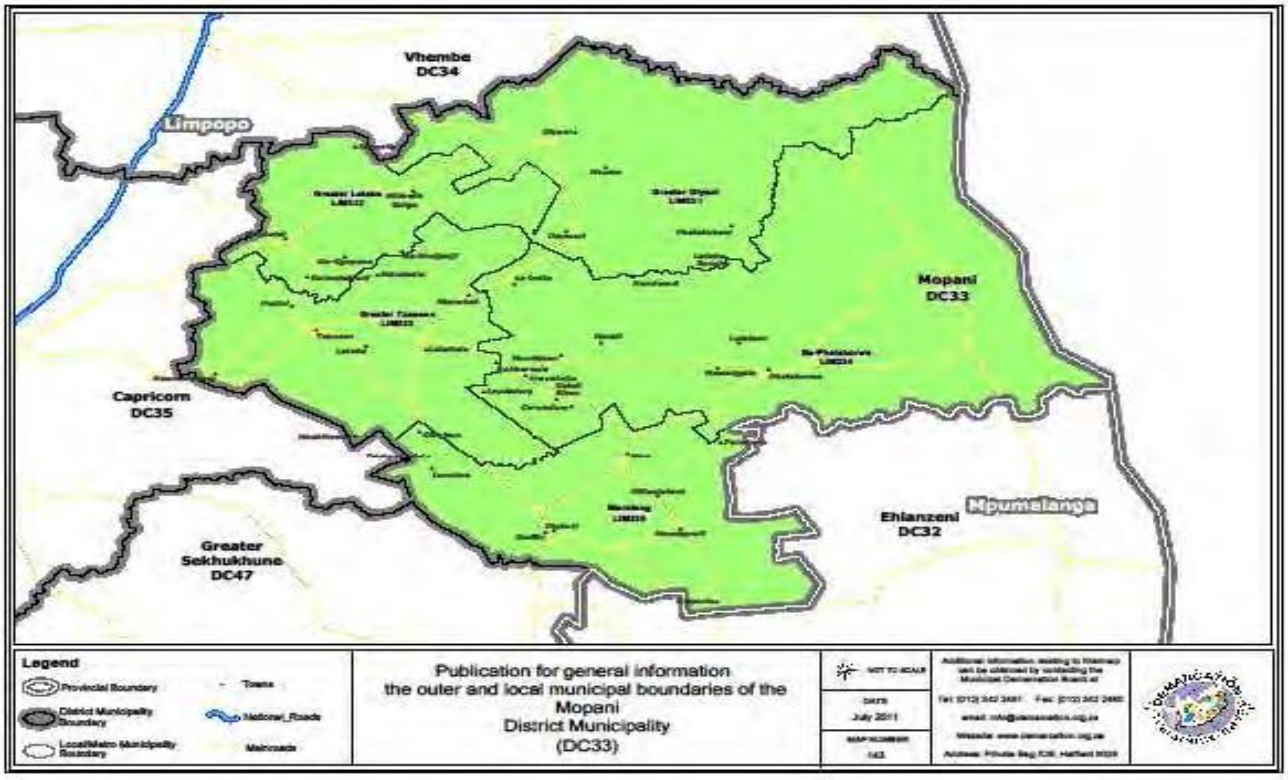
Map 1: The Republic of South Africa

Source: Ba-Phalaborwa (IDP, 2012-2013)

Map 2: Limpopo Province

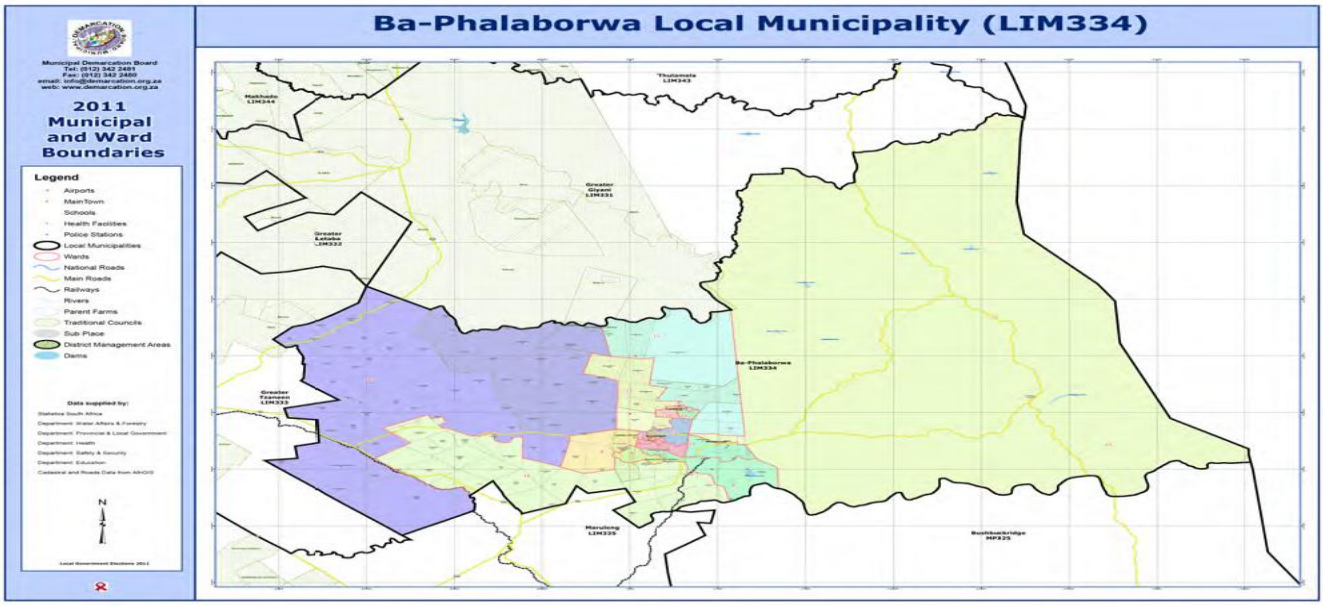
Source: Ba-Phalaborwa, IDP (2012-2013)

Map 3: Mopani District Municipality



Source: Ba-Phalaborwa, IDP (2012-2013)

Map 4: Ba-Phalaborwa Municipality



Source: Ba-Phalaborwa, IDP (2012-2013)

3.4.2. Demographic analysis

According to the 2011 Statistics South Africa Census, the total population in Ba-Phalaborwa is 150 637. More than 90% of this population live in the half circle to the west from Phalaborwa town. The table below represents the demographics of the municipality in terms of race and gender.

Table 3: Population statistics by groups

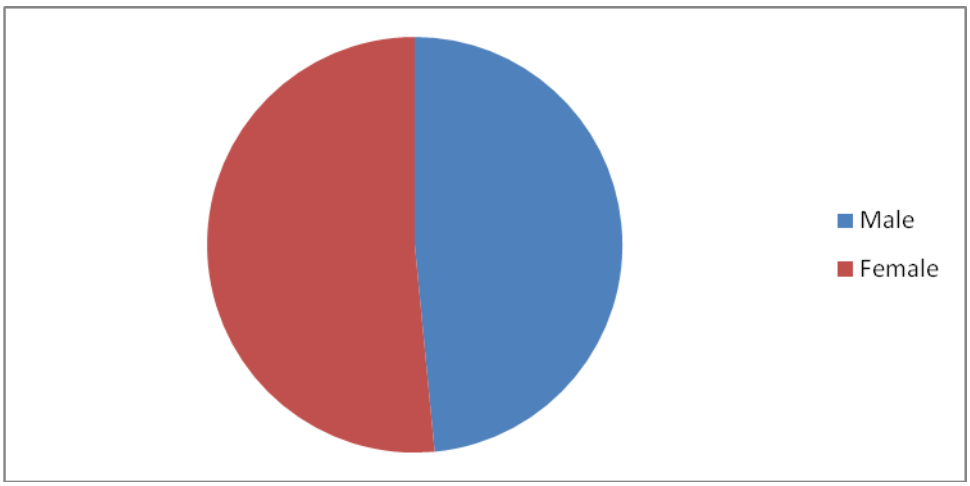
	Population Groups					
	Black	**White**	**Coloured**	**Asian**	**Other**	**Total**
Total population						150,637
Population per group	140,081	9,628	477	309	142	150,637
%	93.0%	6.4%	0.3%	0.2%	0.09%	100%
Male	67,642	4,871	229	180	94	73016
Female	72,439	4,757	247	129	48	77620
Total	140,081	9,628	477	309	142	150,637

Source: STATS SA Census (2011)

The increase in the number of households from 33,529 in 2001, to 41,115 in 2011 is remarkable, representing a growth rate of 22.6%. It is evident from the household growth that new people have

moved into the municipality, or alternatively, local people have moved out to build own houses as the need for new housing development in the municipal area grows.

Graph 1: % Males vs Females



The following scenario can be concluded from the population statistics that:

- The black population group forms the majority of the Ba-Phalaborwa Municipal population at 140,081 (93%) a decline from 94% in 2001,
- Comparatively whites make up 9,628 (6.4.%) of the population, an increase from 5% in 2001,
- Coloureds make up 477 (0.32%) a decline from 0.40% in 2001.
- The overall population has increased from 137,000 in 2001.
- Males make up 48.5%) of the Ba-Phalaborwa population, and 51.5% of females,

However, the population statistics and estimates from the Department of Water Affaires (DWA) for water services and planning purposes suggest a different population figure of 155,600 persons for Ba-Phalaborwa Local Municipality in 2011, comprising of 39, 500 households. The department estimate the average household size as 3.94 persons. The figure has been determined through the utilisation of aerial photographs, with a population growth of 1.8% per year.

Population increases in the rural areas has led to various socio-economic backlogs on the supply of basic services such as:

- Electricity,
- Housing needs,
- Roads,
- Access to water,
- Sanitation,
- Waste collection,
- Schools,
- Health facilities,
- Adequate sporting facilities etc.

Ba-Phalaborwa serves as an excellent model for population densification, with 94% of the municipal population residing in and around the Phalaborwa urban complex, within an average of 15kms radius from each other. The remaining 6% of the population resides in the Gravelotte and Seloane precincts. Namakgale and Lulekani have a combined population of 37,956 (25%), with Phalaborwa town accounting for 9.3% of the population, and the remainder (65.5%) made up of the rural population from Makhushane, Seloane, Majeje, Maseke, and Mashishimale. Unlike previously thought, Namakgale and Lulekani has less population dominant positions in terms of where the majority of residents are residing and located, With the concentration of the majority of people being in the rural areas, with the two areas (Namakgale and Lulekani) lagging behind on population densities.

Combined figures in urban and semi-urban areas comprising of Phalaborwa, Namakgale and Lulekani has 34.3% of the population.

The above analysis should serve as guidance of where intervention on economic development is needed most. However, the level of economic development intervention should not lead to the collapse of Phalaborwa as a major economic hub for Ba-Phalaborwa.

Furthermore, the 2012/2013 IDP (p.37) indicates that the majority of the population in Ba-Phalaborwa is aged between 15 and 34, suggesting that a socially and economically active population dominates Ba-Phalaborwa. This implying that in its strategy review, the municipality should prioritise provision of quality social amenities and health facilities within major growth points of Phalaborwa, Namakgale, Lulekani, Gravelotte and rural areas to mitigate the potential of the spread of sexually transmitted diseases, such as HIV/AIDS.

The 2012 /2013, IDP (p.38) identifies the following key issues about the population:

- Very young population (68.97% younger than 35)
- Employment creation should be prioritised to address economic need of the younger population
- There is a need to improve on social amenities to improve on the quality of life of the general population
- The municipal area is a high risk for sexually transmitted diseases

Figure 1: The population settlement distribution in Ba-Phalaborwa Urban-Peri Urban Complex

The demographics in the Ba-Phalaborwa Municipality reflect the concentration of people and economic activity in the Southeast, with major emphasis on mining.

Phalaborwa town is the economic hub for the Ba-Phalaborwa municipal area, with Namakgale beginning to develop into a second retail hub due to the development of a new shopping mall. Lulekani remains to have good potential to attract new economic initiatives.

Gravelotte has the potential to develop a new settlement area for Balepye, with major economic activities in mining, agriculture, livestock and game farming, infrastructure development and tourism.

The Consolidated Murchison antimony mine is also located outside Gravelotte in the western part of the municipality, with The EXXARRO mine planning to open mining operations in the Gravelotte area.

Settlement developments in the traditional areas around Namakgale and Lulekani remain a challenge with uncoordinated residential sites distributed without proper infrastructure such as roads, sewer, electricity and the necessary planned social amenities.

The rest of the municipality is dominated by game farming, nature conservation activities, and some intensive horticulture production in the north-western part of the municipal area, as an extension of the citrus farming from Letsitele, along the Letaba River.

Table 3: Population distribution by Ward:

Population Distribution per Ward: Ba-Phalaborwa Municipality, 2011		
Ward No	**# of Population**	**% Distribution**
1	12,635	8.4%
2	6,608	4.4%
3	6,437	4.3%
4	7,019	4.7%
5	6,272	4.2%
6	6,515	4.3%
7	6,002	4%
8	7,874	5.2%
9	7,002	4.6%
10	7,830	5.2%

11	5,700	3.8%
12	8,276	5.5%
13	8,769	5.8%
14	3,173	2.1%
15	8,975	6%
16	13,052	8.7%
17	16,174	10.7%
18	12,326	8.2%
TOTAL A	**150,637**	

Source: Stats SA, 2011

The data above indicates that the most populous Ward is Ward 17 (10.7%), followed by Wards 16, 1 and 18 with population above 8% respectively. The least populated Ward is Ward 14 with a population of 2.1%.

Table 4: Population distribution by age 2011

Population distribution by age 2011		
Age group in years	**Number**	**%**
0-15	52,513	34.9%
16-35	55,689	37.%
36-60	33,931	22.5%
61-100	8,472	5.6%
TOTAL	150,605	100%

Source: Stats SA, 2011

The age groups from 0-15 years, make up 34.9% of the population, and the 16-35 years age group are dominantly making up to 37% of the population, followed by the 36-60 age groups 22.5%. The combined population age groups from 16-60, make up 59.5% of the population, presenting huge pressure to supply schools and jobs. The data shows that elderly people older than 60 have increased from 5.3% to 5.6%, with subsequent pressure on the need to provide adequate health care, old age home and accommodation facilities for the aged.

3.4.3. Education profile for Ba-Phalaborwa Municipality

Table 5: Education profile: Ba-Phalaborwa

Population profile, 2011		
Grade	**Number**	**%**
0	5,270	3.5%
1	4,580	3%
2	4,506	3%
3	5,015	3.3%
4	5,109	3.4%
5	5,326	3.5%
6	5,424	3.6%
7	6,332	4.2%
8	9,589	6.4%
9	8,877	5.9%
10	10,872	7.2%
11	10,298	6.8%
12	20,399	13.5%
FET education	4,900	3.3%
Certificate with less than Grade 12	262	0.2%
Diploma with less than Grade 12	213	0.1%
Certificate with Grade 12	1,703	1.1%
Diploma with Grade 12	1,912	1.3%
Higher Diploma	1,407	0.9%
Post Higher Diploma	213	0.1%
Bachelors & Honours Degree	1,812	1.2%
Masters/PhD	236	0.2%

Population profile, 2011		
Grade	**Number**	**%**
No schooling	13,340	8.9%
TOTAL	127,596	100%

Data on education indicates that, 8.9% of people in Ba-Phalaborwa have no schooling at all. 53.8% of the population has attained the Grades 0-11 education, with 13.5% having passed Grade 12. Close to 7% of the population have attained post high school certification or diploma with or without Grade 12. Only 1.2% of the population has attained Bachelors & Honours degree education with 0.2% attaining Masters/PhD education.

Table 6: Economic Active Population

% Economic Active Population by industry				
Industry	**Black**	**Coloured**	**White**	**Total**
Agriculture, forestry and fishing	2.4	0.0	4.1	3.3
Mining and quarry	14.6	0.0	17.7	16.2
Manufacturing	6.8	0.0	11.4	9.1
Electricity, gas and water supply	2.0	0.0	3.8	2.9
Construction	4.9	0.0	7.7	6.3
Wholesale and retail trade	13.2	0.0	4.1	8.7
Transport, storage and communications	5.1	0.0	5.6	5.4
Financial, insurance, real estate and business service	6.2	0.0	1.8	4.0
Community, social and personal services	16.8	0.0	19.7	18.3
Other and not adequately defined	14	0.0	8.0	11.0
Unspecified	8.3	0.0	11.0	9.7
Institution	5.8	7.0	2.7	5.1
Total				**100**

Source: Stats SA, 2011

Community, social and personal services hires 18% of the economically active population, mining (16%), and trade (8.7%) are the most dominant sectors within the municipal area.

3.4.4. Socio-economic analysis

Ba-Phalaborwa Municipality displays typical characteristics of the apartheid spatial development with a well-developed economic hub represented by Phalaborwa that has good economic infrastructure in place compared to the previously neglected areas such as Namakgale and Lulekani surrounded by rural domains. Phalaborwa town accommodates 9.3% of the population in the urban complex. Namakgale and Lulekani accommodate 25% of the population with the remaining 65% living in the rural and the five traditional settlements.

Table 7: Labour force

Official Employment Status 2011		
Status	**Number**	**%**
Employed	33,959	22.5%
Unemployed	20,282	13.5%
Discouraged work seekers	4,087	2.7%
Other not economically active	36,897	24.5%
Not applicable	55,412	36.8%
TOTAL	**150,637**	**100%**

Source: Stats SA, 2011

The labour force in Ba-Phalaborwa has increased from 51,510 in 2001 to 95,225 in 2011. The economically active population stands at 36,897 (24.5% of the population). This indicates that Ba-Phalaborwa remains the most attractive destination for labour migration; however, there is an increased pressure for the creation of more jobs, improved health care, educational, social facilities and safety services.

The 2011 Statistics Census indicates that the total number of unemployment people in Ba-Phalaborwa is currently at 20,282 (13% of the population and the workforce). There is a high percentage (36.8%) of the labour force whose economic activities cannot be accounted for or defined, and registered as “not applicable” by Stats SA.

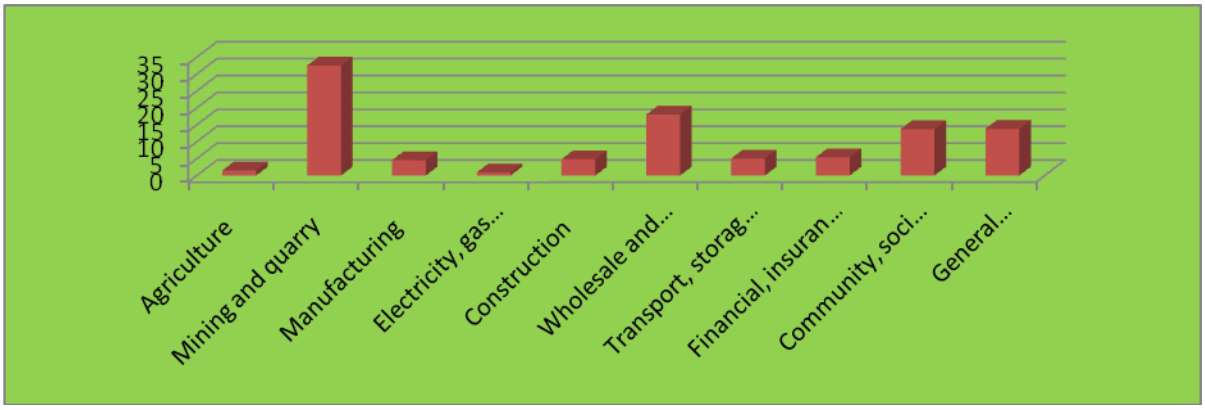
The 2012/2013 IDP indicates that by 2015, the labour force will be around 71 694 persons, implying that initiatives to reduce unemployment requires the creation of 57,212 job opportunities. Between 2007 and 2015, 26 500 new jobs should be created, with an annual creation of 3 785 jobs per year.

Table 8: Employment by Industry

	Employment by sector (2008-2010)				
Industry	**2001**	**2008**	**2009**	**2010**	**2010 %**
Agriculture	3,262	709	498	500	1.5
Mining and quarry	5,999	11 364	10 028	11 127	32.5
Manufacturing	2,533	1 815	1 561	1 549	4.5
Electricity, gas and water supply	330	308	339	299	0.9
Construction	1,675	1 987	1 992	1 640	4.8
Wholesale and retail trade	3,371	6 782	6 483	6 153	18.0
Transport, storage and communications	715	1 521	1 670	1 718	5.0
Financial, insurance, real estate and business service	1,673	2 274	2 094	1 850	5.4
Community, social and personal services	5,731	4 284	4 228	4 702	13.7
General government	-	5 457	5 584	4 734	13.8
Total	25,289	36 500	34 478	34 270	100

Source: Quantec Regional Economic Database

Graph 3: Employment by industry (2008-2010)



3.4.5. Income Distribution

Table 9: Income Distribution

Income Distribution by Category		
Category	**2011 Stats SA**	**% of population**
No income	63,891	42.4%
R1-R400	36,572	24.3%
R401-R800	5,232	3.5%
R801-R1 600	14,672	9,7%
R1 601-R3 200	6,632	4.4%
R3 201- R6 400	5,268	3.5%
R6 401- R12 800	5,375	3.6%
R12 801- R25 600	3,746	2.5%
R25 601- R51 200	920	0.6%
R51 201-R102 400	177	0.1%
R102 401- R204 800	64	0.04%
R204 801 or more	78	0.05%
Responses not given	4,612	3.1%
Not applicable	3,399	2.3%
Total	**150,637**	**100%**

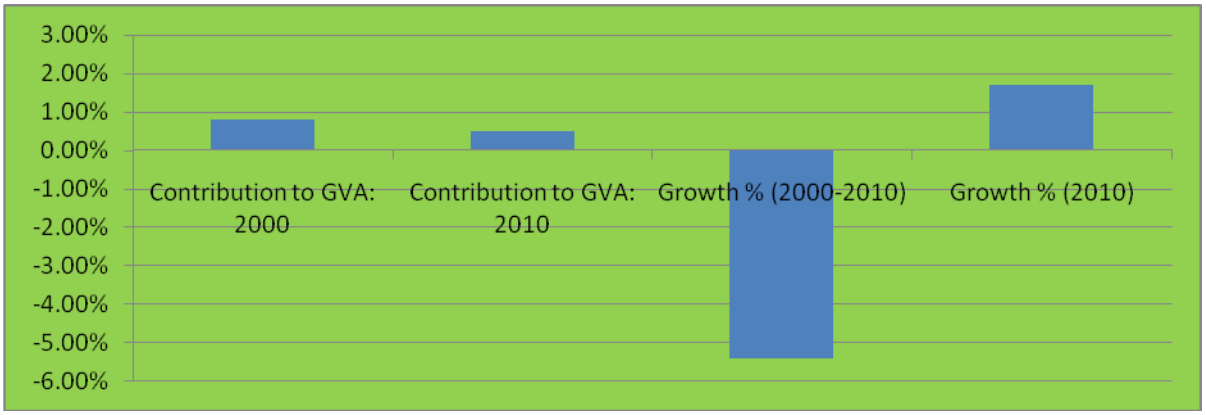
Source: 2011, Stats SA

The 2011 Stats SA Census indicates that 42.4% of people in the Ba-Phalaborwa Municipality have no income at all. Analysis of the information on income distribution indicates that the majority of the population (87.8%) earn less than R6400 of income based on the 2011 Stats SA data.

3.4.6. Economic Sectoral analysis for Ba-Phalaborwa

3.4.6.1. Agriculture

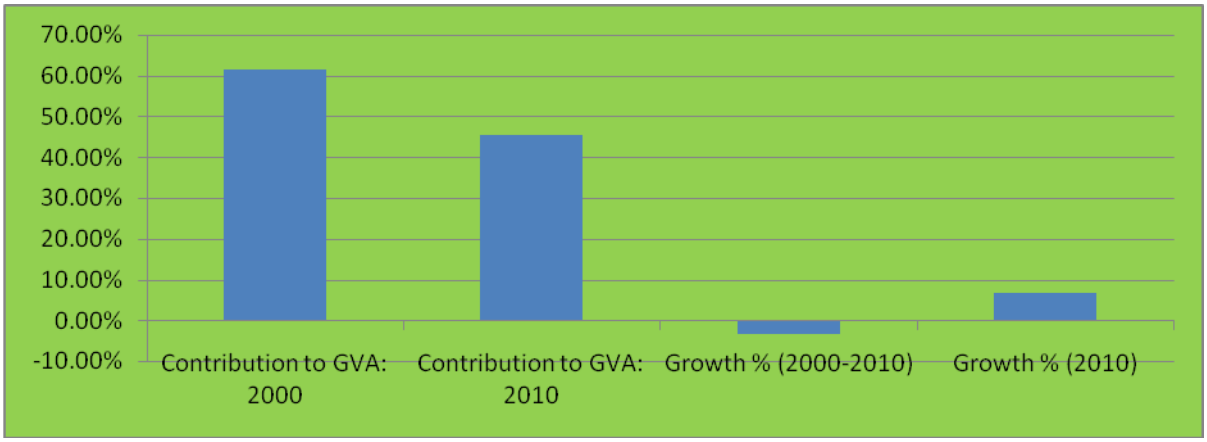
Graph 4: Economic Sectoral analysis: Agriculture (2000-2010)



The sector had an average growth rate of -5.4% with steady decrease of the sector's contribution to the municipal GVA.

3.4.6.2. Mining

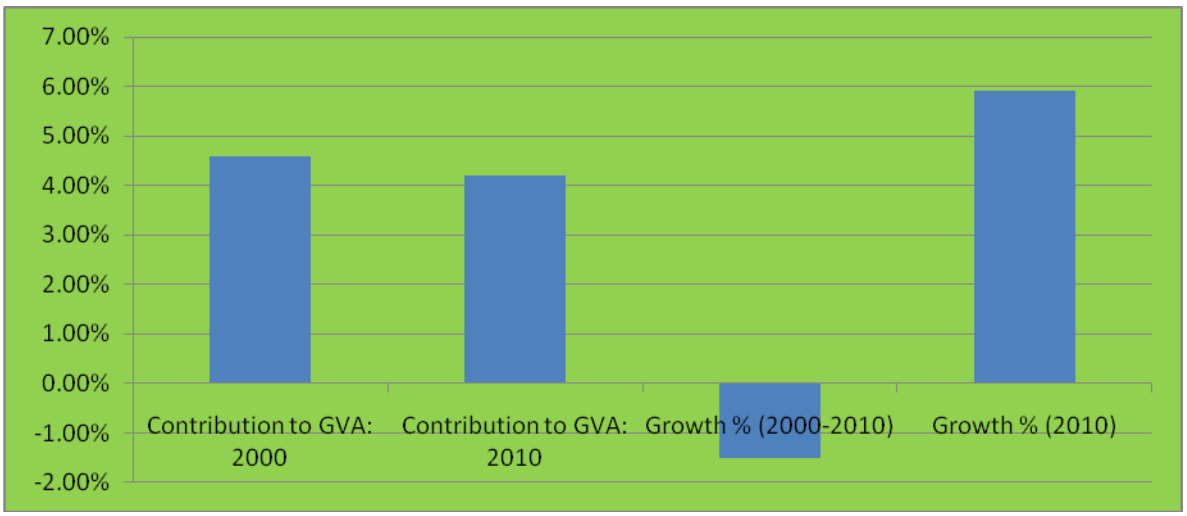
Graph 5: Economic Sectoral Analysis: Mining (2000-2010)



Mining has declined over the last decade with a growth percentage of 6.8%.

3.4.6.3. Manufacturing

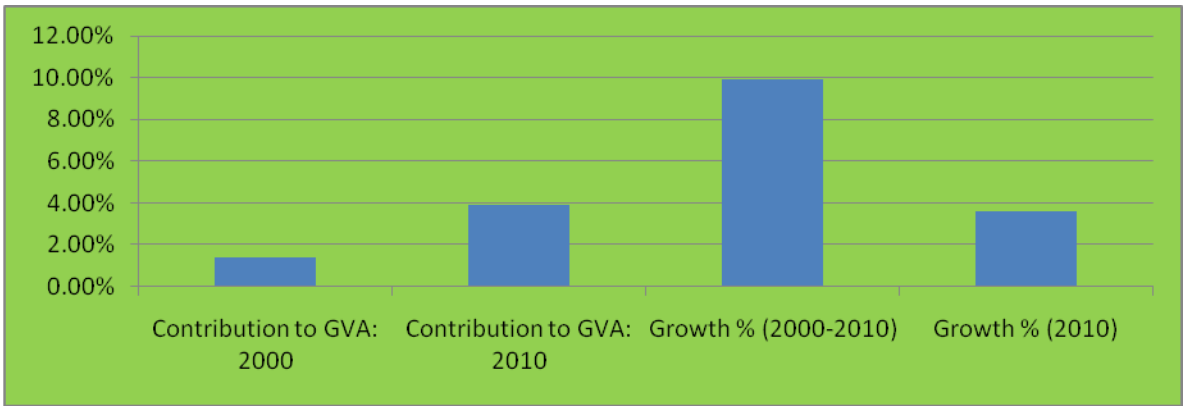
Graph 6: Economic Sectoral Analysis: Manufacturing (2000-2010)



The manufacturing sector increased towards 2010, with an overall growth percentage of -1.5% between 2000 and 2010 and a general decline from 4.6% in 2000 to 4.2% in 2010, however, recent data shows that the sector's growth percentage in 2010 was 5.9%. If this trend continues for the coming decade, manufacturing in Ba-Phalaborwa is expected to perform better.

3.4.6.4. Utilities (electricity, gas and water)

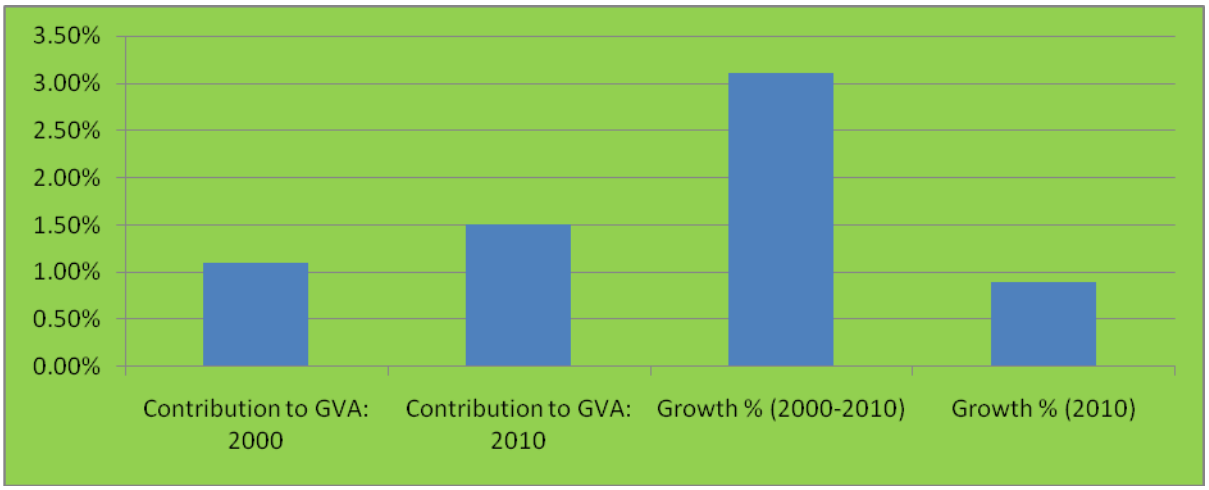
Graph 7: Economic Sectoral Analysis: Utilities (2000-2010)



The sector increased from 1.4% in 2000 to 3.9% in 2010, with a growth percentage of 9.9% between 2000 and 2010. The growth percentage of the sector in 2010 is 3.6%.

3.4.6.5. Construction

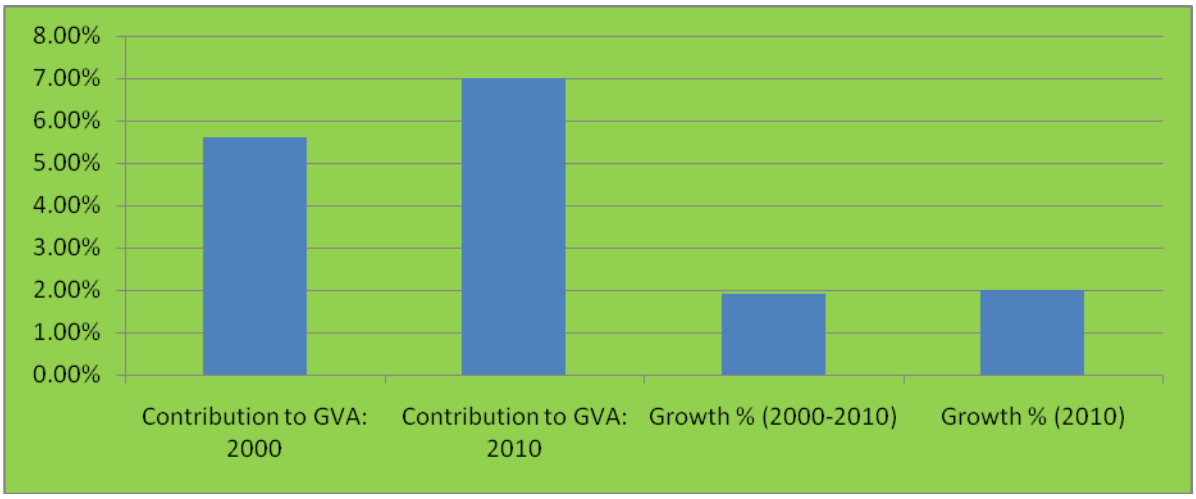
Graph 8: Construction (2000-2010)



The sector had a slight increase with a growth percentage of 3.1% signalling a positive recovery from the 2002-2003 declines.

3.4.6.6. Trade

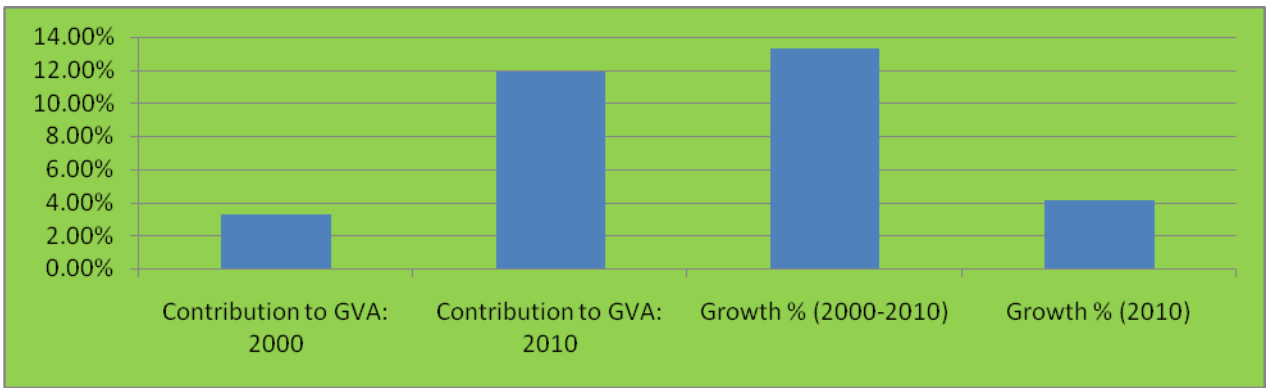
Graph 9: Trade (2000-2010)



Trade in the Ba-Phalaborwa municipal area contributes highly to the development of local businesses and SMMEs. The sector has increased from 5.6% in 2000 to 7.0% in 2010 with a growth rate of 1.9% between 2000-2010.

3.4.6.7. Transport

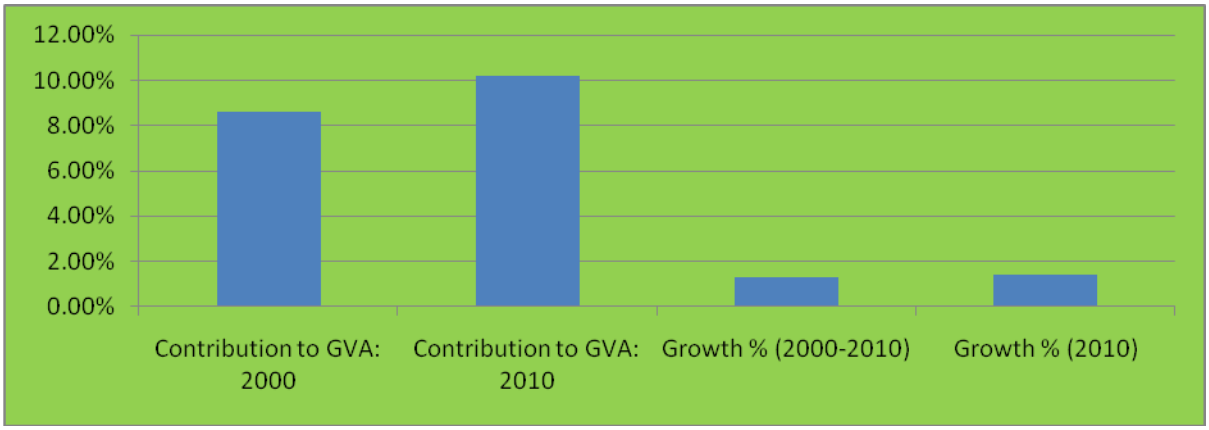
Graph 10: Economic Sectoral Analysis: Transport (2000-2010)



The growth percentage of the transport sector between 2000 to 2010 is 13.3%. It increased from 3.3% in 2000 to 11.9% in 2010.

3.4.6.8. Finance and business

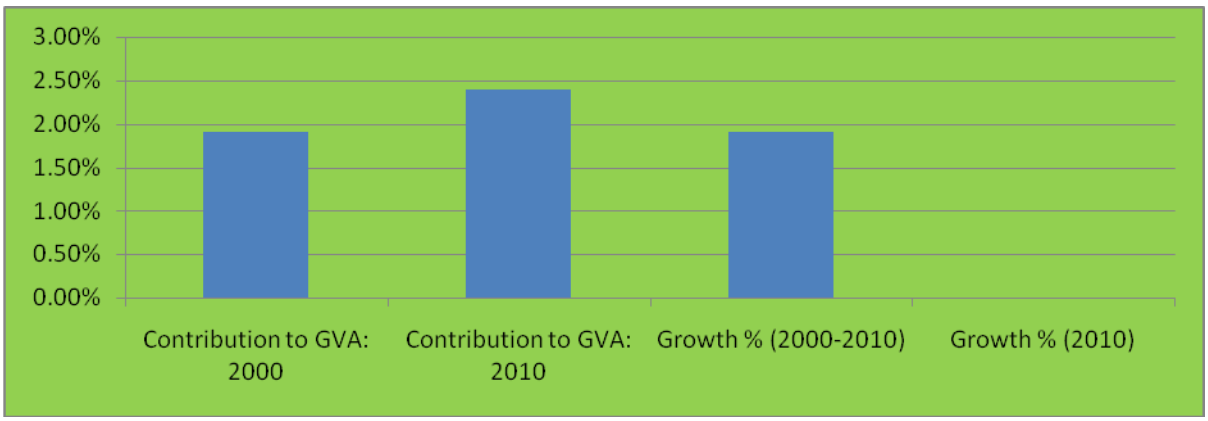
Graph 11: Economic Analysis: Finance and Business



The finance sector contributed 10.2% to the GVA of Ba-Phalaborwa in 2010 from 8.6% in 2000.

3.4.6.9. Community service

Graph 12: Economic Sectoral Analysis: Community Services



The sector increased from 1.9% in 2000 to 2.4% in 2010 and a growth percentage of 1.9 between 2000 to 2010. Recent data shows that the sector experienced a 0% growth in 2010.

3.4.6.10. Government services

Graph 13: Economic Sectoral Analysis: Government Services (2000-2010)

The sector showed growth with an increase from 11.1% in 2000 to 13.1% in 2010, a 3.7% growth percentage in 2010, a percentage growth of 1.2% between 2000 to 2010. The Government sector has the potential to grow local businesses and SMMEs by creating an enabling environment and interaction between various economic sectors.

3.4.6.11. Social facilities

Ba-Phalaborwa has a high concentration of social facilities such as schools, health centres, community halls, police stations, postal services, libraries, sports facilities and engineering services, as represented in the table below:

Table 10: Schools

Number of schools 2012																	
Circuit	**Institution**	**Phase**	**Sector**	**Pre**	**Gr1**	**Gr2**	**Gr3**	**Gr4**	**Gr5**	**Gr6**	**Gr7**	**Gr8**	**Gr9**	**Gr10**	**Gr11**	**Gr12**	**Total**
Lulekani	All Saints College	Combined	Indep.	1	33	20	18	18	28	18	15	58	70	57	64	17	417
Lulekani	Baranuka	Secondary	Public									248	607	297	68	52	1272
Lulekani	Chuchekani	Primary	Public		266	242	230	242	243	216	235						1674
Lulekani	Ehleketani	Primary	Public		46	30	27	43	30	38	23						237
Lulekani	Fauna Park	Primary	Public	27	57	65	61	71	67	65	63						476
Lulekani	Francis Eng Medium	Combined	Indep.		78	37	39	53	39	28	27	13					314
Lulekani	Gravelotte	Primary	Public		22	32	22	35	32	37	30						210
Lulekani	Hoerskool Frans Du Toit	Secondary	Public									267	228	211	190	177	1073
Lulekani	Kingfisher Priv.	Combined	Indep.	21	20	17	14	10	20	9	18	14	13	11	13	9	189
Lulekani	Laerskool	Primary	Public	20	60	48	50	46	54	64	63						405

Number of schools 2012																	
Circuit	**Institution**	**Phase**	**Sector**	**Pre**	**Gr1**	**Gr2**	**Gr3**	**Gr4**	**Gr5**	**Gr6**	**Gr7**	**Gr8**	**Gr9**	**Gr10**	**Gr11**	**Gr12**	**Total**
	Phalaborwa Noord																
Lulekani	Laerskool Phalaborwa Suid	Primary	Public	50	86	82	96	77	72	74	66						603
Lulekani	Leseding	Primary	Public		27	16	7	8	15	13	12						98
Lulekani	Lulekani	Primary	Public		192	104	93	111	111	120	87						818
Lulekani	Madjadji	Primary	Public		50	47	45	44	59	45	42						332
Lulekani	Majeje High	Secondary	Public									304	364	315	119	62	1164
Lulekani	Makikela	Secondary	Public									94	163	174	105	76	612
Lulekani	Masaswivona	Secondary	Public									75	87	160	103	27	452
Lulekani	Mashavela	Primary	Public		156	156	133	143	117	163	110						978
Lulekani	Meridian	Combined	Indep.		27	30	31	29	22	25	25	58	62	53	45	48	455
Lulekani	Nkateko	Secondary	Public									371	351	335	144	81	1282
Lulekani	Ntshuxeko	Secondary	Public									345	427	181	187	72	1212
Lulekani	Nwa Risenga	Primary	Public		45	51	50	52	56	48	54						356
Lulekani	Nwasorini	Primary	Public		160	160	160	174	133	146	116						1049

Number of schools 2012																	
Circuit	**Institution**	**Phase**	**Sector**	**Pre**	**Gr1**	**Gr2**	**Gr3**	**Gr4**	**Gr5**	**Gr6**	**Gr7**	**Gr8**	**Gr9**	**Gr10**	**Gr11**	**Gr12**	**Total**
Lulekani	Phulanibyihola	Primary	Public		111	114	101	135	97	93	99						750
Lulekani	Pondo	Primary	Public		195	198	179	159	152	154	130						1167
Lulekani	Prieska	Combined	Public		18	23	20	35	18	20	19	28	28	11	15	7	242
Lulekani	Schiettocht	Primary	Public		82	82	83	85	86	70	70						558
Lulekani	Selwana	Primary	Public		78	86	45	42	52	36	52						391
Lulekani	Shiphamele	Primary	Public		163	153	117	153	148	151	141						1026
Lulekani	Vatswatsi	Primary	Public		110	115	122	96	130	111	66						750
Lulekani	Xitlhangu	Primary	Public		172	118	203	136	158	191	189						1167
Namakgale	Bollanoto	Primary	Public						95	80	89						264
Namakgale	Foskor	Primary	Public		145	111	84	50	10	13	28						441
Namakgale	Gaza	Primary	Public		82	99	74	78									333
Namakgale	Kgopsane	Primary	Public		13	10	23	11	13	13	13						96
Namakgale	Lebeko	Secondary	Public									161	415	342	254	104	1276
Namakgale	Lepato	Secondary	Public									146	247	122	121	73	709

Number of schools 2012																	
Circuit	**Institution**	**Phase**	**Sector**	**Pre**	**Gr1**	**Gr2**	**Gr3**	**Gr4**	**Gr5**	**Gr6**	**Gr7**	**Gr8**	**Gr9**	**Gr10**	**Gr11**	**Gr12**	**Total**
Namakgale	Mabine	Primary	Public		151	128	158	125	148	185	137						1032
Namakgale	Makhushane	Primary	Public		79	109	85	117									390
Namakgale	Maphokwane	Secondary	Public									171	242	223	151	50	837
Namakgale	Maseke	Primary	Public		100	79	96	88	82	76	77						598
Namakgale	Mashishimale	Primary	Public		121	102	84	130	110	107	86						740
Namakgale	Matome-Malatji	Secondary	Public									79	125	178	174	77	633
Namakgale	Mhalamhala	Primary	Public						94	101	106						301
Namakgale	Modume	Primary	Public		58	44	77	64	71	68	68						450
Namakgale	Namakgale	Primary	Public		120	134	129	112	137	115	95						842
Namakgale	Phalaborwa	Primary	Public		87	92	85	78	73	82	75						572
Namakgale	Refentse	Primary	Public		104	93	93	119	93	91	72						665
Namakgale	Refiloe	Primary	Public		36	50	43	44	40	44	42						299
Namakgale	Relebogile	Secondary	Public									164	317	196	190	95	962
Namakgale	Rethabile	Primary	Public		74	64	48	46	43	40	53						368

Number of schools 2012																	
Circuit	**Institution**	**Phase**	**Sector**	**Pre**	**Gr1**	**Gr2**	**Gr3**	**Gr4**	**Gr5**	**Gr6**	**Gr7**	**Gr8**	**Gr9**	**Gr10**	**Gr11**	**Gr12**	**Total**
Namakgale	Rethusitswe	Primary	Public		76	105	104	131	129	124	128						797
Namakgale	Sebalamakgolo	Secondary	Public									260	334	272	215	131	1212
Namakgale	St. Patrick Mathibela	Primary	Public		164	107	101	105	90	91	83						741
Namakgale	Vuxeni	Secondary	Public									108	152	180	154	71	665
Namakgale	Zamani	Primary	Public		2	23	14	12	11	20	14						96
TOTAL				**119**	**3666**	**3376**	**3244**	**3307**	**3178**	**3185**	**2918**	**2964**	**4232**	**3318**	**2312**	**1229**	37048 37048

Source: Department of Education, 2011

There were 37,048 pupils in formal schools in 2011. The data shows chronic overcrowding in most rural and township schools. The study also reveals that Grade 1 has more learners in the primary phase, while Grade 9 has more learners in the secondary phase. There were 22,993 (62.1%) learners in the primary phase and 14,055 (37.9%) learners in the secondary phase. The figures show a difference of 8,938 (24%) learners between primary and secondary phase learners which may be attributed to school dropouts. Data from the Department of Education shows that there are 3,208 learners in the Early Learning Centres and 2030 ABET learners.

Tertiary education offered by Mopani SE FET college and Moshate Hotel School include a variety of skills and learnership in engineering, tourism, hospitality and financial training. Palabora Foundation also offers vocational training in bricklaying, carpentry, sewing and cooking to fill critical community demands.

Table 11: Health services

Health Facilities 2010			
Location	**Number of clinics**	**Level of service**	**Population served**
Phalaborwa	2	PHC	14,604
Selwane	2	PHC	7,225
Namakgale	2	PHC	29,619
Humulani	1	PHC	19,554
Murchison Mine	1	Step down health facility	1,429
Makhushane	1	PHC	12,408
Ben Farm	1	PHC	8,501
Lulekani	1	PHC	25,376
Total	**10**		**119,714**

Source: Department of Health, 2010/2011

Ba-Phalaborwa has two hospitals (Maphutha L Malatji and Clinex) providing advanced medical care to supplement the 10 clinics highlighted in the above table.

3.4.6.12. Community Halls and Centres

Ba-Phalaborwa has four community halls and centres situated in Phalaborwa, Lulekani, Namakgale and Seloane. The FOSKOR Community Centre also has an activity hall utilised for bigger functions and community events.

3.4.6.13. Police stations

There are four major police stations, strategically located in Phalaborwa, Namakgale, Lulekani and Gravelotte, with a satellite police station posted in the Seloane Thusong Services Centre.

3.4.6.14. Postal services

According to the South African Postal Services, there are 16,050 postal boxes in the whole of Ba-Phalaborwa, making it easier for community members to access various mail and postal services.

Table 12: Library Services

Library Services 2012							
Location	**Number of libraries**	**Membership**	**Circulated items**	**Tourist information**	**References**	**Internal users**	**New information**
Phalaborwa	1	10537	101068	15768	30832	46320	4259
Leboneng	1	1679	20978	16725	20323	63597	2055
Rixile	1	1127	5453	3934	5745	41491	1912
Gravelotte	1	15	1250	5745	221	841	1081
Mashishimale	1	450	4312	41491	6894	1941	1761
Selwane	1	87	2461	1912	546	11041	1934

3.4.6.15. Municipal offices

Ba-Phalaborwa has four municipal offices in Phalaborwa, Namakgale, Lulekani and Gravelotte.

Table 13: Sports facilities

Sport facilities 2012									
Town	**Tennis courts**	**Netball**	**Soccer field**	**Basket ball**	**Rugby field**	**Swimming pools**	**Athletics tracks**	**Golf**	**Cricket**
Phalaborwa	5*	1	1		4*	3*		1	4*
Lulekani	2	2	1	1			1		
Namakgale		3*	3*				1		1
	7	6	5	1	4	3	2	1	5

Ba-Phalaborwa has various sports facilities concentrated in the Phalaborwa, Namakgale and Lulekani areas.

3.4.6.16. Summary of the Socio-economic analysis

The analysis of the socio-economic aspects in Ba-Phalaborwa indicates that if development does not address people's needs, the long-term effects of separate development will become more entrenched and not overcome. There is a need for a biased investment into the low economic areas that were neglected in the past and improve people's livelihood and liveability by focused provision of basic services, training and skills development, encourage sports development, promotion of leisure and tourism development and access to knowledge of opportunities.

Provision of adequate education facilities within easy access areas radius, retail development, and job opportunities with high economic development drives in the previously low levels of economic and livelihood potential is important.

3.5. Economic profile

The economic profile for Ba-Phalaborwa Municipal area comprises of recent data that provides an overview of the current economic situation. Data in this section has been collected from Quantec and Statistics South Africa that was used in the economic profiling of Ba-Phalaborwa. The section

also provides a structural composition of the economy as well as the growth rate of production with comparative advantages of the economy identified, past and current economic performances highlighted and determining economic trends with sectoral analysis to show flourishing and declining sectors.

Nine economic sectors have been identified in the Ba-Phalaborwa area using the South African Standards Classification-Standard Industrial Classification (SIC).Table 8 gives an expatiation of the sectors.

3.5.1. Economic production

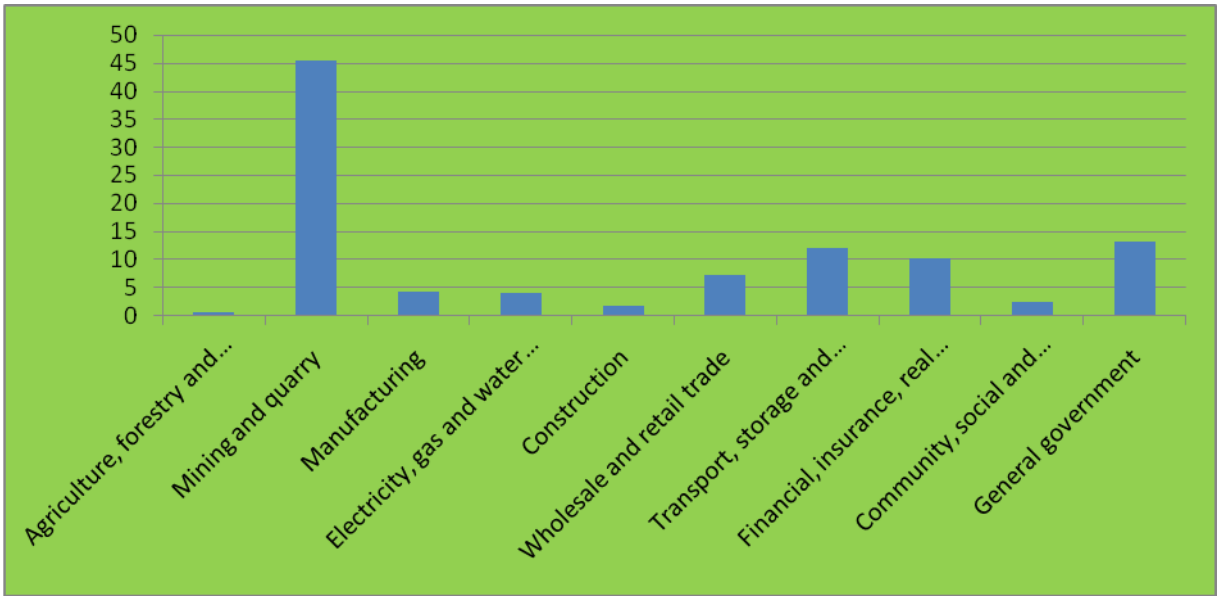
Ba-Phalaborwa has a larger economy by provincial standards. The value of production was almost R5.9 billion in 2010. The economic base for Ba-Phalaborwa contributes 30.2% of the Gross Value Added (GVA) of the Mopani District and dominates within the Mopani District Municipal area due to mining, with equal contribution on transport, storage, and communication sectors with Tzaneen.

Mining is dominant at 45.3% down from 65% in 2007, with Ba-Phalaborwa greatly reliant on the sector. The main driver commodities of the local mining economy are copper (Palabora Mining Company) and phosphate (FOSKOR), and Elliminite from Consolidated Murchison mine. Government expenditure, mostly on salaries also contributes to local economic activity. The table below indicates the Gross Value Added per sector in Ba-Phalaborwa.

Gross Value Added per Sector production

Source: Quantec Regional Economic Database, 2011

Graph 14: GVA Sectoral Production



It is evident that the mining sector is overwhelmingly contributes more to the Gross Value Added (GVA), representing 45% of the gross geographic production for Ba-Phalaborwa, however, showing a declining trend (from the 1995-2005 64% dominance), followed by transport and Community, social and personal services at 11% and 10% respectively. The primary and secondary sectors have shown a trend of decline with utilities (electricity, gas and water) increasing from 1.4% in 2000 to 3.9% in 2010.

Table 18: Sectoral Production Structure (2000-2010) of Ba-Phalaborwa as percentage contribution

Sectoral production structure (2000-2010)				
Sector	**2000**	**2005**	**2010**	**2010 %**
Agriculture, forestry and fishing	36	28	29	0.5
Mining and quarry	3 024	2 491	2 660	45.3
Manufacturing	265	232	245	4.2
Electricity, gas and water supply	206	219	227	3.9
Construction	89	89	90	1.5
Wholesale and retail trade	430	405	413	7.0
Transport, storage and communications	625	670	697	11.9
Financial, insurance, real estate and business service	620	592	600	10.2
Community, social and personal services	144	141	141	2.4
General government	742	742	770	13.1
Total	**6 182**	**5 608**	**5 870**	**100**

3.5.2. Spatial Development Situation

The spatial features for Ba-Phalaborwa Municipality comprises of Phalaborwa Town bordering the Kruger National Park to the east of the municipal area, separate developments that still maintains the hall-marks of the apartheid spatial developments in Namakgale, Lulekani and Ben-Farm, all situated within an average of 15km radius from each other, to the west of Phalaborwa Town.

The linked areas forms part of a functionally urbanised complex surveyed with erven registered with the National Deeds Registry. The peripheral areas of this complex comprise of more rural, informal, and unplanned settlements within the proclaimed Traditional Authority Councils of Seloane, Majeje, Mashishimale, Maseke, and Makhushane.

The small peri-urban area of Gravelotte is situated 57km towards the west from Phalaborwa. Grietjie is situated 24km west south west of Phalaborwa. Ga-Selwane and Prieska are situated to the north in the proximity to the Letaba River, serving as the northern boundary of the municipal area.

Smaller mining activities also exist at Murchison close to Gravelotte with the largest n=mining activities taking place in the industrial complex adjacent to the south of Phalaborwa Town close to the urban complex.

The Defence and Special Forces military bases are situated within the urban complex between Phalaborwa Town and the Kruger National Park as well as between Phalaborwa Town and Lulekani to the west.

The Spatial Development Framework gives direction to development, taking into account the need for compatible land uses. It plans controls and direct development.

In terms of the Limpopo Spatial Rationale, Phalaborwa Town is a provincial growth point. Namakgale and Gravelotte are District growth points and Lulekani is a municipal growth point. 90% of the population in Ba-Phalaborwa reside in and around these growth points and within the average of 15km radius from each other. Only Gravelotte, Grietjie, and the Seloane-Prieska areas are the furthest. Ba-Phalaborwa is therefore one of the most urbanised local municipality in Limpopo

The existing general Spatial Pattern indicates that Ba-Phalaborwa covers an area of 7461.6km^2. The majority of the municipal area is covered by farmland. The farms are in private ownership followed by communal land that is under the control of Traditional Leaders from Majeje Traditional Authority, Ba-Phalaborwa traditional Authority, Maseke Traditional Authority, and Seloane Traditional

Authority. The reminder of the municipal area is made up of proclaimed towns of Phalaborwa, Lulekani, Namakgale, and Gravelotte.

Existing spatial pattern indicate urban development concentrated in the Phalaborwa/Lulekani and Namakgale areas. Each of the respective urban areas has land for business, social and recreational facility purposes. Phalaborwa town's business, commercial and light industrial areas are well developed, however, basic infrastructure such as roads, electricity supply, sewer and waste management need to be improved. The business areas of the peri-urban areas of Namakgale and Lulekani are poorly developed.

Several sports facilities and other recreational facilities are provided throughout the area, though the facilities need to be

There are 11 rural settlements located in the whole of the municipal area. The municipality has an adopted Spatial Development Framework however, it needs to be reviewed. Property development in the rural areas is haphazard, without proper processes being followed to formally plan, demarcate and peg sites and provide adequate infrastructure such as roads, water, electricity and sewer, and to accommodate the need for formal settlements and growth within the peripheral Traditional Council areas. The rural location settlement developments do not support the principles of integrated development, thus placing pressure on the municipality concerning service delivery.

The average size of residential stands in Phalaborwa town is larger than in other areas of Namakgale, Lulekani and Gravelotte. Therefore, areas outside Phalaborwa town are considered more efficient and house more people per Ha of land than Phalaborwa town. The current average stand size on new residential properties throughout South Africa is 528 m^2.

There are major mining activities by PMC, FOSKOR, Consolidated Murchison, and Bosveld Phosphates. Exxaro is in the process of opening new mining activities in the Gravelotte area. The Letaba Ranch and conservation areas around Eiland are utilised for citrus and tropical fruits, crop, cattle farming, and conservation. Tourism activities take place throughout the municipal area with the Kruger National Park contributing immensely to tourism activities in Ba-Phalaborwa.

The Limpopo Spatial Rationale recommends land uses that would optimize the development potential of the land without compromising the environment. Phalaborwa town is a provincial growth point; Namakgale and Gravelotte are district growth points, with Lulekani as a municipal growth point. Growth points have been identified based on their potential to attract private sector investments and some forms of productive business.

For the local economy to develop, coordination of development initiatives must focus on areas of high population concentration (IDP, 2012, p.41). The IDP further identifies growth points as indicated in the table below:

Table 19: Growth points identified in the Limpopo Province Spatial Rationale

Location	Classification of the growth point
Phalaborwa	Provincial growth point
Namakgale	District growth point
Gravelotte	District growth point
Lulekani and Seloane	Municipal growth points

Source: IDP, 2012

The above-mentioned areas have high population concentration. The implication according to the 2012 IDP is to channel infrastructure initiatives into the growth points, and strengthen their economic development support potential.

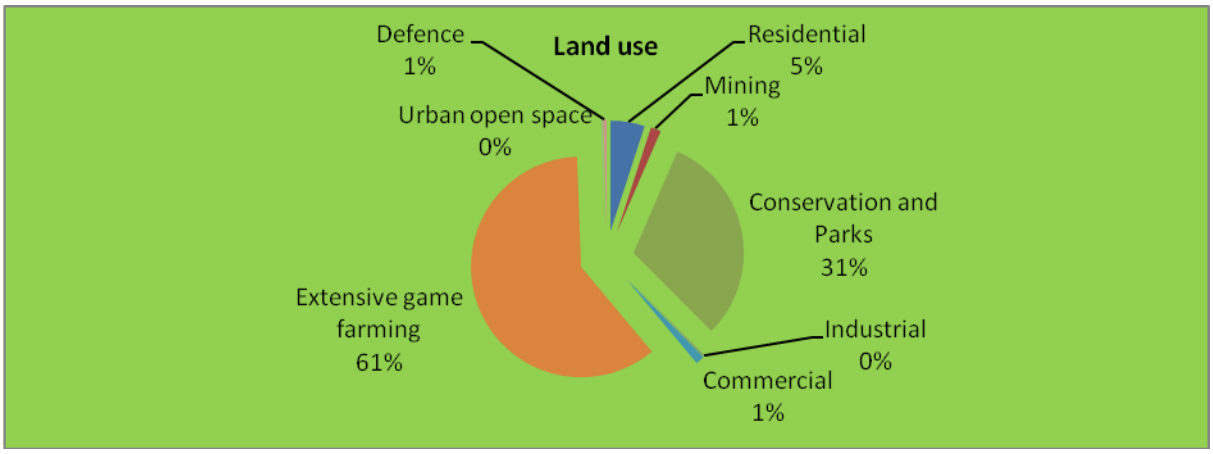
3.5.3. Major land uses and economic sectors in Ba-Phalaborwa

Ba-Phalaborwa Municipality comprises of 7,624km² of land, which is inclusive of the Kruger National Park. Predominant land uses in the municipal area are agriculture related activities such as game farming, nature conservation, irrigation farming along the Letaba River and mining.

Table 20: Broad Land Use in Ba-Phalaborwa

Land Use	Hectares	Approximate Percentage
Residential	15129	5 %
Mining	4909	1,5 %
Conservation and Parks	94000	31 %
Industrial	390	0,10 %
Commercial	41	1,30 %
Extensive Game Farming	185000	60,5 %
Urban Open Space	321	0,10 %
Defense	1500	0,5 %
Total	**301 000**	**100 %**

Graph 14: Land Use



Ninety two percent (92%) of land in Ba-Phalaborwa is used for extensive game farming and conservancies. Only 5% of the available land is used for residential purposes. The spatial features in Ba-Phalaborwa comprise of the Phalaborwa town that borders the Kruger National Park to the east of the municipal area, Namakgale, Lulekani and Ben Farm, all situated within the 15km radius from each other, to the west of Phalaborwa town. The proximity of the areas forms a functionally urbanised complex, which is only partly formalized. The peripheral areas of this complex comprise is mostly made up of rural and informal areas within the proclaimed Traditional Council areas. The small peri-urban town of Gravelotte is situated 57km towards the west from Phalaborwa, with smaller mining activities in the Murchison belt closer to Gravelotte.

The largest mining and ancillary industrial complex is situated adjacent to the south of Phalaborwa town, close to the urban complex, forming an unfortunate barrier between Phalaborwa town and Olifants River to the south.

The defence and Special Forces military bases are also situated within the urban complex, between Phalaborwa town and the Kruger National Park as well as between Phalaborwa town and Lulekani to the west.

Other smaller rural settlements such as Prieska and Ga-Seloane are situated to the north in the proximity to the Letaba River, which forms the northern boundary of the municipal area. Grietjie's dense settlement patterns are located adjacent to the Olifants River with small farming activities taking place.

Table 21: Number of residential houses and their populations per Ward

Planning Area	Households	Population
Ward 1	4,019	12,635
Ward 2	1,847	6,608
Ward 3	1,722	6,437
Ward 4	2,041	7,019
Ward 5	1,844	6,272
Ward 6	2,087	6,515
Ward 7	1,634	6,002
Ward 8	2,055	7,874
Ward 9	**1,816**	**7,002**
Ward 10	2,130	7,830
Ward 11	1,628	5,700
Ward 12	2,399	8,276
Ward 13	2,163	8,769
Ward 14	823	3,173
Ward 15	2,397	8,975
Ward 16	2,449	13,052
Ward 17	3,896	16,174
Ward 18	4,077	12,326
TOTAL	**41,115**	**150,637**

Source: Stats Census, 2011.

Households count by Statistics SA 2011 totals 41,115, an increase from 33, 529 in 2001.

3.5.3.1. Environmental management

In terms of the natural environment the following aspects influence spatial development:

- Geo-technical conditions are generally suitable for development, although bedrock occurs at shallow depth within parts of the urban complex creating challenges for infrastructure services provision
- In certain parts sandy soils occur, which are prone to erosion when exposed. Apart from the sediments occurring within the flood plains, soils are generally nutrient poor and not favourable for crop production.
- The undulating topography is generally suitable for development, with the occurrence of some natural "koppies" and drainage features that are unsuitable for development
- Surface hydrology, with particular reference to the flood plains of the Letaba, Selati and Olifants rivers, as well as those of other smaller drainage systems (with several occurring within the urban complex) poses a risk for development.
- A significant part of the municipal area comprises of nature conservation and conservancy areas with several sites where places of heritage interest occur.

Because of the concentration of settlements in the south eastern parts of the municipal area, most of the available infrastructure services are concentrated within this area. Environmental degradation remains a critical challenge.

3.5.3.2. Business and service sectors in Ba-Phalaborwa

The following economic clusters have been identified and should be developed based on the development information derived from the land use surveys:

3.5.3.2.1. Agriculture

Ba-Phalaborwa is endowed with the potential of developing the agricultural industry immensely. The areas along the Greater Letaba River next to Seloane have the potential for heavy agricultural utilisation. There is small-scale farming currently underway in areas such as Waterbok. However, the bulk of the farms such as Masalal and Prieska are underutilised and were left to deteriorate over the years.

3.5.3.2.2. Mining

Mining in Ba-Phalaborwa is the largest economic sector and also the largest employer. There are major mining activities by PMC, FOSKOR, Consolidated Murchison, and Bosveld Phosphates. The economy of Ba-Phalaborwa is highly dependent on the mining industry. 80% of the total revenue generated in Ba-Phalaborwa relates to the mining industry. Copper and phosphate ores are the most important minerals mined in the area. The potential of the depletion of mineral resources poses a very serious challenge to the municipality.

3.5.3.2.3. Manufacturing

The advent of developing the manufacturing industry is moving at a very slow pace. There are currently good initiatives in agro-processing of marula into pulp for the production of the Amarula Liquor in Extension 5; however, there is a need to add more manufacturing initiatives. The Iron Ore beneficiation initiative by IMBS holds a new lease of life for the diversification of the economy of Ba-Phalaborwa. The marula oil extraction initiative supported by the Palabora Mining Company and the Ba-Phalaborwa Municipality is at its infancy stage.

3.5.3.2.4. Tourism

Ba-Phalaborwa Municipality and specifically the Phalaborwa town is situated and is regarded as the gateway to the Greater Limpopo Trans-Frontier Park and it is the gateway to World-renowned Kruger National Park. Tourism presents an ideal opportunity for Ba-Phalaborwa Municipality to exploit all possibilities to its locality and diverse natural resources to create an environment for exceptional economic growth through promoting its biggest asset, wildlife tourism and the bush experience.

3.5.3.2.5. SDI Transport Corridors

The Spatial Development Initiative support corridor (roads) development initiatives. The existing network of roads should link up with other provincial, district roads, and ultimately lead to border posts such as Giriyondo and the Maputo corridor. The main purpose of the transport corridors is to concentrate development along these routes and enable communities to benefit from such developments. Ba-Phalaborwa has only one of such sub-corridor, Phalaborwa SDI. This SDI includes the establishment of an improved transport link between the Mozambican border on one hand and the mining and industrial area of Phalaborwa on the other. This route links with the Maputo Corridor, terminating at the national boundary. There is a need to identify other corridors and value

chains them maximally. A specialised transport planning function must be incorporated into the existing Municipal structure.

3.6. Land claims

There are 35 land claims gazetted in the Ba-Phalaborwa municipal area. Statistics on land reform and land uses is presented in the table below:

Table 22: Macro Land Uses in Ba-Phalaborwa Municipality

Macro Land Uses in Ba-Phalaborwa Municipality		
Land use	**Size (Ha)**	**Total (Ha)**
Irrigation Farms	12 300	
Game farms	23 078	
Other Arable/Grazing Farms	37 447	
Subtotal Land Uses for Agriculture		72 825
Nature Reserves	83 711	83 711
Settlements/Towns	6 127	6 127
Unsettled Communal Land	132,000	132,000
Other	6 038	6 038
Total for Ba-Phalaborwa	**300 701**	**300 701**

Source: Genis, Geographic and Environmental Systems

- The above statistics exclude the inclusion of some parts of the Kruger National Park as part of Ba-Phalaborwa Municipal area.

Table 23: Settlements in Ba-Phalaborwa

Towns	Townships	Villages	Farms
2	3	11	101

Source: LED Strategy, 2007

The natural environment in Ba-Phalaborwa influence spatial development in terms of the following:

- Geo-technical conditions are generally suitable for development although bedrock occurs at shallow depth within part of the urban complex creating challenges for infrastructure services provision
- In certain parts, sandy soils occur, which are prone to erosion when exposed
- Surface hydrology to the flood plains of Letaba, Ga-Selati and Olifants Rivers as well as those of other smaller drainage systems poses a risk for development.
- A significant part of the municipal area comprises of nature conservation and conservancy areas with several sites where places of heritage interest occur.
- Most of the infrastructure services are concentrated in the south-eastern parts of the municipal area.

Transportation infrastructure include rail services mainly used for freight from the mining industry, privately owned and operated airport servicing tourists, local business and mining as well as reasonable road infrastructure that provides movement between the municipal area and other regional centres. Upgrading of these roads would significantly contribute towards enhancing rural accessibility and opportunity for development.

The average size of residential sites in Phalaborwa Town is larger than in the areas of Namakgale and Lulekani. Areas of Lulekani, Humulani and Ben Farm have very little opportunity for infill development and densification while reports from Land Use Management show that Namakgale has significant opportunity for infill and densification. Phalaborwa Town also have some opportunity for further infill development.

3.6.1. Land Redistribution

Land redistribution in Ba-Phalaborwa from inception to 2010 indicates that the farms redistributed are too small for viable commercial farming, particularly cattle farming. The table below show land redistribution up to 2010:

Table 24: Land Redistribution in Ba-Phalaborwa from inception to 2010

Land Redistribution in Ba-Phalaborwa from inception to 2010			
Financial Year	**No of Farms**	**Total (Ha)**	**Average Farm Size (Ha)**
2008	4	89	22
2009	1	21	21
2010	1	21	21
Total	6	131	22

Source: Department of Rural Development and Land Reform, Limpopo 2011

3.6.2. Land Restitution

Almost 41, 000 hectares of land has been restituted in Ba-Phalaborwa Local Municipality, at an average cost of R9, 425 per hectare. The table below shows how land restitution has roll-out in Ba-Phalaborwa:

Table 25: Land Restitution in Ba-Phalaborwa Local Municipality from inception to 2011

Land Restitution in Ba-Phalaborwa from inception to 2011				
Date	**Claimant**	**Classification**	**Land Size (Ha)**	**Land Cost in R'**
2005/06/06	Ba-Phalaborwa Ba-Mashishimale (Phase 1)	Rural	2369.9967	16 500 000.00
2006/03/02	Selwane Community	Rural	4315.5237	16 400 000.00
2006/08/30	Ba-Phalaborwa Ba-Mashishimale (Phase 2)	Rural	16353.1855	148 620 000.00
2010/11/17	Ba-Phalaborwa Ba-Makhushane Community (Phase 1)	Rural	38.941	14 938 306.00

Land Restitution in Ba-Phalaborwa from inception to 2011				
Date	**Claimant**	**Classification**	**Land Size (Ha)**	**Land Cost in R'**
2010/11/18	Ba-Phalaborwa Ba-Maseke Community (Phase 1)	Rural	856.532	64 700 000.00
2010/12/13	Balepye Community (Phase 1)	Rural	12568.4152	94 961 653.00
2011/02/03	Balepye Community (Phase 2)	Rural	2369.9967	16 500 000.00
TOTAL			**38872.5908**	**372 619 959**

Source: Limpopo Land Claims Commissioner. 2011

3.6.3. Outstanding Land Claims

Table 26: Outstanding Land Claims in Ba-Phalaborwa Local Municipality, 2011

Outstanding Land Claims in Ba-Phalaborwa, 2011		
Claimant	**Property Description**	**Stage**
Human PJ	Landraad 774 LT	Research
Modiba Community	New Agatha Rores	
Van Zyl NCJ	Baderoukwe 11 LU, N'dole 12 LU, Sable 13 LU	Research
Naude JG	Celhard 20 LU, Droebult 27 LU	Research
Mathebula KF	Stand 234 Matiko	Research
Malatji SS	Ben 26 LU	Research
Mtombeni SS	Kremetartboom 64 KU	Research
Mathebula Tribal Authority	Letaba Rest Camp, Quagga 21 LU, Zebra 19 LU, Genoeg 15 LU	Research

Outstanding Land Claims in Ba-Phalaborwa, 2011		
Claimant	**Property Description**	**Stage**
Sibiya Sibuyi (Xivuri Clan)	Scotia 284 KT	Research
Zwane BG	Lillydale 89 KU	Research
Moshuka Regtevlei Community (Malope SD)	Koedoesrand 790 LT	Research
Mashele Jama Ellison	Solani Village-Ritavi	Research
Kgoatla Balepye Tribe	Nedondwe 720 LT, Eiland 725 LT, Leydsdorp 779 LT, Kasteel 766 LT	Gazetted
Baropodi Ba Moraba Tribe	Dublin 218 KT, Manutsa 233 KT, Callais 226 KT, Margate 216 KT, Portsmouth 224 KT, Dunstable 230 KT, Chester 235 KT, Klipfonteinhoek 407 KT, Branddraai 409 KT, Rietvley 413 KT, Sterkspruit 412 KT, Carlifonia 228 KT, Coorlton 405 KT, Patrictolt 222 KT, Foctt	

Source: Limpopo Land Claims Commissioner. 2011

The table above only included the claims that have clear property descriptions. These are additional claims that have been lodged, but without formal property descriptions, which mean that they have not yet been allocated to municipalities. The large number of outstanding claims implies that redistribution cannot be effected on such lands.

The analysis on land claims indicates that the Limpopo Department of Agriculture provides assistance on different portions of the farms in terms of the LRAD and PLAS programmes. The LRAD livestock project of 2000 ha on farm Kapiri Ranch.

3.6.4. Restitution Farms

Table 27: Restitution Farms that are supported by the Limpopo Department of Agriculture in Ba-Phalaborwa

Restitution Farms that are supported by the Limpopo Department of Agriculture in Ba-Phalaborwa				
Project Name	**No**	**Properties Restored**	**Total area (ha)**	**No of Households**
Seloane	1	Waterbok 721 LT, R/E. Ptn 4.5 & 6, Nondwene 720 LT Ptn 6, Kondowe 741 LT	4 316	814
Balepye Community (Phase 1-2)	1	Ptn 3 of the farm Bein 765 LT	295	523
		Kasteel 830 LT	2894	
		Ptn 3 of the farm Platveld 752 LT	20	
		R/E of Blackshills 740 LT	1 397	
		R/E of Eden 757 LT	1 751	
		Ptn 2 of Eden 767 LT	428	
		Vlaklaagte 751 LT	2 563	
		R/E of Vygeboom 739 LT	1 610	
		Ptn 2 of Vygeboom 739 LT	1 610	
		Portion of Begin 765 LT	5552	
		R/E of Platveld 752 LT	2 017	
		Ptn 2 of Chester 739 LT	1 431	

Source: Department of Agriculture, Limpopo

3.6.5. Land Reform Proposal

3.6.5.1. Livestock Farming Model

The proposal in the Chapter 4 should cover issues on land identification, redistribution, purchase of farms suitable for extensive livestock production, crop (vegetable) farming and agro-processing of agricultural produce and the general value chaining of other livestock products such as leather tanning etc. Ba-Phalaborwa has agricultural competitive edge and advantage in the production of agricultural commodities. The agricultural produce from Ba-Phalaborwa municipal area are the natural commodities with the potential to develop the farming sector for the benefit of communities in Ba-Phalaborwa.

Livestock production has minimal water requirements, which is an important consideration Chapter 4 of the LED strategy should unpack and consider strengthening taking into account that Ba-Phalaborwa like all other areas in Limpopo has water constraints.

It is a fact that land in the western part of Ba-Phalaborwa is suitable for meat production and is amongst the most affordable compared to other commodities, which means that, hectares of land redistributed, can be maximised with a given adequate budget in agricultural infrastructure development.

Thorough input from leading departments and the beneficiary communities should guide the determination of spatial parameters for the identification on farms for land redistribution and economic programmes. The determining factors should be benchmarked on the following spatial parameters:

- Proximity to the primary transport networks such as national, provincial and district roads,
- Availability of relevant infrastructure such as water, electricity, fencing, etc,
- Exclusion of land with competing land uses such as settlements, nature conservations and industrial development,
- Exclusion of farms that are under land claims,
- Exclusion of farms where land prices is above the local norm for the recommended commodity.

In cases where crop farming is prioritised, spatial selection criteria used should be guided by the following:

- Water availability,
- Soil conditions,
- Climate suitable for crop or vegetable production.

The status analysis for land redistribution to serve as cattle farms in Ba-Phalaborwa Local Municipality includes 11 farms that are larger than 2,000 hectares. The table below gives a list of these farms:

Table 28: Suitable Cattle Farms larger than 2000 hectares in Ba-Phalaborwa Municipality

Suitable Cattle Farms larger than 2000 hectares in Ba-Phalaborwa	
Farm Name	**Farm Owner**
Selati Ranch 143 KT	Fourie Elizabeth Magdalena-Trustees
Selati Ranch 143 KT	Galvor Inv PTY LTD
Transport 172 KT	Seriso 485 PTY LTD
Josephine 749 LT	Piet Warren Plase PTY LTD
Quagga 759 LT	IHM Heavy Minerals PTY LTD
Begin 765 LT	Piet Warren Plase PTY LTD
Leydsdorp Dorpsgronde 779 LT	Lombard Johannes Daniel
Arundel 788 LT	H L Hall & Sons Prop PTY LTD
Koedoes Rand 790 LT	H L Hall & Sons Prop PTY LTD
Huja 791 LT	H L Hall & Sons Prop PTY LTD

Source: AGES,

NB: The farms listed above were identified solely in terms of specific vegetable farming potential and are not available or offered for land reform. Owners were not consulted for the purpose of this LED Strategy document.

Game farming (breeding and hunting)

The breeding of all game species especially rare and endangered animals is very suited to the Phalaborwa area and when incorporated with the multimillion dollar hunting fraternity presents a very viable opportunity that could be incorporated into the planning outcomes with regards to restitution of land and land claim recipient training and assistance.

3.6.5.2. Vegetable farming model

Because of water availability, soil conditions, and climate, the following farms in Ba-Phalaborwa Local Municipality can be considered as suitable for vegetable production:

Table 29: Vegetable production farms

Suitable Farms for Vegetable Production in Ba-Phalaborwa		
Farm Name	**Farm Portion**	**Municipality**
Josephine	777 LT	Ba-Phalaborwa
Leydsdorp	5/779 LT	Ba-Phalaborwa
Grietjie	126/6 KU	Ba-Phalaborwa

Source: AGES

NB: The farms listed above were identified solely in terms of specific vegetable farming potential and are not available or offered for land reform. Owners were not consulted for the purpose of this LED Strategy document.

3.7. Infrastructure development analysis

Development issues in and around Ba-Phalaborwa are currently organised through municipal IDP processes. Integration of social, economic, institutional, political, physical and engineering services for coherent growth is of great essence in the alignment of policies. Based on the National Development Plan: Vision for 2030 principles, Ba-Phalaborwa's programmes as contained in the municipal IDP and LED Strategy should advocate for:

- Job creation,
- Infrastructure improvement,
- Low carbon economy,
- Rural economic development and
- Social protection.

3.7.1. Water and Sanitation

Ba-Phalaborwa is generally a water scarce area. The Letaba and Olifants Rivers flow towards the Northern and Southern boundaries of Ba-Phalaborwa into the Kruger National Park with

communities within the municipal area serviced with water extracted from these two rivers. Water abstracted from the Letaba River is distributed to the Nondweni/Seloane area, servicing only 3% of the population and is still managed by the Department of Water Affairs.

3.7.1.1. Water services

The DWA states that the Phalaborwa water scheme is situated 17km south of the Phalaborwa town in the Ba-Phalaborwa Local Municipality. The Olifants River is the main source of water supplying potable water to Ba-Phalaborwa Municipality with semi treated/industrial water or raw water supplied to the mines and other industrial users. The Phalaborwa plant capacity is 150 Ml/day of which 76 Ml/day can be purified to portable standards. Presently, water consumption in Ba-Phalaborwa (2010/2011) is 47,976 Ml/annum with a daily consumption of 131Ml/day.

Table 30: Water consumption

Raw water consumption 2012			
Scheme	**Abstraction permit ML/Annum**	**Consumption 92007/08) ML/Annum**	**Current consumption (2008/09) ML/Annum**
Phalaborwa	64 000	44 346	46 096

Source: DWA, 2011

The present rate of abstraction from Ba-Phalaborwa barrage is approximately 131 Ml/day with one third of the water treated to portable water standards and pumped through the bulk water distribution systems. The remainder is treated to industrial water standards and pumped to the users through dedicated pipelines.

The water supply to the Ba-Phalaborwa communities is done through the following schemes:

- Phalaborwa Water Scheme,
- Gravelotte Water Scheme,
- Tress Index for Ba-Phalaborwa,
- Prieska Water Scheme.

Namakgale water supply has area is double the number of users in the Lulekani supply area and triple the users in the Phalaborwa area.

Most settlements receive full level of water service with close to 87% service provision. The DWA reports indicate that, there are people in the Ba-Phalaborwa area receiving no services, particularly in the new extension areas. Some residents receive borehole water from government efforts to reduce non-access to water services. Virtually all of the water supply from the boreholes has after testing been found to be unfit for human consumption with many unfit for even irrigation and livestock

Due to better water systems and processes, the industrial demand for water services will not increase drastically after 2015, however, it is important for the municipality to start investing resources in bulk infrastructure for future industrial development into the municipal area.

The Blue Drop information received for Ba-Phalaborwa is as indicated in the table below, based on the municipal annual compliance:

Table 31: Blue Drop Status

Blue Drop Information: Ba-Phalaborwa, 2010		
Microbiological	94.73%	
Chemical compliance	99.56%	
Physical and Organoleptic compliance	99.3%	
Operational	86.3%	
Water safety Plan	G	Not complying. No Safety Plan
Process Control & Maintenance Competency	B	Complies with all requirements except for 1
Efficiency of Monitoring Programme	C	Not complying with requirement No.2 and another requirement or any other 3 requirements
Credibility of Sample Analysis	B	Complies with all requirements except for requirement No.1
Data Submission to DWA	C	
Compliance with National Standard	C	Compliance with more than 99% of key bacteriological limits and more than 95% of key chemical limits but

Blue Drop Information: Ba-Phalaborwa, 2010		
		could not provide sufficient monitoring information
Failure Response Management	G	No complying with criteria or failed to submit sufficient information for assessment purposes
Responsible Publication of Performance	G	Not complying
Efficacy of Asset Management	F	An effort is noted to initiate the asset management process
Blue Drop score (2010) + Trend	51.3%	

Source: DWA, 2010

Table 32: Institutional arrangements for water management in Ba-Phalaborwa

Institutional Arrangement for Water Management in Ba-Phalaborwa, 2012				
Water service institution	Phalaborwa	Ga-Selwane	Gravelotte	Prieska
Water services Authority	Mopani District Municipality	Mopani District Municipality	Mopani District Municipality	Mopani District Municipality
Bulk Water services provider	Lepelle Northern Water	Ba-Phalaborwa Local Municipality	Ba-Phalaborwa Local Municipality	Ba-Phalaborwa Local Municipality
Retail water services provider	Ba-Phalaborwa Local Municipality	Ba-Phalaborwa Local Municipality	Ba-Phalaborwa Local Municipality	Ba-Phalaborwa Local Municipality

Source: DWA, 2010

Water infrastructure in Ba-Phalaborwa is generally regarded as adequate, however, the municipality should put up strategic plans to upgrade the system for future water demands. The table below indicates estimates of future water and sanitation uses in Ba-Phalaborwa:

Table 33: Estimated Water and Sanitation use

Estimated Water and Sanitation use in Ba-Phalaborwa, 2012		
Settlement	**Water**	**Sanitation**
Namakgale	0.4%	4.3%
Lulekani	2.4%	24.4%
Ben Farm	4.9%	
Gravelotte	16.9%	
Ga-Seloane	3.5%	

Mopani District is the water services and sanitation authority, Ba-Phalaborwa provides water services to the towns of Phalaborwa, Lulekani and Namakgale.

Stats SA indicates that 95.4% of the households in Ba-Phalaborwa have access to piped water. The data shows that 37.1% of households have access to piped water inside their dwellings, a significant increase from 36.3% in 2001. 45% of the households have access to piped water inside their yards, a decrease from the 2001 figure of 50.6%, meaning that 5,6 households have water connections inside their dwellings. 11.2 % of households have access to piped water in communal points outside yard. The table below shows a comparative outline on access to water by households in Ba-Phalaborwa:

Table 34: Households access to water

Households access to water in Ba-Phalaborwa				
Municipal Service Description	**Number of Households 2007**	**%**	**Number of Households 2012**	**%**
No access to piped water	-	-	1,226	3%

Households access to water in Ba-Phalaborwa				
Piped water in dwelling	12251	36.3	15,252	37.1%
Piped water inside yard	17082	50.6	18,721	45.5%
Piped water from communal point outside yard less than 200m from dwelling	3812	11.3	3,495	8.5%
Piped water from communal point outside dwelling between 200 and 500m away	-	-	1,128	2.7%
Piped water from communal point outside dwelling 1km away	-	-	640	1.6%
Piped water from communal point greater than 1km away	-	-	653	1.6%
Borehole water	413	1.2	-	-
Other sources of water	234	0.7	-	-
Total	33,792	100	41,115	

Source: Stats SA, 2011

It should be noted that in some areas, as reported during the Ward-based planning, there are communities that still have water pressure challenges.

Table 35: Water Source and infrastructure capacity in Ba-Phalaborwa

Water source and infrastructure capacity in Ba-Phalaborwa						
	Source capacity utilization (Ml/d)			Infrastructure delivery capacity utilization (Ml/d)		
	Source	Design capacity	Spare capacity	Design capacity	Current actual	Spare capacity
Raw water	112.4	72	40.4	72	66	6

Water source and infrastructure capacity in Ba-Phalaborwa						
	Source capacity utilization (Ml/d)			Infrastructure delivery capacity utilization (Ml/d)		
Portable water	88.6	76	12.6	76	62	14
Total water	**201**	**148**	**53**	**148**	**128**	**20**

Source: LED Strategy, 2006

The above table implies that a significant volume of water (73Ml/d) is still available for future development subject to the development of the required infrastructure to augment the present infrastructure delivery capacity. There is also still significant spare capacity (20Ml/d) available with the infrastructure capacity that is presently in place. Current water sources serves 62% of the population. Water abstracted from the Letaba River at the Nondweni weir is distributed to the Nondweni/Seloane area as well as villages to the North situated outside the borders of the Ba-Phalaborwa municipal area. The capacity of the water purification works is 1Ml/d of which 0.301 Ml/d is presently being utilised (0.064Ml/d to the Nondweni/Seloane area). This source serves 3% of the population and is still being managed by the Department of Water Affairs.

3.7.2. Sanitation Infrastructure

The sanitation infrastructure in Phalaborwa Town received an upgrade from the German financial support, however, there is a lot of work that still need to be done to minimise sewer flow into streams, negatively affecting the tourism industry, due to the discomfort caused by unpleasant odour from the affluent. A large portion of the population in the proclaimed towns is provided with water borne sewage services, with the capacity and utilization of existing Waste Water Treatment Works (WWTW) indicated in the table below:

Table 36: Capacity of Waste Water Treatment Works

Capacity of Waste Water treatment Works in Ba-Phalaborwa			
Service area	**Design Capacity (Ml/d)**	**Current Inflow (Ml/d)**	**Spare Capacity (Ml/d)**
Phalaborwa	4.8	7.0	-2.2**
Lulekani	4.0	1.2	2.8
Namakgale	8.0	6.0	2.0

The IDP (2012, p.75) and the 2011 Stats SA Census shows the following picture regarding access to sanitation facilities by households:

Table 37: Access to sanitation by households

Access to sanitation by households in Ba-Phalaborwa				
Type of facility	Number of Households IDP 12/13	%	Number of Households Census 2011	%
Flush toilets (connected to sewerage system)	14056	41.6	16,638	40.5%
Flush toilet (with septic tank)	1090	3.2	860	2.1%
Dry toilet facility	208	0.6	-	
Pit toilet with ventilation (VIP)	2868	8.5	6,718	16.3%
Pit toilet without ventilation	8958	26.5	10,833	26.3%
Chemical toilet	0	0	424	1.0%
Bucket toilet	0	0	80	0.2%
None	6612	19.6	4,698	11.4%
Total	**33792**	**100**	**40,251**	

Source: IDP 2012

The table above indicate that 86.4% of households in Ba-Phalaborwa have access to some form of sanitation inclusive of the water borne sewage services. 11.4% of the population have no access to basic sanitary facilities, a decrease from the previous 19.6% on sanitation. The upgrading of the WWTW at the Phalaborwa sewer plant has been completed and there is sufficient waterborne sewage capacity to meet the short to medium term growth in demand from the population that is presently being served. The available capacity in Lulekani makes it possible to expand the services to new households, as only about 30% of this service delivery area is covered by water borne service.

The Ba-Phalaborwa municipal 2012 IDP identified the following key challenges on water and sanitation:

- Ba-Phalaborwa Municipality is not a water service authority,
- R34 million is required to correct the current water and sanitation backlog,
- R80 million is required to correct the backlog to yard connections,
- The distribution infrastructure is more that 41 years old,
- Close to R30 000 is lost per day due to non-metered water distribution,
- Cost recovery and non-payment of services,
- Travelling distance for water collections in some wards is above 1km,
- Boreholes that are not working,
- Borehole water that is not potable
- Water supply interruptions,
- Old sanitation infrastructure in Phalaborwa Town that is very old (dating back to the 1950's), and will need to be replaced urgently,
- The actual water consumption in the Nondweni/Seloane area is much lower than what the calculated demand is with sufficient supply capacity, indicating a potential lack of system management capacity,
- The water supply in Phalaborwa town is at its full capacity,
- Makhushane, Maseke and Mashishimale are experiencing water pressure problems,
- Non-payment for water services leading to a loss of about 5Ml/d translating to over R20,000 per day,
- Lack of coordination between Mopani and Ba-Phalaborwa Municipality resulting in service delivery being insufficient.

3.7.3. Electricity and Energy

Ba-Phalaborwa Municipality is licensed to supply electricity within the boundaries of the Phalaborwa town area. ESKOM is licensed to supply the outlying areas of Namakgale, Lulekani and the villages. The current load reserve in the Phalaborwa area which is the economic hub of the municipal area is very little, with chronic power outages experienced since 2010. The main MTS substation (275/132kv) feeding the Phalaborwa area is the FOSKOR Substation and has had its fair share of blackouts. The internal electrical reticulation in Phalaborwa town needs urgent refurbishment. Some of the infrastructure have been in service for more than 46 years and has reached the end of their useful lifespan after the blow up of the Selati sub-station in 2012.

The ward-based analysis, reports from the Energy Forum and the Ba-Phalaborwa IDP (2012, p. 80), registered backlogs by the municipality on electricity supply within the municipal area, mostly prevalent in the rural areas and the newly established new site extensions.

The table below shows the areas were electricity supply backlogs are mostly experienced:

Table 38: electricity backlogs

Electricity backlogs					
Ward	**Village**	**Type of connection**			
		Grid	**Non-grid**	**Post connections**	**Total no of units**
1	Selwane, Mahale, Nondweni & Prieska				1,050
3	Gravelotte	276			276
6	Makhushane	1,650			1,650
7	Kurhula & Lulekani	500			500
10	Maseke	100			100
11	Matiko-Xikaya	700			250
Total		**3,226**			**3,826**

Source: Ba-Phalaborwa IDP, 2012

3,826 households have no access to electricity. Energy usage is shown in the table above.

Table 39: Energy usage per energy source by households

Electricity usage per energy source by households												
Energy source	**Energy usage**											
	Cooking				**Heating**				**Lighting**			
	2001	**%**	**2011**	**%**	**2001**	**%**	**2011**	**%**	**2001**	**%**	**2011**	**%**
Electricity	20315	60.1	27,802	67	20353	60.1	22,874	55.	31012	91.8	37,345	90.

Electricity usage per energy source by households												
								6				8
Gas	320	0.9	628	1.5	149	0.4	266	0.6	-	-	27	0.1
Paraffin	2684	7.9	647	1.5	1741	5.2	497	1.2	182	0.5	153	0.4
Candles	-	-	-	-	-	-	-	-	2541	7.5	3,380	8.2
Wood	10413	30.8	11,870	28.9	11285	33.4	8,536	20.7	-	-	-	-
Coal	60	0.2	14	0.03	60	0.2	15	0.04	-	-	-	-
Solar	-	-	61	0.1	-	-	60	0.1	-	-	84	0.2
Animal dung	-	-	8	0.02	-	-	26	0.1	-	-	-	-
Other	-	-	15	0.04	203	0.6	1	0	58	0.2	0	0
None	-	-	15	0.04	-	-	8,841	21.5	-	-	126	0.3
Total	**33792**		**41,060**		**33791**		**41116**		**33735**		**41115**	

Source: STATS SA (2011)

The 2011 Stats SA Census indicates that Close to 90.8% of households have access to electricity, and 67% of the households use electricity for cooking.

The analysis indicates that, 28.9% and 20.7% of the households use wood as alternative source of energy for cooking and heating respectively. This has serious implication to the high rate of deforestation in the municipal area. Electrification programmes in Ba-Phalaborwa has been uses as a means to mitigate household dependence on wood as a source of energy. Other sources of energy to supplement electricity usage such as solar energy and gas have not being promoted as expected where households should be using solar energy for cooking, heating and lighting. Gas usage for cooking has also increased from 0.9% since 2007 to 1.5% in 2011.

Challenges on electricity in the Ba-Phalaborwa Municipal area

The information on electricity challenges can be summarised as follows:

- Lack of credible electricity data and information
- No historic data for most of the electricity assets
- Problematic access to some areas within Ba-Phalaborwa
- Unavailability of Municipal key personnel at times

Electricity Infrastructure Status in and around Phalaborwa economic hub

There is a need to have a detailed research, feasibility studies and other advisory and specialist work that may arise from time to time. The current electricity status quo, particularly in the Phalaborwa Town entails and is packaged as follows:

Table 40: Electricity Packages in Phalaborwa:

Selati	
T**ransformers**	The Selati Substation is supplied by two 33kV feeders from Eskom and terminate on two identical transformers. The transformers are rated 20MVA each. Transformer no.2 is not in operation, with the whole of Ba-Phalaborwa Town being fed by one transformer. ○ CT's for transformer no.1 had blown up and are no longer intact. ○ Transformer no.2 CT's are used to operate transformer no.1 ○ On both transformers no.1 and 2, there are visible signs of oil leaks and sludge. Oil analysis results as tested on the 13th of August 2012 shows that: ○ **Transformer no.1:** ▪ The paper insulation according to Furan analysis has deteriorated extensively (DP value=264) - limit 200. ▪ The oil has deteriorated and there is sludge ○ **Transformer no.2:** ▪ The oil has deteriorated and there is sludging ▪ The paper has deteriorated DP 450.

Selati						
Risk profile of the Transformers at the Selati Substation						
Item	**Selati Transformers**	**Qty**	**Rating**	**Location**	**Risk Classification**	**Action**
1	No.1	1	20	Selati	Medium	Do diagnostic tests Replace in 24-36 months
2	No.2	1	20	Selati	Medium	Do diagnostic tests Replace in 24-36 months
Recommendations						
Option 1	Immediate: ○ Regeneration of oil on both transformers, ○ Fix CTs, Temperature Instruments, Gaskets and silica gel, ○ Oil sampling, ○ Sweep frequency response analysis (SFRA) test-mechanical integrity of windings, ○ Frequency dielectric spectroscope (FDR) test-Insulation, ○ Consider online monitoring					
Option 2	Provide a spare transformer, to serve as an alternative backup plan in case one transformer fails-depending on loading, issues of impedance matching etc.					
Option 3	Replace both transformers with new-Considering future load requirements					
MV Switchgears	○ There are a total of 11 panels in the MV switch room. ○ The switchgears are old and outdated, and some are blown out. ○ There was an incident that occurred in February 2012, whereby some off the switchgears were burnt out and it affected the whole municipal area. ○ No incident report could be obtained hence it is not known what caused the flashover/fault.. ○ The existing panels are not of the same make. ○ Ripple control, Extension 5 supply no.2 and main sub feeder no.1 breakers are not there. ○ There are two new breakers fro Extension 7 sub-station and the Power factor. ○ No information can be obtained regarding the status of the MV					

Selati						
	Switchgears, and there are no nameplates. ○ The Selati MV room is unsafe in general terms					
Risk analysis for switchgears						
Item	**MV Room**	**Qty**	**Rating**	**Location**	**Risk Classification**	**Action**
1	Ripple control	1	11kV	Selati	High	Replace
2	Extension 5 supply No.2	1	11kV	Selati	High	Replace
3	Incomer TRF 1	1	11kV	Selati	High	Replace
4	Extension 5 supply No.1	1	11kV	Selati	High	Replace
5	Main Sub feeder NO.1	1	11kV	Selati	High	Replace
6	Bus section	1	11kV	Selati	High	Replace
7	Main sub feeder No.2	1	11kV	Selati	High	Replace
8	Main sub feeder no.3	1	11kV	Selati	High	Replace
9	Incomer TRF No.2	1	11kV	Selati	High	Replace
10	Extension 7 sub	1	11kV	Selati	High	Replace
Recommendations for switchgears						
○ New Vacuum Switchgears, ○ New breakers for incomers, ○ New breakers for feeders, ○ Internal ARC compliant must be uniform ○ IEC 62271-100-high-voltage switchgear and control gear						

Main substation	
MV Switchgear	○ The main substation is situated in the Phalaborwa Town and is fed from the Selati substation by means of 3 overhead lines ○ Two overhead cables have been replaced in XXX ○ Incomer No.3 is not functioning due to the burnt switchgear ○ There are two overhead lines with isolator from main sub to Cleveland and Schiettocht ○ The old GEC old switchgears (1983) and protection panels have been replaced with new breakers, complaint with IEC. ○ Protection and control panels were not replaced, ○ Operators sometimes operate manually, using hands in a very dangerously environment, ○ Operators are found not to be wearing the necessary PPE while operating MV switchgear

Risk analysis of the Main Substation-MV Switchgear-Summary

Item		Risk Classification	Ratings (kV)	Action
1	Extension 7 sub link	High	11kV	Replace protection and metering
2	Incomer No.1	High	11kV	Replace protection and metering
3	Cleveland/Schiettocht	High	11kV	Replace protection and metering
4	Incomer No.3	High	11kV	Replace protection and metering
5	Bus section	High	11kV	Replace protection and metering
6	Incomer No.2	High	11kV	Replace protection and metering
7	Extension 6 sub	High	11kV	Replace protection and metering
8	Sub 1880	High	11kV	Replace protection and metering
9	Lantana	High	11kV	Replace protection and metering
10	Sub 1880	High	11kV	Replace protection and metering

Recommendations	
○ New control and protection relays should be installed ○ New metering equipments should be installed ○ New breaker to Schiettocht (army base) must be supplied	
1880 substation	
1880	○ The substation consist of two incomers from the main substation and is a feeder to Cleveland sub, minisub 1, Northern bus area, Checkers sub, southern bus area/ Foskoriet flats and parking area behind Morkels. ○ The switchgears and protection are old and outmoded. ○ All the panels should be replaced with new technology and new protection relays
Lanatana substation	
Lantana Substation	○ The substation consists of two incomers from main switching substation and two feeders. ○ The protection panels are of new technology and are still in good condition. ○ Protection settings need to be done to ensure correct operations. ○ Modifications/upgrade has recently been done
School substation	
School Sub	○ The school switch substation is fed from Extension 6 and a link to Wildevey sub switch substation. ○ The substation is a feeder to mini sub 12, Game reserve, school mini sub and Spar. ○ The switchgears are of ancient technology, and must be replaced with new technology including protection relays
Cleveland substation	
Cleveland	○ The Cleveland substation is situated along the main road that leads to the FOSKOR mine. ○ The substation consist of two incomers and six feeders namely: - Mini subB1, - Mini sub A1, - Mini sub C16, - Mini sub B18, - A and C1/1 (off)

	○ The switchgears are old and outdated ○ All the panels must be replaced with new switchgears including new control and protection relays.
Extension 6 substation	
Ext. 6 sub	○ The substation consist of the new RM6 switchgears which are internal arc complaint, however, there are no metering equipment installed.
Weldevey substation	
Weldevey sub	○ The substation is the feeder to Sanlam sub, Lanatana Street, 500kVA transformer and a link to school sub. ○ The switchgears and control panel are old and outmoded. ○ All panels must be replaced with new switchgears including protection relays

Table 41: Risk analysis

Risk analysis of Extension 1-Substations summary						
Item	**Hall no/area**	**Qty**	**Rating (kV)**	**Location**	**Risk Classification**	**Action**
1	1880	1	11	Ext 1	High	Replace
2	Cleveland	1	11	Ext 1	High	Replace
3	Lantana	1	11	Ext 1	No risk	Replace
4	School sub	1	11	Ext 1	High	Replace
5	Wildevey	1	11	Ext 1	High	Replace
Extension 5 substation						
○ The Extension 5 substation is fed from Selati via an overhead line. ○ All switchgears including protection panels must be replaced with new technology ○ There are two feeders from Selati but they are terminated on RMU and there is only one overhead line to Extension 5.						
Recommendation						
○ Two dedicated lines to Extension 5 be provided- a new line has since been built.						

Extension 7 substation

- The Extension 7 substation is fed from Selati by means of overhead lines.
- The substation is feeder to Ext. 8A, 8B, Ext 4 via hospital, mini sub J and Ext. 2 via Essenhout street kiosk.
- Some of the old switchgears have been decommissioned and replaced with new.
- Protection panels were faulty.
- This is one of the critical switching stations and a new line from Selati should be considered

Extension 8A substation

- The Extension 8A substation is fed from Extension 77 substation by overhead lines.
- It terminates onto underground cables connecting to the switchgear.
- This feeder line is not working due to numerous underground cable faults.

Extension 8B substation

- The substation is fed from Extension 6 and is a feeder to mini sub H ring, mini sub A ring, Extension 3 and Extension 8A.
- Breakers have been changed recently but protection and control still need to be attended to.
- The cable that connects Extension 7 and Extension 8A has been cut-off meaning that if there is a fault at Extension 6, then Extension 8B will be affected until the fault is resolved.

Extension 4 substation

- The switchgears and protection panels are of ancient technology and must be replaced with new technology.

Risk analysis of the Extensions

Item	Extension	Location	Risk Classification	Action
2	Extension 2 switching substation	Ext 2	High	Replace
3	Extension 3 switching substation	Ext 3	High	Replace
4	Extension 4 switching substation	Ext 4	High	Replace
5	Extension 5 switching substation	Ext 5	High	Replace
6	Extension 6 switching substation	Ext 6	High	Replace
7	Extension 7 switching substation	Ext 7	High	Replace

8	Extension 8 switching substation	Ext 8	High	Replace

General assessments of electricity infrastructure in Ba-Phalaborwa

The following assessment particularly focuses on Phalaborwa Town. Outer areas such as Namakgale, Lulekani, Gravelotte and all the rural areas need to be assessed in the future LED Strategy review processes.

Table 42: Extension 1

Assessment-Extension 1
○ There are 3 main rings A, B and C feeding the old town households. ○ C Ring has been refurbished and a new 3 phase mini-substations and kiosks have been installed to replace the old 1-phase system. ○ The portion of B Ring has also been equipped with the new 3-phase mini-substations and kiosks.
The OK (Checkers) Transformer
○ The OK (Checkers) transformer has been installed in a room without ventilation. ○ The room is very hot. ○ The conditions as alluded above could have shortened the service life for transformers as well as major problems for electrical systems.
Industrial and commercials
○ The industrial section is fed from Cleveland substation via overhead lines. ○ Visual inspections have been conducted all around the industrial and it was found that most of the overhead transformers are old and corroded.

Table 43: Extension 2

Mini substations
○ Most of the locks on transformer sides cannot be opened due to rust, while some are broken. ○ There is an urgent need to replace all mini substations with new ones

Table 44: Extension 3

Mini substations
○ The mini substations consist of local transformers, fuses, single phase and three-phase metering. ○ All the mini substations are rusty and old

Table 45: Extension 4

Mini substations
○ There is a ring of ten (10) mini substations (A-H) located around the extension. ○ The ring mainly feed the residential area. ○ There is a new mini substation for old age homes not updated in this electricity status quo report .

Table 46: Extension 5

Mini substations
○ The extension mainly consists of overhead lines and transformers feeding the commercials and industries. ○ There are couple of mini substations and RMU installed but not updated in this electricity status quo report.

Table 47: Extension 6

Mini substations
○ The extension consists of 1 to 5 mini substations mainly for households and commercials. ○ There is a new mini substation along Sealeneweg road for Mica Home Warehouse and there is no nameplate on it.

Table 48: Extension 7

Mini substations
○ There are two (2) new mini substations (Tek 1 and Tek 2) feeding Mopani SE FET College that are not updated in this report. ○ The mini substations are situated inside the college. ○ Tek 1 mini substation is located on a garden and the cables at the mini substation are submerged in water due to watering. ○ The situation above need urgent attention.

Table 49: Extension 8

Mini substations
○ Feeds Mini substation 1, mini substation 8A, 8K, substation B and MS11. ○ Mini substation 8A-1A- has rusty, visible oil leaks, anthill on the metering and imbalance phases.

- Mini substation 8A was under maintenance but is not easy accessible.
- Original transformers seem to have blown up hence removed, with temporary transformers in use.

Load profiles and forecast in the Ba-Phalaborwa municipal area

The demand forecast of electricity and its consumption in Ba-Phalaborwa is based on historic power demand profiles for the past few years. The population growth in the town of Phalaborwa, spatial development Planning and as well as planned economic activities as per the municipality's Local Economic Development Plan indicates that:

- Ba-Phalaborwa has experienced a 1.4% population growth between 2001 and 2011.
- The current population is 150637 compared to 131536 in 2001.
- Ba-Phalaborwa has the highest population growth in Mopani.
- Ba-Phalaborwa has the following planned development programmes:
  - International hotel
  - Phalaborwa Extension 7
  - 110 residential erven (+- 1000m² stands)
  - 140 residential 2 +- 500m² erven
  - Housing units/flats/cluster housing developments
  - Contractor appointed to do services
  - Approval given to Province
  - Developers expected to buy larger stands
  - Phalaborwa Extension 10 to develop as a private development initiative
  - Services contract
  - Phalaborwa extension 9 +- 1070 erven, though the project has been put on hold due to it being un-serviced

A forecast on anticipated economic development and potential required electricity infrastructure demand projections, the situation indicates that Ba-Phalaborwa has about 65 projects identified for the period 2013-2017. An estimated total cost of R235 million is required for an adequate economic development for the Municipal area. About a third of the estimated (R75 million) will be required in the first five years. A total of R32 million excluding VAT is the estimated budget required for the next two financial years of 2013/2014 and 2014/2015 to be on track with the necessary development project plan.

A 20 year economic development expenditure plan implemented in phases can be outlined as follows:

Table 50: 20 year Economic Development Expenditure Plan

Year	Budget required (R)
2013-2014	R0
2015	R32,424,329
2017	R22,689,459
2018	R19,891,869
2020	R36,457,360
2022	R31,956,764
2023	R13,504,396
2025	R17,364,748
2027	R12,548,622
2028	R13,692,000
2030	R4,651,166
2032	R15,036,000
2033	R15,456,000

The overall electricity status quo report in the Ba-Phalaborwa Municipal area concludes that the switching equipments in the entire network's switching substations are old and unsafe to operate. This is due to the technology that is old-fashioned and protection and control equipment that is non-functional. The oil circuit breakers are being replaced by new vacuum breakers which are compliant with the latest South African and IEC standards. However, the switching stations remain high risk without proper protection equipment. The metering equipment is also not operational in most of the downstream switching stations. All switching stations should be equipped with proper protection and control systems as well as metering equipment.

The ring feed between Selati, Main and extension 7 needs to be strengthened. This is to enable the Selati substation to be able to supply extension 7 via Main substation and vice versa. The existing overhead line should be upgraded and a new line be built between the two switching stations. There are three overhead lines from Selati to Main substation and two of the three lines are new. The third line should also be upgraded. The one overhead line from Selati to extension 7 should be upgraded and an additional overhead line be built to ensure higher availability of supply.

The MV reticulation equipment such as transformers, miniature substations and distribution kiosks throughout the municipal area particularly Phalaborwa town are mostly old except some that have

recently been installed. Some of these needs to be attended to urgently as they pose danger to the public with some having broken mini substation doors and being submerged under water and unventilated rooms.

3.7.4. Transport infrastructure

The Limpopo Provincial Growth Development Strategy (PGDS) identified transport as an enabler in facilitating economic growth and movement of people and goods and services. Ba-Phalaborwa has 11 taxi rank facilities, with four formal in Phalaborwa, Namakgale and Lulekani which are intermodal taxi and bus ranks. All the Ba-Phalaborwa bus and taxi ranks are owned and maintained by the Ba-Phalaborwa Municipality.

Transportation infrastructure services include rail services mainly used for freight, in support of the mining industry, the privately owned and operated airport, servicing tourists, local business and mining, as well as reasonable road infrastructure that provides for commodity and passenger movements between the municipal area and other regional centres, province and internationally.

Pedestrian and bicycle movement remain an import local mode of transport. The pedestrian and cycling infrastructure in Phalaborwa is in a bad state and non-existent in Namakgale and Lulekani. The NDPG program has assisted with the construction of new pedestrian walkways along the main streets in the townships. It is important for the program to continue to cover all the major streets to enhance local mode of transport in all the areas.

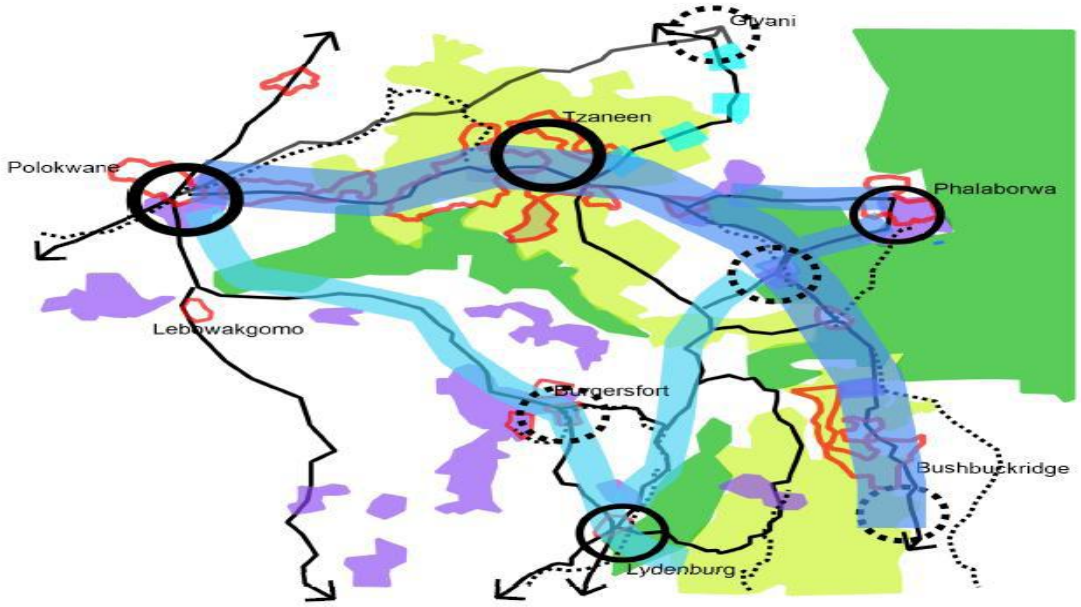
3.7.5. Roads

The Limpopo Spatial Initiative (SDI) roads support corridor development initiatives and is aimed at promoting these roads to create links with other provincial roads ultimately leading to National and border post. The important existing corridors in Ba-Phalaborwa include the Maputo corridor known as the Phalaborwa Sub-corridor, R71 connecting Phalaborwa and Tzaneen-Polokoane and R40 for the Hoedspruit-Nelspruit corridor. Main access roads into Ba-Phalaborwa have deteriorated and no longer in good condition.

The following could be summarised as the status of major road infrastructure in Ba-Phalaborwa:

- The current major road infrastructure in Ba-Phalaborwa has deteriorated so badly with urgent attention necessary.

- The R71 and R40 roads linking the Phalaborwa Kruger National Park gate with Tzaneen and Hoedspruit has gone beyond its lifespan and need to be refurbished urgently.
- The Phalaborwa-Silonque Estate road has collapsed with the need to have new road construction.
- Extensions 5, which serve as the main municipal industrial area has poor dilapidated road network.
- Most of the rural roads are mainly gravel and in poor conditions.
- The Uitspan Maseke-Mashishimale road has been tarred but in some parts with a lot of potholes to be fixed,
- The Benfarm-Lulekani road has been tarred, but need urgent maintenance and upgrading.
- The road linking Ba-Phalaborwa and Mozambique through the Kruger National Park is worth mentioning, given its strategic potential importance and its associated challenges due to it passing through the KNP as a tourism route.



Source: Road Management System (RAL, 2010)

The Phalaborwa Corridor is the major transport corridor connecting Phalaborwa and the north part of the Kruger National Park and Tzaneen with Mpumalanga via smaller towns such as Hoedspruit, Hazyview and White River.

Table 51: The status of the road network in Ba-Phalaborwa

Total Distances (km) of roads in Ba-Phalaborwa				
Tarred roads (km)	**% Tarred**	**Gravel roads (km)**	**% Gravel**	**Total**
211.37	46.3	245.3	53.7	456.67

Source: Road Management Systems (RAL, 2007)

The 2012/13 IDP indicates the extent and ownership of roads within the Ba-Phalaborwa municipality as indicated in the table below:

Table 52: Ownership/Managers of roads in Ba-Phalaborwa

Ownership/Managers of roads in Ba-Phalaborwa		
Description	**Ownership**	**Length (km)**
Paved	SANRAL	110
Unpaved	SANRAL	5
Paved	RAL	80
Unpaved	RAL	254
Streets	Ba-Phalaborwa	722
Total **Total**	**SANRAL** **RAL**	**115** **335**
Total **Total**	**Paved** **Unpaved**	**190** **260**

Source: IDP, Ba-Phalaborwa, 2012-13

Ba-Phalaborwa has a total of 1,171 streets and roads. The figure excludes newly established roads and streets in extension areas. The municipality has 722 streets to maintain. The Phalaborwa-Giyani road has been tarred and completed in 2011 by RAL.

Currently, Namakgale, Lulekani, the traditional settlements, and Gravelotte have chronic bad streets and roads that should either be paved or tarred urgently, due to long period of negligence. There are 315km of high priority primary roads and unpaved streets, and 215km secondary priority roads to be upgraded in Ba-Phalaborwa.

Table 53: Main roads in the Ba-Phalaborwa Municipal area

Main roads in Ba-Phalaborwa			
Name of road	**Description**	**Classification**	**Condition**
R71	Phalaborwa-Gravelotte-Tzaneen-Polokoane	Provincial	Need urgent upgrading
R526	Gravelotte-Mica	Provincial	Need upgrading urgently
R40	Phalaborwa-Mica-Hoedspruit-Nelspruit	Provincial	Need upgrading urgently
R529	Western border linking Giyani-Tzaneen	Provincial	Satisfactory
	Phalaborwa-Letaba Ranch-Giyani	Provincial	Good

Source: RAL, 2010

The key corridor routes (R71 and R526/R40) are fast deteriorating and in a bad condition.. There is a need to make provision for storm water control and culverts, re-grading, street paving and pothole maintenance for most of municipal roads and streets.

The 2012/13 IDP states that the municipality require close to R3.9m to deal with road and storm-water control and culverts challenges. The document further states that the municipality requires R287million to address all backlogs in the tarring of roads from gravel to tar to improve mobility and access to various places and enhance socio-economic initiatives. A further R23.8million is required to upgrade certain gravel roads to paved roads based on the 2006 price projections.

Challenges on road systems in Ba-Phalaborwa:

- Inadequate maintenance of gravel roads and streets, particularly in the rural areas,
- Inadequate road signage (route names, numbers, speed limits and distance signs),

- Inadequate fencing to protect motorists against wild and domestic animals on the roads,
- High road accidents (particularly along the R71,
- Vandalism of existing fences.

3.7.6. Taxi associations

There are a number of taxi associations in Ba-Phalaborwa. The Phalaborwa Taxi Association and Lulekani Taxi Associations are all operating from Namakgale and Lulekani respectively to Phalaborwa. A long distance Taxi association coordinating trips to outside areas and other provinces also exists. Coordination and control of this industry by the Municipality is done via the establishment of both District and Municipal Transport Forums.

3.7.7. Subsidised bus services

There is only one subsidised bus company (Great North Bus Service) operating as a public mode of transport. Megabus is only ferrying mine workers and private bus hires within and outside Ba-Phalaborwa.

Table 54: Ba-Phalaborwa Municipality Taxi Facilities

Taxi Facilities in Ba-Phalaborwa						
Rank	**Location**	**Type**	**Facilities**	**Destination**	**Route**	**Peak Periods**
Akanani	Off-street in Lulekani next to Akanani shopping centre	Informal	None	Acornhoek, Namakgale, Johannesburg, Giyani, Makhutswe, Tzaneen and N'wamitwa	D762 to Bushbuckridge & P112 to Namakgale	Morning & off peak
Lulekani	On-street on the entrance of Lulekani from Phalaborwa/Namakgale	Formal	Bus & taxi facility	Phalaborwa	P112 road	Off peak
Majeje	On-street near the soccer filed in the Majeje area. The mini-bus taxi rank will be moved to a new place in the	Informal	None	Phalaborwa	P112 road	Morning peak

Taxi Facilities in Ba-Phalaborwa						
Rank	**Location**	**Type**	**Facilities**	**Destination**	**Route**	**Peak Periods**
	future					
Makhushane	On-street	Informal	None	Phalaborwa	D390, D2105 & D86	Operates morning peak and off peak only
Maseke	On-street at the entrance to Maseke from road D3786 shared taxi and bus	Informal	None	Phalaborwa	D3786, D762, D2105 & D86	Busy morning & off peak
Mashishimale	On-street at Mashishimale	Informal	None	Phalaborwa	P112/1	Busy morning & off peak
Mica/Acornhoek	On-street next to the T-junction of roads D3790 and D762	Informal	None	Bushbuckridge, De Oaks and Makhutswe	D762	Busy morning & off peak
Mondzweni	On-street (temporary-stand available for future off-street rank	Informal	None	Makhutswe, Tzaneen, Nkowankowa and Giyani	R71 & new Selwane/Giyani road	Busy off peak

Taxi Facilities in Ba-Phalaborwa						
Rank	**Location**	**Type**	**Facilities**	**Destination**	**Route**	**Peak Periods**
Namakgale	On-street at the entrance of Namakgale on P112/1 Tzaneen/Gravelotte road	Formal	New taxi rank facility maintained by the Municipality	Lulekani and Phalaborwa	P112/1	Busy morning & off peak
Tzaneen	On-street next to Namakgale entrance	Informal	None	Johannesburg, Giyani, Makhutswe, Tzaneen and Selwane	P112	Busy from morning peak until early afternoon

Source: RAL, 2010

3.7.8. Rail

The whole rail network in the Limpopo Province is owned by Spoornet and serves long distance services. In Ba-Phalaborwa, rail infrastructure is in a relatively good condition and mostly utilised by the mining industry for freight services. The Phalaborwa to Richards Bay via Hoedspruit and Nelspruit is an important rail corridor for the Ba-Phalaborwa. A percentage of the magnetite previously transported to Maputo by road is now being transported to the same destination by rail but only from the Mica Station. Rail transportation is very strategic and important for the movement of freight and to reduce the transportation of goods using roads.

Freight out of Ba-Phalaborwa is around 8 million tons per year, mostly phosphate that is being railed to Richards Bay. The capacity of the line is 12 million tons per year, but Transnet Rail Freight does not have sufficient rolling stock to run the line at full capacity. The collapse of the rail bridge between Phalaborwa and Hoedspruit in 2010/2011 caused major disruptions due to goods being transported using road transport as an alternative mode of transport. Magnetite is now also being railed to Maputo from Mica Station but is being transported there by truck.

The following regulatory issues require urgent attention:

- Inadequate parking facilities for truckers,
- Speed limits that are too low cause driver fatigue, and truck drivers should take regular rests,
- Public transport facilities and systems that accommodate needs of persons with disabilities (shorter walking distances and paved sidewalks for easier wheel chair or crutches),
- Accommodate learners needs (affordability, accessibility, linkages to educational institutions, 5km walking distance transport system etc.),
- Non-motorised transport system for all.

Public transport issues that require urgent attention to promote public transportation include:

- Provision of adequate public transport infrastructure, facilities, and services,
- Increased utilisation of public transport services,
- The improvement of the image and acceptability of public transport,
- Improved service quality and reliability,
- Safety and security and
- Affordable public transport system.

3.7.9. Air transportation

Ba-Phalaborwa has an airport with a landing strip that is utilised by Airlink and private charters from the mines. There are three scheduled flights per day linking Phalaborwa and OR Tambo, with few private planes from individuals utilising the airport. Airlink initiated a process to sell and transfer the airport to the Ba-Phalaborwa Municipality in 2011, however, preliminary feasibility studies indicated the unprofitability of the venture with subsequent canning of the proposal.

3.7.10. General related problems identified on transportation

Based on the status quo analysis of transport services in Ba-Phalaborwa, the following problems could be identified:

Public transport

- There are too few taxis on rural roads,
- Transport system is inadequate to meet the basic accessibility needs to work, health care, schools, and shops, particularly in the rural areas such as Seloane and Gravelotte,
- Transport services are not affordable for basic accessibility needs,
- Transport system is not flexible enough to respond to customer requirements, particularly in the rural nodes,
- Infrastructure does not meet the needs of operators and customers.

The current transport infrastructure development initiatives in Ba-Phalaborwa were implemented to achieve an integrated modal system of all different public transport modes (mainly bus and mini-bus taxis, rail and air travel). The current transport fare system is however very far from being integrated.

The concept of non-motorised transport system is non-existent in the municipal area. Ba-Phalaborwa Municipality need to draft plans to provide infrastructure and maintenance plans for sidewalks and paths for bicycles, and lanes to encourage the use of bicycles and walking to and from work and school where possible. A project on the provision of bicycle racks can encourage people to use bicycles for part of their journey where possible as an example.

3.8. Waste Management, refuse reduction and recycling

Waste Management in Ba-Phalaborwa is implemented based on the National Environmental Management: Waste Act, 2008 (Act No 59 of 2008). The Act requires municipalities to give accurate baseline waste management information on which to base policy decisions. The municipality has an

integrated waste management plan in place as a way of compliance to the National Environmental Management Act of 2008 after conducting an integrated waste management feasibility study in August 2005. The municipality has a mainstreamed waste management system that is integrated in the municipal service delivery programmes as part of the Greenest Municipality principles. Annually, Ba-Phalaborwa takes part in the District, Provincial, and National GMC competitions.

Ba-Phalaborwa municipality is providing waste management services to 22 553 (67%) households, out of its total households of 33 793 (IDP, 2012, p.82). The waste collection services are provided in Phalaborwa, Namakgale, Lulekani, Gravelotte, Mashishimale R1, R2 and R3, and Mandela Village in Namakgale.

The IDP further states that solid waste management has a backlog service provision standing at 11 240 (33%) of the total households. The table below shows waste management backlog in Ba-Phalaborwa:

Table 55: Solid Waste Management Backlog in Ba-Phalaborwa

Solid Waste Management Backlog in Ba-Phalaborwa			
Five year Plan	**Area**	**No. of Households**	**Percentage**
2009/10	Matiko Xiakaya & Humulani	2 673	8%
2010/11	Selwane, Prieska, Nondweni, Silonque, Grietjie	2 873	9%
2011/12	Makhushane	2 383	7.5%
2012/2013	Kurhula, Maseke & Boyelang	3 311	8.5%
Total		11 240	33%

Source: IDP, 2012

Lack of resources is cited as an impediment for providing services in the above-mentioned areas. The Phalaborwa solid waste site has reached its full potential and is operating illegally. Processes to access a new waste site need to be expedited and finalised, permitted through the DWAF processes.

Key challenges on waste management in Ba-Phalaborwa include:

- Ageing infrastructure,
- Inadequate staffing,
- Land claims in the Phalaborwa dumping site,
- Licensing of new landfill site and
- Rehabilitation and closing of Namakgale, Lulekani and Phalaborwa landfill sites.

Waste recycling in Ba-Phalaborwa happens on a very small scale, with only 20% of waste in the Phalaborwa dumping site recycled. Private companies have been allowed to scavenge from the waste dumped in the Phalaborwa landfill site and done in the industrial area where sorting of recyclable materials is done. Households on the municipal indigent register receive free basic refuse removal, and sewer services.

3.9. Telecommunication and general linkages communications

The Limpopo Portfolio on Communication has highlighted telecommunication infrastructure conditions as worrisome in Ba-Phalaborwa, particularly in the rural areas such as Seloane, Mahale, Majeje 2, Prieska and Nondweni, hence the 2007 resolution to establish the Seloane Thusong Service Centre (TSC) in accordance with the provisions of the New Limpopo Business Plan for Thusong Service Centres. The Seloane TSC is aimed at providing integrated government information and services that include banks, post office, library services, SAPS, municipal office space, traditional authority services to cover Seloane and its surrounding areas. In terms of transport, the area is relatively well linked since the completion of the Phalaborwa-Seloane-Giyani road; however, the Prieska area still has backlogs on tele-communications and excellent tarred road linkages. Although Telkom infrastructure is in place, personal mobile units or cell phones are mostly utilised for communication even though the network coverage is very low.

Ba-Phalaborwa has local print media newspapers such as the Palabora Herald. Mopani Ads runs an electronically distributed to internet subscribers once per week. The Ba-Phalaborwa communities have access to SABC radio stations (majorly Mungana Lonene, Thobela FM, Phalaphala, SA FM etc) and the privately run Capricorn FM.

The local radio station, Phalaborwa Community Radio Station broadcasts from Namakgale, and plays an important role in communicating and broadcasting important national, provincial and local news, announcements, and any related journalistic issues. The radio station initially broadcasted in

Northern Sotho, Tsonga, English and Afrikaans, but lately, the Afrikaans language is no longer used by the radio station.

There are three cellular phone networks (Cell C, Vodacom, and MTN) with excellent coverage in almost 95% of the municipal area within the 15km radius inclusive of Gravelotte, with poor reception in some rural areas such as Seloane and Prieska.

Television coverage and DSTV services are accessible in almost every part of the municipal area, with internet services making it easier to communicate in most parts of Ba-Phalaborwa.

3.10. Social infrastructure

3.10.1. Sports fields and recreational facilities

Ba-Phalaborwa have excellent infrastructure to cater for various sporting codes including golf, tennis, long distance running, netball, soccer, cricket, swimming, basketball, shooting, snooker and rugby. The municipality has the potential to develop more infrastructures for other sporting codes.

There is however a definite shortage of facilities within the Namakgale and Lulekani areas as well as all of the rural areas. The Sports Council should audit the available facilities comprehensively and using best practise models investigate requirements for all sporting codes that may be required as a guide to Council planning and development.

Table 56: Formalised Sports infrastructure per municipal growth point

Formalised Sports infrastructure per municipal growth point							
Town	**Tennis courts**	**Basketball courts**	**Soccer/rugby fields**	**Chessboard court**	**Swimming pools**	**Volleyball court**	**Athletics tracks**
Gravelotte	-		-		-		-
Selwane	-		-		-		-
Lulekani	2	1	1	1	-	1	1
Namakgale	-	-	1	-	-	-	1
Phalaborwa	-	-	3	-	-	-	-
Total	**2**	**1**	**5**	**1**	**0**	**1**	**1**

According to the IDP (2012), most sports infrastructure is concentrated within the Phalaborwa, Namakgale and Lulekani urban complex. There are no recreational facilities in rural areas, Grietjie, Gravelotte and Selwane. However, it should be noted that the condition of the sports facilities is not satisfactory and therefore need urgent attention, with upgrading programs to be adopted.

- **Phalaborwa**

The Impala Park Stadium provides sufficient sporting facilities to cater for the current population of Phalaborwa town and the various activities currently being accommodated by the venue. The facility is well maintained.

- **Lulekani**

Lulekani stadium develop a well developed infrastructure suitable for large sports events, social gatherings and meetings. The soccer field and the athletics tracks are well maintained, although not up to international standards. The Lulekani stadium received an uplift with new tennis, volleyball, chess, tennis and netball courts constructed through the assistance from FOSKOR's SLP implementation program. The tennis and netball courts have been upgraded with a new pavilion constructed by FOSKOR.

- **Namakgale**

The Namakgale stadium has areas for soccer and athletics that are not for professional games. The facility need to be upgraded and increase its utilization. The cycling velodrome is no longer usable.

3.10.2. Walk, running and cycling ways

- **Phalaborwa town**

Phalaborwa town has embedded walkways that were constructed some years ago. The walkways have deteriorated and need to be upgraded urgently. There is a need for a comprehensive implementation plan for the construction of integrated walkways that could be used for leisure and transport activities such as cycling, running etc.

- **Namakgale and Lulekani**

Lulekani Has some walkways constructed in the 2011/2012 financial year along the main streets. The entrance to Namakgale has walkways constructed in the 2011/2012 financial year. The two towns

have no structured walkways. Resources from the NDPG have been utilised to construct walkways in Namakgale and Lulekani main entrances. There is still a lot to be done regarding the construction of more walkways throughout the two township areas to improve all access roads and internal residential streets.

3.10.3. Parks and Leisure zones

Phalaborwa town has well maintained parks. Namakgale and Lulekani has well no well dedicated and maintained leisure parks. There are no leisure zones developed in Ba-Phalaborwa integrated into the developed parks outside the Phalaborwa town.

3.11. Institutional capacity

The IDP document (2012, p.92), states that, Ba-Phalaborwa has a staff compliment of 683 workers, with only 428 of the positions filled. However, the institution is facing a challenge of a retiring workforce due to old age, with more workers expected to retire in the coming years.

3.11.1. Workplace Skills Plan

The municipality has developed a Workplace Skills Plan that is reviewed annually. In the 2011/2012 financial year, the municipality has budgeted R1.6million for Skills Development. The following trainings were offered to employees linked to their Workplace Skills Plan in the 2011/2012 financial year:

- Municipal Finance Development Programme for all senior managers,
- HIV/AIDS management,
- Disaster Management training,
- Traffic Policing Management,
- Certificate Programme for Municipal Development,
- Operators Regulations for High Voltage System,
- Brush Cutting training,
- Municipal Supply Chain Management,
- Local Economic Development,
- Integrated Development Plan.

The investment in skills development and capacity building programmes for the municipal workforce is aimed at making the Municipality an effective, efficient and a professional institution. However, the high rate of staff turnover in key strategic positions offset the strategic capacity of the

institution to deliver services consistently, with negative implications that, the new staff will still need to be re-trained in the same skills requirements already offered in the past, thus requiring further financial resources.

3.11.2. Employment Equity Plan

The municipality has developed a five year Employment Equity Plan that expired in 2010/11 and a reviewed plan and policy has been submitted to Council for adoption. The EE targets set were not met as expected. The municipality did not have a functional EE Rep Forum, thus struggling to submit EE reports.

3.11.3. Financial capacity

Ba-Phalaborwa Municipality has a broad revenue base to tap into for revenue collection. The total municipal budget for 2013/2014 financial year is R383m.

3.11.4. Supply Chain

The Municipality is at 93% in compliance to the Supply Chain Management, as set out by the National Treasury. Supply Chain reports are tabled to Council and submitted the National and Provincial Treasury as expected. SMMEs are supported through the Supply Chain Management, with gradual annual targets increased.

3.11.5. Auditor General's Report

The Audit outcomes for the past years indicates that Ba-Phalaborwa Municipality received adverse audit opinion in 2006/07, 2007/08 a disclaimer audit opinion in 2008/09, 2009/2010, 2010/2011 and 2011/2012.

3.12. State of the environment

3.12.1. Physical Environment

- **Climate**

Ba-Phalaborwa falls within a predominantly hot, dry climatic region. Mean monthly temperatures range from 15ºC in June and July to 32ºC in December and January (Figure 5-1). Mean Annual Precipitation (MAP) is generally low, with an average MAP of 450 mm per annum occurring predominantly during the summer rainfall period from October to March (Figure A3). The predominant wind direction is from the south and south-eastern sectors from August to May and from the north and north eastern sectors in June and July.

Figure A1: Mean Monthly temperatures, indicting mean minimum and maximum temperatures in Ba-Phalaborwa Municipality

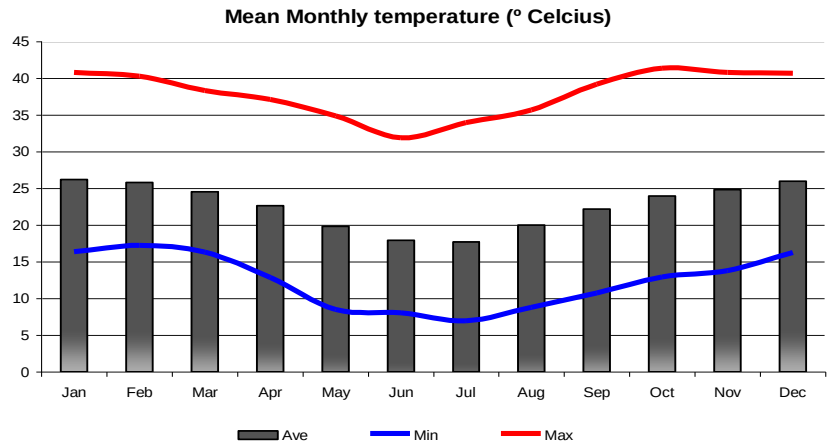
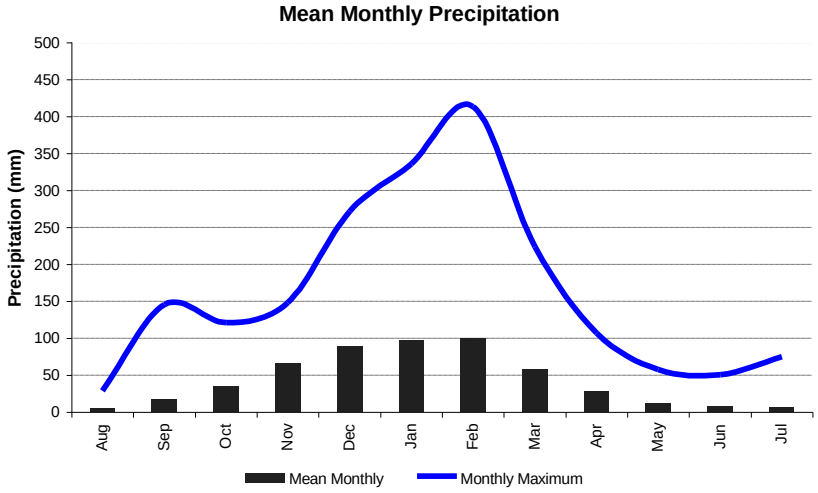


Figure A2: Mean Annual Precipitation in Ba-Phalaborwa Municipality



- **Geomorphology**

The Ba-Phalaborwa Municipality is predominantly underlain by gneisses of the Goudplaats gneiss and granites of the Lekkersmaak Granites with quartzitic, dioritic, sedimentary and pyroxenitic intrusions which, combined, are known as the Palabora Complex (Figure A5). This complex is rich in minerals and forms the basis for a very strong mining industry. The most important minerals mined in Ba-Phalaborwa are copper, phosphate and vermiculite. Magnetite, zirconium, nickel, uranium, iron and gold are by-products which are mined in smaller quantities.

The topography of the municipal area ranges from 840 mamsl in the west to 300 mamsl in the east, with a higher-lying ridge complex running from west to east through the centre of the municipality

(Figure A6). This ridge complex is characterized by a series of dominant koppies and rock out-crops which form topographical highpoints through the municipal area.

- **Hydrology**

Water Resources refer primarily to surface and groundwater quantity and quality, but should include associated floral and faunal communities which contribute to the overall functionality of watercourses and water bodies. The rate and type of future development in Ba-Phalaborwa Municipality is strongly linked to the quantity and quality of available water supplies. Inputs are driven mainly by rainfall patterns that are strongly seasonal, and highly variable between places and between years. The Mean Annual Precipitation (MAP) in the Municipality is about 450 mm per annum, and the area is prone to prolonged droughts and periodic flash floods. These extreme climatic conditions should be taken into consideration and incorporated into municipal long-term planning strategies.

Ba-Phalaborwa Local Municipality is situated within the Olifants River Primary Catchment, with the tertiary catchment water shed between the Ga-Selati River and the Letaba River taken along the topographical ridge line. These river systems also function as greenbelt, biodiversity corridors along which many larger species migrate.

Much of the water on which Ba-Phalaborwa depends is therefore generated outside of the municipal boundary. Lepelle Water abstracts the majority of water for distribution in the municipality from the Olifants River, downstream of the confluence with the Ga-Selati River Groundwater yields within the municipality are low to negligible, and cannot be considered as a source of suitable potable water due to these low yields as well as poor water quality.

Groundwater yields are generally poor in the Municipality. Depth to water is between 20 and 45 mbgl. Groundwater prospect ability over the municipal area indicates that the probability of establishing a borehole with a yield greater than 200 litres / hour is between 20% and 40%. The majority of boreholes located within the municipality are within the Lulekani and Mashishimale areas, which occurs within an area in which the yields are generally low (<200 l/hour). Groundwater quality within the Municipality is generally very low, and is classified as hard water due to high calcium and magnesium levels. Mean TDS concentrations, which provide an indication of the concentration of all dissolved elements, range from 478 mg/l in the north-western parts of the Municipality to 948 mg/l in the south-eastern parts.

The Department of Water Affairs (DWAF) guidelines water quality indicate a target range of less than 450 mg/l, thus groundwater across the municipality is generally considered not suitable for potable

use**.** Groundwater TDS concentrations above 40mg/l are generally considered unsuitable for irrigation purposes, while concentrations above 2000 mg/l are considered unsuitable for cattle and horses.

Approximately 99 registered boreholes are located within the municipal area, predominantly within the Lulekani and Mashishimale areas, as well as on the farms along the Letaba River. Boreholes within formal townships may be utilised for livestock or irrigation purposes, as the poor water quality could preclude use of groundwater for potable use.

- **Air Quality**

Air Quality in the Municipality is generally very good. The principle pressures on local and regional air quality are dust generated off mine tailing and mining activities and emissions from industries and smelting operations within the heavy industrial areas. Controlled and uncontrolled burning of vegetation also contributes significantly to suspended particles (PM10, PM2.5) as well as greenhouse gas emissions.

Burning of fossil fuels for cooking or heating purposes may also contribute to regional air pollution. Increased traffic within the area may contribute to regional emissions although the absence of a major commercial transport route to or from Phalaborwa reduces the significance of vehicular emissions

- **Biophysical Environment**

The Ba-Phalaborwa Municipality falls within the Savanna Biome, and is thus characterised by a well-formed woody component with interspersed grass swards. The terrestrial environment, at least in terms of geology, soils and vegetation types, is relatively homogenous. This, coupled with localised settling patterns around Phalaborwa itself and large proportion of area under formal conservation within Ba-Phalaborwa Municipality, results in a low overall environmental sensitivity. However, the terrestrial environment is facing significant pressures related predominantly to land use change and poor land management.

- **Sensitive habitats**

Sensitive habitats are broadly linked to topographical features, in particular lower lying areas which function as temporary or seasonal wetlands or higher lying areas such as ridges or koppies. These topographical and geomorphologic features generally translate into biodiversity hotspots or corridors. The Ba-Phalaborwa Municipality indicates well defined topographical features which could

be viewed as sensitive features, as well as two major low-lying habitats in the Letaba River to the North and the Ga-Selati River in the South.

- **Conservation areas**

A large proportion of the municipal area is under formal conservation, including the Hans Merensky and Letaba Nature Reserves; as well as the Selati Nature Reserve and conservation area. The Kruger National Park bounds the Municipal area to the east. According to Gertenbach[1], the Phalaborwa-Timbavati Mopaneveld is relatively well conserved, with some 38% under formal conservation in the KNP alone, and an equivalent area under conservation in the Selati Game Reserve, Timbavati and Klaserie Nature Reserves.

3.12.2. Biodiversity

- **Rare or endangered species**

Due to the presence of large conservation areas, faunal biodiversity is generally high although the vegetation types which characterise the municipal area generally reflect low biodiversity. According to the South African National Biodiversity Institute, four plant species are indicated as critically endangered and two species endangered. Two species are classified as vulnerable while three are considered near threatened. Four species are listed as data deficient. This information is only available from surveys conducted in formal conservation areas.

- **Alien Vegetation**

Approximately 31 declared weed or invader species have been recorded in the municipal area, the majority of which are category 1 or category 3 species. These are generally viewed as escapees from gardens where they are planted for their aesthetic value. The Kruger National Park through its Working for Water Programme assists the municipality in the cleaning of alien vegetation in Ba-Phalaborwa streams just outside the park.

Environmental Pressures

A number of pressures on the environment were identified, and can be summarized as follows:-

- Changes in land use
- Deforestation
- Alien eradication

[1] Gertenbach, WPD (1983): *Ekologiese studie van die suidelikste Mopaneveld in the Nasionale Krugerwildtuin.* Unpublished DSc thesis, Univ. of Pretoria. In *Mucina, L & Rutherford, MC (eds 2006): Vegetaion of South Africa, Lesotho and Swaziland. Strelitzia 19, SANBI, PTA.*

- Water quality and quantity
- Air Quality
- Waste sites
- Safety concerns (HAZMAT)
- Phalaborwa Airport
- Veld fires
- Cemeteries
- Environmental management
- Tourism resources

Environmental Opportunities

There are opportunities to promote bio-diversity corridors and cultural assets aimed at the tourist market. Environmental awareness education has proven itself as an investment with high developmental returns. There are also opportunities to work with major local mining companies to develop an effective environmental management information system with an appropriate response capability.

3.13. Scenario Projections

Total employment in Ba-Phalaborwa Municipality is estimated at19 913 (59%) according to Stats SA 2007, the unemployment rate is at 11% with a total number of 3 842 people not working, of which 3,350 or 9% is contributed by Palabora Mining Company. Palabora Mining Company has indicated that their expenditure within the local economy amounted to R1.6 billion[2], which is significant (more than 6% when reduced by the GGP co-efficient) in a municipal economy estimated to have generated R8.2 billion in value added at 2007 prices.

There is an 80% probability that the viability of copper mining activities will drop considerably from 2015 onwards and that these activities will be ceased in 2017, however, Palabora Mining Company is commissioning the construction of an Iron Ore plant to be run by IBMS. Copper smelting with imported ore, as well as vermiculite mining will probably continue. In this case the company can be operated with 25% of its current staff complement, or 850 people[3]. Rio Tinto and Anglo sold 75% of its shares to the Chinese companies in 2012, presenting an unstable economic environment. Employment at Foskor is expected to remain at current levels. FOSKOR has also expanded its

[2] Ministerial visit to PMC, April 2007

[3] This figure includes the estimated 300 new jobs that could be created by the reclamation of magnetite from mine dumps

Zirconia Plant. Close to 1000 persons have lost their jobs while Bosveld Phosphates was still operating as Sasol Nitro which has since re-opened as Bosveld Phosphates.

The labour force will continue to grow at the same rate as the population growth rate, although 30% of the people who are likely to lose their jobs at PMC will probably leave the town to find alternative employment elsewhere. Similarly, 30% of the people losing their jobs as a result of the employment multiplier, will probably also be able to move. This implies an outmigration of 1,500 persons and a remaining labour force projection of 67,000 persons for 2017. Under this high probability scenario, the unemployment rate in Ba-Phalaborwa Municipality is likely to increase to 53% by 2017.

There is a 20% probability that a second deepening of the existing shaft under the open pit will be feasible and that this can be financed and constructed in time for copper mining operations to continue when the new shaft is worked out before 2017. An important assumption is that pit slumping will not occur when the shaft extension is constructed. Under this scenario mining employment will remain as it is at present, but other employment could increase slightly to 35,000, resulting in total employment of 40,400 by 2017. The labour force is projected to increase at the same rate as the population and is projected to reach 68,700 in that year. Under this low probability scenario, the unemployment rate in Ba-Phalaborwa Municipality is likely to increase slightly to 41% by 2017.

Both scenarios project an increase in unemployment. This underscores the importance of identifying and implementing suitable development interventions, firstly to absorb the expected job losses of approximately 2,500 under the high probability scenario and secondly to reduce current unemployment by half from 40% to 20% in 2015 in terms of the millennium development goals. This will require 17,725 new jobs, or almost 1,800 each year.

3.14. Projected Future State of Infrastructure

Without intervention regarding infrastructure management and development it is foreseen that:

- The effective management of infrastructure will remain under strain due to a lack of capacity within Ba-Phalaborwa Local Municipality and Mopani District Municipality,
- Water supply in Phalaborwa and surrounding areas will not be sufficient to meet demand and will constrain development in the municipality,
- Electricity supply will become unstable, even in the short term,
- The current waste site is illegal. To meet legislation a new site needs to be developed,

- Sanitation conditions in the rural areas will become an increasing health risk.

3.15. Anticipated Spatial Trends

The following disturbing spatial trends will continue unabated if no intervention is not urgently sought:

- The spatial pattern will become further distorted with the outward growth of peripheral areas,
- Constraints on infrastructure services provision.
- The settlement of land claims is likely to be protracted, causing uncertainty and a further reduction in investment in the productive capacity of land.
- Ad hoc unattractive developments along the major roads to Phalaborwa town from Namakgale and the gateway to the Kruger National Park, undermining the development potential and value of these corridors.
- Hap-hazard unplanned developments within the smaller rural settlements and linear developments next to the roads will continue growing rapidly making very little contribution towards the development of the municipal area.
- Commercial and or communal farming focused on cattle grazing may destroy large parts of the already overgrazed farming areas. The slow pace of subsidy housing delivery will be unable to provide for the housing needs of the growing population and informal settlements will increasingly mushroom in the Makhushane, Majeje, Mashishimale and Maseke Tribal areas, with some municipal land being invaded in the Makhushane Sewer plant and Tshelang-Gape areas.
- Redevelopment and densification within Phalaborwa town will be left in the hands of private developers.
- Opportunities to participate in and to re-direct the spatial imbalances will gradually be lost with permanent development that is unplanned and difficult to correct. The trend to develop residential housing within the industrial area under the guise that it represents “site supervisory housing” will continue becoming more difficult to reverse in the future.
- A new landfill site has been identified for development next to Makhushane in Extension 5, however, of the area earmarked has a potential for integrated economic growth thereby limiting the potential for creating an integrated urban environment.

Open space systems may further degrade because of uncontrolled urban farming practices and erosion.

3.16. Projected Future State of the Environment

The main pressures on the environment at present are summarized below. Based on these pressures and current state of environment, the following extrapolations for future scenarios can be made:

- **Changes in land use**

If current land use patterns are maintained, it is likely that significant tracts of natural areas will be lost as urban sprawl occurs in a westerly direction. As this occurs, large areas of communal and formal grazing area will become overgrazed and over-utilized, resulting in loss of grazing capacity and the associated economic and cultural value of the cattle herds.

- **Deforestation**

Deforestation is intimately linked to changes in land use, with clearing of vegetation associated with opening of areas for settling, livestock grazing, and harvesting of wood for fuel (cooking). At present, the extent of deforestation has not been mapped although it can be expected that coverage will reduce exponentially as the population grows and expands. Areas currently affected

- **Alien eradication**

The impact of alien infestation in the Municipal area is relatively low in comparison with South African trends in general. The biggest impact is, however, associated with infestation along watercourses in the municipal area. Alien infestation generally occurs at a very rapid rate if no controls are instituted and the resultant infestation along rivers ultimately has a significant impact on water quality and quantity.

- **Water quality and quantity**

The main pressures on water resources within Ba-Phalaborwa are linked to siltation in rivers occurring as a result of erosion, mining activities, and encroachment of alien vegetation, poor management of sanitation facilities, construction of infrastructure or facilities within watercourses and uncontrolled abstraction for agricultural activities within the municipal area. Since all major urban centres occur within the Ga-Selati Tertiary catchment, development of any form in and around these settlements ultimately impacts on the potable water supply to the Municipality.

Deterioration in groundwater quality is attributed to contamination by pit toilets, industrial and domestic waste, establishment of cemeteries in unsuitable locations, solid waste dumping (both legal and illegal) and developments with inadequate septic tanks.

Soil erosion is a severe problem in some areas, attributed mainly to deforestation, poorly maintained cultivation agricultural activities, and uncontrolled sand mining for small scale brick-making businesses. Soil erosion leads to siltation of rivers and streams and consequent single-species dominance of reeds. As indicated above, this siltation ultimately impacts on the potable water supply to Ba-Phalaborwa.

- **Waste sites**

Four waste sites have been utilised in the past in Ba-Phalaborwa at Gravelotte, Namakgale, Lulekani and Phalaborwa. At present, only the Phalaborwa waste site is currently operating, and has already exceeded its operational lifespan. A feasibility study has been completed to establish a new, central municipal waste site. However, this process has been suspended pending the outcome of the land claim for the proposed site. Continued dumping at the existing landfill site will exacerbate the problem of fly litter from the site during high wind periods and will eventually become a visual intrusion in the landscape. The most severe problem with this is the low availability of cover (soil) material as the landfill height increases.

- **Safety concerns (HAZMAT)**

Response to hazardous material (HAZMAT) related emergencies are primarily a function of the municipal Emergency Management Services (EMS). At present, there is no indication of the capability of the EMS in responding to, containing, and cleaning a HAZMAT spill. The principal concern related to this is number of road and rail watercourse crossings in the municipal area, where spillages have the potential to impact on numerous downstream water users including the principal water supply for Ba-Phalaborwa itself. This risk becomes progressively worse if the EMS is not refurbished and properly trained but also as traffic flows to and from Ba-Phalaborwa increases.

- **Cemeteries**

Cemeteries located in Ba-Phalaborwa generally constitute a significant health and environmental risk as these are established in low lying areas adjacent to water courses. Flooding during high rainfall events will therefore not only result in damage to graves and headstones but will also result in contamination of water resources by leaching and runoff. This will become progressively worse as these existing and possibly new cemeteries encroach further into the flood lines.

- **Environmental management**

At present, environmental management within Ba-Phalaborwa is restricted to parks and recreation, waste site management and waste water treatment works management. The current lack of

capacity in the municipality to address environmental obligations in terms of environmental legislation will ensure that the municipality will continue to develop and operate in an environmentally unsustainable manner.

It has become critical that the Ba-Phalaborwa Municipality incorporate an environmental co-ordinator with specialist knowledge into its structure. It is also imperative that the State of Environment report be reviewed by experts and an Environmental Management Framework and Plan be developed to run in parallel with the spatial plans and land use management system amongst others.

3.17. Development Policy in Ba-Phalaborwa Municipality

The vision of the Ba-Phalaborwa Local Municipality is Ba-Phalaborwa:

"***Best tourist destination in Limpopo by 2020"*.**

The following slogan has been coined for the purpose of projecting Ba-Phalaborwa as a tourist destination of choice and

"***The Home of Marula and wildlife tourism"***

The mission of the Ba-Phalaborwa Local Municipality is:

- To ensure financial viability and sound administration and accountable governance for investor attractiveness;
- To render all stakeholders with quality and affordable infrastructure and services for enhancing a safe and better life for all;
- To manage the environment for future sustainable economic growth;
- To promote and support mining and agricultural industries for economic growth;
- To position Ba-Phalaborwa as a tourism destination of choice.

Key Issues with regard to the Local Economy that are identified in the IDP are listed below:

- Scattered human settlement patterns
- A limited manufacturing base
- Widespread poverty and high levels of unemployment
- Limited human resource base

- Outstanding land claims
- High prevalence of HIV/AIDS

Further issues highlighted include the following:

- Increased number of people without an income is entrenching poverty;
- Strategies for rehabilitating mines and create or maintain employment are required;
- The need for establishing the contribution of the informal economy to municipal development and overall individual and household ways of life;
- An economic analysis should be conducted in order to craft a local economic strategy that can broaden the economic base of the Municipality;
- Noting the economic potential of the tourism industry in the area, steps need to be taken to develop/review, adopt and implement a Tourism Strategy for the Ba-Phalaborwa Municipality;
- The downscaling of the mining industry requires that the Municipality puts sustainable local economic development (LED) as a priority issue in its integrated development plan (IDP);
- The scheduled closure of Palabora Mining Company(PMC) in 2024 in conjunction with the after effects on Sasol Nitro is expected to shed at least 7 400 jobs in the Municipal area; with Sasol Nitro having closed shop in 2010 and around 1000 employees lost their jobs. The figure includes direct and indirect employees employed by Sasol.
- There is a need to develop, adopt and implement a Branding Strategy for Ba-Phalaborwa with the view to broadening the local economic base, hence the Ba-Phalaborwa Municipality has adopted the slogan: “The Home of Marula and Wildlife Tourism” in support of the Vision for Ba-Phalaborwa projecting the municipal area as the “Best tourist destination in Limpopo by 2020”.

The IDP also requires that the proposed economic development strategy should be aligned with the National Development Plan, New Growth Path, the Limpopo Economic Growth and Development Plan and the Mopani District LED strategy and that it should identify job creation opportunities as well as additional resources to promote development. The seven thrusts for the Mopani District LED strategy identified in 2005 are still relevant for the 2011 LED status quo in Ba-Phalaborwa and are as follows:

Thrust 1: Economic infrastructure support

Thrust 2: Local business and support networking

Thrust 3: Economic sector diversification

Thrust 4: Rural economic base development and human empowerment

Thrust 5: Promotion of primary sector local value adding activities

Thrust 6: Tourism development and promotion

Thrust 7: Institutional capacity

The sustainable development interventions that are proposed below will be recommended for adoption as the Local Economic Development Strategy for Ba-Phalaborwa Municipality. The interventions are consistent with the vision and mission statements of the municipality, as well as with the other requirements of the Integrated Development Plan for 2011-2016:.

3.18. Issues for integration from the LEGDP 2009-2014

The following five main objectives are derived from the national medium term strategic framework[4], and are confirmed by the technical analysis and recommended for consideration as indicated in the 2009PGDS:

1. Create decent work and sustainable livelihoods by way of competitive industrial cluster promotion,[5] infrastructure construction, and various national development programmes.

2. Improve the quality of life of citizens through effective education (including skills development), reliable health care, alert policing, comfortable housing, social grants and sport, with specific emphasis on their own participation in these processes.

3. Promote rural development, food security and land reform in order to spread the benefits of economic growth beyond the urban areas.

4. Raise the effectiveness and efficiency of the developmental state by way of effective organization structuring and recruiting, targeted training and the building of a culture of service and responsibility, integrated development management; and co-operation between all organizations in the development process.

[4] The National Medium Term Strategic Framework (July 2009) is informed by the electoral mandate

[5] This is premised on the observation by Christian Ketels that successful development strategies are usually those that extend, refine, or recombine a region's existing strengths, not those that indiscriminately chase companies or industries. The focus is therefore on developing existing clusters or emerging clusters. Policy makers in developing countries find increasing evidence that competitive economies grow faster and are more successful in reducing poverty.

3.19. Conclusion

It is evident from the analysis that, Ba-Phalaborwa has the potential to develop into a highly integrated economic hub in Mopani. In line with principles and provisions of the NDP, New Growth Path, LEGDP, Mopani District LED Strategy, Ba-Phalaborwa Development Charter, Municipal Spatial Development Framework, Ba-Phalaborwa Regeneration Strategy, the Township Rejuvenation Strategy and the municipal IDP, it is recommended that the Municipality should undertake to review its current LED Strategy to be developmental in its approach and adopt a long term Vision economic development. The new LED Strategy should lead to growth in the local economy, based on maximised growth of the tourism industry, provision of excellent basic services, manufacturing, products and minerals beneficiation, property development and agriculture supported to diversify the economic competitive advantage of the municipal area.

Chapter 4

4. LED Strategic Plan

4.1. Introduction

The economic SWOT analysis for Ba-Phalaborwa is linked to municipal institutional analysis as contained in the 2013/2014 IDP document. This Chapter serves as the economic strategic plan of Ba-Phalaborwa Municipality emanating from the 2011 Strategic planning session and its outcomes, held in Mopani Rest Camp, Kruger National Park. The Ward Based plan, which was conducted by the IDP unit in 2012, is used as a yardstick of community needs necessary for economic development, informing the type of economic projects to be prioritised to address service delivery expectations of communities within Ba-Phalaborwa.

The LED strategic plan is aimed at assessing the business environment, and taking decisions on what to do to harness on the strengths, weaknesses, opportunities, and threats facing the municipal area.

Chapter two gave highlight on the current spatial environment, state of the infrastructure in Ba-Phalaborwa, institutional and organisational capacity, challenges, and opportunities from the various economic clusters within the municipal area.

4.2. SWOT Analysis

SWOT analysis is defined as a method for analysing a business, its resources and its environment to help manage a business to discover its competitive edge, opportunities, weaknesses and threats. The analysis in this chapter will allow the municipality to take informed decisions based on a set of economic framework to direct the municipal area in achieving its focused economic strategic intent.

The following SWOT analysis represents a broader socio-economic overview for Ba-Phalaborwa Municipality, identifying essential information about its internal and external opportunities, as well as external unfavourable weaknesses and threats. The current situational SWOT analysis is aimed at guiding planning for the next five years as part of the 2020 cycle in the municipal vision:

Table 57: SWOT Analysis

Strengths	○ Phalaborwa town is a provincial growth point, Namakgale and Gravelotte are District growth points and Lulekani a Municipal growth point ○ 46% of the population resides in Namakgale and Lulekani, reflecting the dominance of the two areas in terms of population ○ Credible Integrated Development Planning ○ Implementation and compliance to policies and strategies ○ Job creation through manufacturing, EPWP and CWP ○ Healthy and Green Economy ○ Peaceful and stable community ○ Infrastructure maintenance plans ○ Healthy and green environment ○ Peaceful and stable community
Weaknesses	○ Spatial features of Ba-Phalaborwa comprise of Phalaborwa town that borders the Kruger National Park with apartheid inspired separate developments of Namakgale, Lulekani and Ben-Farm. ○ High unemployment ○ Shortage of health facilities in the rural areas

	○ Maintenance of infrastructure, infrastructure backlogs, ageing infrastructure ○ Bulk infrastructure capacity (provisioning) ○ Stakeholder management (MDM, Traditional Authorities & Sector Departments) ○ Water and electricity losses ○ ICT aging infrastructure ○ Un-integrated development programmes ○ Ineffective development planning ○ Non utilisation of GIS ○ Implementation of plans ○ Contract management ○ Risk management and internal controls ○ Failure to maximise revenue collection and audit history ○ Lack of environmental management and transport planning capacity
Opportunities	○ Some areas of Ba-Phalaborwa have economic opportunities for infill development and densification. ○ Phalaborwa, Namakgale and Lulekani area's growth should be developed towards each other in order to facilitate integrated development. ○ High literacy levels in Namakgale and Lulekani allowing for possible strategic and sustainable economic interventions

	○ Beneficiation of economic by-products and value chain ○ Marula Industry ○ Agriculture ○ Manufacturing ○ Tourism potential ○ Land availability ○ Infill development ○ Housing and property development ○ Municipal revenue base
Threats	○ Land ownership in most parts of Ba-Phalaborwa is a major challenge and stumbling block in terms of achieving objectives of urban development ○ Land claims ○ Land invasions ○ Poverty ○ Economic infrastructure ○ Social infrastructure ○ Water and electricity service level provision ○ Water supply capacity ○ Landfill site and waste management ○ Non-payment for services ○ Alignment of development plans ○ Extreme climatic conditions

	○ Environmental degradation and pollution

4.2.1. Strengths

Ba-Phalaborwa Municipality has abundance of natural resources and relevant strategic partners to pool skills and capacities to develop integrated development plans, to be implemented and to achieve sustained economic growth. Phalaborwa town and other adjacent areas have the potential to receive future investment injections in infrastructure development and maintenance programmes job creation through EPWP and Community Works Programmes.

4.2.2. Weaknesses

The Spatial features of Ba-Phalaborwa comprises of the well developed Phalaborwa town that borders the Kruger National Park with apartheid inspired separate developments of Namakgale, Lulekani, Ben-Farm and the rural settlements in Seloane, Majeje, Maseke, Mashishimale and Makhushane Traditional Authorities. There is high rate of unemployment, shortage of health facilities in the rural areas, lack of adequate maintenance of infrastructure, infrastructure backlog and ageing infrastructure, inadequate bulk infrastructure capacity (provisioning), challenges with stakeholder management (MDM, Traditional Authorities & Sector Departments), ICT aging infrastructure, un-integrated development programmes and ineffective development planning.

The municipality's mandate of providing services (water, electricity, waste management, communication and sanitation) to the community as part of investment attraction through infrastructure development, maintenance, and dealing with the ageing infrastructure is a huge challenge and requires integrated planning and implementation of development plans, to ensure provision sustainable quality of services and economic growth.

4.2.3. Opportunities

Some economic opportunities in Ba-Phalaborwa are linked to the ability to beneficiate natural products and by-products, value chain of magnetite, marula products and other agricultural products, and tourism. Some are areas in Ba-Phalaborwa have excellent economic opportunities for infill development and densification with Phalaborwa, Namakgale and Lulekani's growth that should be developed towards each other, in order to facilitate integrated development. The high literacy levels in Namakgale and Lulekani allows for possible strategic and sustainable economic interventions. The municipal area has the potential to grow if land availability for infill development could be prioritised and looked into to address proper housing and property development.

4.2.4. Threats

Close to 70% of land in Ba-Phalaborwa is under land claims. Co-operation with strategic partners is crucial to ensure that land is released and utilised for purposes of development. Land invasions, unplanned development and illegal occupancy of land need to be controlled. Land ownership in most parts of Ba-Phalaborwa is a major challenge. There are major obstacles in terms of achieving objectives of urban development compounded by land claims that take long time to be settled. High poverty levels pose huge challenges for economic growth.

Lack of adequate economic infrastructure, social infrastructure, water and electricity service level provision, water supply capacity, landfill site, and non-payment of services pose challenges to municipal revenue collection, decreasing the guarantee for sustained provision of services.

4.3. Development Vision and Mission

Ba-Phalaborwa Local Municipality in the review of its strategic intent, considered Section 152 (1) of the Constitution of the Republic of South Africa (1996) that states the following objectives:

- To provide democratic and accountable government for local communities;
- To ensure the provision of services to communities in a sustainable manner;
- To promote social and economic development;
- To promote a safe and healthy environment; and
- To encourage the involvement of communities and community organisations in the matter of local government

4.3.1. The Ba-Phalaborwa strategic intent was crafted to ensure:

- That the vision, mission and value of the municipality are relevant;
- Alignment to the national outcomes, outputs and sub-outputs;
- Establishment of strategies and key projects to support programmes to be executed within the municipality.

4.3.2. The Municipal Vision Statement

The Municipal IDP (2012, p.126) defines a vision statement as the picture of an organisation in the future; and serve as the organisation's inspiration and the framework for all strategic planning. The visions statement answers the question "where do we want to go?"

- **The Municipal Vision**

"Provision of quality services for community well-being and tourism development"

Source: IDP, 2012

- **Slogan**

"The Home of Marula and Wildlife Tourism"

The IDP elaborates that the "Best tourist destination in Limpopo..." changes the focus from tourist to tourism, encompassing a range of factors relevant to Ba-Phalaborwa. The municipality is striving to be the greenest and cleanest town, focusing on conservation, value-chain the marula fruit and mine products and position the municipal area to the Kruger National Park and the Greater Limpopo Trans-Frontier Park. The meaning of the vision is that Ba-Phalaborwa will become a place where tourists want to be for a wide variety of reasons.

- **Mission**

A mission statement is defined by the IDP (2012, p.127) as the purpose of a company and organisation. The mission statement guides the actions of the organisation, spelling out its overall goal, providing a path and guide decision-making with the framework or contextualised environment, which the company's strategies are formulated.

- **The mission statement was confirmed as follows:**

***To provide quality infrastructure and affordable services, promote sustainable economic growth, financial viability, sound administration and accountable governance*.**

- **Values**

The values represent core priorities of an organisation's culture. Values refer to key priorities that are valued by the organisation and guide the activities of people within the organisation. Values underlie behaviour and guides the way the people within an organisation will act towards the achievement of the mission and the vision of the organisation. It influences the interrelationship between the organisation and the people it serves.

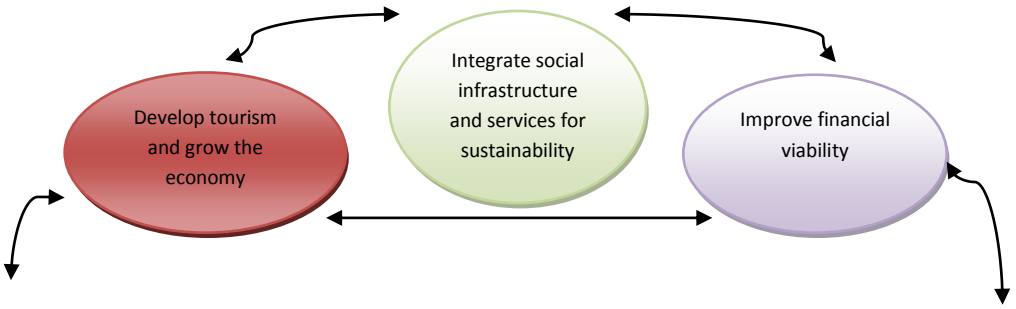
- **The following values were confirmed by the IDP for Ba-Phalaborwa municipal area:**

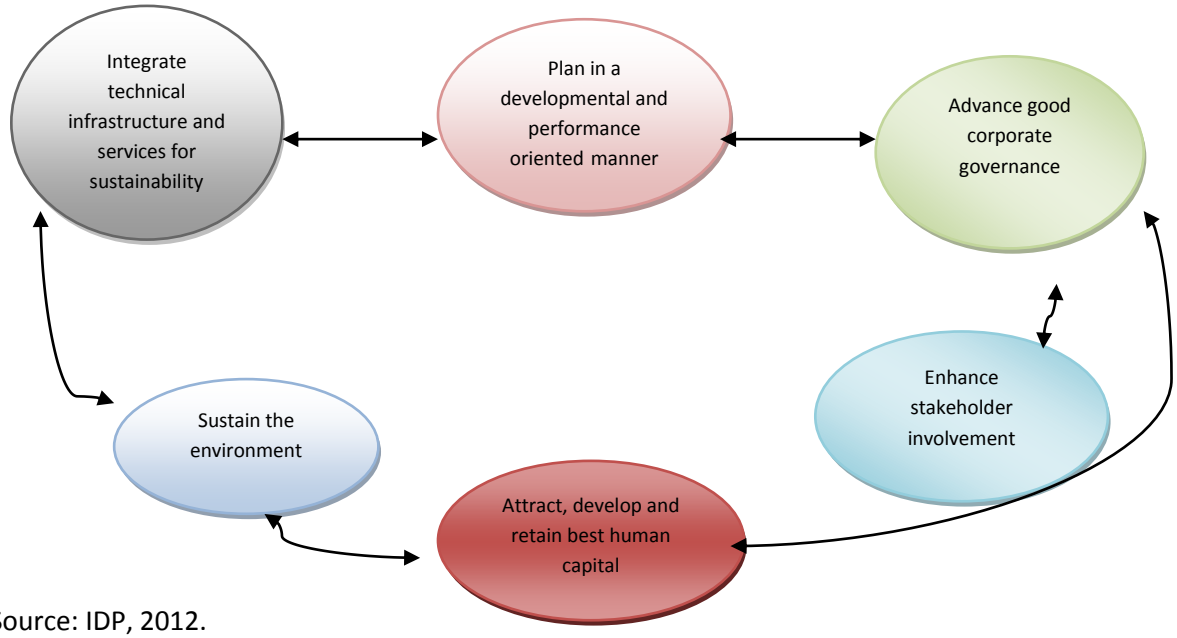
- A high standard of professional ethics
- Effective, economic and efficient use of resources
- Impartial, fair and equitable provision of services
- Responsiveness to community needs
- Public administration must be development-oriented
- Services must be provided impartially, fairly, equitably and without bias
- Accountability
- Transparency through the accessibility of accurate information
- Good human resource management and career development to maximise human potential

4.4. Alternative economic strategies

It is imperative that the objectives of the municipality are aligned with the national outcomes, outputs and sub-outputs related to Outcome 9, the National Development Plan, the New Growth Path and the strategic objectives of LGTAS and priorities identified in the LEGDP.

Based on the economic situational analysis, the SWOT, the constraints and development priorities for the municipal area, the following strategic map was developed for Ba-Phalaborwa:





Source: IDP, 2012.

The municipal IDP (2012,p.131) indicates a strategic map that identifies the objectives that the Ba-Phalaborwa Municipality will aim to achieve, with strategies recommended for growth and excellence, in line, aligned and integrated with the Municipal IDP, SWOT, pains and enablers, National Spatial Development Plan, LEGDS, Local Government Turn Around Strategy, and Outcome 9.

Table 58: The municipal strategic map is clustered and explained in terms of the following assertions:

Cluster	Objective	Description
Economic	Develop tourism and grow the economy	The best way to alleviate poverty, curb unemployment and address social problems is to ensure that there are enough jobs so that everybody in the community can earn a living. Ba-Phalaborwa has various projects and initiatives to alleviate poverty and stimulate economic growth. Ba-Phalaborwa's strategic location has established it as a developmental and economic node in tourism, mining, agriculture and services. The aim with this objective is to ensure that all community members

		can participate and share in the growing economy. The Ba-Phalaborwa Sustainable Development Initiative will go a long way in ensuring that the poorest communities are included and benefitting through economic growth within the municipal area.
Social infrastructure	Integrate social infrastructure and services for sustainability	Programmes to strengthen community empowerment are HIV/Aids, Health, Education, Youth, Gender, Disability, Arts and Culture, Sports and Recreation, Libraries, Indigent Support, Traffic and Licensing, Safety and Security and Disaster management

4.5. Conclusion

Ba-Phalaborwa Municipality has decided to diversify the composition of its local economy. Tourism serve as the municipal vehicle to offset the potential of mine closure. The municipality has also looked into promoting the development of the agriculture sector and manufacturing. It is the intention of this reviewed LED Strategy to synergise the municipal strategic intent to promote the economic development plan for Ba-Phalaborwa.

Chapter 5

5. Programs and Projects

5.1. Introduction

Scenarios that were highlighted in Chapter 3, project an increase in unemployment; underscoring the importance of identifying and implementing suitable developmental interventions categorised as follows:.

- Firstly to absorb the expected job losses,
- Secondly to reduce current unemployment by half from 40% to 20% by 2030, based on provisions of the National Development Plan (Vision 2030) Strategy.
- The municipal area will be required to create 17,725 new jobs, or almost 1,800 each year for the next eighteen years.

The following broad strategic programs and projects are proposed to serve as interventions to grow the economy of Ba-Phalaborwa, linked to local needs and development requirements for a sustainable economic development capable to create jobs:

- Infrastructure development,
- Property and housing development,
- Recycling and alternative Green Economy development,
- Tourism development,
- Mining reclamation of waste dumps, extended copper mining and Ilmenite mining,
- Settlement of land claims,
- Scarce game breeding and cattle farming,
- Big game and trophy hunting and allied offshoot trades
- Manufacturing and beneficiation of local commodities from mine dumps and agriculture,
- Retail, SMME and Informal trading support,
- Consolidate the Phalaborwa CBD.

5.2. Key Programs and Projects

5.2.1. Infrastructure development

Ba-Phalaborwa Municipality, like all other South African municipalities, is facing many challenges to improve and maintain its economic infrastructure, for economic development and municipal service delivery. The municipality is mandated to provide adequate basic services to all and increase access to services for all. The municipality is facing chronic backlog off municipal infrastructure development in almost all the municipal areas.

Most of the previously underdeveloped areas face high levels of infrastructure decay. Phalaborwa as the economic hub in the municipal area has very old infrastructure that need to be overhauled. The recent municipal street rehabilitation initiatives through the FOSKOR SLP program need to be sustained over the coming twenty years. The IDP remains the most important development guideline to be used to integrate infrastructure development plans to cover the following areas:

- Community infrastructure needs,
- Capital expenditure programs,
- Property development ,
- Bulk services and maintenance plans,
- Economic infrastructure development,

- Ongoing maintenance, and
- Integration of infrastructure projects with planning by other spheres of government.

For the local economy to grow and be sustainable, the following services and infrastructure must be provided and kept in good working condition:

- Electricity supply,
- Water supply,
- Road infrastructure,
- Sewer system,
- Waste management, and
- Supportive environment for business to succeed.

The provision of the above services will directly enhance and promote the economic and tourism potential for the municipal area immensely.

5.2.2. Property development

- **Development Opportunities**

The increase in the number of households in Ba-Phalaborwa from 33,529 in 2001 to 41,115 in 2011 is remarkable. This is an average growth percentage of 22.6% increase, to accommodate an increased number of populations to 150,637 people. Such population growth indicates a substantial demand for housing. It is evident that new people have moved into the municipal area, and family growth led to demand growth in housing.

The concern is that there is a particularly large number of informal dwellings in Ba-Phalaborwa Municipality, specifically in the new extensions. Preliminary indications show that in Namakgale, close to 500, Lulekani and Humulani 250 and in Makhushane 140 demand rate for housing could be identified. According to the National Department of Housing, this constitutes inadequate housing and the households qualify for government housing assistance. The housing unit within the municipality estimates the backlog (housing demand) to be above 20,000 units. This has critical development implications, assuming that 500 units are built each year and that close to five persons are employed per house, the direct job creation potential of house construction is 2,500 persons on a semi-permanent basis over a 10 years cycle.

It is the intention of the local council that housing demand should be channelled to consolidate the built environment between Phalaborwa, Namakgale and Lulekani into a physically integrated urban

complex to cater for the medium and upper class property developments. The housing function does however remain a function of the Limpopo Province but must be guided by local input and demand.

- **The Supply Side**

The table below presents an overview of the housing situation:

Table 59: Public Housing delivery, 2002/03 to 2007

Year	Allocation	Delivery	% Delivered
2002/03	800	486	60.75
2003/04	720	682	94.72
2004/05	561	161	28.7
2005/06	385	385	100
2006/07	300	150 by 28th Feb. 2007	50

Source: Department of Local Government and Housing

Some of the key issues that have emerged with regard to the public housing delivery process are summarized below:

- Poor coordination between the Department of Housing (DPLGH) and the municipality;
- Some wards complain about poor quality houses (problem areas include cracking walls, leaking roofs, peeling plastering, and poor foundation;
- Allegations about some people leaving their RDP houses vacant need to be investigated;
- RDP houses rented;
- Unreliable contractors appointed by DPLGH; and
- Municipality not able to monitor contractors since they are accountable to DPLGH.

The total number of families within the municipal area is consolidated at 41,115 based on the 2011 Stats SA, with a 3.7 average occupancy rate per household. The 2011 census figures reveal a demand for approximately 8000 additional subsidy housing units by 2012. The table below indicates the current supply of subsidy level stands.

Table 60: Stands available in Ba-Phalaborwa Municipality for subsidized housing

Projects	Number of Stands
Provincial site demarcation projects in peripheral areas	2787
Planned Infill stands in Namakgale	1055
Provincial Housing Projects	2457

Other	1420
Total	7720

It is important to note that the Provincial demarcation projects, although planned, are not linked to any specific funding programme for services and top structures.

A more accurate assessment of the demand for housing would require that a municipal housing plan be prepared and a housing waiting list be developed. For planning purposes an additional 170 Ha of land will be required to accommodate the growth in demand.

Table 61: Job Creation Potential from Housing

Opportunity	Estimated New Jobs 2012-2030	Probability %	Probability Job Estimate
House Construction	2500	70	1750
Total	2500	70	1750

5.2.3. Recycling and alternative Green Economy development

South Africa's Green Economy Strategy is aimed at the development of effective green economy implementation plans and the creation of green jobs. Based on the stipulations of the UN's Environment Programme, government are encouraged to support initiatives in economic transformation to the green economy programs that can create green jobs, promote sustainable and inclusive economic growth. The Department of Environmental Affairs convened a Green Economy Strategy Summit in 2010 where resolutions were taken to develop the Green Economy framework for South Africa.

- **The Green Economy Framework**
  - The green economy framework recognises opportunities in the development industries to: combat the negative effects of climate change,
  - Urge South Africa to develop strong capacity in green technologies and industries.
  - Renewable energy production targeting areas that can create close to 300,000 jobs nationally. As a result; Ba-Phalaborwa Municipality need to begin to be moving in the Green economy arena and direction.

- **Principles for a greener economy stipulates two inter-linked developmental outcomes:**
  - Growing the economic activity in the green industry sector,

- A shift in the economy as a whole towards cleaner industries and sectors with low environmental impact compared to its socio-economic impact.

Green jobs are expected to be created across all sectors where possible, with green economy principles adhered to. Green jobs in agriculture, manufacturing, research and development, administration, services and activities need to add into the preservation or restoration of the environmental quality by protecting the eco-system, biodiversity, reduction of energy consumption, materials and water resources through high efficient strategies minimisation of all forms of waste and pollution.

Ba-Phalaborwa Municipality participates in the annual Greenest Municipality competition (GMC). The competition serves as an excellent public awareness vehicle to conserve the environment, Waste management, generation of alternative green energy and recycling is central as part of the pillars of the GMC. Participation in the competition is aimed at improving core municipal services. However, the municipality has regressed in its quality of services leading to poor performance in GMC.

- **Key sectors to drive green economy initiatives in Ba-Phalaborwa include but not limited to:**

- Agriculture,
- Green buildings,
- Greener transport including bus rapid transit and inter-modal transport system,
- Green town,
- Preservation of trees and forests,
- Water management and conservation,
- Industry and manufacturing,
- Tourism,
- Waste management,
- Retail,
- Natural resources.

The following key focus areas are recommended to be prioritised by Ba-Phalaborwa Municipality as part of its core mandate:

- Resource conservation and management,
- Sustainable waste management practices with waste beneficiation zero waste community programme,

- Water management with water harvesting for effluent management comprehensive municipal metering system to reduce water losses in agriculture, the municipality and mining,
- Green buildings and the build environment greening private and public buildings,
- Sustainable transport and infrastructure promoting non-motorised transport,
- Clean energy and energy efficiency to expand off-grid options in rural and urban areas by up-scaling solar water heater rollout.
- A full investigation into alternate energy systems with definite economic offshoot is required with intensive headhunting of overseas based concerned corporations and the available funding.

5.2.4. Tourism development

Ba-Phalaborwa Municipality have strong expectations regarding the contribution of tourism the industry to future development of the municipal area and its people. The municipality has adopted a tourist biased vision to become the ***"Best tourist destination in Limpopo by 2020."*** The adopted slogan for the municipality is the ***'The Home of Marula and Wild Life Tourism''***.

The vision and its branding slogan calls for a robust tourism development strategy that will include product development, service improvement and development facilitation. However, tourism product owners have a different view on the slogan that it is not "catchy" and is not taking advantage of the municipal proximity to the Kruger National Park and the Greater Limpopo Trans-Frontier Park, and recommended that the slogan should integrate the name Kruger Park to remain relevant and attractive to prospective tourist and investors. A brief reflection on the recent evolution of strategic thinking about tourism is provided below and opportunities for product development are identified in the section that follows.

5.2.4.1. Evolution of Tourism Development in Ba-Phalaborwa

A scoping report on tourism opportunities on the Phalaborwa Corridor by KPMG concluded that priority should be given to the:

- Development of the Hans Merensky Club into an international resort,
- Construction of an international mid-range hotel at the gate to the Kruger Park,
- Promotion of the Marula industry.

The municipality has prioritised providing tourism supporting public facilities such as the cultural village (Mashishimale), Flea Market and Rest Station (Namakgale), Memorial Precinct (Namakgale), upgrading and operationalisation of the Bollanoto Tourism and Information centre.

Mopani District has found that Ba-Phalaborwa experiences high business tourism in-flows, linked to commerce, industry and the mines. Leisure traffic with tourists stopped briefly in and around the Phalaborwa town usually en route to and from the Kruger National Park. There is limited amount of traffic that stays outside the park to make day visits into the park. Similarly, very few Kruger National Park visitors spend a night before or after their visits outside the park. Stay over leisure traffic has declined as far as the golf estate at Hans Merensky is concerned due to various reasons that still need to be researched.

Tour operators believe that the opportunity to travel to the Mozambican coastal areas via the Phalaborwa Kruger National Park gate and the Giriyondo border represents a magnificent tourism edge. However, the restrictive nature of the route, due to an increase in rhino poaching in the Kruger National Park render the Giriyondo tourism route to be remote. Enforced overnight accommodation in either Kruger or the Trans-frontier park on both entering and exiting each country has added significantly to the costs of cross border tourism and also limits time available to tourists especially from far away and on their way to Mozambique. Allegations of corruption incidents and demands for gifts etc. at the Mozambique border control point at Giriyondo are counterproductive.

Archaeological sites and the history of the arrival of the Malatji clan are also believed to hold tourism potential. The area has a particularly pleasant winter climate, but can be oppressively hot in summer. It has been noted in the 2007 that the tourism friendly service culture in Phalaborwa is weak and needs to be improved.

The fact that the local labour force comprises of a high proportion of single persons and young population reflects a need for leisure facilities, unfortunately the facilities are not sufficiently available. Existing facilities are either not maximally utilised due to exorbitant municipal surcharges or poorly maintained facilities such as the Namakgale and Lulekani stadiums. The Namakgale swimming pools have completely collapsed and need to be re-built.

The development and implementation of a tourism marketing strategy was recommended in 2007. There is high priority to acceptable branding programs for the Ba-Phalaborwa municipality.

Grant Thornton compiled a tourism development strategy for Ba-Phalaborwa in February 2006 and recommended that, the most appropriate tourist markets to target are as follows in the order of priority:

- Domestic general leisure tourists,
- Foreign general leisure tourists,
- Domestic transit tourists,
- Foreign transit tourists.

The most important tourism products recommended in the order of priority are indicated as follows:

- Ba-Phalaborwa as a springboard base to explore KNP,
- Ba-Phalaborwa as a springboard base to explore GLTP,
- Ba-Phalaborwa as a Transit to the KNP and GLTP,
- General tourism leisure experience,
- An interesting tourism transit stop-over of choice,
- Conferencing hub.

Grant Thornton also provided an infrastructure assessment for the tourism industry, which concluded that:

- Upgrading is required for roads, electricity, water supply, and sanitation.
- A marketing budget need to be provided for with specific recommendations made regarding tourism related training and enterprise development facilitation.

Specific responsibilities that were assigned to the Ba-Phalaborwa Municipality included:

- Maintenance of public amenities,
- Safety of tourists at visiting points,
- Provision of infrastructure in support of tourism, and
- Standardisation of signage.

5.2.4.2. Tourism Development Opportunities in Ba-Phalaborwa

There is an impression among stakeholders that, the tourism strategy compiled by Grant Thornton presented useful insights, but it is inadequate to realize the vision for tourism development as articulated by the mayor and her management team. During the tourism development consultative

meetings held in 2012, several tourism development opportunities emerged with strong support from various local and other stakeholders. These opportunities are listed and briefly described below:

5.2.4.3. Ba-Phalaborwa as a Tourism Development Hub and Centre for the Greater Limpopo Trans-frontier Park Economic Zone:

Heads of State of Mozambique, South Africa and Zimbabwe signed a treaty at Xai-Xai, Mozambique, to establish the Great Limpopo Trans-frontier Park (GLTP) in 2002. The vast numbers of wildlife and plant species found here are the building blocks of successful ecotourism. These include at least:

- 147 mammals,
- 116 reptiles,
- 49 species of fish,
- 34 species of frogs, and
- 500 or more species of birds.
- At least 2 000 species of plants have been identified.
- The Greater Limpopo Trans-frontier Park Destination has of late opened an office at Bollanoto. The company runs the Macampane rented camps in the Mozambican Limpopo du Parco with bookings done at Bollanoto.
- The Ivory Route and Open Africa have opened their operations in April 2012 at the Bollanoto Tourism and Information Centre.

The GLTP is being governed by a joint management board and management committees dealing with conservation, safety and security, finance, human resources, legislation and tourism. Facilitating the process is an international coordinator from one of the three member countries. There are no facilities for operational management at the trans-frontier park level. Kruger National Park (Skukuza),Limpopo National Park (Masingir) and Gonorezhou National Park all have their own park management structures and the Peace Parks Foundation (Stellenbosch) stands in for some of the cross-national park management issues.

There is need for a dedicated trans-frontier park management structure to deal with tourism development challenges for the benefit of all stakeholders and their communities. This would be consistent with the statement of State President Mbeki during the opening of Giriyondo Gate (between South Africa and Mozambique), that: ***'The opening of Giriyondo is the beginning of a new era which ushers in unique opportunities to develop tourism infrastructure and attract more visitors to this jewel of the tourism market'.*** The statement was supported by the then Minister of

Environmental Affairs and Tourism at the same occasion, by saying: ***'The trans-frontier park will open to the world the biggest ever animal kingdom, increasing foreign investment into the region and creating much needed jobs'.*** The tourism development opportunity in the context of the trans-frontier park has not yet been pursued, because the emphasis to date has been to create the structures and systems required for conservation management.

5.2.4.4. It is recommended that:

- The conservation priority should be extended to include tourism development institutional structures, including a trans-frontier park tourism development centre, should be created,
- The regulatory aspects of establishing the office on behalf of all three participating countries from the start may be complex. It was therefore advisable to initially establish the centre in South Africa, but in a logistically sensible place relative to the entire trans-frontier park with Phalaborwa town regarded as ideally and strategically located for such a tourism development centre for the GLTP.

Phalaborwa is the largest town outside the GLTP boundary, most conveniently accessible by road to all parts of the park, hence, the introduction of services and operations by the Trans-frontier Park Destinations from Bollanoto, with some of its 4x4 trails in all the northern part of the KNP, beginning at Bollanoto Tourism and Information Centre has added value to tourism development in Ba-Phalaborwa.

The tourism development centre should include services in:

- Foreign currency exchange,
- Convenient passport control,
- Overnight accommodation at convenient points,
- Upgrading of the road from the KNP boundary to Masingir,
- Stopping (game viewing) facilities with ablutions and drinking water.
- Development and implementation of the existing tourism routes (such as the Bush-Beach Eco-tourism route) It should be emphasized that the proposal is meant for the creation of institutional capacity for tourism development in the GLTP and not just for a tourism information centre.

The municipality should resuscitate the relationships with the Palabora Foundation on integrating tourism development initiatives and strategies to achieve the 2020 vision, including the branding of Ba-Phalaborwa Municipality in the context of both the Kruger National Park, the Greater Limpopo

Trans-frontier Park as the tourism destination of choice in Limpopo. Ba-Phalaborwa established an effective tourism association currently known as the Ba-Phalaborwa Kruger Local Tourism Association. The activities of the tourism association are currently not financially supported by the municipality. It is recommended that the current tourism strategy should be reviewed by a qualified tourism expert and have it aligned to the municipal development strategy plans such as the LED Strategy.

5.2.3.5. Development of wildlife tourism throughout Ba-Phalaborwa

- **Letaba Ranch and Hans Merensky Nature Reserve**

Two provincial nature reserves; the Letaba Ranch and the Hans Merensky Nature Reserve are located within Ba-Phalaborwa Municipal area. The Letaba Ranch is located adjacent to the Phalaborwa gate of the KNP and is home to the big five game species. Animals move freely between these parks. Letaba Ranch comprises of more than 35,000 hectares with game species such as buffaloes, elephants, lions etc.. Roads in the Letaba Ranch are unpaved and in very poor conditions, and signage is almost non-existent. There is no access road across the Letaba River to the northern part of the Letaba Ranch.

Hans Merensky Nature Reserve comprises 5,200 hectare and is located in the north-western part of Ba-Phalaborwa Municipality, adjacent to the former Eiland Forever Family Resort, now under the new management of ATKV. The establishment is approximately 50 km from the Letaba Ranch. In between there is a new establishment known as Kondowe Nature Conservancy owned by the Seloane CPA in partnership with Blue Vest that has invested close to R25million.

Accommodation in the Letaba Ranch used to comprise of 10 bungalows in the main camp, but this has been damaged by the 2000 floods to such an extent that visitors are no longer permitted to use this facilities. There is a small ivory route camp with sleeping facilities for 10 persons. The entire Letaba Ranch is under land claim and the Parks Board is reluctant to commit capital expenditure until this is resolved. Plans have been compiled to attract day-visitors for eco-adventures. There were attempts by an investor to inject millions of investments into the Letaba Ranch, but that has since been stopped due to uncertainty posed by land claims.

- **Hans Merensky Golf Estate and Spa**

The Hans Merensky Golf Estate has been revamped into a World class facility, however, there are still major challenges related to services.

The Forever Resort Hotel next to the Caltex Garage is under new management and currently known as the Cajori opened its doors to the tourists visiting Ba-Phalaborwa in 2012.

The other dominant land-use in Ba-Phalaborwa Municipality is game farming and scarce game breeding that suit the tourism potential. Several successful clean buffalo breeding farms have been established, as well as a number of internationally known game lodges. Considerable management and operational skills have been accumulated in these fields during the past twenty years. Kondowe Conservancy also has a game breeding program currently underway.

The Mashishimale Marakapula Game reserve formerly known as Croc Ranch secured French strategic partners. The game reserve has received a facelift with new camps constructed and gradually being operationalised.

Most of the game farms in Ba-Phalaborwa Municipality, (77 farms out of 107), are under land claims from seven different claimants. The land restoration process to community property associations (CPA's) has been completed on fourteen farms (11 farms for the Mashishimale community during 2005 and 3 farms for Selwane during 2006).The fact that owners (game farmers and game lodge owners) were willing to sell has facilitated the settlement process. New claimants to have received land from the land redistribution process include Balepye, Maseke and Makhushane between 2011 and 2013.

Effective development of wildlife tourism throughout Ba-Phalaborwa is ecologically feasible and seemingly financially viable, but will require that all stakeholders should share the municipal vision of promoting tourism development.

Tourism opportunities on the Olifants River, such as boat cruises should continue to be promoted. The famous tusks have already become part of the Ba-Phalaborwa brand.

5.2.3.6. Tourism promotion and enhancement facilities and activities in Ba-Phalaborwa

The current perception is that tourism product owners are almost exclusively white people and that black people are excluded from the benefits of tourist spending. A deliberate intervention was adopted to establish tourism infrastructure and products among the previously neglected areas such as Namakgale and Lulekani, as part of township and rural development as well as their participation

in the industry. The other effective way to facilitate this intervention is through sports development and associated leisure facilities and activities. The Flea Market and Rest Station, Memorial Precinct and Mashishimale Cultural village were constructed to support the vision of promoting township and rural tourism development.

- **Phosphate Community Centre**

The former phosphate club that belongs to Foskor has been converted into a community centre, offering cricket sessions to school kids and enterprise development in the old offices. The FOSKOR kitchen and the bar has been leased to an emerging SMME. The existing sporting facilities such as the Lulekani and Impala Park Stadium have been upgraded to host tournaments such as soccer, netball, basketball, cricket, rugby, chess and tennis.

There is a need to formalize the Namakgale Sporting Development Project in conjunction with local strategic partners. The conversion of Phosphate Club into a community centre has added value to the development of the tourism vision. The construction of the new Lulekani tennis, basketball, chess and netball courts by FOSKOR also fulfilled the aspiration of providing sporting facilities of higher standard in the previously neglected townships. There is further a need to improve landscaping in Namakgale, Gravelotte and Lulekani, hence, the paving of internal streets within Namakgale, Gravelotte and Lulekani. Landscaping is however seriously limited due to the following:

- Vandalism and theft
- Goats and cattle destroying flora
- Water shortages

The Impala Park Hall still need to be upgraded to suitable standards to host other indoor sporting activities such as a gym for boxing and karate.

The Sedibeng complex in Namakgale has traditional games that could potentially attract tourists with interest to experience how indigenous games are played in a daily basis. The traditional annual marula first taste of the marula fruit and beer by the respective traditional authorities in Ba-Phalaborwa has taken shape with the 2013 activities organized and championed by the respective authorities with minimal municipal assistance. Traditional foods, elegantly served by the royal councils and the brewed marula beer have proven to be a successful attraction among locals and though very few foreign tourists attend such planned activities.

There is a need to market the concept of bed and breakfast facilities and other tourism enterprises among homeowners in Namakgale and Lulekani, The Lulekani Tourism rural and township route was

initially very successful with the establishment of various tourism products which were interlinked, however, the route is currently collapsing due to lack of entrenched entrepreneurship. The initial target market of the township tourism concept was to development tourism routes in the rural and townships of Namakgale and Lulekani.

- **Bollanoto Boulevard, Tourist Information and Events Management**

The Bollanoto Tourist Information Centre is a very important component in the promotion, development and implementation of the Ba-Phalaborwa tourism development vision and strategy.

The initial business plan for Bollanoto was developed to cater for the arts and crafters from the various communities in Ba-Phalaborwa who have since stopped utilizing the Bollanoto facility after being given the right to run the facility on their own. The Birdlife South Africa operated an office at Bollanoto and has since been closed in 2010. The inclusion of the Greater Limpopo Trans-frontier Park Destinations in 2011 was aimed at offsetting the underutilization of Bollanoto as a tourism hub.

It is recommended that Bollanoto should develop a reservation system on behalf of all local product owners to offer the following services:

- Sell expiring bed-nights at discounted rates, even in KNP camps that are located within the vicinity of Phalaborwa Gate. The reservation system could eventually be expanded to include product owners in other popular parts of Mopani District and Limpopo Province.
- The Trans-frontier Park Destinations, Ivory Route and Open Africa are technically poised to close that void.
- Broaden the tourism information functions
- Incorporate tourism promotion.
- Include the development and maintenance of a pedestrian boulevard from Bollanoto to other tourism products in Phalaborwa that are within walking distance from it.
- Promote pedestrian boulevards should be established in other areas such as Namakgale and Lulekani (Walking is becoming a popular international tourist activity and such boulevards will appeal to foreign tourists who are attracted to wildlife offerings Ba-Phalaborwa is offering) Local residents are also likely to find the boulevards attractive; particularly if they can accommodate children on bicycles and if cold refreshments are available on the way, that could enhance business potentials to SMMEs.

- The FOSKOR initiative to sponsor the development of Bollanoto aimed at achieving the vision of turning around the underutilization of the tourism centre should be pursued The constructed bird hides in the municipal sewer plant dam behind Spar, Sasavona Guest house in Lulekani and the Kondowe in Seloane by Birdlife have created a very attractive bird route that needs to be promoted and centrally booked at Bollanoto and championed by one of the qualified bird guides from Ba-Phalaborwa. An events management company should be accommodated at Bollanoto with the purpose of attracting groups of visitors to Ba-Phalaborwa on a consistent basis.

The annual Marula Festivities have become a highlight on the annual calendar of events in Limpopo with the inclusion of the traditional marula build-up activities championed by the respective five local traditional authorities and the Muti-Wa-Vatsonga organised by the Mopani District from 2013 as a way of attracting into Ba-Phalaborwa. The local traditional authorities continue to organize their respective build-up events. The implication of all these recommendations is that Bollanoto should effectively become a hub of tourism information and promotion.

- **Updated Tourism Development Strategy**

The current tourism strategy needs to be revised to capture accurately the current tourism development vision of the municipality, and to grow the local economy through wildlife tourism. The strategy should expand tourism development proposals as contained in the LED strategy.

The revised tourism development strategy should place particular emphasis on tourism branding within the wildlife theme linked to the Kruger National Park and its wildlife products, there is a need to redesign tourism related signage into Ba-Phalaborwa.

Table 62: Job Creation Potential from Tourism

Opportunity	Estimated New Jobs 2012-2030	Probability %	Probability Job Estimate
Tourism Dev in GLTP	100	50	50
Ba-Phalaborwa Wildlife Tourism	500	80	400
Namakgale & Lulekani	300	60	180
Bollanoto Info & Events	300	70	210
Total	1,200	70	840

- **Infrastructure Implications**

The upgrading of the Phalaborwa-Seloane-Letaba Ranch road has enhanced tourism promotion in Ba-Phalaborwa so immensely. The tarred road is currently used by motorists travelling between Phalaborwa-Seloane-Giyani. The Letaba Ranch-Prieska-Eiland route is planned to be implemented in the 2013/2014 financial year.

- **Spatial Planning Implications**

A detailed corridor landscaping plan has to be developed to promote the tourism image along the R71 and R40 tourism corridors, as part of the gateway to the KNP and the GLTP. The promotion of tourism development will require mind shift in terms of creating an attractive and interesting environment in all facets. Spatially this would require:

- The demarcation and development or upgrading of formal conservation areas as well as conservancies and game farm areas conducive for wildlife tourism development,
- The development of ancillary and supportive facilities such as accommodation within identified areas as well as within the urban and peri-urban areas,
- The development of tourism infrastructure such as hiking trails to promote eco-tourism development,
- Unlock tourism leisure development potential next to the Olifants and Letaba Rivers with more exclusive ecotourism activity developments,
- Develop a full set of policy guidelines on architectural and visual aesthetics to promote the development of a cohesive built environment to promote the tourism image of Ba-Phalaborwa.

- **Environmental Management Opportunities and Constraints**

The proximity to the Kruger National Park and consideration that Phalaborwa is the gateway to the Trans-frontier Park provides prime opportunities to establish and grow tourism as a potential economic driver in the municipal area. Conservation and biodiversity tourism already generates significant income in South Africa due to its unique landscape, scenery and wildlife. Initiatives such as the Kruger to Canyon birding route and trails can be leveraged on the promotion of tourism development in the area.

Cultural tourism, although not considered as important, has the potential to generate significant income, particularly when coupled with the curio and hospitality industry in areas where there are

tourist feet. The hospitality industry in itself is very well established in Ba-Phalaborwa with numerous guesthouses operating in and around Phalaborwa town to support curios and arts and craft economic activities.

5.2.5. Agricultural development

- **Strategic Land Restitution Support**

Most of the land in Ba-Phalaborwa Municipality, (77 farms out of 107) are under claims. The land restoration process to community property associations (CPA's) is ongoing. Of late, the Balepye community had their land restituted to them in the Gravelotte, and Prieska areas in 2012. Former farm owners, who are mostly game farmers and game lodge operators, are leaving the municipality with their skills and their capital. It is exactly these skills that are essential for Ba-Phalaborwa Municipality to realize its vision of growing the economy and creating jobs through wildlife tourism. The municipality was unable to curb the brain drain of farming expertise from the former farmers due to various obstacles related to how land is restituted to the claimants is being processed.

The need for post-settlement farmer support was completely underestimated, resulting in decrease production, capacity utilization, formal employment and asset management on farms that have been successfully claimed. Many claimants have the general intention to use the claimed farms for subsistence livestock grazing and for traditional settlement. The ecology in Ba-Phalaborwa Municipality is sensitive to cattle farming; and small, scattered settlements pose immense service delivery challenges to the local municipality. Such small settlements are normally unable to reach the critical mass required for commercial services, resulting in low levels of economic sustainability and high levels of poverty. The office of the land claims commissioner does not have the capacity to deal adequately with these post-settlement requirements and was never intended to do so.

The outstanding land claims are likely to be protracted because:

- Unwilling sellers are increasing the task of the land claims commissioner considerably to investigate and prove the validity of claims, and
- Different claimants are claiming the same land, which similarly increases the task of the land claims commissioner to investigate and prove the validity of claims.

Farm owners are not permitted to make capital improvements on farms for which claims have been gazetted without the permission of the land claims commissioner. Commercial banks are also unwilling to extend credit against claimed farms as collateral. As a result, both the investment in and the annual production from the agriculture sector in Ba-Phalaborwa Municipality is consistently dropping.

- **Scarce game breeding and cattle farming**

A conceptual study on the suitability of scarce game breeding in combination with cattle farming was commissioned as part of the LED strategy formulation process in Ba-Phalaborwa Municipality[6]. The study was prompted by the desire of subsistence cattle owners for more grazing and comments and the attractive returns that can be generated from scarce game breeding. It was found that the areas in Ba-Phalaborwa are ecologically suitable for the breeding and farming of several scarce game species. The Gravelotte area is currently championing the establishment of such scarce game breeding. Seloane through Kondowe is also championing game breeding for the benefit of the local communities. Buffalo breeding is without doubt the best suited for most of the habitats. The breeding of disease-free buffalo from disease-carrying buffalo is also done in the area, but there seems to be a moratorium on new projects of this nature, with the sable antelope being the most prominent species in existing breeding projects.

Rainfall is sufficient and the temperature range of the area is tolerable for all species. The terrain is mostly lightly undulating and topographically, there are very limited areas where the rare game would not do well due to steep slopes and rugged terrain. Grazing quality is sufficient through most of the areas with the exception of farms; the veld was overgrazed for extended periods in the past. There are adequate open bushveld areas on most farms for sable, roan, white rhino and sables. Bush control and/or thinning out programs will be required to maintain their habitat requirements. Buffalo should not have any problems with the woody structure in some areas.

White rhino, although very compatible with the area and not vulnerable to habitat changes, does not seem to be a suitable animal for a breeding project due to the low breeding rate of the species, but could be kept under free ranging conditions for tourism, hunting and live sales. The advent of increased rhino poaching pose high risk to game farmers and need to be controlled and curbed. Sable antelope breeding have been doing well in Ba-Phalaborwa, but should be managed intensively either in an intensive breeding program or kept extensively. This is proven by the fact that their numbers fell drastically even after they were fenced in and “protected” on game farms in the area since 2007.

Valuable game breeding can be combined with cattle farming, but due to the vulnerability of sable and roan antelope to competition from cattle, it should only be done under intensive management conditions. Rhino, buffalo, bush buck, eland etc. need less intensive management.

[6] Suitability of the Letaba area for valuable game breeding projecs, Envirodel; September 2007

Although game farming and breeding is commercially more viable and ecologically more sustainable, there is an urgent need from land claimants for additional grazing for their subsistence livestock. The intensive management capability that will be required for scarce game breeding and farming could be made available to improve cattle husbandry techniques among emerging cattle owners on the same farm.

A study on subsistence cattle farmer support that was also commissioned by Mopani District Municipality as part of the LED strategy formulation process found that the calving percentage can be doubled through an effective cattle farmer support programme and improved animal husbandry techniques. The cattle herd in the municipality is 23,300 head strong, of which 40% is subsistence owned. Increased production through improved management could therefore produce an additional 1,600 calves per year with a total value in excess of R3 million.

It is recommended that a generic feasibility study and business plan for a typical game breeding and game farming project in combination with cattle be compiled for Ba-Phalaborwa Municipality. The feasibility study conducted by the Mopani District Municipality on cattle farming is considered as a baseline study. The Mopani Conservancy Initiative championed by the Seloane and Balepye CPAs in partnership with Bluevest covers the envisioned concept of game conservation and breeding programs around the Seloane-Prieska-Eiland and Gravelotte areas. This initiatives cover agricultural and tourism development in Ba-Phalaborwa and can be used by successful land claimants or any other bona fide local stakeholder to compile a customised business plan for their specific farm development.

Trophy and "biltong" hunting.

The gross annual income generated throughout Africa by hunting is one of the biggest earners in some countries. We are perfectly situated, with all the land, farms, game and potential to also harvest a slice of the hunting cake. Trophy animals shot can and would also boost food initiatives for the most marginalized communities if legislated adequately and policed accordingly. An airport is available with sufficient accommodation and allied hunting infrastructure such as gunsmiths and

- **Co-operation with Gaza at Masingir Dam**

Major construction work has been completed at Masingir Dam. It holds significant potential for food production. The communities around Masingir (in the Gaza Province of Mozambique) are living in severe poverty. Food production is likely to create opportunities to trade with South Africa, via Phalaborwa, could raise income levels of these communities. Trade opportunities between Masingir and Phalaborwa could benefit Phalaborwa town considerably as a trading and service centre for the

broader eastern region, including large parts of Gaza Province. Various follow-up exchange programs and meetings between Ba-Phalaborwa and Masingir were held in 2011, to promote economic relations between the two areas in Mozambique and South Africa.

At the political level, the mayors of Ba-Phalaborwa and Xai-Xai Municipalities agreed in 1995 that they would investigate a friendship agreement between the two areas was , however, there was no tangible progress to cement the relations except that a memorandum of understanding has subsequently been signed between the political heads of the Limpopo and Gaza Provinces. The objective of the MOU was to promote economic development opportunities to raise the quality of life of the people in the region with specific emphasis on eco-tourism, HRD and governance. A joint technical committee was established in March 2006 to prepare a work plan, specifically for the tourism corridor and agricultural development. Limited progress has been made to date because no institutional capacity or other resources have been provided to give effect to the intentions.

It is recommended that the Municipal Manager of Ba-Phalaborwa Municipality should meet with the Municipal Manager of Masingir to discuss co-operation with regard to agricultural and tourism development between the two areas. The proposed meeting should be arranged within the protocols of the Gaza and Xai-Xai agreements.

Table 63: Job Creation Potential from Agriculture

Opportunity	Estimated New Jobs 2012-2030	Probability %	Probability Job Estimate
Strategic restitution support	300	80	240
Game and cattle farming	300	80	240
Masingir	100	20	20
Total	700	70	500

- **Infrastructure Implications**

A cost estimate of R156.8m is projected for the surfacing of the road from KNP to Masingir.

- **Spatial Planning Implications (Agricultural development)**

Community “on farm” settlement as part of the land restitution process should be discouraged to avoid scattered developments throughout the municipal area, due to its potential to place a burden

on the municipality in terms of service delivery. The eminent, immediate and urgent engagements should be directed to the Balepye community to be strategic in the choice of their area of settlement. Informal engagements pointed out to the desire for the community to be settled around Gravelotte. That will present valuable advantages due to the fact that Gravelotte is already inhabited by people with relative infrastructure in place.

Places along the Letaba River, next to Selwane, have the potential for maximum agricultural activities. For example, there are citrus farms at Waterbok, Masalal and Prieska with a high agricultural potential, but are currently not utilized. However, Waterbok has sprung into life with robust agricultural activities taking place after Rio Tinto invested R5m into the farm. The Department of Agriculture has also invested close to R10m with agricultural infrastructure since 2010. There are currently 60 permanent employees employed by the farm, with fluctuating temporary workers hired during harvesting seasons. Waterbok farm has an annual turnover of over R6m, and farm is expected to break-even in due course. Access to water rights has become a complex matter and the inefficient irrigation practices of the past have become unsustainable.

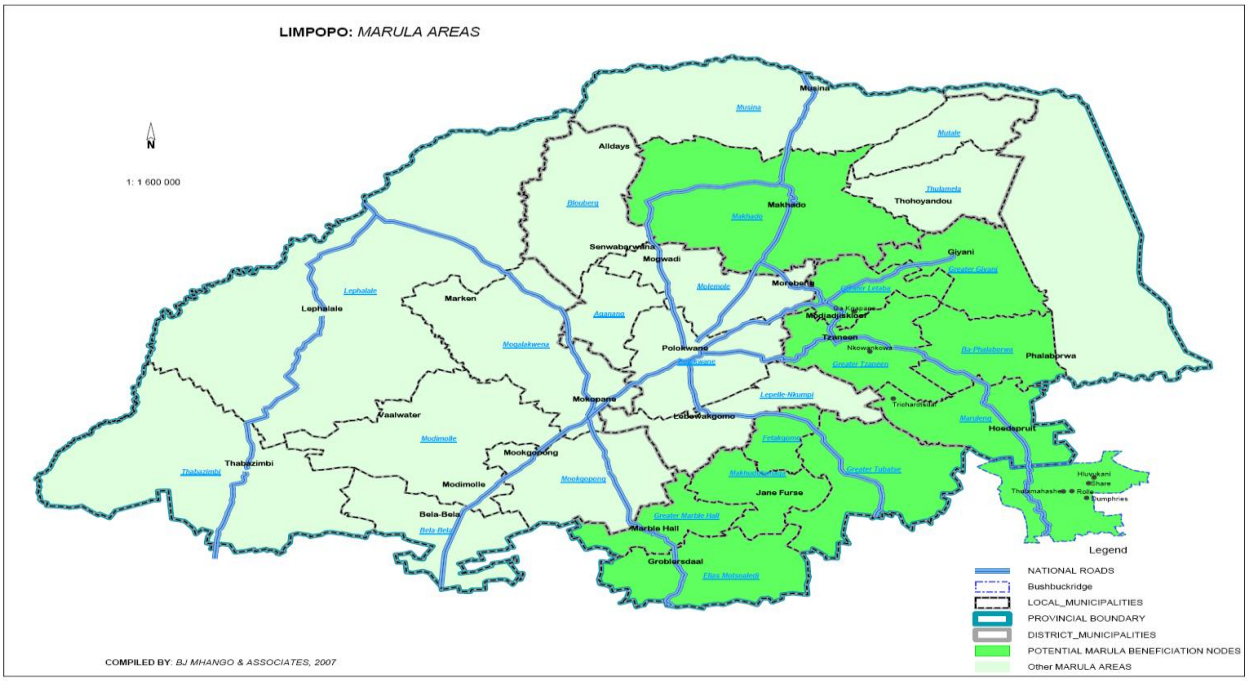
- **Environmental Management Opportunities and Constraints in agriculture**

The principle opportunity for development of game farming activities lies in the homogeneity of the study area, and the potential to develop a biodiversity corridor, which can link the Hans Merensky Nature Reserve in the north-west and Selati Game Reserve in the south to the Letaba Nature Reserve and Kruger National Park in the east is viable. The low nutritional status of Mopani veld generally lends itself more to game related activities than commercial agriculture or livestock farming. As indicated, the primary constraint for agricultural activities is the low fertility of the soils in Ba-Phalaborwa, coupled with low rainfall, which precludes the establishment of large scale agricultural produce cultivation initiatives which would require irrigation. Similarly, low nutritional value of the vegetation further reduces the carrying capacity for large domestic livestock. It is generally accepted that sheep farming is not at all suitable in the Ba-Phalaborwa municipal area due to a number of husbandry, dietary and risk concerns.

5.2.6. Manufacturing and beneficiation of local commodities from mine dumps and agriculture

- **The Marula Cluster Value Chain**

Marula trees grow naturally in the eastern part of Limpopo, with a high incidence in the Ba-Phalaborwa Municipal area as reflected in the figure below.



Marula fruit ripens from December to March. Fruit is harvested by hand during this period, mostly in communal areas. It is brought to collection points that have been established by industry buyers where in 2007, R28 was paid per 80 kg bag. The marula fruit is then sorted and processed into pulp and juice and separated from the stones, which represent almost 40% of fruit mass. The pulp portion is then frozen and stored for transport and processing into liqueur by Distell and Cape Beverages in Stellenbosch. Some of the pulp is also used for juice manufacturing. The sorting-pulping and freezing factory is one of the landmarks in the Phalaborwa industrial area. It is part of the famous Amarula cream liqueur brand and as such, the display room and lapa has become a popular visiting point for foreign visitors. Distell has produced outstanding advertising and branding material for the Amarula Cream Liqueur, with considerable emphasis on African Wildlife. Ba-Phalaborwa Municipality should co-ordinate its wildlife-tourism branding strategy with that of Distell.

Small quantities of stones are unshelled Kernels are then pressed to produce marula crude oil, which is sold to the cosmetics industry. However, the bulk of the current production of stones is currently being discarded. Initiatives have been taken by the Ba-Phalaborwa Municipality to encourage the registration of primary marula cooperatives to crack and sell marula nut. There are five Marula cooperatives that have been registered through LIBSA (currently known as LEDA after being merged

with LIMDEV) to start with the cracking marula stones to produce marula nuts to be used for marula oil production. A total of 656.20kg of nuts have been cracked since September 2011 and a total of R22 148.48 has been paid to the five cooperatives in the same period.

The process of registering a secondary cooperative has been completed in 2012. Kernels are sold as whole nuts and oil is extracted from broken kernels. The price expected for whole marula nuts is about R80 per kg, compared to R60 per kg for Macadamias. This is seen to be comfortably profitable since the stones are received from the pulping process free of charge and de-husking is done manually on a buy-back basis. The municipality through PMC has commissioned the designing of machines to crack marula nuts, and the machines have been distributed to all the five cooperatives in Makhushane, Majeje, Maseke, Mashishimale and Seloane.

The principal market for Marula oil is the cosmetics industry. The oil particularly has high anti-oxidant qualities and preservative capacity. All the oil pressed commercially is sold to the export market mainly to the UK. The price (subject to confirmation) was about R275 per litre in 2009. The quantities are still very small and the market is undersupplied, however, marula oil tonnage is on the increase. This market is in its infancy. A significant opportunity exists to commercialise the shelling and kernel extraction process.

The Limpopo Provincial Government has included the promotion of the Marula industry in its horticulture development strategy in order to create business opportunities in marginalised communities and in order to promote the growing of indigenous trees. However, the programme is very slow and Ba-Phalaborwa is leading in the establishment of the marula industry. This strategy is being supported by the National Department of Science and Technology that wishes to preserve and promote indigenous knowledge for the improvement of sustainable rural livelihoods.

The Department of Science and Technology has opened a very big food processing facility in Nkowankowa and a benchmarking visit was undertaken by the municipality in November 2011, with positive results realised with regard to the state of the art testing laboratory set up in Nkowankowa, underwritten by the University of Pretoria students coming for practices on a regular basis, thus presenting the alleviation of the need to send marula oil for testing in far flung areas outside the Limpopo Province.

Initially, FOSKOR has made a commitment as part of its social and labour plan that was later changed to finance the establishment of marula plantations in the communal areas in the Ba-Phalaborwa Municipality, however, that might be implemented as part of land reclamation and rehabilitation of old waste dumps in Namakgale and Lulekani. Fruit is also collected for home-production and selling

of traditional Marula beer. The annual marula festival is an important market for marula cooperatives to supply the marula beverage to be enjoyed the festival revellers.

It is recommended that the expansion of the manufacturing component of the marula cluster value chain in Ba-Phalaborwa Municipality, with specific emphasis on nut cracking, oil extraction and juice-making/drying be promoted. These three manufacturing activities required three separate, but preferably adjacent factory spaces with some common facilities, noting that, five marula depots were constructed in five traditional authorities. The total industrial land requirement for the second phase of the marula processing plant is estimated at 4,000 square meters. This space is currently still available adjacent to the pulping factory. Total building size is estimated at 6,000 square meters and the cost of construction is estimated at R12.6m. Equipment cost, comprising of the cold storage, oil refinery is needed in the secondary phase of the marula oil production. Preliminary estimates are that 45 tons of saleable products will be produced and that an annual income of R18m can be generated. Employment could amount to 271 persons. Annual operating costs will be approximately R13.5m.

The municipality in partnership with Rio Tinto through its SLP have funded the construction of five marula oil depots in Makhushane, Maseke, Mashishimale, Majeje and Seloane. The entire nut cracking marula depots have been completed with the Makhushane depot serving as the oil pressing facility furnished with fixed pressing machinery.

Currently all the respective cooperatives sell their marula nuts to the Makhushane Marula Oil Extraction depot. The 2013 marula harvest is expected to sustain the cracking of marula nuts for the whole year, thus making it possible for cooperatives to draw some income for the 2013/2014 financial year and the subsequent following years.

A feasibility study and business plan was urgently required to verify the preliminary estimates for the marula nut cracking, oil extraction and juice making/fruit drying enterprises. The business plan has been finalized in 2010 and has been incorporated in the marula feasibility study that was completed in 2011 with an element of co-funding in order that fruit collection co-operatives

in communal areas may obtain a share in the manufacturing value chain. It also incorporate the work that is currently being done on co-operative support, nut cracking technology, bio-chemical analysis of marula oil and market studies for marula products as part of the Limpopo-EU LED grant.

- **Magnetite Beneficiation**

Although the IDC and Mintek have conducted extensive research on the magnetite in the mine dumps at Phalaborwa, with the intention of beneficiating the magnetite and testing the feasibility of using it as feedstock for steel manufacturing in South Africa, very little of this information is in the public domain. The IBMS has begun with the construction of an iron ore plant to the tune of an initial R120m. Russian partners have also come on board to produce steel from the beneficiated iron ore from magnetite.

A cash flow projection for the beneficiation of the PMC magnetite based on this process indicates a total cost of R750 per ton against a scrap steel price of R2100 per ton. This indicates a profit in excess of R1, 300 per ton. The projection assumes an ore price of R25 per ton and a conversion rate of 1.45 tons of ore to 1 ton of pig iron. Even at more than double the ore price, the proposition is still attractive.

IBMS has reported that conventional and new technologies are being considered to produce iron ore pellets from magnetite ore and that a bankable feasibility study will be ready in 2012/2013.

In view of the considerable difference between the job creation estimate for magnetite export (300 jobs) and the job creation estimate for magnetite beneficiation (at least 3,000 jobs), it is recommended that the beneficiation route has to be seriously considered. Infrastructure requirements for and the environmental implications of magnetite beneficiation in the heavy industry section of the Phalaborwa Industrial Park should be included in the prefeasibility study that is currently underway.

- **Gypsum Product Cluster**

The discard from Foskor and former Sasol Nitro (now known as Bosveld Phosphates) contains millions of tons of gypsum in association with sulphur. Investigations to extract the gypsum have been conducted in the past, but the feasibility has always been constrained by the cost of the energy that will be required to extract the gypsum from the sulphur in which it is contained. Management of the mine dumps represents a considerable cost to the owners, some of which could be saved if value can be extracted on a commercial basis. This means that environmental liabilities could be

converted to sustainable assets. Specific investigations in this regard were underway in different parts of the country, because most mining companies have some combination of gypsum, sulphur and carbonates in their slimes. Valuable experience in this regard has been accumulated in recent years by institutions such as the CSIR and the Science Faculty of the Tshwane University of Technology.

The sulphur itself could represent an attractive proposition considering that almost two million tons are used in South Africa annually, of which 1.5 million tons are imported. The challenge is therefore to find suitable technology to separate the different elements in the mine dump from each other in an economically viable manner and then to find commercial applications for each of the elements.

The National Departments of Trade and Industry and of Science and Technology have a research grant facility known as THRIP (Technology and Human Resources for Industry Programme). It is intended to boost South African industry by supporting research and technology development and by enhancing the quality and quantity of appropriately skilled people. It has stimulated innovation, which has led to competitiveness and accelerated economic growth. Application for THRIP funding requires collaboration between industry, academia and senior students and for patent information to be published. Upon approval, the fund will contribute 50% of research and development costs.

Table 64: Job Creation Potential from Manufacturing

Opportunity	Estimated New Jobs 2012-2030	Probability %	Probability Job Estimate
Marula Cluster	271	95	260
Magnetite Beneficiation	3000	10	300
Sulphur/gypsum extraction	500	10	50
Total	3771	16	610

- **Infrastructure Implications**

Provision should be made for the servicing of industrial sites in three phases of 10 months each with each phase costing R4.5m at current prices.

- **Spatial Planning Implications**

Local manufacturing of products in designated manufacturing and industrial areas should be encouraged.

Light industry manufacturing and heavy industry manufacturing should be separated through zoning or clustering. Planning information about the industrial park and its level of development is insufficient and will have to be improved.

- **Environmental Management Implications**

The south-eastern industrial complex is currently utilized although notably under developed. These industries are generally of low impact due to the nature of the activities and the level of service (waste and effluent removal).

The principal environmental constraint is the location of the industrial and mining areas in relation to the predominant wind direction, which is from the south-eastern sector. Lulekani, Namakgale and Phalaborwa itself are all significant receptor sites for airborne dust and emissions generated in these areas. As such, the establishment of industries which generate airborne pollutants should be limited.

5.2.7. Mining reclamation of waste dumps, extended copper mining and ilmenite mining,

- **Magnetite**

Palabora Mining Company (PMC) has 240 million tons of magnetite stockpiled adjacent to the mine and an additional 2 million tons of magnetite is produced each year. The magnetite contains 56% iron, which has become a marketable (albeit low value) commodity at current metal prices. PMC has entered into a partnership with IMBS to beneficiate magnetite to produce iron ore. The plant is currently commissioned at a tune of R120m and is expected to create 100 jobs in its initial stage, and is expected to inject close to 2 billion Rands into the local economy in 20 years of its operations. At this rate, the stockpile will keep growing until 2017.

Considerable analysis and engagement of stakeholders has already been initiated by PMC, with prospects of an Iron Ore plant being constructed in Phalaborwa. The other option that was further investigated was the construction of a pipeline with capacity to pump 6 million tons of magnetite

per year from Phalaborwa to Maputo, however, that seems to have been stalled with the construction of an iron ore plant inside the mine from where it can be beneficiated and exported. A feasibility pilot project for this purpose was being commissioned by IBMS and PMC in the 2012/2013 financial year. The current scenario is that a maximum 235 truck trips are made from PMC to Maputo or the other way around on a daily basis. Recently approx 45 trucks are doing up to 5 trips per day from PMC to Mica Station and return. This is causing congestion and serious damage to the road system and must be investigated.

The concept that is being considered is to establish a reclamation unit in Phalaborwa, from where the ore is beneficiated, with Russian partners to establish a steel plant within Ba-Phalaborwa. The plant is expected to produce steel from the iron ore manufactured. This concept could create 300 new jobs in Phalaborwa over a medium term period. The concept is also aimed at examining the potential to increase magnetite and copper beneficiation within Ba-Phalaborwa from 6 million to 12 million tons per year.

The technology used by IBMS is the first of its kind in the World to be used in Ba-Phalaborwa, with a potential to draw serious attention to the area due to the integration of energy saving technology with low pollution emissions.

FOSKOR owns a mining dump containing 70 million tons of magnetite with a slightly lower iron content of 54%. The magnetite has been offered on public tender and an empowerment company has been selected as the preferred bidder. This company intends to beneficiate the magnetite locally, to raise the iron content to 60% and then sell the iron-rich material on the open market. Foskor is currently supporting the preferred bidder to raise the necessary capital funding. Logistical support will also be provided in the form of working space, infrastructure connections and technical expertise.

The IDC and Mintek have conducted extensive research on magnetite in the mine dumps at Phalaborwa, since 1995. The intention has been to create a body of knowledge to beneficiate the magnetite and to test the feasibility of using it as feedstock for steel manufacturing in South Africa particularly in Ba-Phalaborwa.

- **Second lift for copper mining**

The grade profile of copper ore at Palabora Mining Company (PMC) is such that mining operations from the existing shaft will no longer be viable after 2016. The cut-off date could be extended to

2017 if the average copper price remains above $1.75 per pound. The direct implication is that approximately 2,550 of the current 3,350 jobs at PMC could be lost at this time, resulting in a similar loss of jobs in the local economy as an indirect impact. This happens amidst Rio Tinto selling 57% of its shares to a Chinese consortium in 2012.

There is an ore body of an estimated 154 million tons below the existing shaft, containing approximately 0.68% copper. A bankable feasibility study for a second shaft is a 50/50 possibility of being successful and is expected to cost around R50 million. A detailed drilling programme, which has formed part of the feasibility study, has been conducted. Early estimates of the capital cost for a new shaft amount to R3.5 billion. This shaft could commence operations in 2014 and maintain current production rates until 2029.

The drilling programme has been done at the expense of PMC providing a full feasibility study if the drilling results are positive. The copper price remains at attractive levels. There may also be an option to widen the current shaft, so as to extend its commercial life. However, capital funding for the shaft construction will have to be sourced and secured in the event of the feasibility studies being positive, especially the cost of going deeper underground. There are some risks of pit slumping, which will have to be addressed before the mine is developed further underground.

It is considered to be in the best interest of Ba-Phalaborwa Municipality to leave the prefeasibility and full feasibility study processes for current shaft widening and for copper lift two in the hands of Palabora Mining Company and to respond appropriately when specific recommendations are made as a result of these processes. However, it is essential that proactive measures should be taken to mitigate the impact on community sustainability in the event that copper mining activities are terminated in 2017.

- **Ilmenite and Antimony at Gravelotte**

Ilmenite

Exploration to find new sources of magnetite was begun by ISCOR in 1988. Ilmenite deposits were discovered in the vicinity of Gravelotte. The proposal was to extract heavy minerals (sands) deposits along a strike of approximately 24 km in the vicinity of Gravelotte in the Murchison Range and running parallel and generally to the north of the Gravelotte/Phalaborwa road (R71). It involved the strip mining of Ilmenite bearing sands to a depth of approximately 1.2 meter and 2.5 km wide; and the ongoing rehabilitation of backfilled area.

The operation in Gravelotte was envisaged to include local beneficiation of material for transportation to a Central Processing Complex (CPC) at Empangeni. Rail tariff considerations played an important part in determining the relatively higher level of local beneficiation of production. Although the initial planning was for a coal-based local beneficiation process at Gravelotte, the operation was a potential client for gas from the Pande field.

The operation at Gravelotte was to be commissioned in January 2000, but has been postponed to 2014, depending on the Ilmenite requirements of the smelter at Empangeni and market conditions. Consolidation Murchison Mine was also affected by instability in its productions between 2008-2010 with close to 890 workers being retrenched due to low productivities and profitability in its mining activities. The mine was put under new management in 2011 and is currently investing close to R3.8m into community projects through its Social Labour Plan, agreed upon with the Ba-Phalaborwa Municipality in the 2011-2014 financial years.

Final grade Ilmenite will be transported by rail from Rubbervale to the CPC at Empangeni at the rate of approximately 200 000 tonnes per annum. Rail capacity and tariffs remain an important determinant of project viability. From the combined output of the Kwa-Zulu/Natal mine and the mine at Gravelotte the CPC will annually produce:

- 250 000 tonnes of titania slag,
- 148 000 tonnes of Low Manganese Pig Iron,
- 35 000 tonnes of zircon and,
- 15 000 tonnes.

The latter two products are of value in the manufacture inter alia of abrasives and pigments respectively. The estimated total employment directly created by the operation in the Gravelotte area is as follows:

An indigenous nursery will be required for the rehabilitation of the mined area. A new pipeline to bring water to Gravelotte will also be needed. An environmental impact assessment was done for this project which involved public participation. The EMPR for the future mine was approved by the Dept of Minerals and Energy with the provision that it be revised and updated again one year before mining operations commences.

Antimony

Consolidated Murchison, which produces antimony and gold, is the only mine in the western part of Ba-Phalaborwa Municipality at present. The mine employed 1,300 people in 2007, most of who live in a housing estate on the mine or in Gravelotte. It has been in operation for more than seventy years. It was announced early in 2007 that the remaining life of mine was seven years, meaning that in 2014, the mine will have reached its planned life span with subsequent mine closure anticipated in 2014. The impact of the mine closure on the local community will be devastating and will also be felt severely by communities in Tzaneen and Phalaborwa, with initial retrenchments already implemented in 2010, shaking the employment statistics in the Ba-Phalaborwa and Mopani District.

The Murchison Greenstone Belt has been known for its mineral wealth, but many of the good deposits have been mined out during the past 100 years. There is insufficient geological information available in the public domain to make an informed recommendation regarding new mining opportunities, apart from the Ilmenite mine that is anticipated from Exxaro in 2014.

Table 65: Job Creation Potential

Opportunity	**Estimated New Jobs 2008-2017**	**Probability %**	**Probability Job Estimate**
Magnetite Beneficiation	3000	10	300
Gypsum Extraction	500	10	50
Copper Lift 2	2500	20	500
Ilmenite	167	90	150
Total			1000

5.2.8. Infrastructure Plans (Phalaborwa, Namakgale and Lulekani)

The following infrastructure initiatives are recommended for Ba-Phalaborwa:

- A new ring road is proposed to link Phalaborwa, Namakgale and Lulekani. It is recommended that plans be put in place to construct the ring road in three phases, commencing with the link from the south of Namakgale to the industrial park of Phalaborwa. Currently, the road infrastructure connecting Namakgale and the industrial area has been upgraded from Namakgale via Makhushane to the Mica road.
- The internal streets at the industrial area need urgent attention along the road to the Amarula plant due to the potholes infested conditions of the streets. The planning budget for phase one is over R3.5m and the construction budget is R8.58m. This phase is expected to take 3 years to complete. Phase two is likely to cost R30m (also over three years) and phase 3 to complete the ring road has a projected cost of R50m and will also take three years. Provision should be made

for the servicing of industrial sites in three phases of 10 months each, with each phase costing R3.25m at current prices.

- Provision should be made for a new solid waste site to be constructed at a cost of R1.55m.
- The electricity bulk supply and network will also have to be upgraded at a cost of R4.04m noting the 2012 electricity blackouts that negatively affected the investment attractiveness of Ba-Phalaborwa.
- The waste water plant and outfall sewer will have to be upgraded at a cost of R33.5m. The Phalaborwa Sewer plant was upgraded in the 2009/2010 financial year, but further investments need to be planned for the improvement of sewer management services. The Namakgale sewer plant was also upgraded in the 2009/2010 financial year. There is a need to expedite the upgrading of the Lulekani sewer plant urgently to accommodate future growth of settlements and property development in the area.

5.2.9. Spatial Planning Implications

- **Industrial space**

Ba-Phalaborwa has two main industrial areas. The large heavy industrial area next to Makhushane in Extension 5 is only 25% occupied. It lacks certain infrastructure services affecting the actual profitability in the selling price of land within the area as an industrial zone (prices were as low as R5-00 per square meter), and some Erven have consequently been purchased and developed for residential purposes. The industrial area should be upgraded and promoted to a level of attracting investors, while longer term planning should consider a corridor development along the R40 to the Phalaborwa town industrial area and also linking west wards towards Namakgale. Reclamation of mining dumps will over the long term open up land for development. The existing heavy industrial area could provide the ancillary support necessary for reclamation and beneficiation.

- **Environmental Management Opportunities and Constraints**

Mining in general results in significant environmental degradation and pollution, and often mitigation measures are such that these require long-term monitoring and maintenance. Old mine tailings and dumps are the most important contributors in this regard.

Due to the nature of beneficiation processes in mining (crushing, screening and washing), metal and other elements within the ore group often go into solution, and get pumped (in the form of slurry) to tailings dams. Over the years, these chemicals leach through the dam into the

groundwater resulting in contamination of the underlying aquifers and eventually enter surface water bodies where such aquifers subtend to the surface.

Conversely, where evaporation is high (such as at Ba-Phalaborwa), these chemicals can crystallize on tailings dams and become airborne during windy periods. This poses a significant health and environmental risk in that the effective impact becomes regional (or trans-boundary) as opposed to localized. The deposition of this dust on water bodies generally reduces water quality. Deposition on vegetation which is utilized for grazing can impact on livestock, which can result in some ingestion by humans.

- **Anticipated environmental implications**

In terms of environmental impact, the reworking and removal of mine dumps and tailing, although having some environmental impact during the operational phase, will have a significant long-term positive impact on the physical, biophysical and socio-economic environment by removing potential sources of pollution.

- **Proposed strategies for mitigation**

At this stage, detailed environmental mitigation measures cannot be proposed, as the exact nature of the impacts can only be determined by conducting a detailed environmental impact assessment. Principally, however, mining authorization will have to be obtained in terms of the Mineral and Petroleum Resources Development Act (Act 28 of 2004). This will entail conducting a detailed EIA, Social and Labour Plan and Environmental Management Plan.

5.2.10. Retail, SMME and Informal trading support

Ba-Phalaborwa has experienced a population growth totalling 150,637 since 2001. The growth in population requires well planned retail development that should accommodate easy access through various transport modes.

- **Retail development in Ba-Phalaborwa**

Currently Phalaborwa stands as the economic hub for the municipal area, with various retail facilities that include banks, gas stations, heavy industrial areas, hotels and lodges in operation. The two townships of Namakgale and Lulekani lag behind regarding retail development. The trend follows the old shopping facilities in the form of cafes, liquor stores and spazas.

The Namakgale CBD comprises of various retail activities that are not well coordinated. Retail shopping mall development in Namakgale is currently underway. The old supermarket next to the

police station was a failure with few shops operating. The old Score complex has also changed its niche service to accommodate a liquor store, cafe and a chemist. The old shopping complex in Ward 4 (popularly known as dikhefing) has also deteriorated with minor retail activity solemnly dependent on liquor services, few cafes, a butchery and a chemical shop. The Tshelang Gape complex has a fuel garage, butchery and a cafe that caters for people residing in Ward 4.

Lulekani is land locked area surrounded by tribal land. The township has a CBD that comprise of a shopping complex. Retail development in the CBD is not attractive, with a spread of hawkers in and around the established shops. There is a garage servicing the whole Lulekani area with two ATMs in the vicinity of the CBD. Over the main street on the tribal land, there is an established trading complex with a pharmacy, emerging carwash and hawkers.

Gravelotte has the smallest retail development scenario, with a few cafes, two garages, a hotel, a liquor store and a wholesale. There is a railway line passing by Gravelotte from Hoedspruit to Tzaneen en-route to Modjadjiskloof, Soekmekaar, Polokoane and Musina. The municipality through the assistance from Cons. Murch. Mine has constructed the Gravelotte Market Stalls for six hawkers.

There is a need for a well planned retail development framework for Ba-Phalaborwa, in which all positives strengths of the areas within Ba-Phalaborwa area would be highlighted. Retail development in Ba-Phalaborwa need to be competitive compared to other adjacent areas within Mopani and Limpopo.

- **Retail, SMME and Informal business development**

Ba-Phalaborwa has a well developed retail cluster in Phalaborwa town. The other proclaimed towns of Namakgale, Lulekani and Gravelotte have relatively underdeveloped formal retail. There are currently new retail development initiatives in Namakgale. Various small enterprises and emerging businesses are operating majorly in Phalaborwa, Namakgale, Lulekani and Gravelotte. Most of the rural areas comprise of spaza shops trading in residential areas, road junctions and school premises.

The majority of the small businesses are unlicensed, unregulated and unorganised. SMME support and informal business support programs are solemnly provided through LEDA and SEDA, whereby various training programs are offered.

Ba-Phalaborwa Municipality has a systematic process of SMME support and emerging businesses through its Supply Chain policy. There is a need for the municipality to provide basic services such as electricity, water, sanitation and waste collection to enhance business operations.

5.3. Investment Attraction Plan

Ba-Phalaborwa has a variety of business opportunities to offer to potential investors. The municipality has relatively adequate economic infrastructure (such as roads, railway lines, and airport, waste and sewer systems) in place to support business development. The industrial areas in Phalaborwa has basic infrastructure, however, there is a need to upgrade services to enhance business and investment development.

5.3.1. Socio-economic profile of Ba-Phalaborwa

Ba-Phalaborwa has a population of 150,637 according to the 2011 Stats SA Census, with 41,115 households. There are 25 settlements in the Ba-Phalaborwa Local Municipality. Phalaborwa town is the centre of an urban complex that includes Namakgale and Lulekani, with close to 90% of the population living within the 15km radius. There are large population settlements on communal land on the periphery of the Phalaborwa urban complex.

The 2011 Stats SA figures show that Ba-Phalaborwa has a very young population that constitute over 60% of the population.

5.3.2. Employment sectors in Ba-Phalaborwa

The following sectors offer employment as important economic clusters in Ba-Phalaborwa:

- Agriculture,
- Mining and quarrying,
- Manufacturing,
- Electricity, gas and water,
- Construction,
- Wholesale, retail trading, catering, hospitality and accommodation,
- Transport, storage and communication,
- Community, social and personal services,
- General government.

5.3.3. Economic activities and production

Ba-Phalaborwa has a large economy by provincial standards, with highly developed and sophisticated mining industry. The value of production in mining was almost R5.9 billion in 2010 (at constant 2005 prices). The main economic driver of the local economy is copper and phosphate in mining. Government expenditure, mostly on salaries also contributes to the local economic activity.

The majority of business activities and industrial development take place in the urban area of Phalaborwa. Lulekani and Namakgale have less economic activities. A large portion of the municipal area is utilised as game farms and conservation areas (such as Letaba ranch, Eiland, Hans Merensky Nature Reserve, Kondowe, Marakapula and cattle farming).

- **Mining**

Mining activities are carried out by PMC, FOSKOR, Consolidated Murchison and Bosveld Phosphates. Exxaro is planning to establish mining activities in the Gravelotte area.

- **Agriculture**

Areas along the Greater Letaba River next to Seloane have limited agricultural activities but with great potential for agriculture utilisation with citrus and crop farming and game farming.

- **Tourism**

Phalaborwa lies at the entrance and serves as the gateway to the Kruger national Park and the Greater Limpopo Trans-frontier Park. It represents ideal tourism potential and investment opportunities to be exploited. The diverse natural resources and the proximity of Phalaborwa town to the Kruger national Park create an environment for exceptional economic growth through promoting its biggest asset of wildlife tourism.

- **Manufacturing**

Ba-Phalaborwa has a manufacturing industry is still at an infancy stage. There are potential opportunities in mining beneficiation, marula product beneficiation and agro-processing.

- **Transport Corridors**

Ba-Phalaborwa has well planned road, rail and air networks. The network links the municipal area with other provincial hubs such as Polokoane, Nelspruit, Gauteng and SADC markets in Mozambique. R71 and R40 are major roads into Ba-Phalaborwa; however, the roads need to be rehabilitated. The promotion and development of these routes has a potential to position the municipal area as a strategic economic hub with important sub-corridors for, potential investors.

- **General description of the existing Spatial Pattern**

Ba-Phalaborwa covers an area of 7,461.6km^2, with the majority of the municipal area covered by farm land owned by private individuals and the Traditional Leaders (of Majeje, Makhushane, Maseke, Seloane and Mashishimale). The remainder of the municipal area consist of proclaimed

towns of Phalaborwa, Lulekani, Namakgale and Gravelotte and commercial farms. The spatial pattern also shows an urban development mainly concentrated around Phalaborwa, Lulekani and Namakgale.

5.3.4. Business enhancing infrastructure

- **Health facilities**

A private hospital has opened its doors in 2012, bringing great relief to medical care services expectations of overseas and local visitors for that might arise in and around the Ba-Phalaborwa, Kruger National Park, Hoedspruit, Giyani and some parts of the Greater Limpopo Trans-Frontier Park. “Plastic Surgery” tourism is eminently suited to the new facility and especially in Phalaborwa which can provide excellent accommodation and privacy to patients. This so called surgery safari system is attractive due to the favourable overseas exchange rates and surgery costs there versus our Rands, facilities and excellent surgery reputation. This avenue must be further investigated

- **Schools**

Ba-Phalaborwa has various public and private schools to cater for the needs of investors doing business in the municipal area. The area has post matric institutions for engineering, management, hospitality and vocational training. Limpopo Enterprise Development Agency has offices located in the Phalaborwa town.

5.4. Conclusion

The highlighted programs and projects present various economic activities and the potential to grow the economic prospects of Ba-Phalaborwa. The key municipal core infrastructure needs to be upgraded and maintained to provide reliable basic services necessary to promote and support economic development.

Chapter 6

6. Implementation Plan

6.1. Introduction

The highlighted major economic clusters in Chapter 5 requires that the municipality and its strategic stakeholders pool resources to implement the identified programs for the economic growth of Ba-Phalaborwa and create conducive environment for investors to seize economic opportunities in Ba-Phalaborwa.

6.2. Implementation Plan

6.2.1. Mining

- **Reclamation of Mining Dumps**

Magnetite

Interested investors in mining reclamation have the opportunity to conduct prefeasibility studies on the available mine dumps for beneficiation. IMBS has already seized this opportunity by constructing an iron ore plant in the PMC mine complex. The company is planning to construct a permanent Iron Ore plant in Extension 5.

Gypsum

Private entities have vast opportunities to beneficiate Gypsum from the Bosveld slime dams. Research on the commercial separation and utilization of gypsum and sulphur from the Foskor and Sasol Nitro mine dumps can be conducted by interested investors in collaboration with Bosveld Phosphates. It is anticipated that the total cost of such a research project could amount to R800, 000. Collaborators will need to source funding if necessary, supported by Ba-Phalaborwa Municipality. It is envisaged that the research project should take one year to complete and that it will contain recommendations on appropriate actions to be taken after that.

- **Copper Lift Two**

This is considered to be in the best interest of Ba-Phalaborwa Municipality to leave the prefeasibility and full feasibility study processes for the widening of copper lift one and the development of copper lift two in the hands of Palabora Mining Company and to respond appropriately when specific recommendations are made as a result of these processes. It is essential that proactive measures should be taken to mitigate the impact on community sustainability in the event that copper mining activities are terminated in 2017, noting that Rio Tinto has decided to sell its shares to Chinese investors with preliminary agreements signed in 2012, and processes are still ongoing to bring the mine under new owners and management.

- **Murchison Belt**

It is anticipated that Exxaro will establish a new Ilmenite mine in Gravelotte, employing close to 170 new employees from 2014 onwards. The Consolidated Murchison, which employed 1,300 people in Gravelotte, is expected to reach its end of life in the same year (2014). The Municipality has

established a working relationship with the management of the Consolidated Murchison Mine aligning their social and labour plan with the municipal Local Economic Development strategy and the IDP, has committed R3.8m for its 2012/2014 SLP programs to be implemented over a three year period from 2012-2014.

6.2.2. Tourism

Management Centre for Tourism Development in GLTP

It is recommended that the Director EDHSSP with the assistance of the Assistant Director Economic Development and Assistant Director Strategic Planning, Managers Tourism and LED should draft the outline of a tourism development strategy, for tourism development in Ba-Phalaborwa as part of the Greater Limpopo Trans-Frontier Park, Valley of the Oliphant's and the Kruger to Canyons Biosphere tourism routes, with the institutional capacity and office buildings for the implementation of such a strategy being established in the Phalaborwa town.

Some of the issues to be incorporated in the reviewed tourism development strategy for Ba-Phalaborwa should include:

- Profiling of the tourist market,
- Convenience in terms of passport control and foreign currency exchange,
- Upgrading of the road through Giriyondo to Masingir,
- The bush to beach ecotourism concept,
- Convenient facilities for game viewing, water collection and ablutions along the way,
- Branding of Ba-Phalaborwa in the context of KNP and GLTP,
- Alternative leisure and entertainment zones for ecotourism visitors.

The draft reviewed strategy should be presented to DEAT, KNP, the Peace Parks Foundation and LEDET for inputs on tourism development in the Ba-Phalaborwa Municipal area and to complete a detailed economic and tourism strategy formulation, and to assist with its implementation. The tourism development action plan and the capital cost implications of all the proposals should be documented as part of this process.

Development of wildlife tourism throughout Ba-Phalaborwa Municipality

Ba-Phalaborwa Municipality in partnership with the established local tourism association, the local mines and relevant NPOs such as the Palabora Foundation should champion a process of sharing and

implementing the municipal vision of tourism development throughout the municipal area. Branding that is associated with; the municipal tourism vision should be improved. Tourism stakeholders in Ba-Phalaborwa include:

- Community Property Associations of land claimants,
- Local Tourism Association,
- Representatives of game farmers and game breeders,
- Tourism related activity based product owners,
- Limpopo Tourism Agency, as well as local nature reserve managers,
- University of Pretoria Sustainable Restitution Support Programme for Ba-Phalaborwa,
- Limpopo Department of Agriculture in Ba-Phalaborwa,
- Local mines,
- LEDET,
- Hunting associations,
- Safari outfitters

Table 66: Anticipated actions, costs and time frames:

ACTION	BUDGET R'	SCHEDULE
Facilitate stakeholder workshops on vision for LED and tourism development in Ba-Phalaborwa	80,000	2 months
Prepare development strategy to implement the vision	100,000	2 months
Compile generic business plan for LED and tourism related activities (such as game breeding, birding etc)	100,000	2 months
Customise generic business plan for specific projects for local economic development	100,000	2 weeks per business plan

<u>Promotion of tourist entertainment facilities in Namakgale, Lulekani and the rural areas</u>

The municipality should strive to formalize the Namakgale Sporting Development Project in conjunction with the local mines and any other funder interested. FOSKOR has already taken positive steps to upgrade its former phosphate club now known as the FOSKOR Community Centre. The municipal Parks and Recreation unit must come up with plans to improve the landscaping in Namakgale, Gravelotte and Lulekani to support the attractiveness of the areas and as a way of enhancing tourism promotion.

The concept of bed and breakfast facilities and other tourism enterprises from homeowners in Namakgale and Lulekani should be promoted and provided with access to tourism facilities such as Bollanoto Tourism and Information centre where they could place their promotional materials and market their establishments.

Bollanoto Boulevard, Tourist Information and Events Management

There is an urgent need to finalise the mandate for Bollanoto to become the tourism information and promotion hub for Ba-Phalaborwa Municipality. Bollanoto should also serve as a Provincial and National gateway into the Kruger National Park and the GLTP. This mandate should be captured and include:

- Tourism information, reservations, upmarket restaurant and refreshments, ablution facilities, tree park, walking trails and a coffee shop,
- A pedestrian boulevard between Bollanoto and other tourist attractions in the vicinity,
- Events management, to attract larger numbers of tourists to Ba-Phalaborwa on a more consistent basis.

Updated Tourism Development Strategy

It is recommended that the Municipality should appoint and mandate a professional expert to review and draft the municipal tourism development strategy and include inputs from tourism product owners, local tourism association and LEDET, and carefully revise the municipal tourism development strategy to incorporate the most appropriate branding strategy and the tourism development theme for Ba-Phalaborwa, with a long term vision to turn Ba-Phalaborwa into a major tourist destination of choice. The selection of the service provider is important to establish a suitable mix of tourism and branding experience with insight and knowledge of local aspirations and conditions.

It is anticipated that the compilation of the tourism and branding strategy could cost around R500, 000. The municipality can alternatively engage some of the local stakeholders to finance the initiative in developing a detailed tourism development plan.

6.2.3. Agriculture

- **Strategic Land Restitution Support**

The municipality need to fast track the process of sharing and implementing the municipal vision of tourism development throughout the municipal area and to mobilize a common sense of purpose

among land claimants and farmers. The Mopani Conservancy Initiative championed by the Seloane and Balepye CPAs in partnership with Blue Vest can be used as a viable model to be adopted.

- **Game and Cattle Farmer Support**

A generic feasibility study and business plan for a typical game breeding and game farming project in combination with cattle should be compiled for Ba-Phalaborwa Municipal area. This feasibility study and business plan can then be used by successful land claimants or any other bona fide local stakeholders to compile a customised business plan for their specific farms. Mopani District Municipality has already conducted a feasibility study on red and white meat (beef) production, however, the study exclude game breeding. Future studies should include game farming and breeding.

Table 67: Number of livestock and their estimated gross production value

Stock type	Number	Estimated off-take	Estimated value/unit	Annual value
Cattle	30 298	4 545	R2 100	9 543 870
Goats	7 932	1 190	R750	892 350
Sheep	83	12	R800	9 960

Source: Ba-Phalaborwa Poverty Alleviation Strategy

- **Co-operation with Gaza at Masingir Dam**

The Ba-Phalaborwa Municipal Manager should meet with the Municipal Manager of Masingir, to discuss co-operation with regarding agricultural development, and sharing of technical expertise that will be required to plan, implement, and manage the irrigation projects within the respective areas in Ba-Phalaborwa and Masingir dam.

During the 2011 financial year, a visit to Ba-Phalaborwa by the Mayor from Masingir took place aimed at achieving common agricultural development goals. There is an urgent need for a follow-up visit to Masingir to be finalized and a visit undertaken by the Ba-Phalaborwa Mayor, the Municipal Manager, Directors EDHSSP, Technical Services, Assistant Directors Economic Development and Strategic Planning. The proposed meeting should be arranged within the protocols of the Gaza and Xai-Xai agreements. The Director EDHSSP should be part of the meeting so that the mobilisation of resource requirements of any decisions that are taken can be quantified and managed.

6.2.4. Manufacturing

- **The Marula Cluster Value Chain**

Ba-Phalaborwa Municipality is championing the expansion of the manufacturing component of the marula cluster value chain, with specific emphasis on nut cracking, and marula oil extraction, the implementation of the finalized feasibility study and business plan is currently underway, with five marula oil extraction depots having been constructed and completed in the five Traditional Authorities of Maseke, Makhushane, Seloane, Majeje and Mashishimale.

The business plan is incorporating an element of co-funding to cover fruit collection by co-operatives in communal areas and obtain a share in the manufacturing value chain. Rio Tinto has financed the construction of the marula depots through its Social Labour Plan. The take-off financial injection by Rio Tinto for the marula oil extraction projects amounts to R5m. The DBSA has co-funded the completed feasibility study on the beneficiation of the marula products and industry development in Ba-Phalaborwa to the tune of R300, 000.

The project implementation also is incorporating work that is currently being done on co-operative support, nut cracking technology, bio-chemical analysis of marula oil and market studies for marula products as part of the Limpopo-EU LED grant.

The current producers of pulp for Distell, the fruit collection co-operatives, the successful applicant for Limpopo-EU LED funding for the competitive action plan on marula nuts and the DBSA as development funder should be maintained as strategic partners to work with a suitable service provider to assist in the implementation of the marula beneficiation projects. The development desk of the National Union of Mineworkers (MNP) should continue to be involved in the marula beneficiation initiative, since they have accumulated considerable amount of valuable information on marula nuts in recent years, particularly in the Bushbuckridge area. A property development and zoning plan for the Phalaborwa Marula Industrial Park that should focus on marula oil refinery, and the production of various marula products.

- **Magnetite Beneficiation**

The construction and commissioning of an iron ore plant in Phalaborwa from the 2012 by IBMS serves as typical example of product beneficiation that could benefit that Ba-Phalaborwa and potential investors.

- **Sulphur and Gypsum Reclamation from Mine Dumps**

The Ba-Phalaborwa Municipality should encourage investors to establish business links with Foskor and Bosveld Phosphates (formerly Sasol Nitro) on proposals for the beneficiation of Sulphur and Gypsum stockpiles found in the Bosveld Phosphates. Potential opportunities in this cluster include the commercial separation and utilization of gypsum and sulphur from the Foskor and Sasol Nitro mine dumps. It is expected that the cost of such a project should be borne by potential investors.

6.2.5. Housing

The municipality through the Human Settlements, Housing and Land-use Management unit should formulate an appropriate housing development strategy for Ba-Phalaborwa. Though the municipality has been overtaken by unplanned property developments along the major routes the R71 and R40, there is still a need for the municipality to continue with the housing development plans within the coming 2-3 years. The basic principles that should be incorporated into the housing strategy should include:

- Maximum utilization of national and provincial housing subsidies, with a quality of construction that keeps the interests of the beneficiaries in mind,
- Maximum utilization of opportunities for residential infill, with spatial priority to the development of a corridor from the south of Namakgale to the industrial park of Phalaborwa town prioritised. This corridor should be the precursor to systematic consolidation of the built environment between Namakgale, Phalaborwa and Lulekani,
- A secondary housing and transport corridor from Lulekani to the R71 should be incorporated into the proposed housing development strategy.
- In addition to the two housing corridors proposed above, the R71 from Mashishimale to the KNP is a primary tourism corridor that is beginning to be congested by unplanned property developments, cluttering the potential beauty that was to be associated with the corridor.
- The proposed housing strategy should include macro plans with land-use requirements, zoning proposals and infrastructure implications for all three corridors.

6.2.6. Entrepreneurship

The Municipality has completed compilation of the Township Regeneration Strategy. A follow-up plan on the compilation of a Municipal Development Support Programme for the informal economy is necessary. Case studies from other municipalities and a preliminary review of the literature suggest that such a strategy should at least have an institutional component and a physical structure

component. It is anticipated that the compilation of the Municipal Informal Economy Development Support Programme will cost R350, 000 to compile and that it will take four months to complete.

6.2.7. Social Investment Interventions

The municipality should prepare an adequate response on the social challenges to sustainable local economic development that currently prevail in the municipal area. These challenges specifically include public health, improved quality of education and crime reduction, sports development and general leisure infrastructure.

6.3. Sources of funding

Some of the programs in the LED plan will be financed by the respective private and sector department as champions, with Ba-Phalaborwa Municipality in some cases facilitating stakeholder management programs through the IDP processes. The IDP is used as an integrating socio-economic plan for initiatives taking place within the municipal area.

6.4. Summary and implementation schedule

The proposed interventions, their estimated immediate cost requirements and their anticipated duration are summarized in the table below:

Table 68: Summary of Proposed LED Interventions and Implementation Requirements

	Recommendation	Cost R’	Duration

1.	Research the commercial separation and utilization of sulphur and gypsum from mine dumps	200,000	1 year
2.	Research the community impact of mine closure	250,000	6 months
3.	Align the SLP of Consolidated Murchison with LED	50,000	2 months
4.	Facilitate a tourism development plan for GLTP	100,000	4 months
5.	Share, document and roll-out the municipal vision for wildlife tourism	380,000	8 months
6.	Formalise Namakgale sporting development project and access to TEP	400,000	6 months
7.	Finalise a business plan for Bollanoto as a tourist information centre and events management company	100,000	4 months
8.	Update the municipal tourism development and branding strategy	300,000	4 months
9.	Compile a business plan for marula nut cracking, oil extraction and juice manufacturing/drying	100,000	2 months
10.	Prepare a property development and zoning plan for the Phalaborwa Industrial Park	100,000	2 months
11.	Compile a housing development strategy for Ba-Phalaborwa Municipality with macro spatial and infrastructure plans for the three proposed corridors	400,000	4 months
12.	Compile a Municipal Informal Economy Development Support Programme	250,000	4 months
13.	Compile a strategy on social investment requirements for sustainable LED	300,000	4 months
	Total	29,300,000	1 year

The total cost of the proposed LED and spatial interventions is almost R29, 3 million.

Table 69: Summary of municipal infrastructure development * Estimates

Item	Description	Priority 1		Priority 2		Priority 3	
		Planning	Construction	Planning	Construction	Planning	Construction
1	Main Road Maintenance: Phalaborwa, Namakgale & Lulekani Phase 1 Phase 2 Phase 3	R4,500,000	R20,500,000	R4,200,000	R28,500,000	R5,600,000	R45,000,000
2	Upgrading of Village Access Roads; All Villages Phase 1 Phase 2 Phase 3	R1,300,000	R8,000,000	R1,000,000	R6,000,000	R800,000	R5,000,000

3	**Water Bulk Supply Infrastructure to all villages and new extensions** ○ **Cost recovery system**	**R100,000**	**R1,000,000**	**R200,000**	**R700,000**		
	○ **Rehabilitation and upgrading of existing water supply and boreholes**			**R1,000,000**	**R8,000,000**		

6.5. Conclusion

It is evident from the type of economic programmes to be adopted in the Ba-Phalaborwa municipality that large amounts of financial resources are required. All strategic stakeholders should pool resources and focus on addressing common economic enhancing initiatives over the long term. Enterprise development should be integrated in the implementation of the identified programs.

Chapter 7

7. Risk Assessment

7.1. Introduction

Ba-Phalaborwa Municipality provides basic services to all that lives and operates within its jurisdiction in a continually changing environment. As such the potential for disruption to services or the loss of opportunities or damage to assets from a wide range of risks is inherent. It is therefore essential that the municipality takes appropriate action to minimize the potential for loss or damage through active risk management.

Risk Management is the process of identifying significant risks to the achievement of the organizations strategic and operational objectives, evaluating their potential consequences and implementing the most effective way of controlling them.

7.2. The Risk Analysis and Profiling

7.2.3. Water supply, sewer, sanitation and waste management

Water and sanitation is the competency of the Mopani District municipality. Phalaborwa, Namakgale and Lulekani has water reticulation, sewer and sanitation systems in place. However, there is an urgent need to upgrade the infrastructure to address current chronic water, sanitation and sewer challenges regarding the maintenance of the existing infrastructure, such as leaking sewer and uncontrolled waste management, littering and unhygienic environments in the residential areas particularly in the townships and rural areas.

7.2.2. Electricity supply

91.8% of households in Ba-Phalaborwa have access to electricity, however, Phalaborwa has been hit by chronic power outrages since 2010. The situation has dampened the attractiveness of the municipal area, particularly Phalaborwa as a prime economic hub with possible millions of Rands lost due power outages.

The power outages is due to ageing infrastructure which is coursed by lack of maintenance which again derived from lack of resources i.e. Budget and poor maintenance.

7.2.3. The prevalence of malaria

The IDP identifies Ba-Phalaborwa as an area prevalent with malaria that is posing very serious challenge to maximise tourism development. Mitigating plans include providing adequate medical facilities in the municipal area.

7.2.4. Unemployment, health and welfare

The municipality has high levels of unemployment. Some sections of the society are highly dependent on social grants. Major social issues include increasing number of people dependant on social grants.

7.2.5. HIV/AIDS

HIV/AIDS is one of the illnesses prevalent in the Ba-Phalaborwa Municipal area. The disease has twin negative impact to the economic development of the municipal area, when considering the impact of other strains such as TB, Malaria and High Blood Pressure.

7.2.6. Available Skills levels

Ba-Phalaborwa has major mining and tourism related activities, however the pool of available skills are not adequate to be absorbed into the main economic streams of the mining, manufacturing and tourism industries.

7.2.7. Crime

Crime statistics are sturdily on the increase particularly in the townships. This has a negative impact on the prospect of promoting tourism development and to potentially attract investors into the previously marginalised areas. Phalaborwa town is not left out in incidents of crime.

7.2.8. Deforestation and degradation of the environment

Since 1994, the rate of deforestation and degradation of the environment has increased dramatically. Though 91.8% of the households have access to electricity, only 60% of the households use electricity for cooking, resulting in the wide spread of wood collection and tree felling.

7.3. Risk mitigating plan

7.3.1. Water supply, sewer, sanitation and waste management

The municipality owns some reservoirs with 78km of distribution lines and 512km of reticulation lines. The infrastructure must be maintained to guarantee supply of adequate services.

7.3.2. Power supply

There is an urgent need to overhaul the whole electricity supply system and power stations in Phalaborwa town due to the chronic power outages that were experiences from 2010.

The plan is in place and budget has been set aside to upgrade the current electricity infrastructure, currently the municipality is busy with maintenance and is an ongoing process, and is estimated to do major refurbishment till 2015.

7.3.3. Malaria control

The Limpopo Department of Health and social Development has established malaria control centres with one located in Lulekani, responsible for malaria control in the municipal area.

7.3.4. Unemployment, Health and welfare

EPWP and CWP has in a way offset the dependency syndrome by letting sections of the community to be economically active by providing identified community work for a stipend. EPWP and CWP offer a job safety net, where currently 1271 people have been employed by the CWP in all the 18 Wards in Ba-Phalaborwa until 2014.

The Clinix Private Hospital opened its doors in 2012 turning around the health security environment in Ba-Phalaborwa. The hospital offer health services of higher standards.

The IDP (p, 62) states that efforts have been adopted by the municipality and its strategic partners to reduce the increase of HIV incidents. Prevention programmes run by different stakeholders provide HIV/AIDS related services in almost all the areas within the municipal jurisdiction.

7.3.5. Available Skills levels

Ba-Phalaborwa has adequate primary and secondary school facilities. There is one institution of further education, (Mopani South East FET College) that comprises of the Phalaborwa, Namakgale

FET campuses and a hotel school of hospitality, offering various SETA accredited skills and learnership programmes in engineering, financial services and hospitality.

7.3.6. Deforestation and degradation of the environment

The Premier's greening programme sponsored by PMC and FOSKOR is one step of mitigating the sore advent of deforestation in Ba-Phalaborwa. The municipality continues to actively take part in the District, Provincial and National Greenest Municipality Competitions. Participation in the activities helps in entrenching nature conservation.

7.3.7. Crime

There are measure put in place to curb crime activities by SAPS and private initiatives by security companies. The community need to be mobilised to assist in the prevention of crime, by taking part in the crime prevention programmes such as Community Policing Forums.

7.4. Summary of Risk Profile Analysis

7.4.3. Water supply, sewer, sanitation and waste management

Water and sanitation is the competency of the Mopani District municipality. Phalaborwa, Namakgale and Lulekani has water reticulation, sewer and sanitation systems in place. However, there is an urgent need to upgrade the infrastructure to address current chronic water, sanitation and sewer challenges regarding the maintenance of the existing infrastructure, such as leaking sewer and uncontrolled waste management, littering and unhygienic environments in the residential areas particularly in the townships and rural areas.

7.4.2. Electricity supply

91.8% of households in Ba-Phalaborwa have access to electricity; however, Phalaborwa has been hit by chronic power outrages since 2010. The situation has dampened the attractiveness of the municipal area, particularly Phalaborwa as a prime economic hub with possible millions of Rands lost due power outages.

7.4.3. The prevalence of malaria

The IDP identifies Ba-Phalaborwa as an area prevalent with the prevalence of malaria, posing very serious challenges to maximisation of tourism development in the municipal area. Mitigating plans include providing adequate medical facilities in the municipal area.

7.4.4. Unemployment, health and welfare

The municipality has high levels of unemployment. Some sections of the society are highly dependent on social grants. Major social issues include increasing number of people dependant on social grants.

7.4.5. HIV/AIDS

HIV/AIDS is one of the illnesses prevalent in the Ba-Phalaborwa Municipal area. The disease has twin negative impact to the economic development of the municipal area, when considering the impact of other strains such as TB, Malaria and High Blood Pressure.

7.4.6. Available Skills levels

Ba-Phalaborwa has major mining and tourism related activities, however the pool of available skills are not adequate to be absorbed into the main economic streams of the mining, manufacturing and tourism industries.

7.4.7. Crime

Crime statistics are sturdily on the increase particularly in the townships. This has a negative impact on the prospect of promoting tourism development and to potentially attract investors into the previously marginalised areas. Phalaborwa town is not left out in incidents of crime.

7.4.8. Deforestation and degradation of the environment

Since 1994, the rate of deforestation and degradation of the environment has increased dramatically. Though 91.8% of the households have access to electricity, only 60% of the households use electricity for cooking, resulting in the wide spread of wood collection and tree felling.

7.5. Risk mitigating plan

7.5.1. Water supply, sewer, sanitation and waste management

The municipality owns some reservoirs with 78km of distribution lines and 512km of reticulation lines. The infrastructure must be maintained to guarantee supply of adequate services.

7.5.2. Power supply

There is an urgent need to overhaul the whole electricity supply system and power stations in Phalaborwa town due to the chronic power outages that were experiences from 2010.

7.5.3. Malaria control

The Limpopo Department of Health and social Development has established malaria control centres with one located in Lulekani, responsible for malaria control in the municipal area.

7.5.4. Unemployment, Health and welfare

EPWP and CWP have in a way offset the dependency syndrome by letting sections of the community to be economically active by providing identified community work for a stipend. EPWP and CWP offer a job safety net, where currently 1271 people have been employed by the CWP in all the 18 Wards in Ba-Phalaborwa until 2014.

The Clinix Private Hospital opened its doors in 2012 turning around the health security environment in Ba-Phalaborwa. The hospital offer health services of higher standards.

The IDP (p, 62) states that efforts have been adopted by the municipality and its strategic partners to reduce the increase of HIV incidents. Prevention programmes run by different stakeholders provide HIV/AIDS related services in almost all the areas within the municipal jurisdiction.

7.5.5. Available Skills levels

Ba-Phalaborwa has adequate primary and secondary school facilities. There is one institution of further education, (Mopani South East FET College) that comprises of the Phalaborwa, Namakgale FET campuses and a hotel school of hospitality, offering various SETA accredited skills and learnership programmes in engineering, financial services and hospitality.

7.5.6. Deforestation and degradation of the environment

The Premier's greening programme sponsored by PMC and FOSKOR is one step of mitigating the sore advent of deforestation in Ba-Phalaborwa. The municipality continues to actively take part in the District, Provincial and National Greenest Municipality Competitions. Participation in the activities helps in entrenching nature conservation.

7.5.7. Crime

There are measure put in place to curb crime activities by SAPS and private initiatives by security companies. The community need to be mobilised to assist in the prevention of crime, by taking part in the crime prevention programmes such as Community Policing Forums.

7.6. Conclusion

It is important to note that the identified risks cannot be addressed by only one institution, the broader community need to be made aware of the dangers of each of the risks and assist in their mitigation.

Chapter 8

8. Monitoring, Evaluation and Review

8.1. Introduction

This monitoring and evaluation plan is developed and necessarily needed so that Ba-Phalaborwa Local Municipality can monitor and evaluate the implementation of the LED Strategy, and report on an annual basis, giving an update on findings on how well the local economy is performing against certain set benchmarks. The evaluation component is also intended to incorporate lessons learnt into the decision-making process of implementing further development programmes.

A set of proxies to indirectly measure the economic impact of each of the identified economic cluster as well as LED in general need to be designed. These proxies are compiled into a simplified development economic index for Ba-Phalaborwa Local Municipality. Proxies should be based on readily available and reliable data, which allows for annual measurements.

8.2. Monitoring and Evaluation Plan

8.2.1. LED Implementation Index

The LED implementation index should consist of the following dimensions:

- The number of LED projects successfully implemented,
- The number of LED actions per programme successfully facilitated as per the proposed implementation plan,
- The number of direct permanent employment, and
- The number of direct temporary employment generated per year.

The above dimensions should give an indication of how effective Ba-Phalaborwa's LED plan is being implemented as part of the municipal economic development Strategy. The index seeks to measure the effectiveness of the LED Unit in implementing the projects and programmes set out by this LED Strategy. Through this index, the LED Unit can measure its performance in facilitating the implementation of this strategy and its effect on the local economy.

The indicators utilised as performance proxy for the performance of the LED unit are:

- The number of municipal LED programs successfully implemented
- The number of LED actions per programme successfully facilitated
- The number of direct permanent employment opportunities created
- The number of direct temporary employment opportunities created

Indicators should be used to help in describing and evaluating changes over time with a common base value, identifying benchmarks and progress in relation to goals as well as reflect the local economic status. Indicators are expected to be measurements that give us information about the changes in the condition of something over time. Indicators help us define the nature and size of environmental problems, set goals for their solution, and track progress towards those goals. They are useful because they help to express a large quantity of data or complex information in a simple way.

Economic indicators are usually reports which contain specific information, e.g. on population growth, GDP growth, etc. The indicators were selected on the basis that they would be reflective of the objective that they were designed to measure. They were also designed to be able to be measured on an annual basis, and be based on reliable data.

This LED strategy utilised economic clusters relevant to Ba-Phalaborwa Municipality, in order to achieve its objectives of job creation, economic diversification, linkage development and improved business environment. The clusters for which the indicators have been developed are as follows:

- Targeted Infrastructure Development,
- Targeted Economic Sector Development,
- SMME Development,
- Skills Development.

8.2.2. Economic Sector Development Index

The economic sector development cluster has been divided into sectors that Ba-Phalaborwa has development potential:

- Manufacturing,
- Agriculture,
- Mining,
- Property development,
- Infrastructure development and

- Tourism.

- **Agriculture sector index:**

The objective of this cluster is to add value to agricultural activities and the commercialisation of subsistence farming, which is expected to utilise local raw materials and resources. The agriculture Sector employment and GDP growth are used as indicators of the development of the Agriculture Sector value chain on the basis that as the sector develops there will be increasing opportunities for job and GDP growth.

The number of emerging farmers and successfully run farmer co-operatives will be used as main indicators on this cluster. The following proxies are used to measure this index:

- Number of emerging farmers,
- Number of operational farmer co-operatives,
- Agriculture Sector GDP,
- Agriculture Sector Employment,
- Agro-processing GDP(i.e. manufacturing),
- Agro-processing Employment.

- **Mining Sector Development Index:**

The objective of this pillar is to undertake mineral investigation and add value to the mining sector activities through establishing up and downstream linkages. The level of employment and GDP growth in the mining sector are used as indicators. Additionally, other non-metal mineral products and the metals, metal products, machinery and equipment sub sectors of the manufacturing sector are combined for both the GDP and employment, to act as proxy for the extent to which mineral exploration and beneficiation is taking place.

- **Tourism development and promotion index**

The objective of this cluster is to stimulate the development of the tourism industry through the development and promotion of local resources and activities. The Tourism Grading Council of South Africa's (TGCSA) lists the number of graded establishments on their web based directory. This directory should be used as a baseline by the tourism industry. Development by tour operators, tourism monitors and accommodation establishments should be used as indicators. The number of tourists flowing into Ba-Phalaborwa should be used as one of the indicators.

The promotion of sustainable annual calendar based activities such as the Marula Festivities, September Tourism month and the development of events sport and tourism-related attractions should focus on favourably drawing attention on the Municipal area as a tourist destination, giving local tourism activities and attractions more exposure by increasing tourist flows into Ba-Phalaborwa. For the duration of events, tourists spending should increase in the region, due to visitors taking up local accommodation, utilising local services, retailing shopping and visiting local attractions.

In utilising events as a monitoring and evaluation indicator for this cluster, the hosting of events is defined as a significant scheduled happening in the area which will attract attention of tourists into Ba-Phalaborwa. The following indicators are used as proxies to measure the success of the LED in increasing number of tourists and tourist spending, namely:

- Number of registered tour operators,
- Number of registered tour guides,
- Number of established accommodation tourism products,
- Number of jobs created according to tourism products,
- Number of events held annually.

In order to monitor and evaluate the effective implementation of the LED Strategy, a Monitoring and Evaluation template has been developed setting out the different indexes discussed above.

Table 70: Monitoring and Evaluation tool

Economic cluster	Indicators	2013/14	2014/15	2015/16	2016/17
Agriculture Development	Number of emerging farmers				
	Number of operational agricultural co-operatives				
	Number Agriculture sector employment				
	Agriculture sector GDP				

Economic cluster	Indicators	2013/14	2014/15	2015/16	2016/17
	Agro-processing GDP				
Mining development	Mining sector GDP				
	Mineral beneficiation				
	Mining sector employment				
Tourism development and promotion	Number of registered tour operators				
	Number of registered tour guides				
	Number of established accommodation facilities				
	Number of available beds				
	Number of jobs created through tourism initiatives				
	Number of annual events				
	Number of jobs created through annual events				
	Number of tourism promoting materials and				

Economic cluster	Indicators	2013/14	2014/15	2015/16	2016/17
	advertisements posted on Ba-Phalaborwa				
	Number of tourism shows attended				
	Establishment of a Local Tourism Authority				
Infrastructure development	**Roads:** ○ Kilometres of roads tarred ○ Kilometres of streets paved ○ Kilometres of road maintained				
	Water: ○ Rand value of infrastructure upgraded ○ Households with access to piped water				
	Sewer & sanitation: ○ Rand value of sewer & sanitation infrastructure upgraded				

Economic cluster	Indicators	2013/14	2014/15	2015/16	2016/17
	○ Number of households with access to sewer & sanitation services				
	Electricity: ○ Rand value of electricity infrastructure upgraded ○ Number of households with access to electricity supply				
Manufacturing	Manufacturing sector GDP				
	Number of employment in the manufacturing sector				
	Types of products manufactured and with the potential to be manufactured in Ba-Phalaborwa				
Property development	Construction sector GDP				
	Number of employment in the construction				

Economic cluster	Indicators	2013/14	2014/15	2015/16	2016/17
	sector				

8.3. The LED Strategy Review Plan

The review of the LED Strategy for Ba-Phalaborwa should be aligned to the annual IDP processes, updating areas that might have changed over a twelve month period of each five years cycle.

A process plan should be drawn aligned to the IDP process plan, with an LED Task Team established to probe the necessary changes and updates to be effected. The review process plan should lead to the adoption by Council of the draft LED Strategy together with the municipal IDP document.

8.4. Conclusion

LED is recognized as a key component in a broader effort to reduce poverty. There is also an emerging consensus that LED cannot bring about effective poverty reduction without incorporating explicit poverty reduction actions. Therefore, a key challenge on LED is to ensure the pursuit of inclusive economic development that provides for both the promotion of local wealth creation and poverty reduction; this ensures that people who were traditionally left out in the economic mainstreams are active participants and have access to opportunities resulting from development.

In the formal economy, specific actions might include targeting business expansion aimed at jobs for the poor, targeting the poor as an unskilled labour force for training and placement assistance, and through micro-enterprise/micro-credit programmes. The municipality can take the first step by employing and training unemployed local people in their skills development programmes, such as the proposed incubation project.

As a matter of emphasis an important aspect for the successful implementation of this LED strategy is to develop the LED unit, provide the LED unit with the rightful resources and recognition, time and effort it deserves, and secondly is the need to ensure that all stakeholders and parties involved in the LED process take ownership of the programmes and projects identified in this strategy. It is also suggested that the monitoring and evaluation template/plan be incorporated into the institutional

Performance Management System across all departments, so as to ensure mainstreamed LED, accountability and responsibility for the implementation of the LED Strategy and its programmes