



rural development
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Department:
Rural Development and Land Reform
REPUBLIC OF SOUTH AFRICA

Final Draft Master Plan

AGRI-PARK MASTER PLAN

Bojanala Platinum

District Municipality

North West Province



MANAGING FOR EXCELLENCE



Agri-Park Details	
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District:	Bojanala Platinum District Municipality
Agri-Hub Site:	Moretele Local Municipality (Makapanstad)

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List of Abbreviations and Definitions

Abbreviation	Description
AGOA	African Growth and Opportunity Act
AGM	Annual General Meeting
AGRIBEE	Agricultural Black Economic Empowerment
AGRI-SA	Agriculture South Africa
AH	Agri-Hub
AP	Agri-Park
APMBP	Agri-Park Master Business Plan
APAP	Agriculture Policy Action Plan
ARC	Agricultural Research council
BRICS	Brazil, Russia, India, China and South Africa
CASP	Comprehensive Agriculture Support Programme
CBO	Community Based Organisation
CPA	Communal Property Association
CRDP	Comprehensive Rural Development Programme
CSA	Climate Smart Agriculture
CSIR	Council for Scientific and Industrial Research
DAFF	Department of Agriculture, Forestry and Fisheries
DAMC	District Advisory Management Committee
DAPOTT	District Agri-Parks Task Team
DBSA	Development Bank of Southern Africa
DEA	Department of Environmental Affairs
DFI	Development Finance Institutions
DFS	Development Finance System
DGDS	District Growth Development Strategy
DLRC	District Land Reform Committee
DM	District Municipality
DMA	District Municipal Area
DoE	Department of Energy
DRDLR	Department of Rural Development and Land Reform
DTI	Department of Trade and Industry
EIA	Environment Impact Assessment
EMF	Environmental Management Framework
EU	Expanded Public Works Programme
FAO	Food and Agriculture Organisation
FBDM	Frances Baard District Municipality
FBDMSDF	Frances Baard District Municipality Spatial Development Framework
FET	Further Education and Training
FPSU	Farmer Production Support Units
GDP	Gross Domestic Product
GVA	Gross Value Added
GWK	Griekwaland Wes Kooperatiewe
HIV/AIDS	Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome

Abbreviation	Description
ICT	Information Communications and Technology
IDC	Industrial Development Corporation
IDP	Integrated Development Plan
IGR	Intergovernmental Relations
IPAP	Industrial Policy Action Plan
LED	Local Economic Development
LM	Local Municipality
LRAD	Land Redistribution for Agricultural Development
LUMS	Land Use Management Strategy
Km	Kilometer
MDG	Millennium Development Goals
MFMA	Municipal Financial Management Act
MIG	Municipal Infrastructure Grant
MSDF	Municipal Spatial Development Framework
MTSF	Medium Term Strategic Framework
M&E	Monitoring and Evaluation
NAAC	National Agri-Parks Advisory Council
NARYSEC	National Rural Youth Corps Strategy
NAWO	National Agricultural Women Organisation
NCEDA	Northern Cape Economic Development Agency
NCLEDS	Northern Cape Local Economic Development Strategy
NCDLRARD	Northern Cape Department of Land Reform, Agriculture and Rural Development
NDP	National Development Plan
NGP	National Growth Path
PAPOTT	Provincial Agri-Parks Task Team
PESTEL	Political Economic Social Technology Environment Legal
PGDS	Provincial Growth Development Strategy
PSDF	Northern Cape Provincial Spatial Development Framework
PSSC	Provincial Shared Services Center
NCRDS	Northern Cape Rural Development Strategy
NDA	National Development Agency
NDP	National Development Plan
NEF	National Empowerment Fund
NFSD	National Framework for Sustainable Development
NGO	Non-Governmental Organisation
NGP	New Growth Path
NPO	Non-Profit Organisation
NSSD	National Strategy for Sustainable Development
OECD	Organisation for Economic Co-operation and Development
PIC	Public Investment Corporation
PLAS	Proactive Land Acquisition Strategy
PPP	Public Private Partnership
RDP	Rural Development Plan
REID	Rural Enterprise and Industrial Development

Abbreviation	Description
RID	Rural Infrastructure and Development
RSA	Republic of South Africa
RUMC	Rural Urban Management Centre
R&D	Research and Development
SADC	Southern Africa Development Community
SALGA	South African Local Government Association
SANRAL	South African National Road Agency Limited
SANSOR	South African National Seed Organisation
SASHA	Sweet Potato Action for Security and Health in Africa
SAACTA	Southern African Auditor & Training Certification Authority
SDF	Spatial Development Framework
SEDA	Small Enterprise Development Enterprise
SEFA	Small Enterprise Finance Agency
SETA	Sector Education and Training Authority
SLP	Social And Labour Plans
SLAG	Settlement for Land Acquisition Grant
SMME	Small Medium Micro Enterprise
SPLUMA	Spatial Planning And Land Use Management Act
StatsSA	Statistics South Africa
SWOT	Strength, Weakness, Opportunities and Threats
TVET	Technical Vocational Educational and Training
UNESCO	United Nations Educational, Scientific and Cultural Organisation
WHO	World Health Organisation
WTO	World Trade Organisation

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Chapter One: Introduction and Background

1.1. Introduction

The Department of Rural Development and Land Reform (DRDLR) commissioned Camissa Institute of Human Performance and Managing for Excellence to develop an Agri-Park Master Plan aligned to its Agri-Park model and the main agricultural commodity value chain (s) in the **Bojanala Platinum District Municipality in the North West Province** of South Africa.

1.1.1. Project Scope and objectives

Camissa and Managing for Excellence was expected to:

- a. Develop a **Bojanala Platinum District Municipality** Master Agri-Park Business Plan, aligning the Agri-Park model developed by the DRDLR and the dominant Commodity Value Chain (s) in the specific district
- b. Develop the Master Agri-Park business Plan in line with the commodities in the respective:
 1. Farmer Production Support Units (FPSU) linked to farmers and farming areas;
 2. Agri-Hub and feeder FPSUs; and
 3. Rural Urban Market Center (RUMC) and linkages with Agri-Hubs and FPSUs.
- c. The Business Plan must highlight existing and possible new agro-processing initiatives, possible synergies and linkages based on market analysis and financial viability.
 1. **Three possible agro-processing business opportunities** must be identified
 2. An **institutional/organisational plan** must be developed showing how existing farmer support organisations, support services (private and public sector) and farmers will be linked to the Agri-Park model
- d. Consider during the development of the Business Plan, but not limited to:
 1. Review all existing documentation available in terms of status quo information, maps and reports for the district under consideration this would include social, economic, and institutional matters
 2. To work with the district identified representatives and the DRDLR provincial office to develop Agri-Park Master Business Plan aligned to the Agri-Park model.
 3. To utilise tools developed by the DRDLR and CSIR. Identify the dominant commodity value chains through liaison with the district and local municipalities and the following should be considered:
 - i. Socio-economic viability and sustainability;
 - ii. SWOT analysis that includes legal, environmental, financial and technical analysis
 - iii. Identify current agro-processing initiatives and possible synergies, linkages and opportunities to buy into existing businesses.

1.1.2. Methodology and Approach

To deliver on the project scope and objectives the service provider applied a methodology and approach based on secondary information analysis and primary information gathering through engagements with targeted stakeholders. The development of this Master Plan followed steps outlined below:

Step One	• Project inception and consultations
Step Two	• Provincial and Municipal engagements
Step Three	• Information gathering and Analysis
Step Four	• Development and compilation of the analysis report

Step Five	• Analysis Report inputs gathering exercises (further engagements and consultations)
Step Six	• Review and finalisation of the analysis report
Step Seven	• Development of Agri-Park Master Plan
Step Eight	• Agri-Park Master Plan inputs gathering exercises (further engagements and consultations)
Step Nine	• Review and finalisation of the Agri-Park Master Plan
Step Ten	• Project Closure

1.1.3. The Master Plan

This Master Plan draws on the findings, recommendations and conclusions of the Situational Analysis report for the **Bojanala PDM** which was part of phase 1 for the drafting of this Master Plan. In terms of the above definition the Agri-Park Master Plan for the **Bojanala PDM** can be described as an operational network of agriculturally driven production, contracts and value adding business interventions, spatially situated at carefully selected/chosen Agri-Hub (AH) site, Farmer Production Support Units (FPSU) sites and Rural Urban Marketing Centre (RUMC) site to provide technical support and assistance to Black smallholder and emerging commercial farmers.

The AH, FPSUs and RUMC are also selected/chosen to facilitate the movement of agricultural outputs to consumers and fits a specific typology to match its objective, leading to the clustering and location of smallholder and emerging farmers with the focus on enhancing their access to physical, economic and social capital, production inputs, agricultural outputs, finance, markets, extension services, education and training and organisation opportunities.

This Agri-Park Master Plan (APMP) is anchored on sound principles of sustainable development (people, planet and profit), financial viability and business management and governance as these are the foundation of sustainable Agri-Parks and inclusive agricultural and rural economic growth and development.

1.1.4. Instruction for reading Agri-Park Master Plan

Chapter 1:	Introduces the APMP project scope and methodology used, and also outlines a background to the Agri-Park concept and to this Master Plan
Chapter 2:	Provides a summary of the situational analysis conducted to inform the Master Plan with emphasis on dominant commodity analysis, District Agri-Park, SWOT, and findings and conclusions.
Chapter 3:	Drawing from chapter two analyses, this chapter proposes the District Agri-Park Strategy aligned to the provincial agriculture and district priorities for the establishment of the Agri-Park across the Local Municipalities.
Chapter 4:	Provides the physical and spatial context in which the District Agri-Park Master Plan can be situated, as a connection point within the different spatial locations.
Chapter 5:	Looks towards the implementation of the District Agri-Park Master Plan.

1.2. Background and Context

Most rural areas in South Africa face the triple structural challenges of unemployment, poverty and inequality as can be attested by the profiling of Comprehensive Rural Development Programme sites by the DRDLR in the 27 priority districts in South Africa. This is an unwanted economic legacy of the apartheid state that still haunts us. This is most aptly evident in the crisis of rural underdevelopment, underutilisation and

unsustainable use of productive land (including redistributed and state-owned land), the plight of Black small-scale and emerging farmers across the country.

The overall purpose of rural development is to improve the quality of life of rural households, enhancing food security through a broader base of rural industrial and agricultural production and exploiting the varied economic potential of each rural district municipality. In response to the above, the Department developed the Agri-Park concept for South Africa as one of the potential strategies to address the issues of rural poverty, unemployment and inequality.

Agri-Parks as a concept is new in South Africa though it is practiced in other parts of the world. The concept draws on existing models from countries such as Mexico, India, Netherlands, amongst others and experience and empirical evidence from these countries show that Agri-Parks offer a viable solution in addressing social and economic inequalities, unemployment and poverty by promoting agro-industrialisation within small-scale farming and emerging commercial farming sectors, thus ensuring that the escalated land distribution, more inclusive restitution and strengthen land rights are accompanied by equitable, efficient and well-planned land and agricultural development. The draft version of the Agri-Parks Policy (2015) defines an Agri-Park as:

An Agri-Park is a networked innovation system of agro-production, processing, logistics, marketing, training and extension services located in District Municipalities. As a network it enables the growth of market-driven commodity value chains and contributes to the achievement of rural economic transformation.

The draft Agri-Park Policy to tackle issues such as underdevelopment, hunger, poverty, joblessness, lack of basic services, and the challenges faced by small-farmers and emerging Black farmers in terms of limited access to physical, economic and social capital, production inputs, finance, markets, extension services, education and training and organisation opportunities. The DRDLR recognizes that significant economic growth points do exist in rural areas of South Africa which remains under-exploited or unexploited. The DRDLR further recognizes that the current agricultural production and business is maintained in some rural areas and leveraged to address the growth of small-scale farmers and emerging commercial Black farmers in the agricultural sector and by doing so attend to the development of the rural areas in such a way that we narrow the gap between the industrial side of some rural economies and the currently underdeveloped, underutilised and unsustainable rural component.

The Agri-Parks model seeks to strengthen existing and create new partnerships within all three spheres of government, the private sector and civil society.

1.2.1. Agri-Park Model

The **draft Agri-Park Policy outcome** is to establish Agri-Parks in all of South Africa's District Municipalities that will kick start the **Rural Economic Transformation** for these rural regions. This policy outcome is to be realised through the implementation of the Agri-Park Model that is driven by the principles outlined in figure 1. The five principles are:

1) Targeted Commodity(ies) Producers

A District Municipality, based on its **agricultural comparative advantage** will target one or more commodities. The targeted commodity is the first primary contributing driver for social and economic development of a District Municipality and local farmers. The producers or farmers are to be provided with support in order for their produce to move from their respective farm gate (point A) to consumer plate and/or finished products (point B) linked to the commodity value chain.

a. **Market:** The farmers or producers primary outputs is supplied to FPSU and/or local community markets

2) Farmer Production Support Unit

At locally based and accessible FPSU, the farmers are provided with production, technical and infrastructure support. The farmers aggregated farmers outputs is supplied to the linked Agri-Hub .

b. **Market:** The FPSU supplier's primary and/or processed farmers produce to the local community market, Agro-processors (at the Agri-Hub) and RUMC.

3) Agri-Hub

The farmers produce (input) is processed in large scale at the Agri-Hub. The Agri-Hub also provides quality production support services to the farmers including product development and improvement (i.e. Innovation, Research and Development) and links the farmers to the targeted commodity value chain.

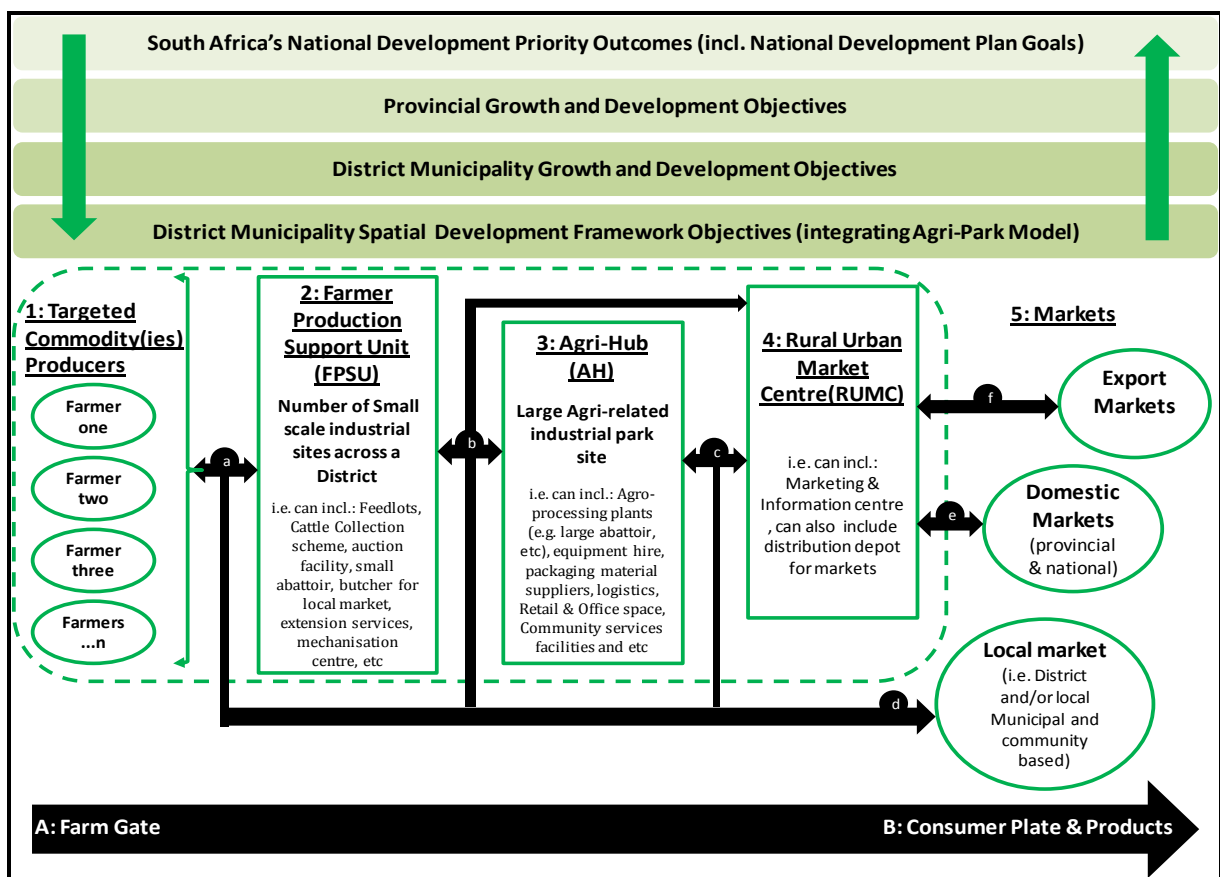
c. **Market:** The Agri-Hub mainly suppliers agro-processed products through the RUMC and local market.

4) RUMC

The RUMC functions as a marketing and distribution channel for primary products from FPSU and processed products from the Agri-Hub. The RUMC is also an information nerve centre for the Agri-Park and facilitates for information flow between the market and producers.

d. **Market:** The RUMC is a market access facilitator for both domestic and export markets.

Figure 1: Adapted Agri-Park Model



Source: Author

5) Markets

Sustainable markets are essential to the success of the Agri-Park. The markets include (d) local municipality or community based market; (e) domestic markets provides a foundation for export market; and (f) export markets contributes to farmers and agro-processing competitiveness, and foreign currency earnings for local economies.

1.2.2. Agri-Park Institutional Framework

The established and implementation of the Agri-Park model is enabled by an institutional framework that is mainly public sector driven. Table 1 outlines the Agri-Park Institutional Framework.

Table 1: Agri-Park Institutional Framework

Levels of Sphere of Government	Agri-Park Task Team		Agri-Park Committee		Agri-Park Aligned Land Reform	
	Name	Mandate	Name	Mandate	Name	Mandate
National	NAPOTT	Strategic management and oversight on the roll out of the Agriparks program Monitor progress against the business and project plans Assist with resolving any blockages at district and provincial level	National Agri-Park Advisory Council (NAAC)	NAAC will provide oversight to the functionality of the DAMCs, organise markets, both domestically and internationally, control the quality of products, and provide advice to the political authority.		
Provincial	PAPOTT	Provincial Operations management: implementation Provide technical support and guidance for planning and implementation Identify projects that contribute to agriparks business plan and to compile a provincial project register Monitor implementation Report to National Operations Team				

Levels of Sphere of Government	Agri-Park Task Team		Agri-Park Committee		Agri-Park Aligned Land Reform	
	Name	Mandate	Name	Mandate	Name	Mandate
District	DAPOTT	District operations management implementation Provide technical support and guidance for implementation Oversight of the implementation of the district plan Coordinate relevant stakeholders as per plan Manage expenditure against business plan Identify district projects that contribute to the agriparks business plan and to compile a district project register Report to provincial operations task team	District Agri-Parks Management Councils (DAMC)	The DAMC will act primarily as the voice of key stakeholders in the relevant districts and will leverage support for the Agri-Park developments. It will therefore not consist of government representatives but will interface with various structures at provincial and district level to provide advice and support. It will also act as an independent watchdog in relation to the development of the Agri-Park.	DLRC	The overall aim of the DLRCs is to facilitate the protection, promotion, provision and fulfillment of the rights, and responsibilities, in the management of district land ownership and use that is consistent with South Africa's Constitution.

Chapter Two: Bojanala DM Agri-Park Commodity

Bojanala Platinum District Municipality (Bojanala PDM) selected dominant commodity is Beef Cattle sub-sector. Beef cattle are cattle raised for meat production (excluding dairy cattle used for milk production). Common beef cattle breeds in South Africa include – Bonsmara, Afrikanes, Brahman, Boran and Nguni.

This section analysis is solely based on beef cattle sub-sector and Bojanala PDM Agri-Park. The chapter outlines the beef cattle subsector and industry forces, meat consumption and production, industry structure and links with the Agri-Park, and value chain players

“The South African Red Meat Industry came under pressure during the 1990s due to a number of factors, including the increase in international competition, especially since 1994. This was brought about by the deregulation process and South Africa's compliance with world trade liberalisation rules. Further pressure resulted because of a decline in the per capita disposable income due to poor economic growth. Adding to this is the fact that consumers are becoming more health conscious and price competition from other sources of protein, especially poultry meat, are becoming more important”(Spies, 2011)¹.

2.1. Beef Cattle sub-sector

According to DAFF (2012)², the livestock sector is one of the best growing parts of the agricultural economy, driven by income growth and supported technological and structural change. This sector contributes 40% of global value of agricultural output and supports the livelihoods and food security of almost billion people. Beyond their role in generating food and income, livestock are a valuable asset, serving as a store of wealth, collateral for credit an essential security net during calamitous times. Globally, livestock contribute 15% of total food energy and 25% of dietary protein.

In South Africa, stock farming is the only viable agricultural activity in a large part of the country. Approximately 80% of South African agricultural land is suitable for extensive grazing. Cattle production have increased by 37 000 heads from 13.5 million in 2004 to 13.87 million in 2011 and areas for grazing declined owing to expanding human settlements and other activities such as mining, crops, forestry and conservation. 80% of the total cattle heads are for beef cattle and the remaining 20% is for dairy cattle.

Beef cattle producers vary from highly sophisticated commercial (who rely on high technology) to communal subsistence producers (who rely on indigenous knowledge and appropriate technology). Three major groups of beef cattle farmers co-exist in South Africa.

- The **commercial beef producer** (mostly white farmers) where production is relatively high and comparable to developed countries. Their production is generally based on synthetic breeds and/or crossbreeding, using Indicus/Sanga types and their crosses as dams.
- The **emerging black beef cattle farmer** who own or lease land (LRAD beneficiaries). Their cattle generally consist of indigenous crossbred or exotic type of animals.
- The **communal beef cattle farmer** who farm on communal grazing land. Their cattle are mostly of indigenous types.

Cattle are found throughout the country, but mainly in the Eastern Cape, KwaZulu-Natal, Free State and North West provinces. Herd sizes vary according to type of cattle. In the case of dairy cattle, it varies between less

¹ Spies, D. C.(2011); Analysis and Quantification of the South African Red Meat Value Chain; <http://scholar.ufs.ac.za:8080/xmlui/bitstream/handle/11660/1901/SpiesDC.pdf?sequence=1&isAllowed=y>;[accessed on 11 January 2016]

² DAFF (2012); A Profile of The South African Beef Market Value Chain 2012; <http://www.nda.agric.za/docs/AMCP/Beef2012-13.pdf>; [accessed on 08 December 2015]

than 50 and 300 (average approximately 110). Beef cattle herds range from fairly small (less than 20 head of cattle) to large farms and feedlots (more than 1 000 head).

The production of weaners for the feedlot industry is the most frequent form of cattle farming in South Africa, such that feedlots account for approximately 75% of all beef produced in the country.

2.1.1. Production

Approximately 60% of the 14.1 million cattle available in South Africa are owned by commercial farmers and 40% by emerging and communal farmers. The gross value of beef production is dependent on the number of cattle slaughtered and the prices received by producers from abattoirs.

The amount of beef produced depends on the infrastructure such as feedlots and abattoirs, not necessarily by the number of cattle available in those areas. South Africa has highly developed transport infrastructure that allows movement of cattle and calves from one area to another, even from other countries such as Namibia.

There are approximately 488 abattoirs in total in South Africa ranging in slaughtering capacity from as little as 2 to 3 units a day to more than 1,500 units a day. Most of the larger abattoirs are owned by the feedlot industry, thus backwards vertical integration. Abattoirs in South Africa can either be classified as high throughput abattoirs (21 to 100 units/day) or low throughput abattoirs (1 to 20 units/day) where one unit equals 1 cattle, 6 sheep, 5 pigs, 4 ostriches or 2 horses.

In the North West province high throughput abattoirs does 5 to 100 units/day, this is not competitive as compared to other high throughput abattoirs, even though the North West has the second largest herd of cattle.

2.1.2. Consumption

Global meat markets are characterised as among the fastest growing consumption sectors of all major agricultural commodities. Quality-conscious urban consumers in developing countries have spurred global demand for meat products and much of this demand has been met by increased meat output in these countries themselves. This rapidly growing demand for meat products in developing countries has shifted the global base of animal production from developed to developing countries.

The total consumption of beef in South Africa only averages about 12 kg per capita, which is low for beef producing countries. In contrast to South Africa's relatively low consumption of beef, other major beef producing countries have much higher domestic consumption ranging from 34.6 kg per capita in Brazil to over 60 kg per capita in Uruguay and Argentina (NAMC, 2001)

South Africa's Meat Production and Consumption

Hahn W.F. et al (2015)³, stated the total SA meat production nearly tripled from 1 009 million kg in 1975/76 to over 2 752 million kg in 2012/13. Beef was consistently the most produced meat until 1995/96, and from 2000/01 poultry production started to increase higher than red meat (beef, pork, sheep and goats). Table 18 shows the gap continued to increase in favor of poultry, also per capita consumption of poultry during the year 2000/01 surpassed that of red meat.

³ Hahn W.F. et al (2015); International Food and Agribusiness Management Review Volume 18 Special Issue A, 2015 Factors Driving South African Poultry and Meat Imports; <http://www.ifama.org/files/IFAMR/Volume%2018/Special%20Issue%20A/2014013212.pdf>; [accessed on 08 December 2015]

Table 2: SA Production and Consumption of White and Red Meat

	Poultry		Red Meat		Poultry	Red Meat
	Prod.	Cons.	Prod.	Cons.	Per capita cons. Kilogram	
	Million Kg					
1975 – 1976	294	290	715	831	13.5	33.1
1980 – 1981	364	338	806	891	14.1	31.7
1985 – 1986	474	474	905	939	17.4	29.8
1990 – 1991	593	593	987	1 050	19.4	29.9
1995 – 1996	699	736	740	865	18.7	21.8
2000 – 2001	869	938	736	828	21.5	18.9
2005 – 2006	1143	1 383	1 060	1 162	29.5	24.8
2010 – 2011	1474	1 753	1 164	1 240	35.1	24.8
2011 – 2012	1484	1 836	1 168	1 242	35.5	24.0
2012 – 2013	1 529	1 899	1 223	1 297	36.3	24.9

Source: (Hahn W.F. et al, 2015)

South African consumers shift to poultry from red meats is similar to the shift among European and U.S consumers more than 40 years ago and there are common drivers of change, including rising consumer awareness of healthy lifestyle living.

Red Meat Prices

The red meat industry market has been deregulated, and price formation is determined by market forces based on demand and supply. If the supply is higher than demand, the producer price decreases and the demand is higher than supply the producer price increases. Prices fluctuate on a daily basis. The following factors also affect the price of livestock:

- Availability and price of maize
- Climate (rain, drought or fodder/feed flows)
- Economy of the country
- Imports of red or other meats

2.1.3. SA Trade

The current production of cattle in South Africa does not meet the domestic demand; as a result the country has been a net importer of meat over the years and has been importing red meat from countries like Argentina and Paraguay. South Africa also imports live cattle from some of the Southern African Customs Union (SACU) member states, specifically Namibia. South Africa has a tariff-free trade agreement with SACU countries for both live cattle and beef imports and exports. Botswana and Namibia have traditionally exported live cattle and beef to South Africa. It is clear that Namibia has been a major exporter until the last few years and that South Africa has been the major importer from Namibia to meet its domestic demand. As South Africa's production has caught up to consumption, imports have declined, and so have Namibia's exports. Botswana has historically exported very few live cattle. The trends for live animals has been changing as countries like Namibia would like to export value added products in the form of carcasses while Botswana would like to increase its supply of weaners to South Africa.

Table 3: Top 5 SA Export Destinations for Meat and edible meat offal by growth in export value, 2014

Importers (export destination)	Exported growth in value between 2010-2011, %	Exported growth in value between 2011-2012, %	Exported growth in value between 2012-2013, %	Exported growth in value between 2013-2014, %	Exported value in 2014, South African Rand thousand
1. Mozambique	6	8	65	76	567 863
2. Lesotho	-7	24	6	20	510 385
3. Namibia	10	-21	-36	19	313 927
4. Swaziland	16	-7	1	24	190 103
5. Kuwait	-18	5	2962	218	174 989

Table 4: Top 5 SA Import Origin for Meat and edible meat offal by growth in import value, 2014

Exporters (Import origin)	Imported growth in value between 2010-2011, %	Imported growth in value between 2011-2012, %	Imported growth in value between 2012-2013, %	Imported growth in value between 2013-2014, %	Imported value in 2014, South African Rand thousand
1. Brazil	12	2	3	-17	1 278 020
2. Netherlands	9701	112	32	9	960 466
3. Namibia	10	-12	-2	-18	631 751
4. United Kingdom	308	83	61	12	626 424
5. Germany	64	76	0	7	608 571
6. Botswana	36	123	-11	-11	334 010

Source: (Trademap, 2015)

2.1.4. Needs and Demands

An analysis of the South African consumer is needed in order to establish the composition of the market and consumer needs so as to make choices about what supply chain strategy to use to match customer value with the customer market. In order to enhance customer satisfaction, it is critical to address customer needs and take a value chain approach. Customer satisfaction is presented as a source of sustainable competitive advantage and the reason for the existence of the beef supply chain. Customer value is defined as the basis for customer satisfaction. Customer value is a combination of key market attributes such as products and services, quality, price and delivery. The six most important worldwide consumer food trends are (Anita Labuschagne, A. et al, 2011⁴):

- a) convenience,
- b) versatility,
- c) environmental and ethical issues,
- d) value for money,
- e) health consciousness, and
- f) simplicity.

⁴Anita Labuschagne, A. et al (2011); A consumer-orientated study of the South African beef value chain; [http://repository.up.ac.za/bitstream/handle/2263/19315/Labuschagne_Consumer\(2011\).pdf?sequence=1](http://repository.up.ac.za/bitstream/handle/2263/19315/Labuschagne_Consumer(2011).pdf?sequence=1); [accessed on 09 December 2015]

One of the trends is a general worldwide increase in customer concern regarding health, diets and food safety. Internationally, this relates to issues such as traceability, animal welfare, diseases and production processes, sustainable agricultural practices, and naturally- and organically-produced beef.

The majority of South African consumers are very price sensitive regarding beef purchases. SA meat demand is influenced by five factors, namely:

- a) Disposable income,
- b) Own price of beef,
- c) Meat price related to other products,
- d) Changes in size and structure of the population, and
- e) Changes in consumers' taste and preferences.

South African agricultural production is switching away from field crops to meat as diets change. Strong South African economic growth is driving the increase in meat demand. The beef herds in SA are in a building phase and imports contribute to the beef supply. There has been an upward trend in per capita income. The causes for this upward trend and changes in consumption patterns can mostly be attributed to the emerging black middle-class and good economic growth.

Per capita income remains the most important factor that influences the demand for beef in low income countries. However, in high income countries, factors such as diet and health concerns are more important than per capita income. Beef not only competes with other red meats such as pork and lamb, but also with other protein sources, as well as protein replacements such as soya. Worldwide poultry is the most consumed meat, followed by pork.

In SA the growth in demand for chicken far exceeds that of beef. This trend can be attributed to consumers perceiving chicken as being cheaper, healthier and easier to prepare than beef. Generally, beef has a better bone-to-meat percentage than chicken. Beef is in greater demand than pork, lamb and fish. Traditionally, beef is sold fresh to the consumer through various types of retail outlets. The consumer's need for convenience could lead to market share erosion as a result of ready-to eat and heat-and-eat meals (Anita Labuschagne, A. et al, 2011)

According to a study conducted by Puoane et al (2006)⁵, found that the societal and cultural trends influencing food consumption were:

General Perceptions about food in:	
Older Women:	Women's perceptions about food are cantered on satisfaction of family needs. Women see themselves as food providers. Even when food is scarce they see it as their responsibility to make sure that all family members have something to eat.
Older Men:	While men depended on women preparing the food they eat, they see themselves as the person responsible for supporting the family. Men loved tasty food and felt that a meal is not complete without meat, especially red meat .
Young Women:	Some to the young women seemed to be conscious about body weight and therefore very selective about food.
Young Men:	Young men believe that food made them happy. They enjoyed good food that had been prepared for them. They felt that they could eat anything without restriction, and as long as there was food there, to them it is a party every day.

⁵ Puoane et al (2006); Socio-cultural Factors Influencing Food Consumption Patterns in the Black African Population in an Urban Township in South Africa; <http://repository.uwc.ac.za/xmlui/bitstream/handle/10566/253/JHE-SI-14-12-089-093-Puoane-T-Text.pdf?sequence=1>; [accessed on 10 December 2015]

2.1.5. Market Segments

Market segmentation is the process of dividing the total heterogeneous market for a product into several segments, each of which tends to be homogeneous in all significant aspects. The description of the market segments is on Business-to-Business (B2B). Emerging producers who intend to focus on the business market will have to understand the following market requirements (NDA, 2000)⁶:

- Insistence of the product users on adequate quantities of uniform quality animals. Huge variations in the breeds, age groups and fatness can cause considerable market loss for contractual buyers.
- Adequate quantities are as important as good quality.
- Buyers in the business market are usually quite well informed about what they are buying and the price they are prepared to pay.

Table 5 outlines five possible red meat industry channels for livestock farmers.

Table 5: Livestock B2B Market Segments

Channel 1: Livestock marketing agents	Facilitators that render a service of bringing together a buyer and a seller. Auctions are arranged by marketing agents on a commission basis. Livestock and meat-marketing agents in South Africa are associated with South African Federation of Livestock Auctioneers and Meat Brokers (SAFLA – MB)
Channel 2: Feedlots	Extensive livestock producers have an option of selling their animals directly to feedlots. Feedlots are registered under the South African Feedlot Association (SAFA). Feedlots normally buy weaner calves with live mass of 230kg and add 105Kg carcass through intensive feeding of about 100 days and eventually slaughtering an animal at 215kg carcass weight.
Channel 3: Abattoirs	A significant number of abattoirs are operated as private ventures. Since deregulation of the South African red meat industry in 1993, there has been a rapid growth in number of registered abattoirs. The abattoir sector fulfils an integrated wholesale function by buying animal on the hoof and directly selling carcasses and meat cuts to the retail sector. Buyers and sellers meet through marketing agent. The Red Meat Abattoir Association is currently the mouth piece of all its members.
Channel 4: Butchers	Butchers enhance the marketability of livestock by acting as buyers and as buyers at auctions as well. Farmers can derive good prices, if have strong bargaining power.
Channel 5: Private Sales	The shortest, simplest and most popular option for small-scale farmers. Private sale directly to the ultimate consumers. It is important to farmers as they are in a position to determine prices. Does attract marketing costs. Demand is irregular with high demand during certain times of the year, live festive seasons.

Source: (NDA, 2000)

Table 6: Factors affecting the selection of a marketing channel

Factors affecting the selection of a marketing channel	
The choice of marketing channels depends largely on the following factors: <ul style="list-style-type: none"> • Availability of the market • Price offered in the market • Distance to the market • Potential size of the market (bulk purchases) 	Emerging producers generally prefer to sell their livestock through public auctions, organised by reliable auctioneer agents, reasons: <ul style="list-style-type: none"> • Public auctions are normally available at the right time • They normally pay reasonable prices which are market related • Stock can be sold in bulk

⁶ NDA (2000); Paper no. 7 Livestock Marketing; <http://www.nda.agric.za/docs/GenPub/7livestock.pdf>;[accessed on 09 December 2015]

	<ul style="list-style-type: none"> • Social and economic relationships can be build • The farmer, if not satisfied with the price, has an option of returning stock back without any penalty, except transport costs.
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Source: (NDA, 2000)

2.1.6. Market Issues

According to Phillips (2013)⁷, the concerns about the South Africa's beef industry are that of:

- **Industry Pressures:** Competition for the beef industry will come mainly from the predicted 48% growth in average annual chicken consumption by 2020. Despite experiencing growth in consumption over the same period, eggs, pork and lamb are likely to remain in third, fourth and fifth place nationally. It is important to note that South Africa's annual formal beef production and supply projected as far as 2020 falls short of national demand by about 50 000t per annum. Ideally, this shortfall should be met by locally produced beef.
- **Herd unchanged:** While the national beef herd, including cattle in the informal production sector, has been stable at an estimated 13 million to 14 million head, annual national beef slaughtering figures have varied in recent years as a result of factors such as intermittent drought – which forces beef farmers to reduce herd numbers quickly. While the country's population has grown substantially over the last four decades, meat consumption habits have diversified into other meat types, creating competition for the beef industry. Even with the rise in black middle class, expenditure priorities will take a while to catch up in increased consumption of beef, particularly the more expensive cuts. The black middle-class still seems to favour cheaper products, such as chicken.
- **Prices static, inputs up:** In recent times, beef weaner producers have received the same prices that they were paid in 2007. In addition, live weight weaner prices are currently lower than carcass prices at 56% dressed out. This shows a negative meat margin, which means that any beef farmers slaughtering young cattle are currently losing money. A weaner calf should be about 62% to 62.5% of the price of an A2 carcass. At the moment, however, a calf costs only 55% of the A2 carcass price, an indication that feedlots are getting their weaners at lower prices relative to the price of the meat they sell.
- **Priorities:** Presently, South Africa's beef production model prioritises maximum productivity at the expense of sustainability, product quality, the environment and animal welfare. Consumer pressure is demanding change, and beef producers will need to adapt. If they fail to do so, traditional beef consumers are likely to move towards other more ethically and sustainably produced meat types.
- **Marketing:** Beef farmers who are making an effort to produce beef in a more ethical and sustainable manner must ensure that consumers are aware of this. Change can only be achieved through effective and honest branding and marketing. This appears to be lacking in South Africa – to the detriment of beef farmers. Most beef products have vague generic branding that does not inspire consumers to appreciate the efforts that are going into producing beef more ethically and sustainability. Branding can be breed-specific, as illustrated by the country's Angus breeders, who work hard at differentiating the beef of this breed.

⁷ According to Phillips (2013); The SA Beef sector must improve production efficiencies to remain viable; Farmers weekly, 9 August 2013; <http://www.farmersweekly.co.za/article.aspx?id=44228&h=South-Africa's-beef-industry:-what-does-the-future-hold> ;[accessed on 09 December 2015]

- **Information:** Accurate figures on national herd size, breeding cow numbers, scales of beef production, production costs, health issues, market factors and other factors need to be collected. This information should be gathered and disseminated by the government. South Africa's beef farmers often have to rely on unofficial resources for information that could help them improve production methods. Small-scale rural black beef farmers, with minimal access to formal communications networks, have little to no information that could help them improve productivity. Farmers will not know what to work towards if they do not have the correct facts.
- **Developing beef farmers:** Obviously, if demand for beef is increased, the supply of local beef must be stimulated, particularly from developing farmers. Calving and weaning percentages must be increased through improved infrastructure and training and better herd, grazing and livestock health management. This will greatly improve beef supply and the viability of the beef sector as a whole.
- **Red tape muffles potential:** Currently there are too many unnecessary rules and regulations for the marketing of beef, and these contribute towards stifling the beef sector's potential. Moreover, many of these are not policed.

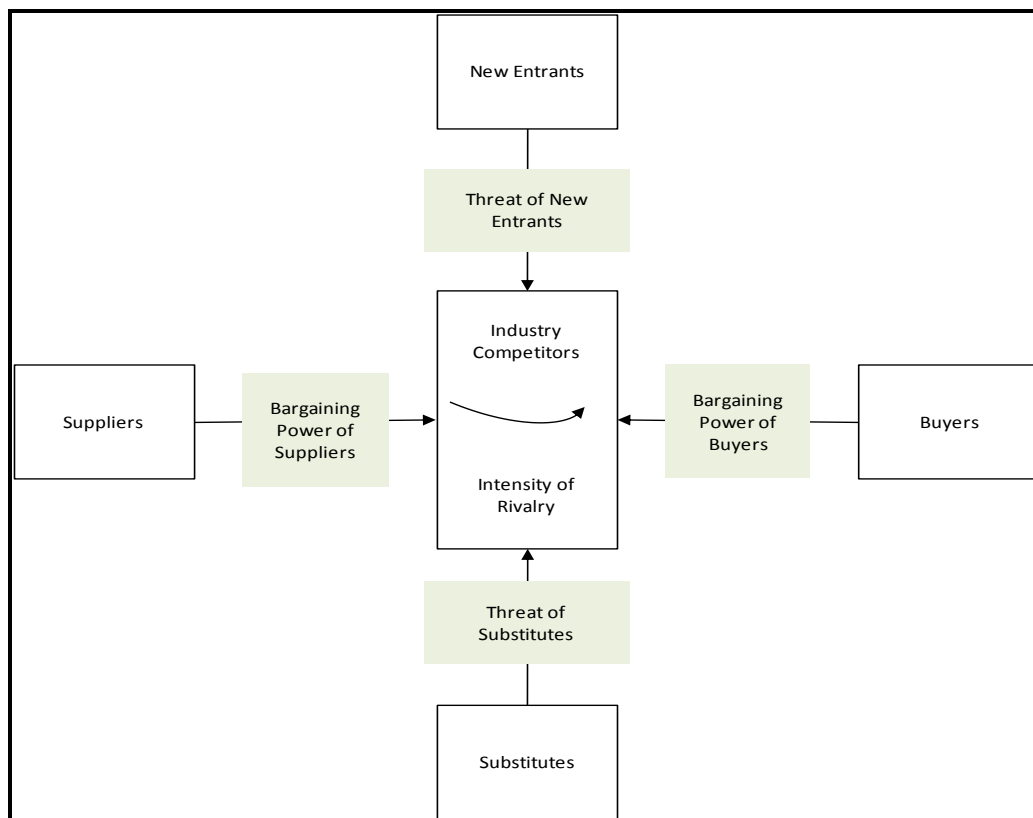
2.1.7. Beef Industry Structure

2.1.7.1. Industry Forces

Porter's Five-Forces Model is used as an analysis model for the assessment of the beef industry in South Africa. The five-forces outlined in figure 2 are:

- **Competition** - assessment of the direct competitors in a given market
- **New Entrants** - assessment in the potential competitors and barriers to entry in a given market
- **End Users/ Buyers** - assessment regarding the bargaining power of buyers that includes considering the cost of switching
- **Suppliers** - assessment regarding the bargaining power of suppliers
- **Substitutes** - assessment regarding the availability of alternatives

Figure 2: Porter Five-Force Model: Elements to be applied to the Beef Industry in SA



Source: (Oliver G. C., 2004)⁸

<p>New Entrants</p>	<p>The threat of new entrants is low:</p> <ul style="list-style-type: none"> • New entrants into the beef cattle industry are slow and declining and thus the industry attractiveness for potential new investors is low. The poor investor confidence in agriculture is caused by low returns as well as hard economic times and social problems such as spate of farm murders, evictions and illegal land occupations.
<p>Suppliers</p>	<p>Bargaining power of supplier (beef cattle producers) is low:</p> <ul style="list-style-type: none"> • The beef cattle producers are price takers and are not in a position to determine or manipulate any process or the market • Producers in the red meat industry are rational decision makers reacting to market and climate conditions
<p>Buyers</p>	<p>Buyers have high bargaining power:</p> <ul style="list-style-type: none"> • Demand for beef is largely influenced by consumer consumption pattern, customer preferences, social appetite and beliefs • The farmer is largely dependent on the consumer • The consumer buying decision is driven by income level, debt situation and prices willing to pay
<p>Substitutes</p>	<p>Threat of substitution is high:</p> <ul style="list-style-type: none"> • The pressure from substitute products is competitive and threatens the beef cattle industry • Other meats such as lamb, pork and chicken compete for a slice of the same consumer's rand

⁸ Oliver G. C. (2004); An Analysis of the South African Beef Supply Chain: From Farm to Fork; <https://ujdigispace.uj.ac.za/bitstream/handle/10210/296/GertOlivier.pdf?sequence=1;>[accessed on 10 December 2015]

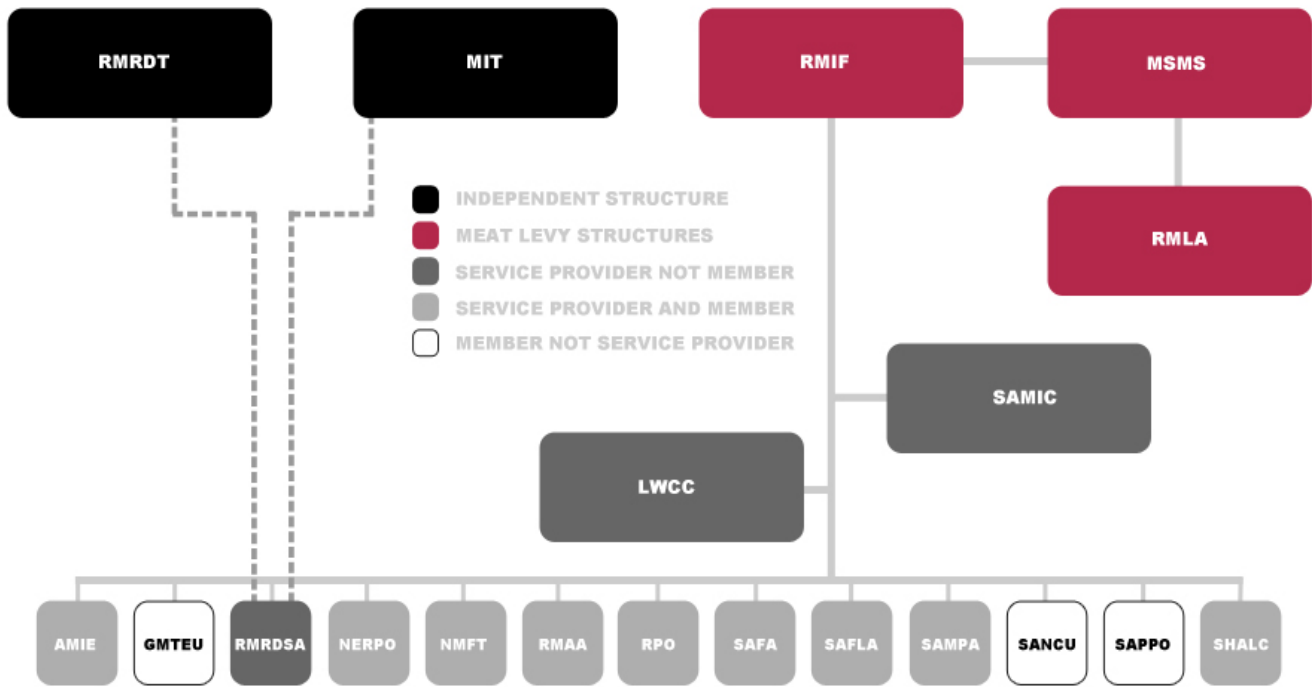
	<ul style="list-style-type: none"> • Consumers continuously substitute one meat product to for another based on social appetite, financial position and prevailing market prices • Chicken is on the increase and is bigger than the total consumption of red meat.
Intensity of Rivalry / Competition	<p>Intensity of Rivalry and competition is high:</p> <ul style="list-style-type: none"> • The intense rivalry is a result of market forces, low margins and the globalisation of the meat trade, e.g. the issue of AGOA, South Africa has ignored US concerns about blocking US beef, chicken and pork imports for years. The compliance of South Africa to AGOA will result in more competition for the beef producers in South Africa versus the USA beef producers. • The beef supply chain has become more and more vertically integrated • Large feedlots own their own abattoirs have locked down stream distribution contracts as suppliers of beef meat, i.e. from feedlot to retail shelves. The abattoir industry has increased tremendously and in most cases the public can buy carcasses directly from abattoir without going the wholesalers. Abattoirs are divided into: <ul style="list-style-type: none"> ○ Those linked to the feedlot sector and the wholesale sector (classified as A and B abattoirs) ○ Those owned by municipalities ○ Those owned by farmers and SMMEs (classified as C,D and E class abattoirs)
Substitutes	<p>Threat of substitution is high:</p> <ul style="list-style-type: none"> • The pressure from substitute products is competitive and threatens the beef cattle industry • Other meats such as lamb, pork and chicken compete for a slice of the same consumer's rand • Consumers continuously substitute one meat product to for another based on social appetite, financial position and prevailing market prices • Chicken is on the increase and is bigger than the total consumption of red meat.

Source: (Oliver G. C., 2004)

2.1.7.2. SA Red Meat Industry structure

The industry structure shown in figure 3 was gathered from the South African Red Meat Industry Forum (RMIF) website. RMIF was established in 1994 when the Agricultural control boards were disbanded and most of all the sector representative and specific role player organisations within the red meat value chain.

Figure 3: South African Red Meat Industry Structure



Red Meat Research Development Trust (RMRDT)	Meat Industry Trust (MIT)	Red Meat Industry Forum (RMIF)	Meat Statutory Services (MSMS)	Red Meat Levi Administration (RMLA)
Red Meat Research & Development South Africa (RMRDSA)	South African Meat Industry Company (SAGIC)	Livestock Welfare Co-ordinating Committee (LWCC)	Association of Meat Importers and Exporters (AMIE)	National Emergent Red Meat Producers Organisation (NERPO)
National Federation of Meat Traders (NFMT) (NMFT)	Red Meat Abattoirs Association (RMAA)	Red Meat Producers (RPO)	South African Feedlot Association (SAFA)	South African Federation of Livestock Auctioneers/Agents (SAFLA)
South African Meat Processors Association (SAMPAA)	Skins, Hides and Leather Council (SHALC)	Gauteng Meat Traders Employees Union (GMTEU)	South African National Consumers Union (SANCU)	South African Pork Producers Organisation (SAPPO)

Source: (Redmeatsa, 2016)⁹

The South African red meat industry has a number of organisations across the beef cattle value chain. These organisations are important players and supporters for success of the Agri-Park and table 7 in the next section shows how these organisations link with the Agri-Park. As part of the implementation of the Agri-Park partnerships will have to facilitate between the various players in the industry.

⁹ <http://www.redmeatsa.co.za/structure>; [accessed on 11 January 2016]

2.1.7.3. Industry structure link with the Agri-Park

Table 7 demonstrates the links between the Agri-Park Model with red meat industry organisations. This alignment is to inform the various partnerships that could be formed for the support and growth of the Agri-Park

Table 7: Red Meat Industry bodies linked with Agri-Park

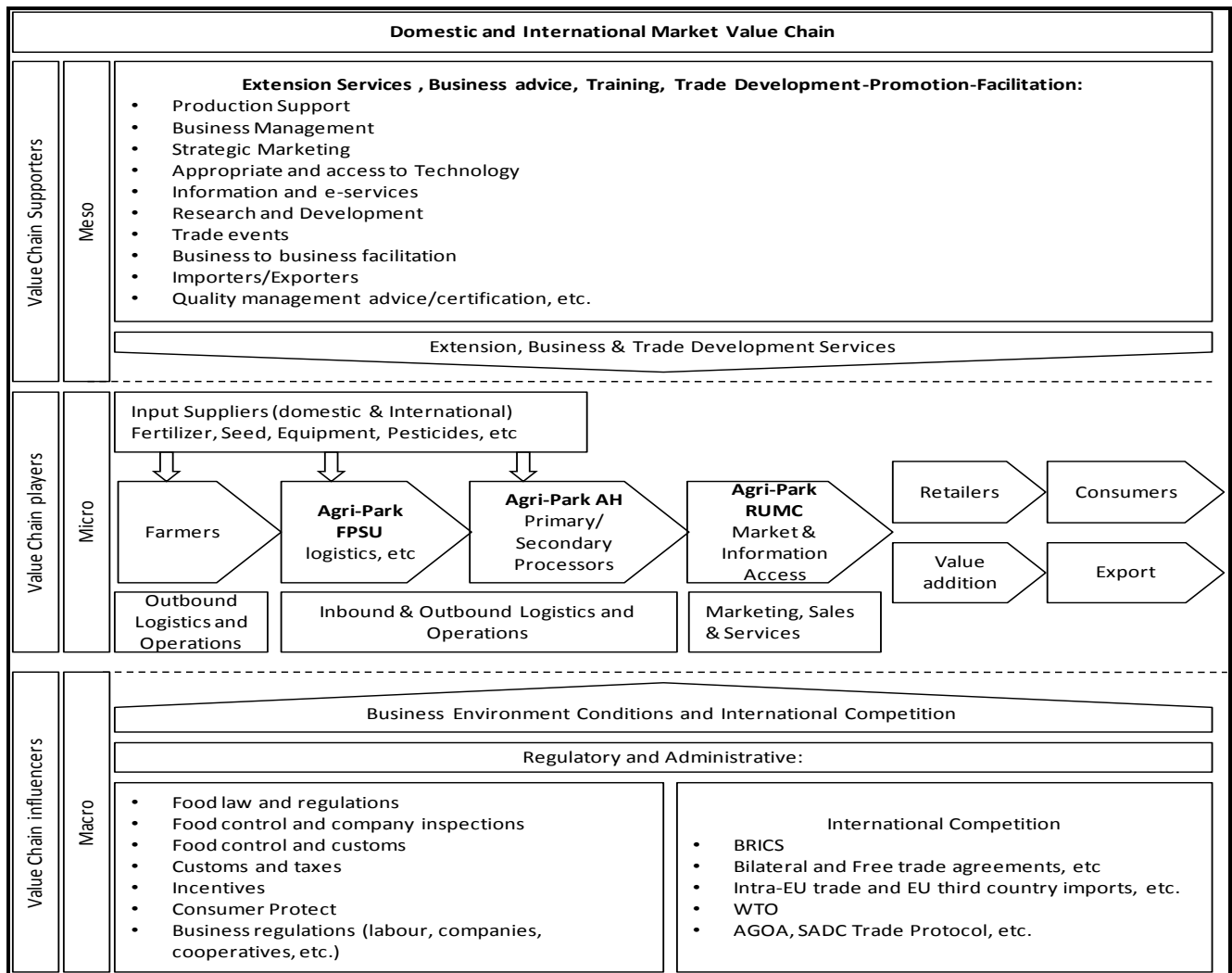
	Agri-Park Model			
	Emerging Farmers	Farmer Production Support Unit	Agri-Hub	Rural Urban Centre Market
Links with Meat Industry Organisations	<ul style="list-style-type: none"> NERPO: Commercialise emerging & mainstream black farmers RPO: Lobby & Information sharing (mouthpiece) LWCC: Livestock welfare 	<ul style="list-style-type: none"> RMAA: Training, Information & Networking SAFA: Technical and Technology support SAFLA: Advise and Marketing SAMPA: Meat-processing and related industries SHALC: Tanneries representative body 		<ul style="list-style-type: none"> AMIE SA: Information sharing (mouthpiece) NMFT/NFMT: Retail meat trade (information) RPO: Lobby & Information sharing (mouthpiece) SAFLA: Advise and Marketing
	<ul style="list-style-type: none"> Industry Representative Body: Red Meat Industry Forum (RMIF) Levy Administrator: (implementation, administration and enforcement): Meat Statutory Measures Services (MSMS) and Red Meat Levi Administration (RMLA) Research: Red Meat Research Development Trust (RMRDT) and Red Meat Research & Development South Africa (RMRDSA) Quality Assurance: South African Meat Industry Company (SAMIC) Training, Research and Administration: Meat Industry Trust (MIT) 			
Links with Public Sector Organisations	<ul style="list-style-type: none"> Information, Research and Training: Agricultural Research Council (ARC) Support, Training, Funding & Information: Provincial and Local Agriculture department and development agencies (e.g. North West Development Agency) Funding and Support: DRLR, DAFF, the dti, the National Empowerment Fund (NEF) and Industrial Development Corporation (IDC), Small Enterprise Development Agency (Seda), Small Enterprise Finance Agency (Sefa) 			

2.1.8. Beef Industry Value Chain Analysis

2.1.8.1. Value Chain players, Supporter and influencers

The value chain analysis can be described as the activities that an organisation performs and links them to the organisation's competitive position. There are both primary and support activities. Primary activities are directly concerned with the creation or delivery of a product or services (incl. inbound logistics; operations and outbound logistics; marketing and sales). The primary activities are linked to support activities, which enable delivery of primary activities.

Figure 4: Industry Value Chain Players, Supporter and Influencers



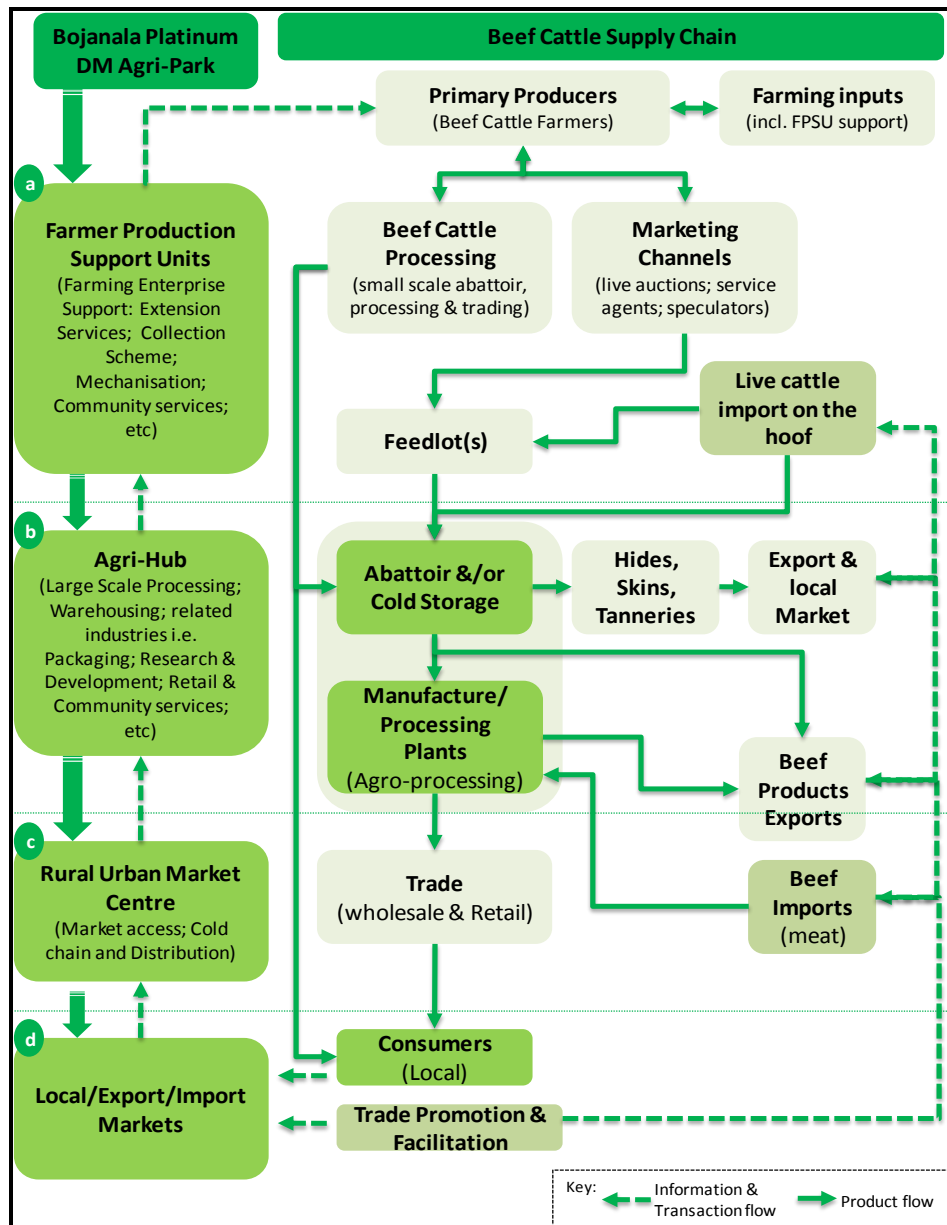
Source: (adapted from Spies, 2011)

Figure 4 above has outlined how the Agri-Park can be effective and efficient as modelled around the value chain, including value chain players (such as red meat industry organisations described above in figure 3 and table 7). The industry players constitute the industry micro level that covers beef cattle farmers to local consumers and export market. As demonstrated, the Agri-Park model is clearly aligned to the value chain. The success of the micro level requires an enabling macro level, which is the value chain influencer. This influence mainly includes the business regulatory driven by government. There are various regulations in South Africa that influence the red meat industry. Internationally, there are opportunities and regulatory prescriptions that enable trade in the red meat industry. At a meso level, various support services can be offered for the competitiveness of the Agri-Park production and services. The support services are normally provided by both the private and public sector organisations such as the Department of Agriculture, Enterprise and Industry development organisation. Thus, the business environment for the sustainability of the Agri-Park is conducive.

2.1.8.2. Beef Cattle Supply Chain

Further to the industry structure and value chain analysis, the Agri-Park is also modeled against the beef cattle supply chain as outlined in figure 5.

Figure 5: Beef Cattle Supply Chain by Agri-Park Model



There is a high correlation between the Agri-Park model and the beef cattle supply chain. This correlation will necessitate the development of the Agri-Park from point A to D for effective and efficient implementation of the Agri-Park policy framework. In conclusion the Agri-Park model can be easily assimilated around the beef industry value chain and supply chain

2.1.9. Agro-Processing Opportunities

According to DAFF (2012)¹⁰, the agro-processing industry is among the sectors identified by the Industrial Policy Action Plan (IPAP), the New Growth Path and the National Development Plan for its potential to spur growth and create jobs owing to its strong backward linkage with the primary agricultural sector. Agro-processing (industry) is a subset of manufacturing that processes raw materials and intermediate products derived from the agricultural sector. Agro-processing thus means transforming products originating from agriculture.

¹⁰ DAFF (2012); Economic Profile of the Agro-Processing Industry in South Africa: 1970-2010; March 2012; http://www.nda.agric.za/daaDev/sideMenu/AgroProcessingSupport/docs/Economic%20Profile_Agro-Processing%20Industry%20Final%20III.pdf; [accessed on 08 December 2015]

The general trend of most economic indicators shows that the agro-processing industry makes a significant contribution to the manufacturing sector. On average its contribution to the output and value added of the manufacturing sector was 29.3% and 29.1%, respectively, during 2006-2010.

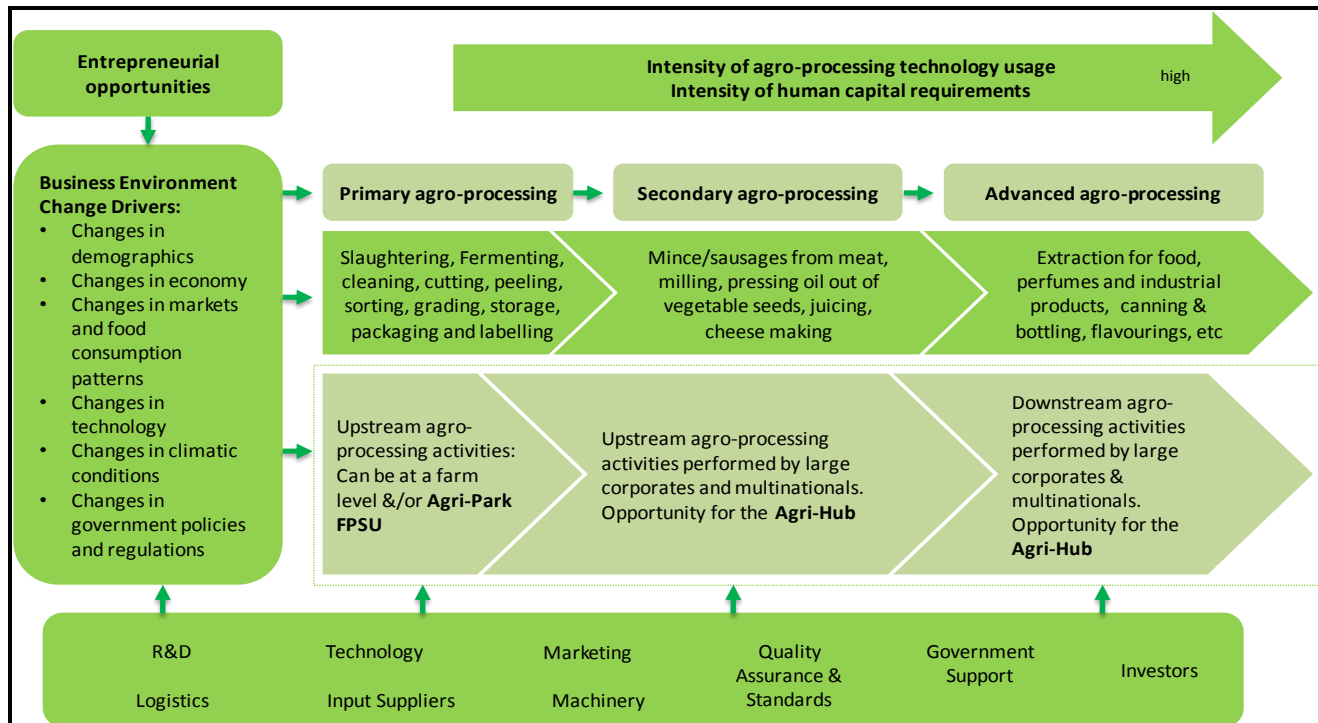
What is agro-processing?

Agro-processing refers to a set of technological and economic activities undertaken on a basic agricultural product with the aim of transforming it into usable items such as food, fibre, fuel and industrial raw material. According to the United Nations International Standard Industrial Classification System (ISIC, 2013) agro-processing is demarcated into the following subsectors and/or components:

- Food and beverages;
- Tobacco products;
- Paper and wood products;
- Textiles, footwear & apparel
- Leather products; and
- Rubber products.

Agro-processing industry may be in the upstream and downstream component. Upstream industries are engaged in initial processing of primary agricultural products such as flour milling, leather tanning, cotton ginning, oil pressing and fish canning. Figure 6 demonstrates the three phases of agro-processing activities from primary agro-processing to advanced and shows the possible links with the Agri-Park Model. Also refer to figure 4 above provided the context at a meso, micro and macro level in relation to support activities and players.

Figure 6: Phases of Agro-Processing Activities



Source: (adapted from Thindisa, 2014)¹¹

¹¹ Thindisa, L.M.V (2014); Participation by smallholder farming entrepreneurs in agro-processing activities in South Africa; University of the Witwatersrand, Johannesburg; http://wiredspace.wits.ac.za/jspui/bitstream/10539/15536/1/Research_Report_Participation_Smallholder_Farmers_Agroprocessing_Final_25July2014.pdf [accessed on 08 January 2016]

Downstream industries undertake further manufacturing operations on intermediate products emanating from primary agricultural products such as bread, biscuit, paper production, and textile spinning and weaving. Agro-processing activities has the potential to contribute to sustainable livelihoods through food availability, improved income resulting in increased profitability, employment, social and cultural well-being from limited land (Thindisa, 2014).

2.1.9.1. Agro-Processing Opportunities for Bojanala PDM

Due to its proximity to larger markets such as those in Gauteng Province and access to major roads (i.e. N1 and N4), Bojanala PDM has agro-processing potential in the food sector and related industries. The proposed beef cattle agro-processing opportunity is in “Gelatin”, as the key driver to three agro-processing opportunities.

Table 8: Agri-Hub: Agro-Processing Opportunities

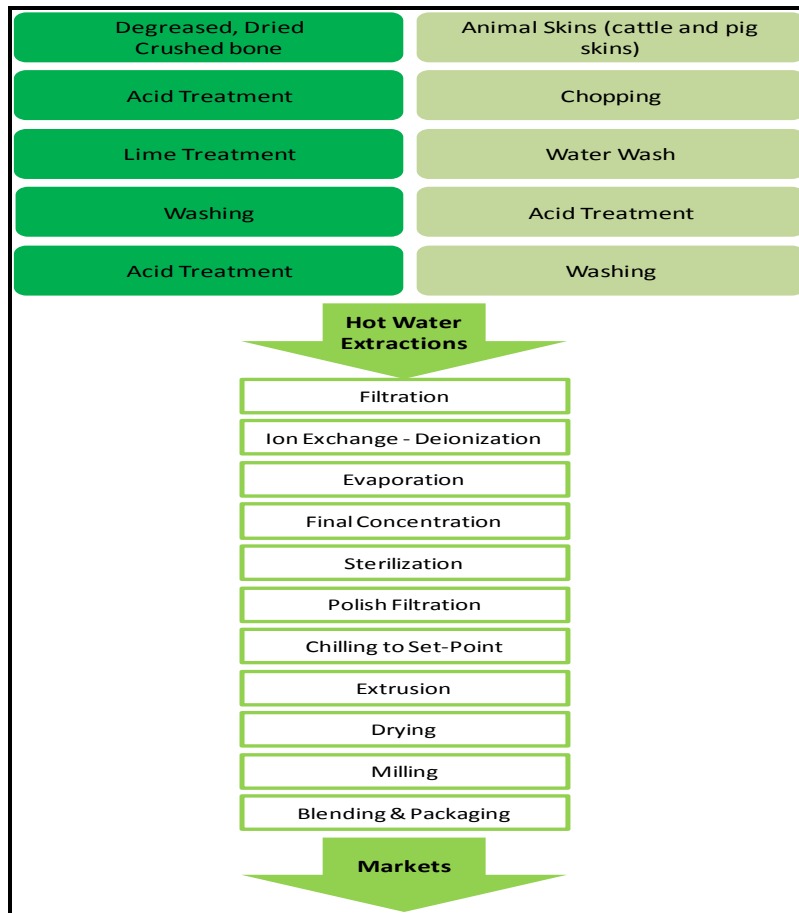
Agro-Processed Product (By-Product)	Gelatin produced from bones, hones, hooves and hides		
Description	Gelatin is a translucent, colourless, brittle, flavourless solid substance, derived from collagen found in animal bones and skin. It is commonly used as a gelling agent in food, pharmaceuticals, photography, and cosmetic manufacturing.		
Group of Products	Secondary Agro-Processing Opportunity	Potential downstream Opportunity	Market Potential
Edible beef by-products	<p>1. Product One: Input for Food and Beverages industry (food gelling agent)</p> <p>Food Products in which Gelatin is present include:</p> <ul style="list-style-type: none"> • Dairy – ice cream, sour cream, yogurt, cottage cheese, cream pies • Meat – ham, aspics, canned hams, meat loaves, pates • Desserts – jellied desserts, puddings, frostings • Confectionery – gum drops, lozenges, wafers, candy cigarettes, marshmallows, fruit snacks, gummi snacks • Other – consommé soups, sauces 	<p>Product 1.1:</p> <p>Raw-cooked products (e.g. sausages, meat loaf etc)</p>	<p>The South African food and beverages divisions in the agro-processing industry dominates the industry and jointly constitute over 50% of the market share (a high potential to supply the local food and beverages industry with gelatin)</p> <p>Some of the major players in food and beverages industry in South Africa:</p> <ul style="list-style-type: none"> • Unifoods/Best foods • Nestle • National Brands • Tiger Brands • Premier Foods • Nabisco • AVI Ltd • Tongaat-Hullet Group • Illovo Sugar Ltd • All Joy Foods Ltd <p>Gelatin has a greater Application Scope in various End-use Industries. More than 50% of the total consumption of Gelatin is in Europe</p> <p>Global market for Gelatin is projected to reach 440 thousand metric tons by 2020, driven by increasing use in drugs and</p>

Agro-Processed Product (By-Product)	Gelatin produced from bones, hones, hooves and hides		
Description	Gelatin is a translucent, colourless, brittle, flavourless solid substance, derived from collagen found in animal bones and skin. It is commonly used as a gelling agent in food, pharmaceuticals, photography, and cosmetic manufacturing.		
Group of Products	Secondary Agro-Processing Opportunity	Potential downstream Opportunity	Market Potential
			supplements in the pharmaceutical industry.
Inedible beef by-products	<p>2. Product Two: Input for adhesive/glue industry (Bones and Hide Glue for industrial application)</p> <p>Animal adhesives are of various kinds derived from skins and bones of the animals.</p> <p>The most common use for animal glue is as an adhesive solution where its gap filling properties added to its great dry strength are its main advantages.</p> <p>An adhesive is in woodworking/furniture, cardboard case closing, match head bonding to the stick and the bonding of abrasives to paper for use as sandpaper.</p>	<p>Product 2.1:</p> <p>Glue/Adhesive manufacturing</p>	<p>SA wood and paper industry, and furniture industry</p> <p>Supply to other Agri-Parks (e.g. Dr RSM leather furniture and shoe making industries)</p>
Inedible beef by-products	<p>3. Bone meal (or Bone manure/Fertilizer) for livestock industry, plant and crop industry</p> <p>Bone meal (or Bone manure) is a mixture of finely and coarsely ground animal bones and slaughter-house waste products. It is used as an organic fertilizer for plants and as a nutritional supplement for animals. As a slow-release fertilizer, bone meal is primarily used as a source of phosphorus and protein.</p>	<p>Product 3.1:</p> <p>Fertilizer manufacturing</p> <p>Product 3.2:</p> <p>Animal feed manufacturing</p>	Supply to Agri-Parks across the country for primary production

The **principal raw materials** used in gelatin production in **cattle bones, cattle hides, and pork skins**. Several alternative sources include poultry and fish. Extraneous substances, such as minerals (in the case of bone), fats and albuminoids (found in skin), are removed by chemical and physical treatment to give purified

collagen. These pretreated materials are then hydrolyzed to gelatin which is soluble in hot water. Figure 7 illustrates gelatine production process.

Figure 7: Gelatin Production Process



Bojanala PDM FPSU Agro-Processing Opportunities

Across all FPSUs, at a small scale, the proposed agro-processing opportunities are in fresh processed meat products, raw-fermented and dried meat (biltong) for local markets, and bones and skins processing for the Agri-hub. Table 9 outlines the primary agro-processing opportunities that can be performed at the FPSU level.

Table 9: FPSU: Primary Agro-Processing Opportunities

Fresh processed meat products		
Beef: •Vacuumed Portions •Patties •Minced meat •Sausages •Kebab •Wors	Dried meat	Raw (dry) – fermented sausages
	Meat floss Biltong	Beef Salami

2.2. SWOT Analysis for the Beef Industry

The industry analysis can be summarised by means of a SWOT (strengths, weaknesses, opportunities, threats) analysis, which is a descriptive as well as an analytical tool. Strengths and weaknesses relate to conditions internal to a business or industry, whereas threats and opportunities refer to external conditions facing the organisation or industry.

Beef Industry SWOT	
Strengths	<p>SA consumers traditionally love beef that is tender and tasty. This preference is the biggest strength and asset of the beef industry. Other strengths include:</p> <ul style="list-style-type: none"> • SA traditions and customs (biltong, braaivleis, rugby) • Food safety • Quality assurance • A good animal disease status • A lean meat product • A well-established commercial sector [incl. The advent and growth of red meat restaurant (colloquially called “chesa nyama”)]
Weaknesses	<p>South African agricultural businesses battle to be competitive, due to the playing field not being level. Factors that negatively influence competitiveness are:</p> <ul style="list-style-type: none"> • Other countries subsidise their farmers; • There are unfavourable farming conditions compared to those of countries such as Brazil • The extent of SA legislation does not encourage fair competition • Problem animals causing damage need to be controlled efficiently to lessen the loss to the producer • SA lacks the capacity to commercialise developing producers • Basic good management practices are lacking in some of the industry sectors • Training and skills development are implemented too slowly • The implementation and control of good existing regulations are not uniform across national, provincial and municipal levels • Consistency in terms of the classification system is an issue with regard to the differences in animal quality between the formal and informal sectors.
Opportunities	<p>There are several issues that can be used to build the beef industry:</p> <ul style="list-style-type: none"> • Population growth (incl. growing middle class with higher disposable income) • The nutritional value of beef • The monitoring of beef by an independent organisation (SAMIC) increases perceptions of beef safety • The majority of the SA population has the time to cook and enjoys doing so • The changing needs of consumers, lifestyle changes and expectations • Consumer confidence • Product value-adding and natural and organic production • Emerging commercial farmers

Beef Industry SWOT

Threats

Threats include:

- Deteriorating economic condition (drop in consumer disposable income)
- The affordability of beef
- The perception that beef is unhealthy and may be unsafe to eat
- The changing needs of the consumer provide opportunities, however, if these consumer needs are not adequately addressed, they may become threats
- Security
- Supply crisis
- Natural resources:
 - Good agricultural land for grazing and animal production is limited
 - Soil erosion and pollution
 - Disasters such as drought, and losses due to the cold
 - The availability of water
- Animal health and wellbeing
- Increases in food prices
- Import tariffs
- HIV and AIDS

In conclusion, further market studies and feasibilities have to be conducted to validate and confirm these agro-processing opportunities related to **Bojanala PDM being a Gelatin Producing Centre of South Africa**.

These opportunities are a guiding principle for describing the Agri-Park Infrastructure plan outlined in chapter 4 in response to chapter 3 that formulates a strategy for Bojanala PDM Agri-Park Master Business Plan.

Chapter Three: Bojanala PDM Agri-Park Strategy

The Agri-Park strategy is aimed at providing direction and scope for **Bojanala PDM** Agri-Park over the long term, in order to achieve implementation advantages. This chapter proposes a road map for strategy formulation that will inform the implementation of **Bojanala PDM** Agri-Park. This road map comprises of three interacting elements of strategic management, which are, (1) *analysis* covered in Chapter 2 above; (2) *choice* which is concerned with choosing the appropriate strategy for responding to South African government priorities and Agri-Park policy framework (Chapters 4 and 5); and (3) *implementation* covered in Chapter 6, which is concerned with the realisation of choices and selected objectives.

The strategy aligns itself to the 14 government priority outcomes, and most importantly **outcome 7 – Vibrant, equitable and sustainable rural communities** and the Agri-Park draft policy framework; which aims to enable the establishment of rural industrial hubs across South Africa to serve as primary vehicles of agrarian transformation and comprehensive rural development in order to:

- enhance agricultural production and efficiency;
- promote household food security and national food sovereignty;
- engender agrarian transformation through rural enterprise development and employment creation; and,
- address the triple challenges of poverty, inequality and unemployment as starkly manifest in rural areas.

3.1. Bojanala PDM Agri-Park Strategic Intent

The formulation of Bojanala PDM Agri-Park outcome, vision, mission, goal and objectives are described below:

3.1.1. Priority Outcome

Outcome 7	Vibrant, equitable and sustainable rural communities
Outputs	<ol style="list-style-type: none">1) Sustainable agrarian reform with a thriving farming sector2) Improved access to affordable and diverse food3) Improved rural services to support livelihoods4) Improved employment and skills development opportunities5) Enabling institutional environment for sustainable and inclusive growth

3.1.2. Vision

The vision statement describes why an Agri-Park exists and what the achievement of its mandate would result in. Furthermore, it is a compelling view of the future, able to motivate stakeholders alike. At the same time, it should be ambitious, yet realistic and credible.

Proposed Vision Statement for Bojanala PDM Agri-Park –

- The Bojanala PDM Agri-Park will be a catalyst for rural economic development/industrialisation ensuring development and growth in order to improve the lives of all communities in the district.

The proposed vision has been drawn from the Agri-Park draft policy framework. In the further development of the Agri-Park, the district stakeholders are to review the proposed vision in order to align with district municipality aspirations.

3.1.3. Mission

The mission statement describes what the Agri-Park seeks to accomplish and why it exists. The proposed mission has been formulated in line with Bojanala PDM Spatial Development Framework Development Principles/Objectives.

Proposed Mission Statement for Bojanala PDM Agri-Park –

- Our mission is to strive for a viable and sustainable Agri-Park, delivering good returns for smallholder and emerging farmers, investors, customers, Black entrepreneurs, tenants, its owners and all communities in the district by ensuring that the following is achieved:
 - Achieve a sustainable equilibrium between urbanisation, conservation, and tourism, mining, and agricultural activities within the District, by way of proper land use management and in partnership with the private sector and local communities.
 - Define and establish a functional hierarchy of urban and rural service centres in the District, in order to optimise the delivery of social and engineering services and stimulate the local economy, while protecting valuable agricultural land.
 - Promote irrigated and cultivated farming activities on suitable land within the District; and to support small scale and/ or subsistence farming throughout the remainder of the area.
 - Consolidate industrial and manufacturing activities around three core areas, namely Rustenburg Town, Brits and Mogwase (Bodirelo); and to promote small-scale manufacturing/ light industrial activities, including agro-processing, at Rural Service Centres.

3.1.4. Goal and Objectives

Goals and objectives can and should guide action. Goal or objective statements provide direction for planning, for evaluating plans and for guiding projects and actions. A "good" goal statement is SMART:

- Specific
- Measurable
- Acceptable
- Realistic
- Time bound

Proposed Goal Statement for Bojanala PDM Agri-Park –

- By 2025 Bojanala PDM's rural areas and small towns would be transformed into thriving areas in terms of jobs, food security and opportunities to prosper.

In the further development of the Agri-Park plan, the district stakeholders are to review the proposed goal in order to align with district municipality aspirations.

To achieve the proposed Agri-Park Goal, the following objectives aligned to the Agri-Park draft policy framework are proposed for the implementation of Bojanala PDM Agri-Park:

3.1.4.1. Objective 1: Transformation and Modernization

Proposed Objective One for Bojanala PDM Agri-Park –

- To transform and modernise rural area and small towns in Bojanala PDM through the development of the Agricultural sector over the next 10 years.

The proposed objective among others, addresses issues indicated in the Agri-Park draft policy framework, including:- One of the Agri-Park draft policy framework aims is to contribute to achievement of the NDP's "inclusive rural economy" and a target of 1 million jobs created in agriculture sector through creating higher demand for raw agricultural produce, primary and ancillary inputs, as well as generating increased downstream economic activities in the sector.

Transformation: The Agri-Parks Programme forms part of the 2011 Green Paper on Land Reform policy review and reformulation process, which has been undertaken with a view to generate reforms that effectively address issues relating to tenure insecurity, food insecurity, rural underdevelopment and inequity in the agricultural sector. 'Agrarian transformation' denotes the 'rapid and fundamental change in the relations (meaning systems and patterns of ownership and control) of land, livestock, cropping and community'. The objective of the strategy is social cohesion and inclusive development of rural economies, in which rural-urban linkages are considered crucial in generating such inclusivity. A transformed rural economy is also inclusive of communal areas, commercial farming areas, rural towns and villages that can be organized to support both agricultural and non-agricultural sectors.

Modernisation: The Agricultural Policy Action Plan (APAP) is thus a programmatic response in achieving transformation and modernisation of the sector. The Agricultural policy plan vision statement is "**An equitable, productive, competitive, profitable and sustainable Agriculture, Forestry and Fisheries Sector growing to the benefit of ALL South Africans**". The APAP has 4 policy levers which seek to modernise the agricultural sector, among others for example:

Equitable Growth and Competitiveness

- Promoting import substitution and export expansion through concerted value chain/commodity strategies;
- Reducing dependence on industrial and imported inputs;
- Increasing productive use of fallow land; and
- Strengthening R&D outcomes.

3.1.4.2. Objective 2: Agri-Park Infrastructure Development

Proposed Objective Two for Bojanala PDM Agri-Park –

- To develop an integrated and networked **Agri-Park Infrastructure** over the next 10 years.

Again, Agri-Park draft policy framework indicates, Agri-Park Infrastructure Development must be based on existing and new business plans, infrastructure assessment and commodity and market requirements. This must consists of:

- Formulating infrastructure plans for each Agri-Park and ensuring alignment of plan with key infrastructure programmes, which requires consideration of: Agri-Park size; local building codes, health, sanitation issues; vehicle access and parking requirements; plot size and numbers; and, extent of space needed for common infrastructure facilities (e.g. laboratories, warehouses, quarantine, power generation plant, telecommunications, effluent waste treatment etc.);

- Working out logistical details including those concerning roads, communication networks, energy, bridges, water, and transport;
- Constructing and operationalizing the Agri-Parks, including working out logistical details.

3.1.4.3. Objective 3: Agri-Park Governance and Management

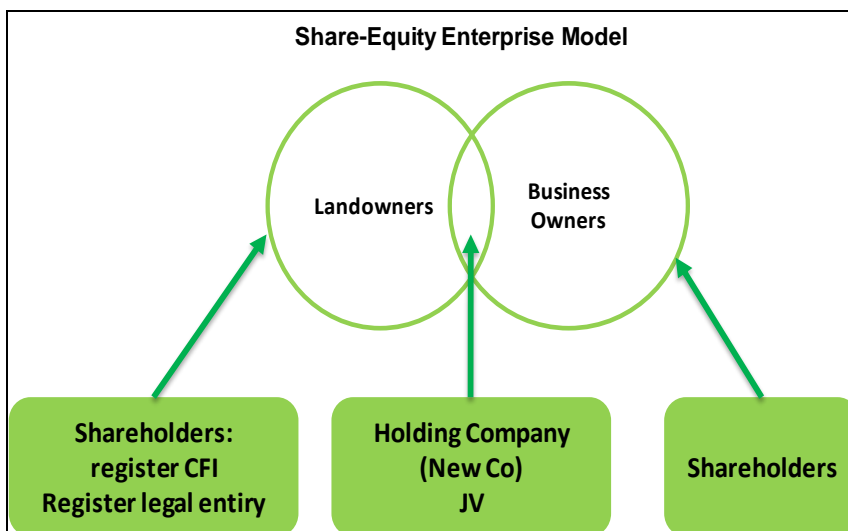
Proposed Objective Three for Bojanala PDM Agri-Park –

- To facilitate the establishment and implementation of a sustainable **Apri-Park governance and management** model over the next 3 years.

To enhance agricultural productivity, the Agri-Park is to:

- Enabling producer ownership of 70% of the equity in Agri-Parks, with the state and commercial interests holding the remaining 30% minority shares (see Figure 6 below); and,
- Allowing smallholder producers to take full control of Agri-Parks by steadily decreasing state support over a period of ten years.

Figure 8: Share-Equity Model



Box 1: Proposed Governance and Management Model for Bojanala PDM Agri-Park –

In response to the Agri-Park draft policy framework share-equity model (figure 8), a number of principles help to guide the ownership, governance and management question of the envisaged Bojanala PDM AgriPark, namely:

- **Guiding Principle 1:** Bojanala PDM Agri-Park must provide for Emerging Farmer/Producer ownership of the majority of Agri-Park equity (70%), with the state and commercial, including Commercial Farmers, interests holding minority shares (30%). Simultaneously, all the shareholders must not view an Agri-Park as an immediate financial benefit vehicle. Rather, it must be considered as a vehicle to drive sustainable rural industrial development to secure the future of the affected rural community.

In practice, this suggest that profits generated by the Agri-Park Holding Company (Secondary Cooperative) must be ploughed back into expanding the Agri-Park infrastructure (industrial Park) or into necessary community socio-economic development projects and, in that way, slowly but surely building a stronger rural economy and community.

- **Guiding Principle 2:** As the Lead Sponsor, the DRDLR must appoint a suitably qualified and experienced Agri-Park Manager who will facilitate the formal establishment of the Agri-Park and its constituent institutional arrangements to ensure that the Agri-Park (at FPSUs and Agri-Hub levels) provides a comprehensive range of Farmer Support Services for farming excellence.

Practically, the organization and management of the Agri-Park, through its constituent Hub, FPSUs and RUMC, would be best optimized through the below mentioned services to Farmers and their communities, namely;

- Sourcing and supplying Farmers will all necessary farming inputs i.e. Farmers’ shops or wholesaling.
- Providing access and linkages to farming technical services like processing facilities, farming technologies and laboratory services ensuring that Farmers yield high quality and quantity of livestock.
- Promoting and ensuring investment within the Agri-Park sites/units in agri-processing and manufacturing activities linked to the main commodity that belies the Agri-Park
- Providing easier access to a comprehensive range of farming business and financial support services.
- Providing Farmers with market intelligence and market access support for farm produce, including manufactured agri-products, to gain maximum local and export market access. This function will be best located under the Rural Urban Market Centre (RUMC) which is an invariable component of each envisaged Agri-Park in South Africa.

- **Guiding Principle 3:** The Agri-Park will be subject to influence and support of the government especially through DAMC, DAPOTT, DLRC, PAPOTT, NAPOTT for purposes of initiating implementing and sustaining Agri-Park operations.

Practically, the main task of the AgriPark Manager will be to ensure that optimum cooperation and alignment is maintained between the AgriPark and the abovementioned government initiated and supported institutions.

The table 10 and figure 7 below outlines a proposed Agri-Park ownership, governance and management model

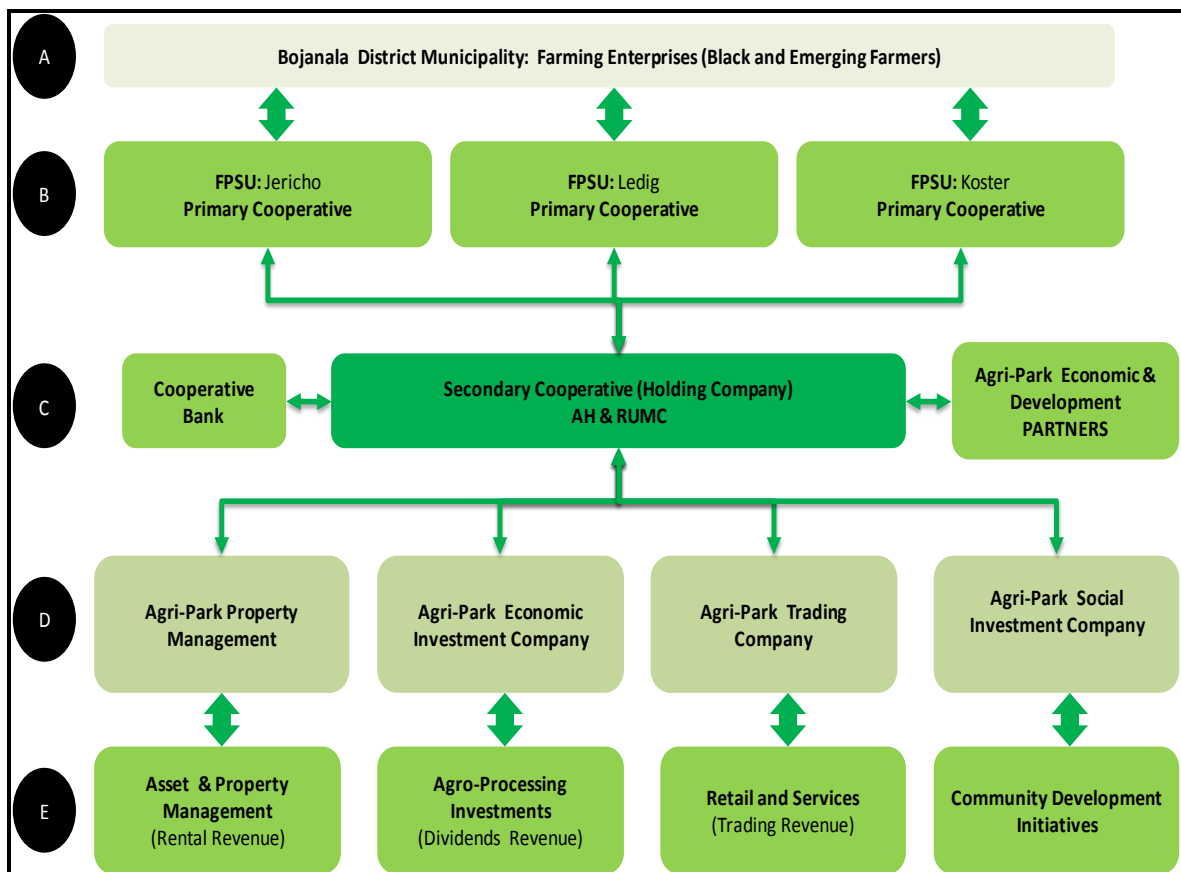
Table 10: Proposed Agri-Park Ownership, Governance and Management Model

Level	Ownership	Governance	Management
A	Independently-owned Small-folder Farms and Farming Enterprises. However, these could also include local Commercial Farmers	Private Governance arrangements linked to legal ownership status of the farming enterprise.	Private management arrangements decided upon by each farming enterprise
B	A group of Farmers, at least 5 Members, will form and register a Primary Cooperative whose mission is to serve their common farming needs and interests. E.g. Maize Farmers	The Governance of the Cooperatives must in terms Cooperatives Act 14 of 2005. To assist in this matter, each cooperative is required to develop and adopt a	Board of Directors whose main responsibility will be to manage the business affairs of the cooperative.

Level	Ownership	Governance	Management
	<p>For the AgriPark, Farmers will be clustered geographically based FPSU locations and their respective catchment areas. across the district Each cluster will then from and own a Primary Cooperative linked to each FPSU.</p>	<p>Constitution. .</p> <p>Chiefly, members of each cooperative will be required to elect a Board of Directors, to serve for two years, whose main responsibility will be to manage the business affairs of the cooperative.</p> <p>The business affairs of the Cooperative must be audited and Audited Reports, including Audited Financial Statements must be presented to Members at each AGM.</p>	<p>To dispense with its management duty, the Board has the power to appoint staff and engage external expert service providers.</p>
C	<p>A Secondary Cooperative is formed and owned by a two or more Primary Cooperatives. The main responsibility of the Secondary Coop is to serve the common farming needs and interests of the Primary Coops. E.g. Commodity marketing or bulk sourcing of inputs.</p>	<p>The Governance of the Cooperatives must in terms Cooperatives Act 14 of 2005. To assist in this matter, each cooperative is required to develop and adopt a Constitution. .</p> <p>Chiefly, members of each Secondary Coop will be required to elect a Board of Directors, to serve for two years, whose main responsibility will be to manage the business affairs of the cooperative.</p> <p>The business affairs of the Cooperative must be audited and Audited Reports,</p>	<p>Board of Directors whose main responsibility will be to manage the business affairs of the cooperative.</p> <p>To dispense with its management duty, the Board has the power to appoint staff and engage external expert service providers.</p> <p>It is proposed that the Board Members of a Secondary Cooperative comprise of at least one Board Member from each of its member Primary Cooperatives in order to streamline strategic thinking.</p>
D	<p>The AgriPark Holding Company will establish and/or wholly or partly acquire a range of special- focus enterprises covering property management, economic investment, trading and social investment. Thus ownership of the said centerprises will either be 100% or spilt with</p>	<p>The special-focus enterprises will be separate legal entities (Juristic Persons) with own governance and audit arrangements suitable for each enterprises.</p> <p>As a subsidiaries, each enterprise will report to and account to the AgriPark</p>	<p>Each special-focus enterprise will assemble its own management arrangements best suited for its core business.</p> <p>However, the AgriPark Holding Company will provide strategic management and performance direction to each</p>

Level	Ownership	Governance	Management
	external investors.	Holding Company. It will be advisable that the Board Members of the Holding Company be included in the governance arrangements of the special focus enterprises in order to bear influence upon them.	special-focus enterprise.

Figure 9: Proposed Agri-Park Ownership, Governance and Management Model



3.1.4.4. Objective 4: Agri-Park Funding

Proposed Objective Four for Bojanala PDM Agri-Park –

- To facilitate funding and investment for the development of the **Apri-Park** over the next 5 years.

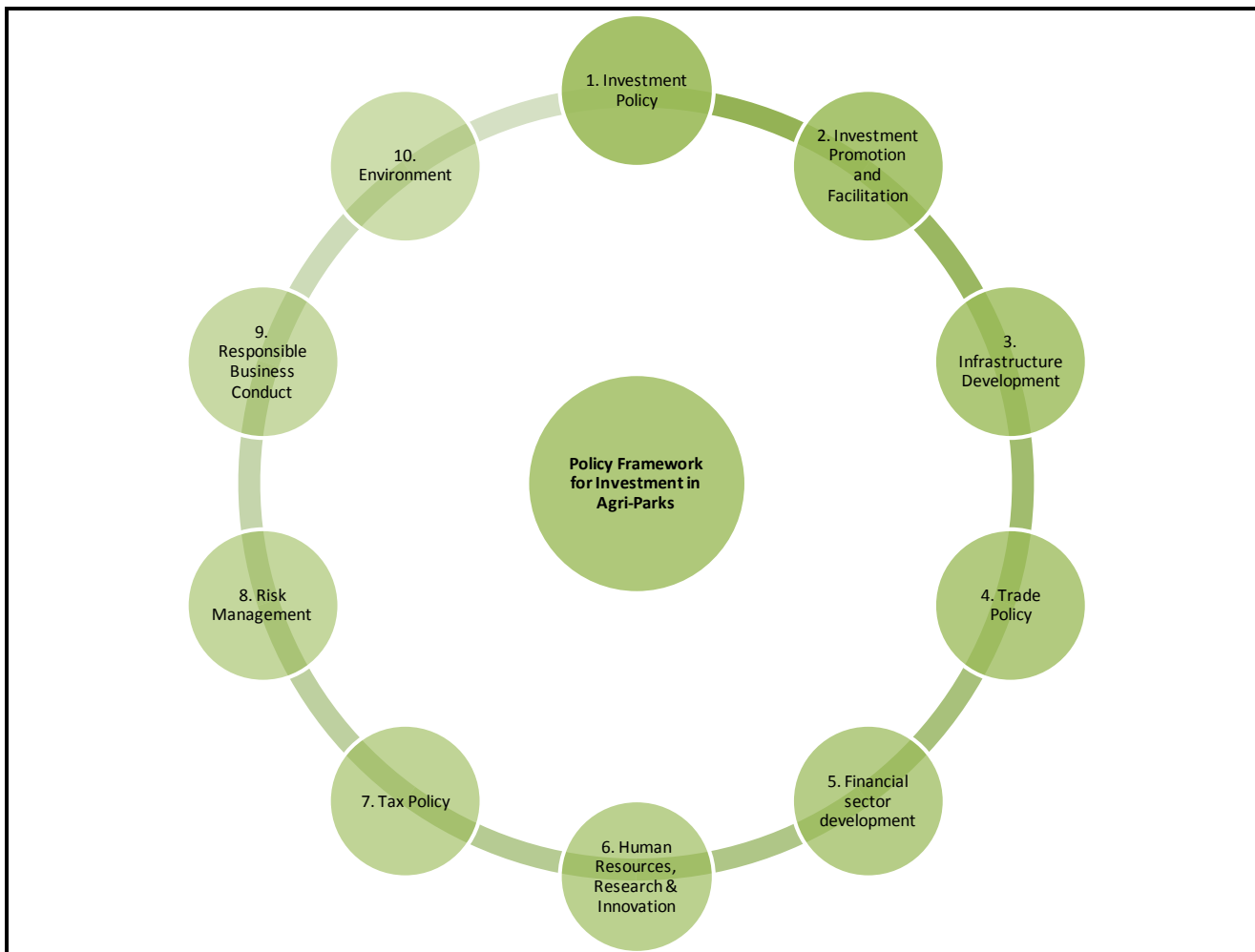
The Agri-Park initiative of Government offers small scale farmers the unique opportunity to become viable and profitable business owners. To achieve these two things need to happen. Firstly it is to see agriculture amongst smallholder, family farms and emerging farmers as a business. The more it is treated as a business, a way to create wealth, the more it will promote development and improve people's lives in rural areas. Secondly, is to provide financing and funding and attract investment in Agri-Parks that will transform family owned farms, smallholder and emerging farmers into market orientated commercial producers.

The renewed emphasis on and need for rural development in South Africa exposes the limited capacity of the Development Finance System(DFS) and other development agencies to transform the rural economy and reach marginalised enterprises in rural areas, notably the former Bantustans, where many of these Agri-Parks will be formed. This limitation is in line with the general inefficiency of the enterprise finance segment of the DFS. Improved coordination and collaboration is clearly a core requirement for successful rural development financing, particularly within an institutional reality of differentiated roles and responsibilities amongst a number of State entities (and to which number one could then add the multitude of private sector and community entities). Government could create a platform that could oversee and direct improved collaboration between different role players in providing rural finance. This could be initiated by establishing an inclusive national rural financing forum. The most obvious location for this would be the National Rural Development Agency (RDA) and Financing Facility, which the DRDLR has indicated it intends establishing. As the national government Department with the mandate for rural development, DRDLR would be the champion and shareholder of the RDA

Proposed Policy Investment Framework for Investing in Agri-Parks

Private (commercial farming agri-businesses, banks, processors, venture capitalists, investment companies, Agri-BEE entrepreneurs, agri-cooperatives (Senwes, GWK, VBK, etc), etc and non-private sector investment (not-for-profit organisations, stokvels, state development finance institutions, international development finance institutions, foreign donor partners, etc are essential if Agri-Parks are to fulfil their vital function of contributing to rural economic development, poverty reduction and food security in districts. A wide range of private and non-private sector investors are already involved in agriculture in South Africa, the trick is to attract them to invest in Agri-Parks and ensuring that the investment is sustainable.

Figure 10: Proposed Policy Investment Framework for Investing in Agri-Park



Source: (Adapted from OECD, 2013)

Proposed Policy Investment Framework for Investing in Agri-Parks process:

1. Investment policy:

The quality of investment policies directly influences the decisions of all investors. Transparency, policy coherence and stability, and non-discrimination can boost confidence. Secure access to energy and water, well-functioning input and output markets and effective mechanisms for enforcing contracts and good governance and management of parks are also critical in attracting investment.

2. Investment promotion and facilitation

By highlighting profitable investment opportunities and providing investment incentives, investment promotion and facilitation measures can be effective instruments to attract Agri-Park investment provided they aim to leverage the comparative advantage of the district’s agricultural potential.

3. Infrastructure development

Well-developed rural infrastructure, including good irrigation networks and transportation and storage systems and a reliable access to energy and to information and communication technologies, can effectively attract private investors in Agri-Parks.

4. Trade policy

Open, transparent and predictable agricultural trade policies can improve the efficiency of resource allocations both domestically and across borders, thus facilitating scale economies, boosting

productivity and rates of return on investment and fostering food security.

5. Financial sector development

Efficient financial markets (formal and informal) can allocate capital to innovative and high return investment projects of both large and small agricultural investors, thus increasing revenues and generating economic activities.

6. Human resources, research and innovation

Strong human capital and dynamic agricultural innovation systems are critical to attract further investment in Agri-Parks. Policies should support high-quality education and well-functioning extension and advisory services to enhance human capital. They should promote partnerships between national, local and international research, better connect research with demand and effectively protect intellectual property rights (e.g. ICT) to build effective innovation systems.

7. Tax policy

Sound tax policy enables districts and local municipalities to raise revenue while attracting further investment from both large (agribusiness, commercial farmers, BEE-entrepreneurs, etc and small investors (cooperatives, “agropreneurs”, stokvels, etc).

8. Risk management

There is much skepticism and doubt about Agri-Parks as new phenomena in South Africa, effective risk management instruments (insurance, forward contracts, extension services, government encouraging diversification, etc) can mitigate this risk, thus ensuring Agri-Park investors a more stable income and creating a predictable environment favourable to investment.

9. Responsible business conduct

Policies promoting recognised principles for responsible business conduct (RBC) (laws and regulations, communicate RBC norms and standards, support investors’ efforts and inter-governmental consultations) help attract Agri-Park investments that are both environmentally and socially sustainable, thereby bringing both short-term and long-term economic and development benefits to investors.

10. Environment

Strong and well-enforced environmental policies contribute to both attracting responsible investors and ensuring a sustainable use of existing natural resources, in particular land and water, renewable energy, integrated waste management thereby fostering long-term food security and mitigating climate change.

3.1.4.5. Objective 5: Agri-Park Farmers and Communities Development

Proposed Objective Five for Bojanala PDM Agri-Park –

- To provide technical and extension services to **Agri-Park** beneficiaries over the next 10 years.

The Agri-Park initiative of Government offers small scale farmers the unique opportunity to become viable and profitable business owners.

The challenge now facing family farms, small-scale and emerging farmers are to transform their agricultural production which prevails on both communal and private own land to a vibrant commercial production system. The industry needs to stop thinking of small-scale farmers as subsistence (implies a struggle to survive and not an effort to build a business that thrives). One way of achieving this is to develop an inclusive and equitable farmer development framework, to ensure improved market linkages, to develop the relevant management, market access, production and business skills among developing farmers, and to ensure that the appropriate infrastructure is in place to subsequently create a vibrant commercial production system. Small-scale and emerging farmers are fully capable of becoming profitable business entrepreneurs. The development of a production system and plan becomes imperative for Government, non-governmental organisations and the private sector to provide small-scale farmers with the technical support and extension services to thrive.

- Capacity-building and support to smallholder farmers and communities through provision of land, education, training and development, farm infrastructure, extension services, production inputs and mechanization inputs (all of which should be aligned to priority commodities as set out in the APAP);
- Developing detailed production and capacity building (in situ training) plans for farms located in proximity of identified Agri-Park and FPSUs sites;
- Support and assist farmers organise themselves into agro-clusters around the FPSUs and AHs;
- Ensuring access of producers to improved infrastructure (water, irrigation, energy, roads, information, communication and technology) to carry products through the value chain process and to markets, as well as sharing critical market information;
- The provision of agricultural extension services allows farmers to be informed of new agricultural technologies (especially ICT), obtain advice on best agricultural practices (including video links), and obtain assistance with dealing with adverse shocks such as insect infestation or plant disease (Dercon et al., 2006);
- Establishment of Cooperative/Village Banks at FPSUs and AHs;
- Research and development in innovative ITC platforms (agricultural data, information and statistics);
- Establishing preferential procurement mechanisms to both promote the entrance of new producers and other entrepreneurs, as well as support existing ones; and,
- Finalizing off-take agreements per each identified commodity and Agri-Park.

3.1.4.6. Objective 6: Agri-Park Implementation Capacity

Proposed Objective Six for Bojanala PDM Agri-Park –

- To enhance the capacity and capability of officials responsible for the implementation of the Agri-Parks over the next 3 years.

- A. Creating and institutionalizing technical and operational tasks teams to manage all phases of Agri-Park development and implementation;
- B. Establishing the proposed National Agri-Park Project Support Facility, which will coordinate and support district-based operational teams;
- C. Coordinating Agri-Park development with other DRDLR programmes targeted at increasing the pace of land acquisition and redistribution;
- D. Organization and mobilization of stakeholders and communities residing in identified site localities through participatory consultation on Agri-Parks model, site selection and identification of production areas to receive support;
- E. Conducting a Socio-economic analysis for each of these areas, in which district connectors (gateways), areas of economic growth/ decline, economic functional zones are all identified; and income, employment statistics and access to utility services data (to water, sanitation, energy etc.) is collated;
- F. Conducting a National spatial, commodity, value chain and market analysis to determine target sites through identification of high value commodities, growing production areas and available infrastructure;
- G. Generating site specific maps containing district specific narratives and selection criteria for initial identification of sites;
- H. Further development of evaluation criteria for assessing Agri-Parks proposals;
- I. Weighing each Agri-Park proposal against this evaluation criteria and other important findings from previous analyses to make final determinations on Agri-Park sites; and,
- J. Signing resolutions for the establishment of Agri-Parks with each District Municipality identified.

In conclusion, this proposed Agri-Park strategic intent, still needs further formulation and validation. Bojanala PDM is to review and adopt a strategic direction for the Agri-Park in the district.

Chapter Four: Bojanala PDM Agri-Park Infrastructure Plan

This chapter addresses strategic objective two defined in chapter three above, i.e. “To develop an integrated and networked **Agri-Park Infrastructure** over the next 10 years.” This strategic objective seeks to respond to challenges of South Africa’s agriculture sector (Box 2) and Bojanala PDM agricultural sector challenges. It proposes an Agri-Park infrastructure development framework for the Bojanala PDM as an intervention to effect positive economic, social and spatial change for the growth and development of the district.

Box 2: South Africa’s Agriculture Sector Challenges

According to DAFF (2011)¹², the key challenges faced by South African agriculture today include:

- **An unregulated market environment** has left the domestic agricultural market vulnerable to fluctuating, and high global prices of agricultural staple foods, e.g. maize, wheat, and soya. Domestically produced products are impacted upon by the international market;
- **A growing Retail Supermarket Sector.** The procurement catchment area of supermarket chains has shifted from local or national suppliers to international suppliers both domestically and within the SADC region, and has decreased the number of market entry points for agricultural producers;
- **Increasing farmer to retail price differences** for certain food products such as bread and chicken, impact on food prices;
- **Growing food insecurity** contributed by increasing food prices;
- **Poorly skilled and marginalised in terms of accessibility to natural resources water and productive land, of subsistence and smallholder farmers,** translates into low production outputs, asset loss and land degradation;
- **Poor infrastructural support.** Infrastructural development allows for farmers and buyers to link, and in turn, boosts local sales; translating into local economic development;
- **Increasing input costs** (animal nutrition, seed, fertiliser, etc.)
- **Poorly defined economies of scale** leads to poor farm management, and local agricultural economic planning. **The number of commercial farms are decreasing while their farm sizes are increasing,** indicating a consolidation of the commercial farming sector;
- **Lack of; or poor agricultural spatial economic planning.** Agricultural planning has to be considered at local, regional, and national levels, to effect market flows, infrastructural requirements and rural development;
- **Poor information and knowledge management** for improving farming practices among smallholder farmers. All farmers require information and knowledge, to improve and address production challenges. The distribution, collection and storage of required information and knowledge is pivotal to the success of any agricultural sector.
- Although attempts have been made to improve the alignment between research and practice, **research and development planning** still bears little or no impact on the growth and development of South Africa’s agricultural economy.

¹² DAFF (2011). South African Agricultural Production Strategy 2011 – 2025, http://www.daff.gov.za/daaDev/doc/IGDP/AGRIC_PRODUCTION_STRATEGY_FRAMWK.pdf; [accessed on 26 November 2015]

4.1. Bojanala PDM Agri-Park Agricultural Sector Challenges and Opportunities

Bojanala Platinum District Municipality is the economic growth engine of the North West Province and contributes the vast majority of total production output and employment opportunities within the NW Province. The performance of the economy within this district is thus crucial to achieving the overall growth and development targets agreed to at a provincial level. The most important other sectors contributing towards economic output in the District are Manufacturing, Wholesale and Retail Trade and Community, Social and Personal Services

According to Bojanala DM IDP (2012-17), issues and challenges facing key agricultural sector in district include:

- Limited agro-processing facilities and value adding to products
- Limited production of specialized agricultural products such as spices, herbs, indigenous teas.
- Increasing pressure for other forms of development on high potential agricultural land.
- Large proportion of district population residing in rural areas with limited access to basic infrastructure.
- Limited entrepreneurial skills and appropriate economic infrastructure in rural areas.
- Insufficient information and telecommunication infrastructure in rural areas.
- Extensive areas of land degradation in many parts of the district.
- Limited access to water and support/advisory services for small scale farmers.
- Limited harnessing of the agriculture & agro-processing value chain

One of the single biggest challenges facing the economy of the district is **economic diversification**. The district economy is to a large extent centred on the production of the Platinum Group Metals (PGM), with tourism, manufacturing, and agriculture playing important but lesser roles in the economy. The district goal is to promote the development in key economic sectors such as agro processing, export orientated manufacturing, and tourism to position the area as a competitive regional and international producer of high quality and innovative products and services.

Box 3: Bojanala PDM Agriculture and Agro-processing promotion and development objectives

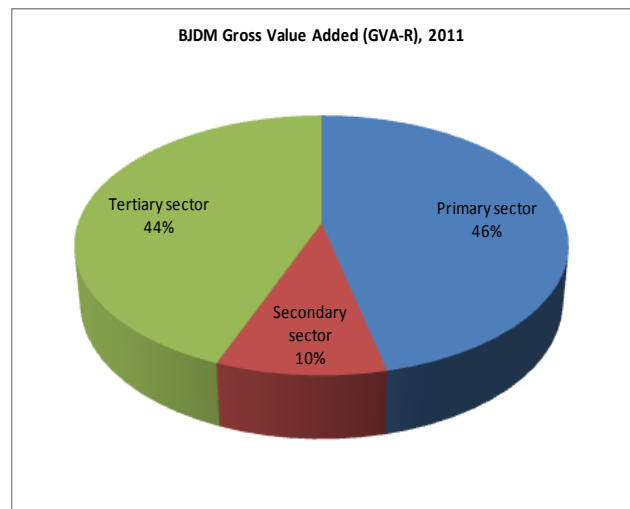
- To optimize the potential opportunities for agro-processing facilities and activities, with a specific focus on food and vegetable processing facilities.
- To investigate and undertake the necessary feasibility analysis for the production of specialized high value agricultural produce such as spices, herbs and indigenous teas.
- To protect high potential agricultural land from inappropriate development in line with the recommendations of the Provincial Spatial Development Framework.

4.2. Bojanala PDM Agri-Park Spatial Clustering

Bojanala Platinum District Municipality is situated in the North West province. It is one of the four district municipalities in the province and comprises the five local municipalities of (1) Kgetlengrivier, (2) Madibeng, (3) Moses Kotane, (4) Moretele and (5) Rustenburg. It is bordered by Waterberg District Municipality to the north, City of Tshwane to the east, West Rand District Municipality to the south-east, Dr Kenneth Kaunda District Municipality to the south and Ngaka Modiri Molema District Municipality to the west.

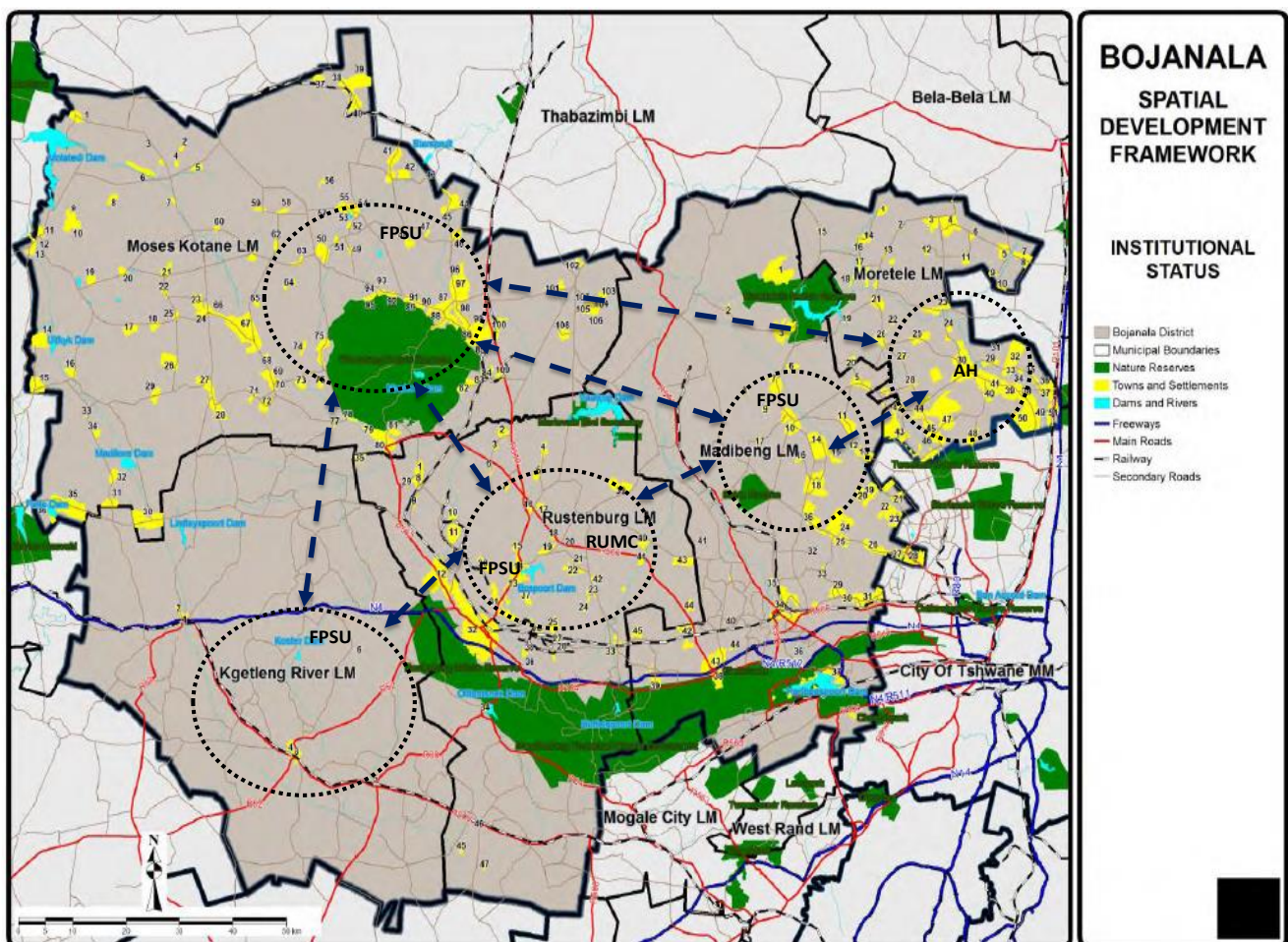
Main centres: Brits, Derby, Hartbeesfontein, Hartbeespoort, Koster, Madikwe, Marikana, Mooinooi, Phatsima, Rustenburg, Swartruggens, Tlhabane.

Figure 11: Bojanala PDM Main Economic Activities, 2011



Source: (North West Provincial Treasury, 2013)

Map 1: Bojanala Platinum District Map



Map 1 indicates how in the long-term Bojanala PDM Agri-Park (FPSU, AH and RUMC) will be spatially clustered and inter-connected across the five local Municipalities of the district.

Table 11: Bojanala PDM Agri-Park Spatial Clustering by Local Municipalities

Agri-Park Service Component	Local Municipality	Location	Site	Proposed Dominant Commodity
Agri-Hub (AH)	• Moretele LM	Makapanstad village	Makapanstad	Beef cattle production
Farmer Production Support Unit (FPSU)	• Madibeng LM	Beestekraal	Dikgatlhong CPA	
		Jericho Village	To be decided	
	• Moses Kotane LM	Ledig Village	Ledig Village	
	• Rustenburg LM	Locations across the district	To be decided	
	• Kgetleng River LM	Locations across the district	To be decided	
• Moretele LM	Locations across the district	To be decided		
Rural Market Centre (RUMC)	• Madibeng LM or Rustenburg LM	To be decided	To be decided	

4.2.1. Makapanstad Agri-Hub

Agri-Hub Location: Makapanstad village is found in Moretele Local Municipality (comprises 28 wards, constituting 65 villages) under the jurisdiction of Bojanala District Municipality. It is situated 40km to the Northern side of Hammanskraal Complex within Bakgatla ba Mosetlha Tribal Authority, under Chief Makapan. Bojanala Agriparks project is an initiative of the Provincial Department of Rural Environment and Agriculture Development. It is located some 75km to the Eastern side of the town of Brits. It is boarded to the North East by Thabazimbi Local Municipality, to the North by Bele-Bela Local Municipality, to the East by Nokeng Tsa Taemane, to the South by City of Tshwane and to the West by Madibeng Local Municipality.

Local municipalities	Seat	Area (km ²)	Population (2011)	SA Population Size Rank	Unemployment Rate (2011)
Moretele Local Municipality	Makapanstad Village	1 369km ²	186 947	53 rd	45.9%
<p>Moretele Local Municipality is located in an area called Moretele, which is situated far north of Pretoria in the North West province. The municipality was built in 2000. It is located strategically to join four provinces, namely North West, Gauteng, Mpumalanga and Limpopo. Moretele is the Setswana name for a river that runs through the area, namely Noka ya Moretele (the Moretele River).</p> <p>The Municipality comprises of 24 wards, which are made up of 66 villages and plots. Most villages are ruled by four traditional leaders (Dikgosi) who are recognised by law and who all represent their respective tribes/communities in council.</p> <p>Economy: The spatial development framework of the municipality is shaped by the rich agricultural history characterising large pieces of land in the area. It is against this backdrop that agriculture has become a focal point in all economic development prospects for the municipality constituency.</p>					

The municipality has vast tracts of land which can be used to harness economic development opportunities. It is believed that livestock farming is the main type of farming activity that is carried out in the local municipality. The tourism sector in the Moretele Local Municipality is not well established.

4.2.1.1. Agri-Hub Development Potential in the Area

The potential for Makapanstad Agri-Hub will be further determined by an appraisal of raw material production and availability within the catchment proposed for the Agri-Hub. The area is remarked to have high number of beef cattle herd, including those mainly owned by subsistence cattle farmers. According to DAFF (2012), including the previously disadvantaged groups, there 240 000 emerging farmers and 3 million subsistence farmers in South Africa. And there is 87 000 farmers with potential to commercialize.

The North West province has considerable potential in terms of comparative and competitive advantages in livestock production. According the North West Development Corporation (NWDC), establishment of the Beef Beneficiation, including industrial and commercial facilities are needed to attract new businesses. The corporation objective is to provide integrated infrastructure in targeted locations and, to:

- support the beneficiation of cattle through a world class economy of scale abattoir, meat processing and packaging plant and cold storage facilities
- support the beneficiation of cattle hides through an economy of scale tannery, leather furniture manufacturing plant, leather footwear manufacturing plant, leather apparel manufacturing plant and shared warehousing
- 70% of the value of North West Province exports during 2009 comprised live animals, and only 14% of the value of North West Province exports comprised meat and edible meat products. This represents a significant beneficiation opportunity for the North West Province, given that 13% of SA's cattle herd is located in North West Province, with beef cattle comprising 60% of the North West Province livestock output. (NDWC; <http://nwdc.co.za/trade-investment/#beef>)

North West Cattle Herd

The number of cattle in each district in the North West Province is shown in table 12. The number of cattle owned by commercial farmers in the province is 1 221 538. The largest number of cattle is in Dr Ruth Segomotsi Mompati DM (444 674) and the smallest number of cattle is in Bojanala Platinum DM (184 276)

Table 12: North West-Number of cattle in the four district municipalities

District Municipality	Number of Cattle	Percentage proportion
1) Bojanala Platinum DM	184 276	15%
2) Ngaka Modire Molema DM	253 005	21%
3) Dr Ruth Segomotsi Mompati DM	444 674	36%
4) Dr Kenneth Kaunda DM	339 583	28%
Total	1 221 538	

Source: (Badenhorst, C. G.,2014)

The list of issues outlined below provides a useful guide for investing and developing the Agri-Hub, consider:

Issue	Agri-Hub
a: Raw materials available and production trends, price movements and price trends; market requirements and surplus available for processing	<ul style="list-style-type: none"> • Including other districts Makapanstad Agri-Hub could have access to beef cattle • The development of farmers to produce quality and increased quantity of cattle will contribute to improved production • Prices of livestock are normally high during the months

Issue		Agri-Hub
		October to December and lowest during the months of January to March. The Red Meat Abattoir Association (RMMA) provides beef average forecast prices. Price forecasts are according to meat classes, i.e. Class A,B,C. Prices have increased from 2015 and are to continue to increase due higher demand
b:	Existing industrial base, distribution, number and capacities; regional imbalance between production, processing and market capacities	<ul style="list-style-type: none"> • Makapanstad does not have any industrial base. • 25 Km's from Makapanstad there is Babelegi industrial base in Gauteng Province
c:	Need for promoting additional capacity based on agricultural production and available processing capacity; efforts made to correct any regional imbalance with capacity	<ul style="list-style-type: none"> • There is great need develop farmers and community capacity
d:	Population of the area; their food traditions, requirements and types of food currently grown and used in domestic cuisine. Trends and changes.	<ul style="list-style-type: none"> • Meat consumption is generally high in the area and surrounding area • Area has easy to large population in the Gauteng province (via N1, Makapanstad is 136 Km's from Johannesburg) • Need to conduct market surveys
e:	Trends in urbanisation in the region, and need for convenience foods; changing food traditions, potential impact of these trends on food processing industrial requirements	<ul style="list-style-type: none"> • An advantage for Makapanstad is its proximity to large urban centres in the Gauteng province
f:	Household income; the purchasing power of the population and average spending on foods by individual families from different socio-economic groups	<ul style="list-style-type: none"> • The household income is lower in the area, but higher in surrounding areas in Gauteng
g:	Export possibilities. Exports of fresh meat and infrastructure required. Export potential of processed food	<ul style="list-style-type: none"> • There possibilities of exporting to SADC countries, via the N1, Makapanstad is 446 Km's from the Beit Bridge Border Post (Zimbabwe) and 340 Km's to Groblersbrug Border Post (Botswana via Francistown)

Therefore in terms of beef cattle as an input resource to agro-processing the area has growth potential, the proximity to large markets in Gauteng is a positive and the other issue highlighted can be addressed through intensive government support and market development initiatives.

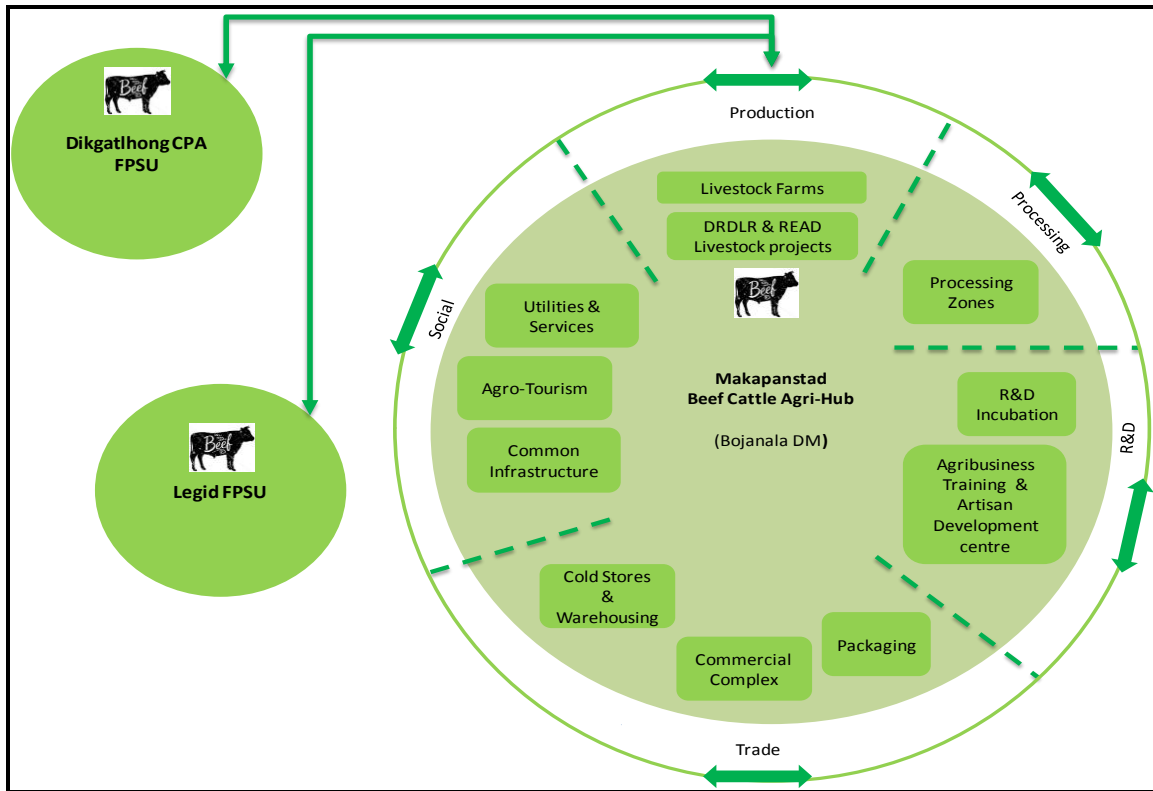
4.2.1.2. Agri-Hub Built Up Infrastructure

Amongst others, it proposed that the Agri-Hub could include five key components of the built up infrastructure of:

Components	Built Up Infrastructure
<ul style="list-style-type: none"> Production 	Production Zone: <ul style="list-style-type: none"> Livestock Facilities (holding area, etc) Vegetable greenhouses zone
<ul style="list-style-type: none"> Processing 	Primary Processing Zone (Phase one) <ul style="list-style-type: none"> Abattoir Bones and skins processing Fresh Processed Meat Products Fresh Processed Vegetable Products
	Secondary Processing Zone (Phase two) <ul style="list-style-type: none"> Gelatin production (food and adhesive/glue industries)
	Advanced Processing Zone (Phase three) <ul style="list-style-type: none"> Glue/Adhesive Manufacturing (gelatine is the input) Fertilizer manufacturing (from bone meal) Animal Feed manufacturing (from bone meal)
<ul style="list-style-type: none"> Research and Development (R&D) 	<ul style="list-style-type: none"> Research and Development Centre Farming enterprises development centre Training centre
<ul style="list-style-type: none"> Trade 	<ul style="list-style-type: none"> Standard Design Factories: i.e. for Packaging, cold stores, warehousing, etc. Commercial: office and retail space
<ul style="list-style-type: none"> Social 	<ul style="list-style-type: none"> Housing zone, Leisure and health services zone Utility services
<ul style="list-style-type: none"> Other 	Zones for: <ul style="list-style-type: none"> Waste management and disposal Water management treatment plant Power supply plant ICT (broadband and broadcast) Security services

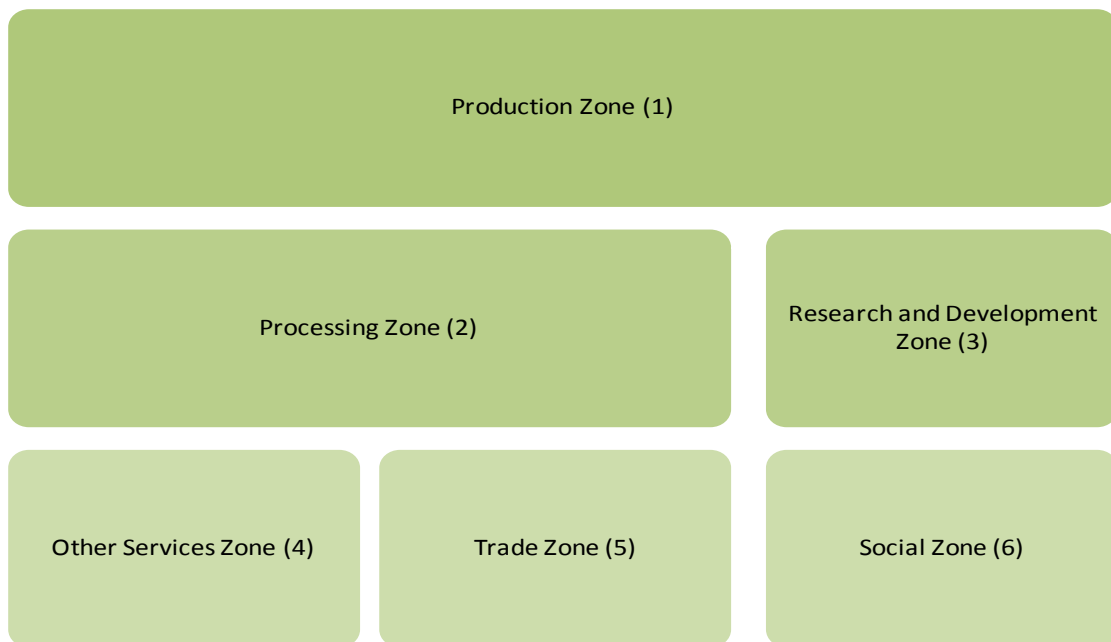
The Agri-Hub will come with a bundle of common infrastructure conforming to South Africa's property development standards, including internal roads, rain water harvesting facilities supported by quality and consistent water supply, uninterrupted power supply, common operation, maintenance and management of security, logistics, ICT and etc. Figure 12 demonstrates how these components will interconnect including the FPSUs.

Figure 12: Makapanstad Agr-Hub Components



4.2.1.3. Agri-Hub Conceptual Infrastructure Master Plan

The Agri-Hub at a minimum will adequate development zones (plots) as per proposed Agri-Hub components. Agri-Hub conceptual built up will be developed in relation to the soil, vegetation, size and shape of the land earmarked for the Agri-Hub infrastructure development.



Further studies including the Environmental Impact Assessments (EIA) will be conducted to inform the envisaged zones development, and this will result to Architectural Design Plan, i.e. master site plans.

According to CSIR (2016)¹³, the Agri-Hub is a production, equipment hire, processing, packaging, logistics and training (demonstration) unit.



4.2.1.4. Agri-Hub Site Features

A. Proposed Agri-Hub Land

1) Land Size

Available hectares: 10 hectare land has been allocated to the Agri-hub and will be used for infrastructure development. There is still enough land available for further expansion.

Sufficient hectares, either on one parcel or through assembling multiple parcels, to ensure that current and future expansion needs are satisfied. Preference is for parcels held by one owner or not requiring assembly because timing may be adversely affected.

Proposed estimated size of Agri-hub, could be 20-40 hectares (some larger manufacturing (agro-processing) operations may need upwards of 40+ hectares, however, these operations typically select individual, stand alone sites)

Site Configuration: The proposed is almost rectangular. Configuration (square / rectangular preferred) – Square or rectangular sites offer the greatest flexibility and satisfy most uses

¹³ CSIR; AGRI-PARKS - A Guide to design & plan for sustained & durable benefit; <http://www.citizens.csir.co.za/agri-parks/Process/Agri-parks-Development-Process-Guide.pdf> [accessed 13 January 2016]

Finding: The allocated 10 ha is not sufficient.

2) Distance from Urban Development/Human Settlement

Criteria: Feedlots, Cattle pens and Abattoir should not be located close to dwellings, schools, churches and other public or commercial buildings due to possible nuisance from noise, smell congestion etc. Likely future commercial and residential developments should also be taken into account. To consideration of separation distances between the Agri-Hub and human settlement will be determined by the Environmental Impact Assessment and Site plan for the Agri-hub (activities such as feedlot and abattoirs).

Finding: The proposed site is close to human settlement and a school (Nchaupe High School).

3) Accessibility

Criteria: The site should be accessible from a permanent road to allow ready transport of both livestock and meat.

Finding: The proposed site runs parallel to a tarred road.

4) Water Supply

Criteria: An adequate water supply is essential. While mains water is to be preferred, well or bore water can also be suitable provided the water meets drinking water standards.

Finding: Moretele Local Municipality has major challenges in terms of water supply. There will be a need to assess the impact of water to the establishment of a Agri-Hub.

B. Infrastructure (e.g., utilities, rail, etc)

5) In place infrastructure increases speed-to-market, decreases construction/implementation costs and minimizes risks (e.g. a proposed access road or interchange may not be constructed when planned)

Finding:

- The proposed site will require construction of entry roads into the Agri-hub
- There is no rail line next to the site

6) Accessibility to utilities, i.e. electricity distribution and transmission line sizes, water and sewer, telecom capabilities (access to ICT, e.g. broadband for long distance to broad data capabilities)

Finding:

- Accessibility to utilities was not assessed at this stage.

C. Prior Land Use

7) Prior use – site not previously used for industrial applications (e.g. greenfield , agricultural, etc.) minimize potential environmental risk and financial liability, as well as potentially decrease construction costs (e.g., site preparation, environmental remediation, etc.).

Finding:

- The site is Greenfield and has never been used before for industrial application, besides grazing.

D. General Physical Condition

- 8) General physical condition (e.g. treed, graded, topography, flood plain etc.) – Fewer construction challenges to overcome (e.g., topography, tree clearing, etc.) increase speed-to-market and decrease construction costs; soil bearing—there should be no subsidence issues (e.g., mines, limestone, or caves). Topography should ideally be level to slightly rolling. A flood plain can be a fatal flaw.

Finding:

- The physical condition of the site has not been assessed

E. Regulatory restrictions

- 9) Regulatory restrictions (e.g., EPA, wetlands, etc.) – Fewer restrictions allow greater flexibility in preparing the site, constructing the facility, and managing the business. Typically look for an attainment area (for criteria air pollutants) not in the glide path of an airport, no wetlands on site.

Finding:

- Based on our observation, the site is not on the glide path of an airport and there was no evidence of wetland on the site. However further assessments will need to be conducted.

4.2.2. Bojanala PDM FPSUs

The FPSUs are to be spatially spread across the five district local municipalities. The FPSU are to be developed over the 10-year period. DRDLR has indicated that in the short-term, i.e. in the first three years, at least two FPSUs could be developed in phase one (first three years) and the other FPSUs are to be developed in phase two. The envisaged FPSUs are to primarily focus in cattle beef production and operate as feeders to the Agri-Hub.

Table 13: Bojanala PDM Proposed FPSUs Locations

Agri-Park Service Component	Local Municipality	Location	Proposed Development Phase	FPSU Location Gap (Location, Site & Development phase)
Farmer Production Support Unit (FPSU)	Moses Kotane LM	Ledig Village	Phase One	To be confirmed/decided
		Mogwase (Industrial Area - Bodirelo Industries)	Phase One or Two	To be decided
	Madibeng LM	Beestekraal (Dikgatlhong CPA)	Phase One	To be confirmed/decided
		Jericho Village	Phase One or Two	To be decided
	Rustenburg LM	Potential Location(s) across the district	Phase Two	To be decided
	Kgetleng River LM	Potential Location(s) across the district	Phase Two	To be decided

Agri-Park Service Component	Local Municipality	Location	Proposed Development Phase	FPSU Location Gap (Location, Site & Development phase)
	Moretele LM	Potential Location(s) across the district	Phase Two	To be decided

Urgent Note:

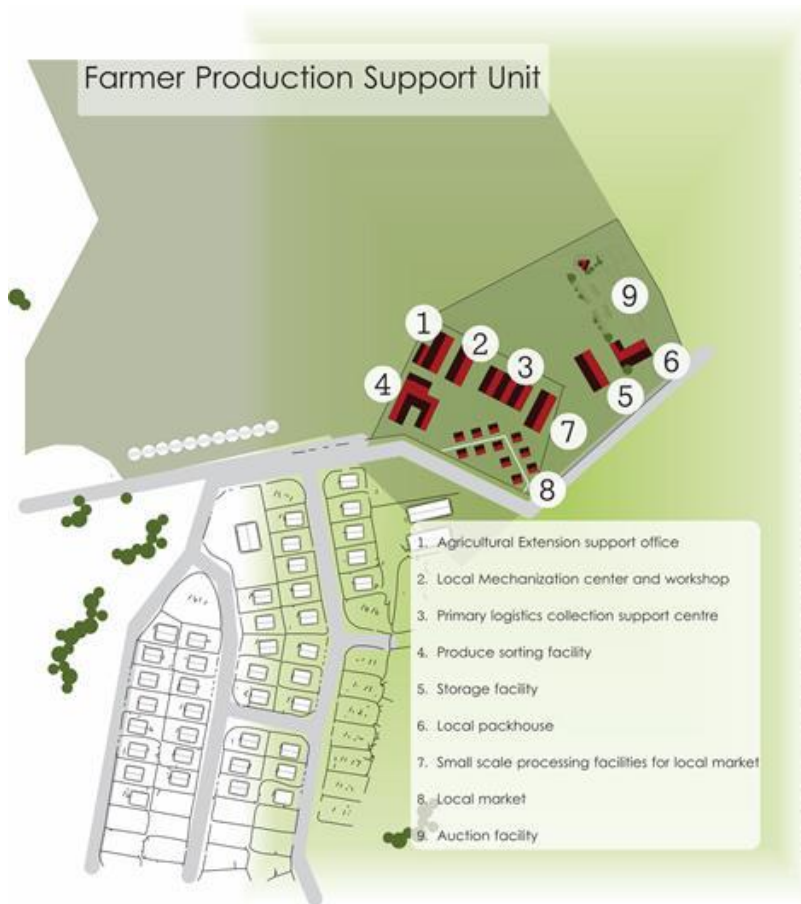
- Two sites were proposed by the DRDLR to be FPSUs, which are Legid Village (at Moses Kotane Local Municipality) and Dikgatlong CPA (at Madibeng Local Municipality). Table 13 indicate the proposed FPSU sites that still need to be confirmed and/or decided upon by Bojanala PDM together with the respective local municipalities.
- Northwest Department of Rural, Environment and Agricultural Development (READ), DRDLR and Bojanala PDM are to provide an indication of their respective rural and agricultural projects that are to be linked to Bojanala PDM Agri-Park.

For example, the DRDLR has the following projects that could more or less link to the Agri-Park:

Project Name	Municipality	Extent of the project	Kind of Enterprise/ Commodity
Reboetswe CPA	Madibeng	320.1833	Summer and winter Cash Crops e.g. Maize, Oats
Dikgatlong CPA	Madibeng	328.1867	Cash Crops Production
Bakubung Baa Ratheo	Kgetleng	1120.8236	Livestock
Schaapskraal	Rustenburg	867.7078	Livestock
Diratsagae	Kgetleng	5077.5212	Livestock

Project Name	Municipality	Extent of the project	Kind of Enterprise/ Commodity	Importance of the Project	Beneficiary
Jericho Cattle Feedlot	Madibeng	500 livestock units	Beef	Economic Development Job creation	Local Cattle farmers
NW	Bojanala Rustenburg		Hurland Feedlot	Portions 5, 13, 16, 17, 18 & 60 of the farm Zandfontein 386 JQ; Portions 32, 33, 69 & 70 of the Farm Buffelsfontein 382 JQ; and Remaining Extent of the farm Thungela 404 JQ	PLAS

According to CSIR (2016), the FPSU is a rural outreach unit connected with the Agri-hub. The FPSU does primary collection, some storage, some processing for the local market, and extension services including mechanisation.



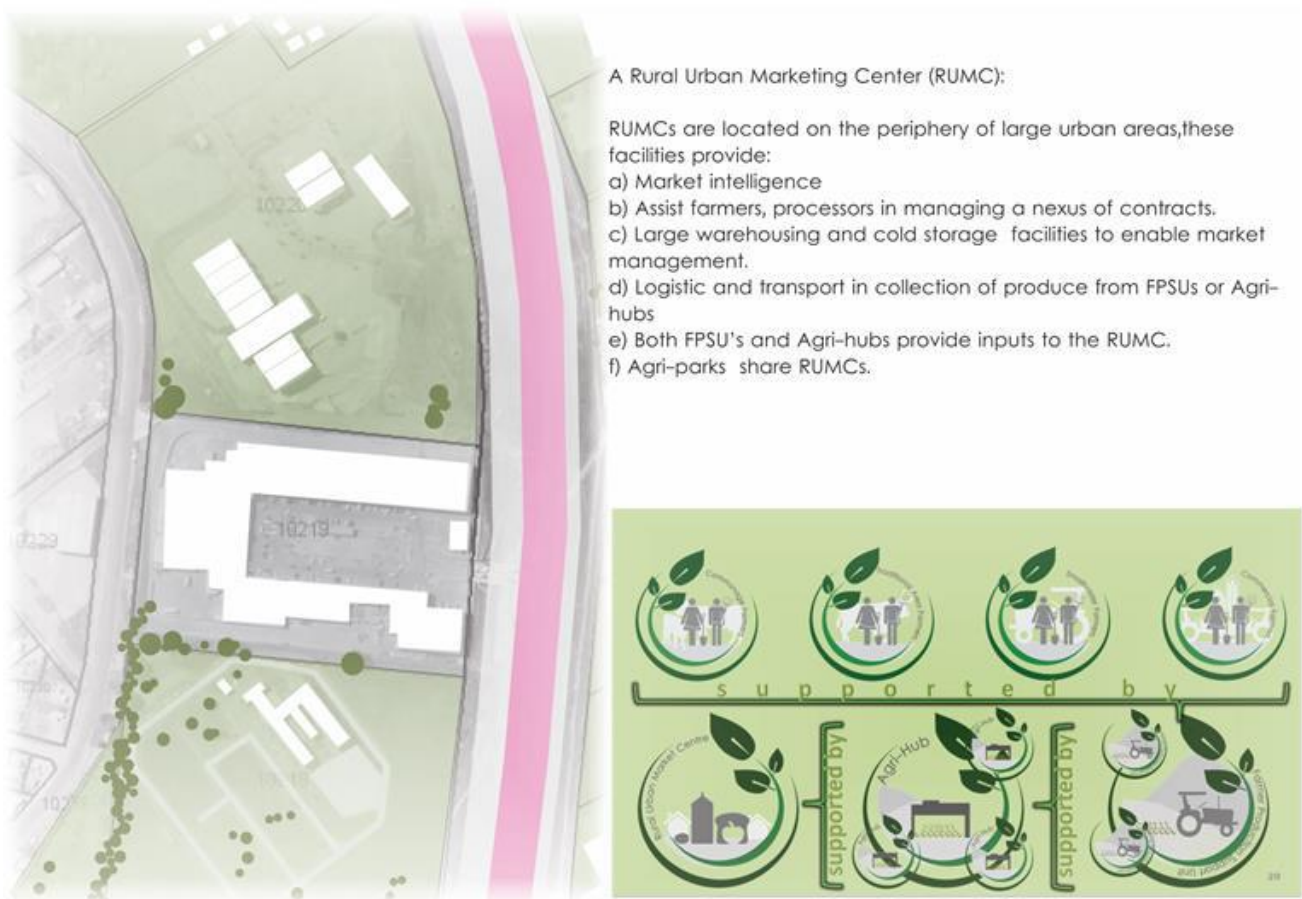
A Farmer Production Support Unit (FPSU): Are Centers (more than one per district) of:

- a) Agricultural input supply control, in terms of quality, quantity and timeous deployment of inputs.
- b) Extension support and training, using Universities, agricultural graduates and Narysec working in a symbiotic relationship to "hold-hands" with farmers over the next 10 years.
- c) Mechanization support (tractor driving, ploughing, spraying, harvesting etc.)
- d) Machinery, servicing workshop facilities.
- e) Local logistics support, which could entail the delivery of farming inputs, transportation post-harvest, transportation to local markets.
- f) Primary produce collection.
- g) Weighing of produce and stock.
- h) Sorting of produce for local and other markets.
- i) Packaging of produce for local markets
- j) Local storage.
- k) Processing for local markets (small scale mills etc.)
- l) Auction facilities for local markets
- m) Provide Market information on commodity prices (ICT).
- n) Farmers wanting services and support from the FPSU will register with the FPSU of their choice.
- o) Small Business Development and Training center.
- p) Banking
- q) Fuel (energy center)

4.2.3. Bojanala PDM RUMC

According to CSIR (2016), The RUMC has **three main purposes**:

1. Linking and contracting rural, urban and international markets through contracts.
2. Acts as a holding-facility, releasing produce to urban markets based on seasonal trends.
3. Provides market intelligence and information feedback, to the AH and FPSU, using latest Information and communication technologies



Urgent Note:

- Northwest Department of Rural, Environment and Agricultural Development (READ), DRDLR and Bojanala PDM are to provide an indication on the proposed location for the RUMC to be linked to Bojanala PDM Agri-Hub in Makapanstad and FPSUs

In conclusion this chapter provides a form of guide towards the Agri-Park infrastructure development in relation to the Agri-Park model. It should be noted that specific to Bojanala PDM, development of detailed infrastructure master plans and feasibilities are the next key actions for the Agri-Park establishment in the district.

The immediate action is for the district stakeholders to finalise outstanding information gaps such as the locations of FPSUs and RUMC and Agri-Hub land size.

4.3. Bojanala PDM Agri-Park Socio-Economic Impact

In relation to the spatial development plan for Bojanala PDM Agri-Park, the development of the agri-industry corridor(s) in line with the Agri-Park Draft Policy Framework has the potential to develop the area into a robust and efficient district. It is important to recognise that corridor development does not occur over a short period of time. The critical factors to take into account are:

- Time frames and phasing of development
- Availability of adequate infrastructure
- Development take-up rate
- Basics first
 - Link roads which have a transportation and mobility function first
 - Need strong, viable nodes

Bojanala PDM key Agri-Park nodes are the Farmer Production Support Units and Agri-Hub locations. These nodes will inject new investments into the economies of the communities where the Hub and FPSUs will be situated. It will create jobs in the construction phase of the actual hub and FPSU's. It will also create a number of permanent operational jobs and new small business opportunities once the Agri-Park comes online. This initiative will also support small and emerging farmers in their quest to become sustainable and profitable through training, financial, input, value adding and marketing support. Its viability, profitability and sustainability is also largely dependent on good corporate governance and sound business and management principles and practices. *People, Planet & Profit (main mantra)

In general, the Agri-Park will have the following positive impact in the district:

Potential Socio-Economic Impact of Bojanala PDM Agri-Park				
		Economic Impact	Innovation & Sustainability	Socio-Impact
Ongoing Infrastructure Development Employment opportunities (Infrastructure Development for Enterprises, Agri-Park & Rural/New Town Development incl. Corridors & Nodes)	Level 1	Farming Enterprises Level: <ul style="list-style-type: none"> • On-farm employment opportunities (including smallholder farmers) 	<ul style="list-style-type: none"> • Increased Beef Cattle Production and Agricultural extension services for small scale farmers • Revenue generation for local municipalities (property taxes) • Knowledge and Skills development • Value adding in the production chain • Sustainable use and management of natural resources 	<ul style="list-style-type: none"> • Increased food security and livelihoods • Poverty Alleviation • Growth in Agricultural GVA • Improved municipally service delivery
	Level 2	Agri-Park Level (FPSUs & Agri-Hub): <ul style="list-style-type: none"> • Employment opportunities in agricultural processing • Employment opportunities in the wider agricultural value chain 		
	Level 3	Community and Households level: <ul style="list-style-type: none"> • Additional beneficiaries from employment in a household • People impacted through employment opportunities as direct or indirect beneficiaries 		

Note: The targets for the socio-economic impact are to be defined in consultation with DRDRL and other key stakeholders.

Chapter Five: Bojanala PDM Agri-Park Implementation Plan

The Agri-Park implementation will continue to evolve as new developments unfold. It will be important for implementation to take place in a coordinated manner as possible and therefore the pending appointment of a District Agri-Park Manager will assist in this regard and provide a key focal point for all stakeholders to interact with.

This 10 year Agri-Park Master Plan implementation plan therefore contains the following:

- a) Agri-Park Success Factors based on international experience;
- b) Agri-Park Implementation monitoring plan to guide the monitoring of the Agri-Park (it will be critical for stakeholders to agree on key indicators to be monitored and for regular progress reports on these indicators to be presented and discuss at the Agri-Park stakeholder meetings such as the DAPOTT and DAMC)
- c) Agri-Park Risk Management Plan: it will be critical for key risk managers to be identified and who are responsible to implementing actions to mitigate the key risks facing the successful implementation and operation of the Agri-Park.
- d) Agri-Park High Level 10 year implementation plan to provide an indication of the phased implementation approach; and
- e) Agri-Park Strategic Partnership Framework to provide an indication of the wide range of partnerships which will need to be explored, facilitated and defined to ensure the successful operation of the Agri Park.

5.1. Critical Success Factors

International lessons of experience have revealed that at least seven generic success factors can be identified for Agri-Parks. These include:

Table 14: Agri Park Success Factors based on International Experience

<ul style="list-style-type: none"> • Production Systems and Innovation: 	<ul style="list-style-type: none"> ○ Engage expertise support for Agri-Park to implement systems and innovate. ○ A culture of Research and Development to be inculcated in the enterprise. ○ Develop a plan that integrates the necessary R&D with the overall Agri-Park strategic plan. ○ Identify and prioritise R&D projects based on the contribution of the likely research outcomes to overall industry performance. ○ Encourage a long-range program approach rather than commission a series of independent projects. ○ Ensure that R&D is commercially focused on the product outcome. ○ Build long-term relationships with competent and experienced research providers.
<ul style="list-style-type: none"> • Enterprise and Industrial Development Support and enablers: 	<ul style="list-style-type: none"> ○ The development and support of the enterprise needs to be on both the enterprise and industry development levels. With a view to drawing on these interventions benefits to critical mass or scale. ○ Recognise the importance of being a certain size before successful commercialisation can be possible.

	<ul style="list-style-type: none"> ○ Focus on growth at both enterprise and industry levels with a view to drawing on these benefits once critical mass has been achieved once critical mass has been achieved. ○ Recognise the contributions to growth possible through partnering throughout the supply chain, and through mentoring of new industry players. ○ Encourage collective marketing and branding programs. ○ The enterprise development, amongst others will cover leadership development and retention; business planning; businesses formalisation e.g. coops registration and business resourcing. Facilitate access to enablers such as finance, appropriate technology, business development services, electricity, appropriate roads and bridges, etc.
<ul style="list-style-type: none"> ● Quality Product Development: 	<ul style="list-style-type: none"> ○ The Agri-Park to develop skills in food product development. ○ Compliance with industry codes of good practice in terms of product description and quality assurance. ○ Standardisation of terminology and the way products are graded, labelled and traded.
<ul style="list-style-type: none"> ● Brand Building and Marketing: 	<ul style="list-style-type: none"> ○ All world-class low-tech enterprises are exceptionally good at building their brands, and protect their trademarks and logos. Linked to enterprise development support, the Agri-Park needs to develop a branding look and feel (also incorporating its wide word web presence). ○ The Agri-Park to develop a precise marketing plan and allocate resources for the promotion of the enterprise products.
<ul style="list-style-type: none"> ● Business linkages and supply chains: 	<ul style="list-style-type: none"> ○ Empower local distributors to get product to the market. ○ Establish vertical and horizontal business linkages. ○ Identify the market (or market segment) to be targeted. ○ Identify sustainable supply chain partners most appropriate to the chosen market segment. ○ Establish effective, ongoing, structured lines of communication between the supply chain partners. ○ Project a realistic view of the industry's position and outlook. ○ Build relationships based upon mutual benefit along the supply chain.
<ul style="list-style-type: none"> ● Governance and management 	<ul style="list-style-type: none"> ○ Competent Agri-Park management and governance. ○ Business management systems and structures need to be in place. ○ Business principles of profit, people and planet. ○ Good practice corporate governance should be adhered to at all times. ○ Comply with corporate governance legislative, policy and regulatory frameworks (public and private sector).
<ul style="list-style-type: none"> ● Supply contracts in place for key inputs: 	<ul style="list-style-type: none"> ○ The prices of agricultural inputs are incredibly volatile due to factors such as adverse weather conditions and insect infestations. To negate this, long-term fixed-price supply contracts with local farmers, suppliers (e.g. packaging company) and distributors is crucial.

The following factors should be considered for the establishment and/or operationalisation of a processing plant:

Table 15: Key Considerations Informing Establishment of Processing Plants

<p>Location:</p>	<ul style="list-style-type: none"> ○ The basic objective is to choose the location which minimises the average production cost, including transport and handling. It is an advantage, all other things being equal, to locate a processing unit near the fresh raw material supply. An adequate supply of good water, availability of labour pool, proximity to rail or road transport facilities and adequate markets are other important requirements.
<p>Processing planning:</p>	<ul style="list-style-type: none"> ○ A well planned commodity processing centre must be designed to operate for as many months of the year as possible. This means the facilities, the buildings, the material handling and the equipment itself must be inter-linked and coordinated properly to allow as many products as possible to be handled at the same time, and yet the equipment must be versatile enough to be able to handle many products without major alterations. A typical processing centre or factory should process four or five types of commodities at different times of the year.
<p>Processing systems (Scalability):</p>	<ul style="list-style-type: none"> ○ Small-Scale Processing (Primary Processing): This can be done at FPSUs for small-scale farmers for personal subsistence or for sale in nearby markets. In this system, processing requires little investment: however, it is time consuming and tedious. ○ Intermediate-Scale Processing (Primary Processing): In this scale of processing, a group of small-scale processors pool their resources. This can also be done by individuals. Processing is based on the technology used by small-scale processors with differences in the type and capacity of equipment used. The raw materials are usually grown by the processors themselves or are purchased on contract from other farmers. These operations are usually located on the production site in order to assure raw materials availability and reduce cost of transport. This system of processing can provide quantities of processed products to supply nearby urban areas. ○ Large-Scale Processing (Secondary and Advanced Processing): Processing in this system is highly mechanised and requires a substantial supply of raw materials for economical operation. This system requires a large capital investment and high technical and managerial skills. For example, because of the high demand for foods in recent years many large-scale factories were established in developing countries. Some succeeded, but the majority failed, especially in West Africa. Most of the failures were related to high labour inputs and relatively high cost, lack of managerial skills, high cost and supply instability of raw materials and changing governmental policies. Perhaps the most important reason for failure was lack of adequate quantity and regularity of raw material supply to factories. Despite the failure of these commercial operations, they should be able to succeed with better planning and management, along with the undertaking of more in-depth feasibility studies.

<p>Choice of processing technologies</p>	<p>The basis for choosing a processing technology ought to combine labour, material resources and capital so that not only the type and quantity of goods and services produced are taken into account, but also the distribution of their benefits and the prospects of overall growth. These should include:</p> <ul style="list-style-type: none"> ○ increasing farmer/artisan income by the full utilisation of available indigenous raw material and local manufacturing of part or all processing equipment; ○ cutting production costs by better utilisation of local natural resources (solar energy) and reducing transport costs; ○ generating and distributing income by decentralising processing activities and involving different beneficiaries in processing activities (investors, newly employed, farmers and small-scale industry); ○ maximising national output by reducing capital expenditure and royalty payments, more effectively developing balance-of-payments deficits through minimising imports (equipment, packing material, additives), and maximising export-oriented production; ○ maximising availability of consumer goods by maximisation of high-quality, standard processed produce for internal and export markets, reducing post-harvest losses, giving added value to indigenous crops and increasing the volume and quality of agricultural output
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5.2. Agri-Park Strategy Implementation Monitoring Framework: outcomes, outputs, targets, activities and key assumptions

The following indicators and targets are proposed for refinement in order to monitor implementation of the Agri-Hub and achievement of the Agri-Hub objectives:

STRATEGIC OBJECTIVE 1: Transform Rural South Africa through a modernised agricultural sector			
Outcome(s)	Measure (Outputs)	Targets & Milestones (Indicators)	Activities
Bojanala PDM Agricultural Sector transformed and modernised	Vibrant Bojanala PDM community and Food Security	% increase in households monthly income (socio impact)	Implement and manage Agri Park
	Percentage contribution of Agricultural to Bojanala PDM economy	% increase in absolute value of of District's Agricultural sector production (econ impact)	Implement and manage Agri Park
	Increased agricultural beneficiation (agro-processing activities)	% increase in agricultural beneficiation activities	Implement and manage Agri Park
	Number Black Industrialists Developed	# of black industrialists in agro-processing developed	Implement and manage Agri Park

STRATEGIC OBJECTIVE 2: Develop Integrated and Networked Agri-Park Infrastructure			
Outcome(s)	Measure (Outputs)	Targets & Milestones (Indicators)	Activities
Bojanala PDM Agri-Park Operational	Number of Agri Hubs (AH) developed	<ul style="list-style-type: none"> AH Property Management Contract finalised % occupancy of operational enterprises One AH developed by 2018 	<ul style="list-style-type: none"> Land acquisition and zoning Infrastructure Development Process (i.e. feasibility and design, professional teams, implementation and hand over)
	Number of Farmer Production Support Units (FPSU) developed	<ul style="list-style-type: none"> FPSU Property Management Contract finalised % occupancy of operational enterprises Two FPSUs established by 2018 	<ul style="list-style-type: none"> Land acquisition and zoning Infrastructure Development Process (i.e. feasibility and design, professional teams,

STRATEGIC OBJECTIVE 2: Develop Integrated and Networked Agri-Park Infrastructure			
Outcome(s)	Measure (Outputs)	Targets & Milestones (Indicators)	Activities
			implementation and hand over)
	Number of Rural Urban Market Centres (RUMC) established	<ul style="list-style-type: none"> • RUMC Property Management Contract finalised • % of business linkages facilitated by RUMC • Shared RUMC developed by 2018 	<ul style="list-style-type: none"> • Land acquisition and zoning • Infrastructure Development Process (i.e. feasibility and design, professional teams, implementation and hand over)

STRATEGIC OBJECTIVE 3: Establish and implement a sustainable Agri-Park governance and management model			
Outcome(s)	Measure (Outputs)	Targets & Milestones (Indicators)	Activities
Bojanala PDM Agri-Park Sustainably managed and operated	A farmer led company established through the company act	<ul style="list-style-type: none"> • Articles of association 	<ul style="list-style-type: none"> • Develop Articles of Association for Agri-Park
	Management company responsible for both development and administration established	<ul style="list-style-type: none"> • Management contract 	<ul style="list-style-type: none"> • Develop management contract for Agri-Park hubs and FPSU's
	District Statutory body responsible for oversight established	<ul style="list-style-type: none"> • Memorandum of Understanding • Municipal resolution 	<ul style="list-style-type: none"> • Develop Memorandum of understanding • Establish district oversight body through resolution

STRATEGIC OBJECTIVE 4: Generate funds and secure investment			
Outcome(s)	Measure (Outputs)	Targets & Milestones (Indicators)	Activities
Direct Investment generated for Bojanala PDM Agri-Park	Investment promotion	<ul style="list-style-type: none"> Promoted investment opportunities in the Agri-Parks 	<ul style="list-style-type: none"> Create investment material Develop bankable business plans Present investment opportunities to potential investors
	Partnerships established	<ul style="list-style-type: none"> Partnerships established for the various opportunities in the Agri-Parks 	<ul style="list-style-type: none"> Actively promote partnerships to potential investors Meet potential partners Present bankable business plans to potential partners
	Investment generated	<ul style="list-style-type: none"> Investment in the Agri-parks generated 	<ul style="list-style-type: none"> Generate partnership agreements Institute development of investment

STRATEGIC OBJECTIVE 5: Improve coordinated delivery of support services (i.e. extension services)			
Outcome(s)	Measure (Outputs)	Targets & Milestones (Indicators)	Activities
Bojanala PDM Farmers producing competitive produce	Smallholder and Emerging Farmers businesses profitable and sustainable	<ul style="list-style-type: none"> • Extension services operational • Support services operational • Collection scheme operational • Farmers delivering quality product to market 	<ul style="list-style-type: none"> • Develop extension services in the Agri-Hub • Develop support services model
	Smallholder and Emerging Farmers technical capacity and skills enhanced	<ul style="list-style-type: none"> • Training material developed • Farmers trained 	<ul style="list-style-type: none"> • Develop training material • Train farmers

STRATEGIC OBJECTIVE 6: Improve Agri-Park Programme Implementation			
Outcome(s)	Measure (Outputs)	Targets & Milestones (Indicators)	Activities
Bojanala PDM effectively and efficiently coordinating and facilitating the implementation of the Agri-Park	Agri-Park generating income for the municipalities (rates and service fees)	Amount of municipal rates and service fees paid p.a.	Agri park businesses pay rates and service charges.
	Agri-Park provided with reliable and consistent municipal services	Continuous service delivery and consistent service standards as per municipal service charter.	Municipal service delivery.
	Capacitated coordinating structure operational	Municipal participation coordinated and effective.	Agri park coordinating structures effectively attended by relevant level of officials and / or Councillors
	Agri-Park contribution Monitoring and Evaluation	Agreed monitoring plan with clear responsibilities for collection, monitoring and reporting to key decision-making structures to inform decision-making	Quarterly Performance Monitoring reports submitted to decision-making structures which inform Agri Park decision-making

The following key assumptions can be identified and which will also need to be monitored and reported on as part of the Agri-park monitoring plan:

Table 16: Implementation assumptions

Agri-Park Outcomes	Agri-Park Measure (Outputs)	Assumptions Description (External Factors beyond Agri-Park control, e.g. drought etc.)	Will the assumption hold true?		Possible to redesign outcomes and outputs to influence external factors (Yes/No)
			Possibly(tick)	Very unlikely(tick)	
Bojanala PDM Agricultural Sector transformed and modernised	Vibrant Bojanala PDM community and Food Security	Emerging farmers will be able to produce high volumes of beef cattle	✓		Yes
	Percentage contribution of Agriculture to Bojanala PDM economy	Reduction in beef cattle due to limited water rights for expansion	✓		No
	Increased agricultural beneficiation (agro-processing activities)	Resources will be invested in the value chain	✓		Yes
	Number Black Industrialists Developed	Black entrepreneurs willing to participate in the agricultural sector	✓		Yes
Bojanala PDM Agri-Park Operational	Number of Agri Hubs (AH) developed	Government putting the required resources in the Agri-Park	✓		No
	Number of Farmer Production Support Units (FPSU) developed	Government putting the required resources in the Agri-Park	✓		No
	Number of Rural Urban Market Centres (RUMC) established	Government putting the required resources in the Agri-Park	✓		No
Bojanala PDM Agri-Park Sustainably managed and operated	A farmer led companies established through a companies Act and/or Cooperatives Act	Farmers willing to work as cooperative		✓	Yes
	Management company responsible for both development and administration established	Right partners identified to participate in the Agri-Parks		✓	Yes
	District Statutory body responsible for oversight established	People with right calibre appointed to serve on the body		✓	Yes
Direct Investment generated for Bojanala PDM Agri-Park	Investment generated	Private individuals willing to invest in the Agri-Parks	✓		Yes
	Partnerships established	Private individuals willing to partake in the Agri-Parks		✓	Yes







Agri-Park Outcomes	Agri-Park Measure (Outputs)	Assumptions Description (External Factors beyond Agri-Park control, e.g. drought etc.)	Will the assumption hold true?		Possible to redesign outcomes and outputs to influence external factors (Yes/No)
			Possibly(tick)	Very unlikely(tick)	
Bojanala PDM Farmers producing competitive produce and/or livestock	Beneficiary farmers businesses profitable and sustainable	Emerging farmers employing proper business management aspects in their businesses		√	Yes
	Quality vegetable production increased	Proper production systems followed and farmers practising the best GAP	√		Yes
	Beneficiary farmers technical capacity and skills enhanced	The beneficiaries will be interested in this type of training	√		Yes
Bojanala PDM effectively and efficiently coordinating and facilitating the implementation of the Agri-Park	Agri-Park generating income for the municipalities (rates and taxes)	Development of efficient collection systems		√	Yes
	Capacitated coordinating structure operational	People with proper skills employed on various structures		√	Yes
	Agri-Park socio-economic contribution Monitored and Evaluated	Proper monitoring and evaluation system in place	√		Yes

5.3. Agri-Park 10-Year Implementation Plan

The following high level 10 year implementation plan provides an indication of the agri-parks phased implementation:

Table 17: Agri-Park 10 Year Implementation Plan

Bojanala PDM Agri-Park 10-Year Implementation Plan			Phase One	Phase Two	Phase Three
Strategic Objective	Outcome(s)	Measure (Outputs)	2016 - 2018	2019 - 2021	2022 - 2025
SO: 1	Bojanala PDM Agricultural Sector transformed and modernised	Vibrant Bojanala PDM community and Food Security			
		Percentage contribution of Agricultural to Bojanala PDM economy			
		Increased agricultural beneficiation (agro-processing activities)			
		Number Black Industrialists Developed	3	3	3
SO: 2	Bojanala PDM Agri-Park Operational	Number of Agri Hubs (AH) developed	1		
		Number of Farmer Production Support Units (FPSU) developed	2	2	2
		Number of Rural Urban Market Centres (RUMC) established	1		
SO: 3	Bojanala PDM Agri-Park Sustainably managed and operated	A farmer led company established through a companies act	X		
		Management company responsible for both development and administration established	X		
		District Statutory body responsible for oversight established	X		
SO: 4	Direct Investment generated for Bojanala PDM Agri-Park	Investment generated			
		Partnerships established	2	3	5
		Investment promotion			

Bojanala PDM Agri-Park 10-Year Implementation Plan			Phase One	Phase Two	Phase Three
Strategic Objective	Outcome(s)	Measure (Outputs)	2016 - 2018	2019 - 2021	2022 - 2025
SO: 5	Bojanala PDM Farmers producing competitive produce	Farmers businesses profitable and sustainable			
		Farmers technical capacity and skills enhanced			
		Agri-Park generating income for the municipalities (rates and taxes)			
SO: 6	Bojanala PDM effectively and efficiently coordinating and facilitating the implementation of the Agri-Park	Agri-Park provided with reliable and consistent municipal services			
		Capacitated coordinating structure operational			
		Agri-Park contribution Monitoring and Evaluation			

5.4. Strategic Risks Assessment and Risk Management Framework

A wide range of risks exist which can undermine the successful establishment and operation of the Agri-Park. It is essential that risk managers are identified and appointed to manage these risks and to implement mitigating actions to minimise either the likelihood of these risks occurring or the potential negative impacts that these risks might have on the Agri Park. District stakeholders will need to develop a detailed and District-specific risk management plan which is informed by the following framework:

Table 18: Agri-Park Risks assumptions

Agri-Park Outcomes	Agri-Park Measure (Outputs)	Risk Description	Probability of risk occurrence					Strategy for mitigation/Controls
			(1) Very Low	(2) Low	(3) Moderate	(4) High	(5) Very High	
Bojanala PDM Agricultural Sector transformed and modernised	Vibrant Bojanala PDM community and Food Security	Farmers unable to produce quality beef cattle			√			Farmers assisted to follow beef cattle production system
	Percentage contribution of Agricultural to Bojanala PDM economy	Farmers not supplying enough beef cattle for sales			√			Creating incentives for farmers to supply their beef cattle through Agri-Parks processing facilities
	Increased agricultural beneficiation (agro-processing activities)	Required resources not being made available		√				Proper budgeting by all spheres of government participating in the Agri-Parks
	Number Black Industrialists Developed	Required resources not being made available			√			Proper budgeting by all spheres of government participating in the Agri-Parks
Bojanala PDM Agri-Park Operational	Number of Agri Hubs (AH) developed	Unavailability of funds to fund the infrastructure				√		Proper budgeting by all spheres of government participating in the Agri-Parks and the government prioritizing Agri-Parks as project to drive rural development
	Number of Farmer Production Support Units (FPSU) developed	Unavailability of funds to fund the infrastructure				√		Proper budgeting by all spheres of government participating in the Agri-Parks and the government prioritizing Agri-Parks as project to drive rural development
	Number of Rural Urban Market Centres (RUMC) established	Unavailability of funds to fund the infrastructure				√		Proper budgeting by all spheres of government participating in the Agri-

Agri-Park Outcomes	Agri-Park Measure (Outputs)	Risk Description	Probability of risk occurrence					Strategy for mitigation/Controls
			(1) Very Low	(2) Low	(3) Moderate	(4) High	(5) Very High	
								Parks and the government prioritizing Agri-Parks as project to drive rural development
Bojanala PDM Agri-Park Sustainably managed and operated	A farmer led companies established through a Companies Act and/or Cooperatives Act	Farmers not cooperating for the success of the cooperatives		√				Training of farmers about the benefits of participating in cooperatives
	Management company responsible for both development and administration established	Individuals appointed not advancing the interest of the farmers				√		Transparent appointment of management company with proper screening.
	District Statutory body responsible for oversight established	Unqualified people being appointed on the body				√		Appointment of key personnel with right skills and qualifications
Direct Investment generated for Bojanala PDM Agri-Park	Investment generated	Investors viewing Agri-Parks as unprofitable			√			Proper marketing of Agri-Parks
	Partnerships established	Private sector not willing to participate in the Agri-Parks				√		Proper marketing of Agri-Parks
Bojanala PDM Farmers producing competitive produce and/or livestock	Beneficiary farmers businesses profitable and sustainable	Farmers not applying proper business management processes in their businesses				√		Conduction of training needs assessment of the farmers and training on business management
	Quality beef production increased	The farmers not farming with quality cattle breed			√			Selection of well-known breeding stock adaptable to the region
	Beneficiary farmers technical capacity and skills enhanced	Farmers offered training programmes that doesn't address their needs			√			Conduction of training needs assessment of the farmers and providing relevant training programmes
Bojanala PDM effectively and efficiently coordinating and facilitating the implementation of the Agri-Park	Agri-Park generating income for the municipalities (rates and taxes)	Proper systems not being put in place				√		Designing of proper collection system and enforcing the collection thereof
	Capacitated coordinating structure operational	Unqualified people being appointed on the structure of agri-parks				√		Appointment of key personnel with right skills and qualifications
	Agri-Park socio-economic contribution Monitored and Evaluated	Well defined M & E framework not being put in place				√		A well-defined M&E framework with indicators designed.

5.5. Agri-Park Implementation Partnerships

The following framework should be used to start identifying potential strategic partners including government agencies, private sector organisations and international organisations to be involved in various aspects of the Agri-Hub:

Table 19: Agri-Park Partnership Identification Framework

Strategic Objective	Measure (Outputs)	Potential Strategic Partners	Potential Private/NGO Sector Organisations	International Organisations
SO: 1	Vibrant Bojanala PDM community and Food Security	<ul style="list-style-type: none"> • The Presidency • NW Premier 's Office • Bojanala PDM & District Local Municipalities • Provincial department and entities e.g. NWDC, Rural, Environment and Agricultural Development Department (READ) • National Treasury • DCoGTA, DRDLR, • DTI, DAFF, DHET, DBE, SETAs, Universities • SEDA, SEFA, NEF • IDC, Land Bank • NDA, ARC, DBSA • DRDLR, RCAP, CASP, LARP, CRDP, Narysec, REID and RID • AgriBEE • Jobs Fund • Technology Innovation Agency • Economic Development NGOs 	Agri-BEE entrepreneurs Commercial enterprises Commercial farmers Commercial Retailers Mining & Quarry Companies Cooperatives NPOs & CBOs SMMEs DAMC	Foreign donor partners (USAID, GTZ, WB, etc) UN UNDP UNIDO FAO UN Food Programme DFIs International Philanthropic, CSI/CSR, Social Impact & Investment funds International Sustainable Development Innovation Companies, NPOs & NGOs BRICS International DFIs (World Bank, KWF, ADB, AFDB, etc).
	Percentage contribution of Agriculture to Bojanala PDM economy			
	Increased agricultural beneficiation (agro-processing activities)			
	Number Black Industrialists Developed		<ul style="list-style-type: none"> • Good Food Solutions • Unifoods • National Brands • Premier Foods • Tiger Brands • SAMPA • NERPO 	<ul style="list-style-type: none"> • RPO • NFMT • SAMIC • SHALC • NCRMPA • DAMC
			Agri-BEE entrepreneurs Commercial enterprises Commercial farmers Commercial Retailers Cooperatives	SMMEs BBBEE Venture Capitalists Commercial Banks Investment Houses
SO: 2	Number of Agri Hubs (AH) developed	<ul style="list-style-type: none"> • Bojanala PDM & District Local Municipalities • DRDLR, REID, RID, READ, DTI-SEZ • Eskom, DWA , Department of Communication (USASA) • Provincial department e.g. Public Works, Roads and Housing departments 	<ul style="list-style-type: none"> • DAMC • DLRC • Private Property Developers 	
	Number of Farmer Production Support Units (FPSU) developed			
	Number of Rural Urban Market Centres (RUMC) established			
SO: 3	A farmer led company established through a companies act	<ul style="list-style-type: none"> • Bojanala PDM & District Local Municipalities 	<ul style="list-style-type: none"> • DAMC 	

Strategic Objective	Measure (Outputs)	Potential Strategic Partners	Potential Private/NGO Sector Organisations	International Organisations	
	Management company responsible for both development and administration established	<ul style="list-style-type: none"> • DRDLR, REID, READ • North West Finance, Economy and Enterprise Development Department (feed) • National Treasury (Coop Bank), DSBD, SEDA 	<ul style="list-style-type: none"> • Legal Firms 		
	District Statutory body responsible for oversight established				
SO: 4	Investment generated	<ul style="list-style-type: none"> • Bojanala PDM & District Local Municipalities DRDLR, REID, feed • National Treasury (Coop Bank), DSBD-SEDA, SEFA, DTI, IDC, DBSA, Land Bank, DAAF 	<ul style="list-style-type: none"> Agri-BEE entrepreneurs Commercial enterprises Commercial farmers Commercial Retailers Cooperatives, SMMEs, DAMC, BBBEE, Venture Capitalists Commercial Banks, Investment Houses, NAAC 		
	Partnerships established				
	Investment promotion				
SO: 5	Smallholder and Emerging Farmers businesses profitable and sustainable	<ul style="list-style-type: none"> • Bojanala PDM & District Local Municipalities • DRDLR, READ, REID • North West Finance, Economy and Enterprise Development Department, NWDC • NAMC , ARC, DST-TIA, DAFF • Department of Communication (USASA) • DSBD-SEDA, SEFA • DTI-Incentives • Taung Agricultural College 	<ul style="list-style-type: none"> Agri-BEE entrepreneurs Commercial enterprises Commercial farmers Commercial Retailers Cooperatives SMMEs (formal & informal) • SAMPA • NERPO • RPO • NFMT • SAMIC • SHALC 	<ul style="list-style-type: none"> • Agri-SA, Agri-NW • Noordwes Kooperasie (NWK Group) • Agricultural Input Supply Companies, e.g. Omnia Group 	<ul style="list-style-type: none"> One Acre Fund; Skoll Foundation; FBS; Kickstart; Root Capital Phatisa; Technoserve; UNIDO; UNDP; World Bank; FAO International DFIs UN International Fund for Agricultural Development Alliance for a Green Revolution in Africa Bill & Malinda Gates Foundation (RSA chapter) Global Environment Facility Digital Green
	Quality beef production increased				
	Smallholder and Emerging Farmers technical capacity and skills enhanced				
SO: 6	Agri-Park generating income for the municipalities (rates and taxes)	<ul style="list-style-type: none"> • Bojanala PDM & District Local Municipalities DRDLR, READ, REID • Northwest University 	<ul style="list-style-type: none"> • Training, Systems and Management consulting companies 		
	Agri-Park provided with reliable and consistent municipal services				
	Capacitated coordinating structure operational				
	Agri-Park contribution Monitoring and Evaluation				

