

9. IMPLEMENTATION

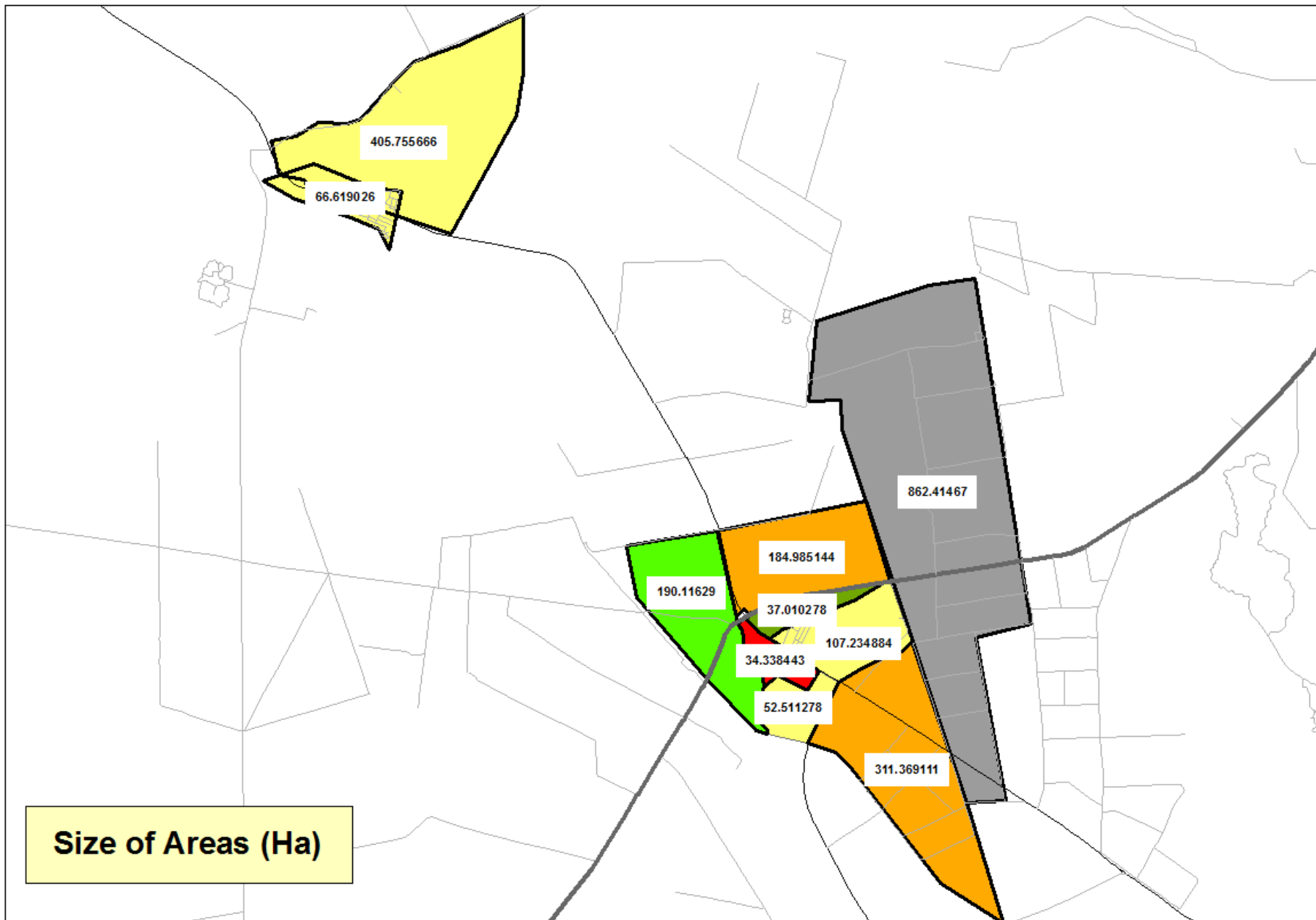
9.1 Land Use

This section deals with yield of different land uses to support sustainable neighborhood development in Tarlton. It is primarily based on the additional residential development proposed the required land uses.

Amenities: Land use conflicts between agricultural activities and the amenity expectations of rural residential dwellers should be minimised. Significant impacts to primary production or to the environmental or cultural values of a rural area should be avoided. Finite and valuable natural resources present on the land should not be lost. The local environment and landscape should have the capacity to absorb this more intensive use and development without significant or irreversible harm to its values or to the new use and development. Demand for costly or inefficient community services or infrastructure should **not** be generated. Although there are already amenities in Tarlton, the location of future amenities should be along the movement lines of the R24 and N14 for easy access.

The table below depicts the amenities needed to sustain the community of Tarlton. The calculations are based on the new development. The cost implications are based on the current pricing schedule (2010/2011) determined from tenders around the country. These figures do not take into consideration the escalations and the inflation rate. Details costing should be done at project implementation level.

Figure 18 shows the land yield per land use. From the table below it is evident that



OPTION 1							
Zone	Land Use	Number needed	Density/Coverage/ minimum size	Yield (gross units)	Projected population (3 persons per unit)	Cost per facility	Total required
Residential	Total	159					
	Housing @ 60%	95.4	50- 70 du/ha	5724	17172		
	Primary School	4	1.4 ha			R 50 000 000	R 214 650 000
	Secondary School	1	4.6 ha			R 60 000 000	R 60 000 000
	Chreche	3	130 sqm			R 1 500 000	R 5 151 600
	Clinic	2	5000 sqm			R 5 000 000	R 10 000 000
	Hospital	0				R -	R -
	Places of worship	4	150 sqm			R 1 500 000	R 6 000 000
	Community halls	1	5000 sqm			R 12 000 000	R 12 000 000
	Library	1	130sqm			R 4 000 000	R 4 000 000
	Post office	1	500sqm			R 1 500 000	R 1 500 000
	Police station	1	1ha			R 34 000 000	R 23 353 920
	Emergency services	1	1.2 ha			R 7 000 000	R 7 000 000
	Cemetery	provide at regional level				R 21 000 000	R -
	Municipal Pay points	1	100 sqm			R -	R -
	Roads		31.8	20%			

Note: The number of facilities could be reduced on the bases that the actual sizes are increased

OPTION 2							
Zone	Land Use	Number needed	Density/Coverage/ minimum size	Yield (gross units)	Projected population (3 persons per unit)	Cost per facility	Total required
Residential	Total	404					
	Housing @ 60%	242.4	50- 70 du/ha	14544	43632		
	Primary School	10	1.4 ha			R 50 000 000	R 500 000 000
	Secondary School	4	4.6 ha			R 60 000 000	R 240 000 000
	Chreche	8	130 sqm			R 1 500 000	R 12 000 000
	Clinic	5	5000 sqm			R 5 000 000	R 25 000 000
	Hospital	0				R -	R -
	Places of worship	12	150 sqm			R 1 500 000	R 18 000 000
	Community halls	4	5000 sqm			R 12 000 000	R 48 000 000
	Library	1	130sqm			R 4 000 000	R 4 000 000
	Post office	3	500sqm			R 1 500 000	R 4 500 000
	Police station	1	1ha			R 34 000 000	R 34 000 000
	Emergency services	1	1.2 ha			R 7 000 000	R 7 000 000
	Cemetery	provide at regional level				R 21 000 000	R -
	Municipal Paypoints	1	100 sqm			R -	R -
	Roads	80.8	20%				

9.2 Civil Infrastructure

Provision of social and physical infrastructure in rural areas is one of the government's priorities. The development of Tarlton with urban type of land uses necessitates the provision of urban like infrastructure and services normally expected for residential areas. If those services are not provided for in the outset, the expectations and future requirements of residents can lead to high costs of providing rudimentary services on temporary bases. A proposal for the Tarlton service centre development must be efficiently serviced by social and physical infrastructure at an acceptable and sustainable levels and standards.

The table below depicts the civil infrastructure needed to sustain the community of Tarlton. The calculations are based on the new development. The cost implications are based on the current pricing schedule (2010/2011) determined from tenders around the country. These figures do not take into consideration the escalations and the inflation rate. Details costing should be done at project implementation level.

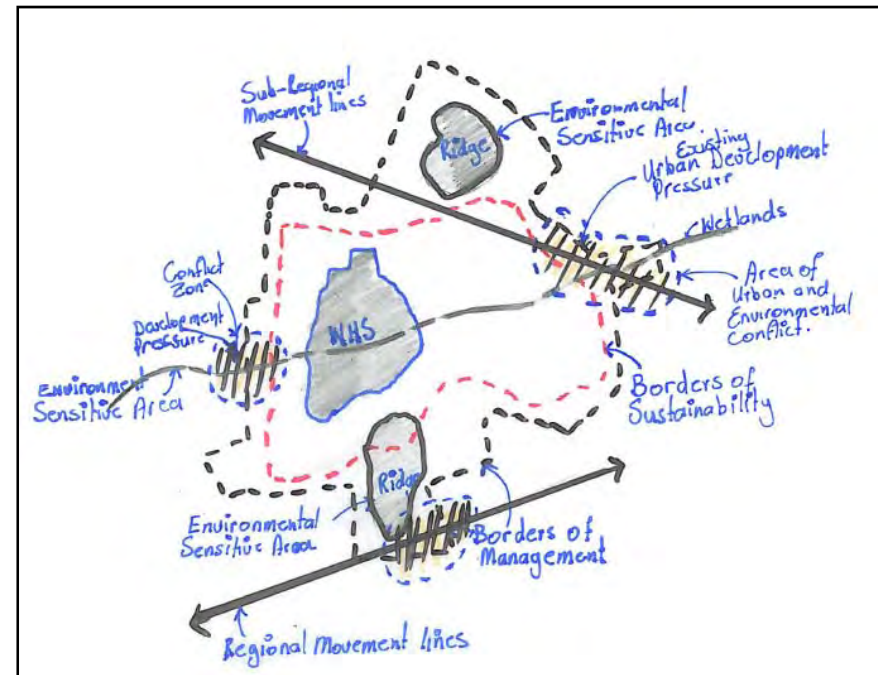
9.3 The World Heritage Site

The Cradle of Human Kind World Heritage Site is located within the municipal boundaries of Mogale City Local Municipality. Located at close proximity to the major cities and towns such as Johannesburg, Pretoria, Krugersdorp and Rustenburg, makes it difficult to manage development in and around the site. In an effort to protect and manage the COH WHS, the COH WHS Management Authority (MA), Provincial Department of Agriculture and Rural Development (GDARD), West Rand District Municipality (WRDM), and Mogale City Local Municipality (MCLM) commissioned the development of an Environmental Management Framework (EMF), including a Strategic Environmental Management Plan (SEMP). The aim of this EMF and SEMP is to provide guidelines regarding development and certain types of land use and activities in the COH WHS.

One of the major development management tools used in the EMF is the delineation of a buffer zone around the COH WHS. *In an international expert meeting on World Heritage and Buffer Zones Davos, Switzerland 11 – 14 March 2008*, it was clear that more questions than answers were provided in the determination and criteria to be used to delineate buffer zones around WHS. However, it was conceded that:

- Buffer zones around World heritage sites have always been a difficult subject to agree upon by planning authorities and the community residing around these areas.
- The buffer zone should not be seen as an area on its own or even an area that is aligned to the world heritage site only, but should be seen as an area of **concern** and should be read as part of the urban/ rural texture as illustrated in **Figure 19** adapted from the UNESCO resolution *In an international expert meeting on World Heritage and Buffer Zones Davos, Switzerland 11 – 14 March 2008*.

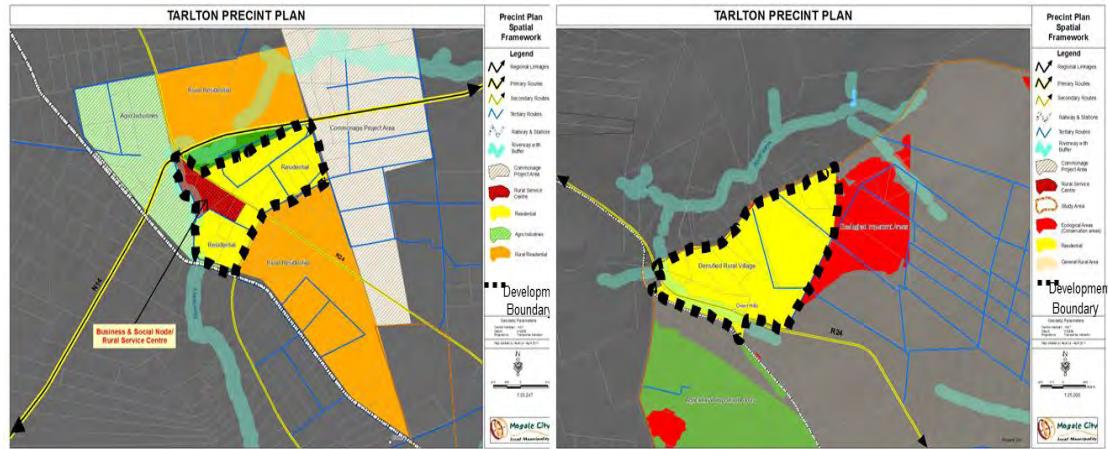
The National Environmental Management: Protected Areas Act (Act No. 57 of 2003) makes provision for the relevant development authorities to make use of the Environmental Management Frameworks (EMF) for the determination of buffer zones around WHS and indeed other significant sites. Furthermore, it stipulates that the EMF should provision for the development of guidelines for the management of the areas within and around the buffer zones.



One of the major challenges in the Mogale City in the delineation of the buffer zone around the COH WHS is the existing development fabric. The Tarlton area, just like other rural service centres around the COH WHS is characterized by rural and agricultural activities. Its close proximity to the major cities like Johannesburg, Pretoria, Rustenburg and Krugersdorp makes Tarlton attractive to urbanization. Since 2003 people settled around Tarlton, forming informal settlements.

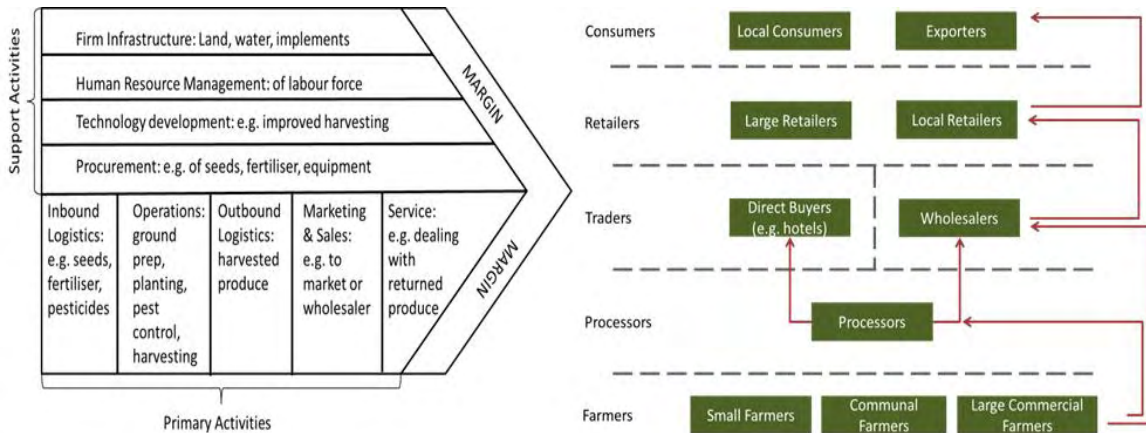
9.4 Development boundary.

The *Development Boundary* is set to discourage urban sprawl. Tarlton has to have a designated growth boundary within which urban like development would take place. This policy does not entirely curtailed development outside the boundary, but it should be recognized as the separating mechanism between the rural and urban uses geographically. In Tarlton, the urban land used will cluster around the R24 and the N14. The experienced rapid population increases in Tarlton are discouraged outside the designated growth areas.



9.5 Agriculture Value Chains

The value chain concept is proposed as a more integrated approach towards agricultural development. By using this approach, a range of areas can be identified where the municipality and various other stakeholders can be involved. Two levels of value chain are relevant for this approach, i.e. the firm / producer value chain and the sector value chain. In the context of this report, the firm value chain describes the activities of the individual farmer or farming cooperative. Applying this generic principle to a farming



business, would typically entail the activities illustrated sketch above.

The overall sector value chain could be described generically, but would differ for every specific product, e.g. fresh produce such as vegetables that would go, unprocessed, directly to the market vs. products such as bulbs that are packed and exported. The proposed interventions will be discussed according to the main components of each of these generic value chains.

Support to Farming Activities:

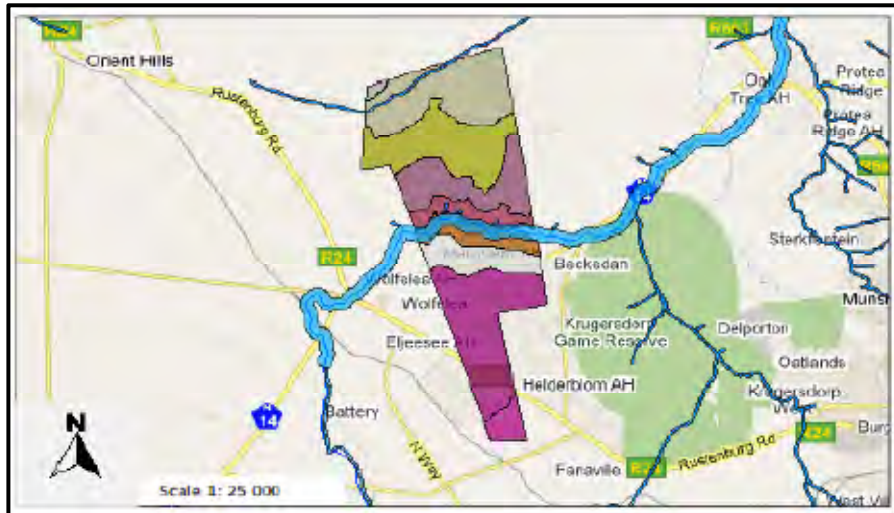
Value Chain Component	Description / Support Required
Land:	<p>Land is the main infrastructure need for farming. In addition to availability, the suitability of land for a specific product needs to be investigated. As shown in the general agricultural importance rating of land in Tarlton area, showing clear areas throughout the study area diminishing towards the north west of the study area.</p> <p>In terms of specific crop suitability, the land with the highest suitability for cabbage, spinach and maize are located in the southern portions of the study area.</p> <p>The Municipality has already identified and procured a 259ha portion of land for communal agriculture – the Vlakdrift Agricultural Commonage Project just to the north of the R24, across the N14. A detailed feasibility study and implementation plan for this initiative has been completed. Part of the property (Portion 16 which is on 10 ha) has been developed into Cemetery. The rest of the property remains fallow. The recommendations for the practices in Vlakdrift commonage is intensive agricultural production based on horticultural vegetables and poultry production. This can be complemented by grain cropping, tree plant nurseries, agricultural ware housing, produce storage and processing. In the long term, small scale dairy units could also be developed. It is proposed that horticultural crops in Vlakdrift farm include lettuce, carrots, green beans, green pepper and tomatoes as well as leaf vegetables mainly</p>

	spinach and cabbages which have a ready market locally and in Pretoria and Johannesburg.
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Value Chain Component	Description / Support Required
Farm Infrastructure	<p>Water:</p> <p>Water availability is a key consideration in the establishment of agricultural activities, especially in the South African Context. For the Vlakdrift Agricultural Commonage Project, it has been found there is a need for the boreholes to be augmented to address the inadequate water provision for irrigation agriculture.</p> <p>In terms of establishing more productive agriculture in the area, the water aspect will have to be given the same priority as land provision, whether water is provided newly developed infrastructure or alternative measures such as rainwater harvesting.</p> <p>Equipment and other infrastructure:</p> <p>The following infrastructure will have to be developed over the next five years:</p> <ul style="list-style-type: none"> a) An irrigation system for 36 ha; b) Two (2) broiler production units with a capacity of at least 25,000 birds per unit; c) Small dairy unit for 100 cows Homestead Boundary fence; d) Three boreholes; e) One homestead; f) Boundary fence; and g) Farm cement dam.
Procurement	<p>Both technology development and procurement are areas where a structured intervention in agriculture in the area could yield results. Organising both commonage farmers and smaller commercial farmers in the area to bargain collectively for special deals from e.g. suppliers of raw materials, feeds or fertilisers could result in cost savings.</p>

Technology Development	The same applies to technology development, or obtaining improved technology input. In the case of technology development, specific support programmes offered by the state could also be accessed.
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The Sketch depicts the location of the Vlakdrift commonage.



Understanding Product Value Chains

In addition to support to the farms / commonage as ‘firms’, it would be important to also map the specific product value chains, in order to identify the exact point of intervention / support. E.g. the maize value chain may require an intervention in terms of establishing cooperation for sales of product, while the weak link in the beef value chain may be transport to market.

It is therefore recommended that in addition to aspects such as land identification and water resource management, a better understanding be developed through studies of the key agricultural product value chains in the area to better focus support and interventions.

9.6 Economic

The future of the economy in Tarlton is dependent on many factors that drive the wider economy in South Africa and demands innovation, new skills and a supportive business environment. Indeed, structural convergence between rural and urban area of Krugersdorp, and in particular the emergence of settlements dominance of the area means at regional level it no longer makes sense to talk of a single, distinct rural economy.

The relationships between the Krugersdorp in Mogale City and the other regional centres like Johannesburg, Pretoria and Rustenburg, Tarlton and indeed other rural hinterlands are now recognised as a highly interdependent economic system. Mogale City municipal area can be regarded as one of the high-performing towns in Gauteng in terms of agriculture and tourism, both contribute to, and benefit from, the prosperity of these regional centres.

However, Tarlton has a sparse development of residential areas that are more remote from each other and characterised by low-growth and low-wage economies.

Economic ambitions

- increased provision of affordable housing within broader plans that help sustain the scale and vitality of villages and market towns
- provision of employment space that allows rural businesses to start up and grow
- effective delivery of skills and workforce development to rural communities
- maintaining Tarlton as a leader in agriculture and food sector, supported by leading research centres of excellence and knowledge exchange in fields such as bio-fuels, non-food crops and agricultural engineering
- improved connectivity and transport services between Tarlton and regional centres to increase connections to the knowledge base centres of excellence, hubs and markets
- timely provision and take-up of next-generation broadband services, to enable rural businesses to reach new customers and suppliers
- successful development, management and conservation of environmental assets to deliver tourism, biodiversity and healthy living objectives
- improved pathways to employment and access to high-quality services for those experiencing deprivation in rural.

Priority 1: Equipping people with the confidence, skills and choices for employment and entrepreneurship

Unemployment rate is high throughout Tarlton and for many people access to rewarding employment remains difficult. Basic skills, and enhanced progression routes to higher skills levels are essential, along with raising aspirations and self-confidence, to increase the likelihood of getting into work, education or training.

The population in the informal settlements and farm workers systematically experience greater barriers than others. Reducing these barriers will require targeted programmes, effective multi-agency working and ensuring an offer shaped around individual circumstances.

Some people including single parents, worklessness or low-paid, part-time work is a major determinant of severe and persistent poverty. Targeted support to reduce barriers to rewarding work for farm workers and the informal settlement dwellers will make a valuable contribution to the government's goal of reducing poverty, as well as making additional talent available in the labour market.

Priority 2: Tackling barriers to employment in the poorest of communities

Frequently, communities where a high proportion of people are not in work also experience other forms of disadvantage, such as crime, anti-social behavior, poor educational outcomes, access to public services and transport.

Lack of access to health care have a major impact on productivity, employment and educational performance. A concerted focus on tackling persistent lack of access to health care, and adding to the quality and length of life of local people will have a major impact on the economic outcomes at community and regional level.

Lack of access to transport can also be a significant barrier to employment, particularly amongst young people. In tracking and addressing these barriers in a concerted focus on the poorest of communities will have a profound effect on narrowing the gaps in employment and wider outcomes, contributing not only to improved life chances for individuals, but also to stronger communities and improved regional economic performance.

Priority 3: Increasing economic demand

Entrepreneurship or diversity of enterprise should be encouraged in Tarlton. The lack of support to local entrepreneurs limit, wealth generation and reduces resilience in the face of economic shocks. Tarlton needs comprehensive packages of support and investment to encourage start-up and growth of indigenous enterprises that will support agriculture and tourism, including social enterprises. Public-sector location, employment practices and procurement can stimulate Tarlton's second economy activities.

Enterprise is about more than just new businesses and jobs. It's about enterprising behaviour. Therefore, there needs to be more emphasis on increasing community capital. This includes supporting communities to take on second economic activities as a base for local enterprises, or supporting local people to set up social enterprises to address local issues, for example, start a village shop or start recycling facilities.

Priority 4: Employers valuing a flexible, diverse and healthy workforce

Globalisation and migration patterns since 1994 have created a more culturally diverse workforce in South Africa. It is more important than ever before to promote the full economic participation of all sections of the potential workforce and to use the talents of all.

Farmers and people in the hospitality business, like any other business, will increase profitability through responding positively to changes in the labour market. These employers also help to remove barriers to participation for groups who are under-represented in employment. To benefit from the full range of talent in the population, employers may need support in engaging with the potential available and in providing appropriate training or even re-skilling. There are many benefits of a flexible and diverse workforce, including motivation, enriched creativity and access to new markets.

There is also a growing recognition that businesses that invest to create healthier jobs and working environments benefit greatly from a more productive workforce. Collaboration between the National Department of Rural Development and Land Reform, National Department of Labour, various employers and business support organisations to improve the health of the workforce will deliver major long-term benefits to individuals, businesses and economic growth.

Priority 5: A vibrant, skilled and resourced NGO

NGO's often have a good understanding of need at individual and community level, and the ability to deliver services in a tailored and sensitive way. The cultural sector and the NGO sector voluntary and community organisations and social enterprises can play important roles in helping to empower people and communities to tackle local issues and have major economic impact in their own right. Additional support for community capacity-building and local leadership will help to ensure that interventions are most effectively targeted and shaped in response to need.

The opportunity for engagement in volunteering and cultural activities offers people pathways towards employment as skills are enhanced, confidence is gained and, importantly, as they have access to new social networks and opportunities. Government policies envisage an enhanced role for the NGO. To help ensure that NGO can fulfil this contribution, appropriate support is needed to enhance their capacity.