rural development & land reform

Department:
Rural Development and Land Reform
REPUBLIC OF SOUTH AFRICA

Final Draft Master Plan

AGRI-PARK MASTER BUSINESS PLAN

Ngaka Modiri Molema

District Municipality

North-West Province

MANAGING FOR EXCELLENCE

amissa

Agri-Park Details	
Province:	North-West Province
District:	Ngaka Modiri Molema District Municipality
Agri-Hub Site:	Springbokpan (Ditsobotla Local Municipality)

Contact Details:

NMMDM and DRDLR representative details:

Name	Telephone	Email address

Camissa & ME representative details:

Name	Telephone	Email address
Greg Blose	bloseg@zamandelu.co.za	082 227 0539
Pakiso Molema	pakiso@tapconsulting.co.za	084 922 9084
Trevor Taft	trevor@cihp.co.za	083 553 6318

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Extract from Agri-Park draft Policy Framework, page 25:

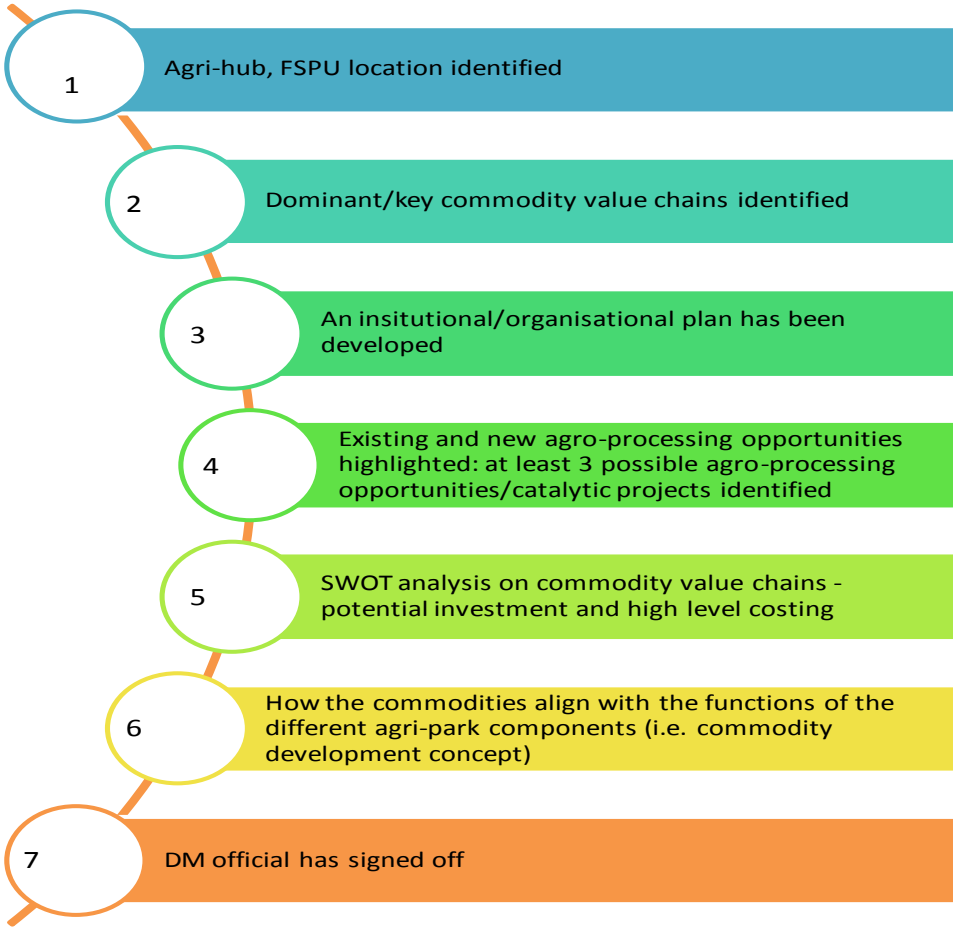
Three critical success factors have been identified in ensuring that the proposed Agri-Parks are successful in achieving their intended outcomes including that:

a) They must be supported by provincial governments and signed off by District Municipalities;

b) District Municipalities, Provincial and National Departments must agree on the commodities to be processed at each of the Agri-Parks; and,

a) All relevant government actors must demonstrate adequate support in implementing the Agri-Parks Policy, especially in terms of water, energy, roads and transport, environmental matters.

BUSINESS PLAN CHECKLIST



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List of Abbreviations and Definitions

Abbreviation	Description
ABET	Adult Basic Education and Training
ABP	Area Based Plan
APAP	Agriculture Policy Action Plan
CARA	Conservation and Agricultural Resource Act
CASP	Comprehensive Agriculture Support Programme
CBO	Community Based Organisation
CBNRM	Community-based Natural Resource Management
CIF	Capital Investment Framework
CRDP	Comprehensive Rural Development Programme
CSIR	Council for Scientific and Industrial Research
DBE	Department of Basic Education
DBSA	Development Bank of Southern Africa
DEA	Department of Environmental Affairs
PDEDAT	Provincial Department of Economic Development and Tourism
DFI	Development Finance Institutions
DGDS	District Growth and Development Strategy
DM	District Municipality
DMA	District Municipal Area
DoE	Department of Energy
DRDLR	Department of Rural Development and Land Reform
EA	Enumeration Area
EIA	Environment Impact Assessment
EMF	Environmental Management Framework
EPWP	Expanded Public Works Programme
ETDP-SETA	Education, Training and Development Practices- Sector Education and Training Authority
FAO	Food and Agriculture Organisation
FET	Further Education and Training
FPL	Food Poverty Line
FPSU	Farmer Production Support Units
FR	Functional Regions
GDP	Gross Domestic Product
GVA	Gross Value Added
HDI	Human Development Index
HIV/AIDS	Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome
HR	Human Resource
ICT	Information Communications and Technology
IDC	Industrial Development Corporation
IDP	Integrated Development Plan
IGR	Intergovernmental Relations
IPAP	Industrial Policy Action Plan
IWRM	Integrated Water Resource Management

Abbreviation	Description
NMMDM	Ngaka Modiri Molema District Municipality
NMMDMRDS	Ngaka Modiri Molema District Municipality Rural Development Strategy
NMMDMSDF	Ngaka Modiri Molema District Municipality Spatial Development Framework
LED	Local Economic Development
LM	Local Municipality
LRAD	Land Redistribution for Agricultural Development
LUMS	Land Use Management Strategy
M & E	Monitoring and Evaluation
MDG	Millennium Development Goals
MFMA	Municipal Financial Management Act
MIG	Municipal Infrastructure Grant
MPT	Municipal Planning Tribunal
MSDF	Municipal Spatial Development Framework
MTSF	Medium Term Strategic Framework
NARYSEC	National Rural Youth Corps Strategy
NWDC	Nort-West Development Corporation
PGDS	Provincial Growth Development Strategy
PSDF	Northern Cape Provincial Spatial Development Framework
NWRDS	North-West Rural Development Strategy
NDA	National Development Agency
NDP	National Development Plan
NEMA	National Environmental Management Act
NFSD	National Framework for Sustainable Development
NGO	Non-Governmental Organisation
NGP	New Growth Path
NMT	Non-Motorised Transport
NPO	Non-Profit Organisation
NSDP	National Spatial Development Perspective
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
RID	Rural Infrastructure and Development
SALGA	South African Local Government Association
SANBI	South African National Biodiversity Institute
SANRAL	South African National Road Agency Limited
SANS	South African National Standards
SDF	Spatial Development Framework
SETA	Sector Education and Training Authority
SIP	Strategic Integrated Project
SLP	Social And Labour Plans

Abbreviation	Description
SLAG	Settlement for Land Acquisition Grant
SMME	Small Medium Micro Enterprise
SPLUMA	Spatial Planning And Land Use Management Act
SPISYS	Spatial Planning Information Systems
StatsSA	Statistic South Africa
SWOT	Strength, Weakness, Opportunities and Threats
TOD	Transit Orientated Development
TRANCRAA	Transformation of Certain Rural Areas Act
TVET	Technical Vocational Educational and Training
UNESCO	United Nations Educational, Scientific and Cultural Organisation
WFW	Working for Water
WWTW	Waste Water Treatment Works
WSA	Water Service Authority
WSP	Water Service Provider

Table of Contents

Chapter One: Introduction and Background

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 Business Plan (APMBP)** aligned to its Agri-Park model and the main agricultural commodity value chain (s) in the **Ngaka Modiri Molema District Municipality (DR.KKDM) in the North-West Province** of South Africa.

1.1. Project Scope and objectives

Camissa and Managing for Excellence was expected to:

a) Develop a **Ngaka Modiri Molema 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 APMBP 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 APMBP 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 APMBP, 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 APMBP 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.

1.2. 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 APMBP followed steps outlined below:

Box 1: APMBP Development Process

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 Business Plan
Step Eight	• Agri-Park Master Business Plan inputs gathering exercises (further engagements and consultations)
Step Nine	• Review and finalisation of the Agri-Park Master Business Plan
Step Ten	• Project Closure

1.3. The Agri-Park Master Business Plan

This APMBP draws on the findings, recommendations and conclusions of the Situational Analysis report (see annexure A) for the **NMMDM** which was part of phase 1 for the drafting of this APMBP. In terms of the above definition the APMBP for the **NMMDM** 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 (FPSUs) 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 APMBP 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.

1.4. Instruction for reading Agri-Park Master Business Plan

Box 1.2: Agri-Park Master Plan Business Plan Structure

Chapter 1:	Introduces the APMBP 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 Business Plan.

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.

Smallholders and subsistence Farmers currently farm some 10 to 13 percent of available agricultural land in South Africa. About 40 percent of this land is under cultivation by smallholders whose farm sizes range from five to 20 hectares, of which nearly four-fifths is used as an additional source of food for the household. By raising the productivity of these smallholdings and helping Farmers gain access to markets, South Africa can support many rural households in making farming a commercially viable concern that sells crops and employs workers. We estimate that South Africa has the potential to boost the productivity of its smallholdings by switching to high-value crops and using improved inputs.

Empirical evidence suggest that smallholders are not always less productive than commercial Farmers, but there is scope to improve their value added, quality of life, and income (McKinsey, 2015). Empirical evidence also suggests that the success of small-scale Farmers' success is partially determined by the level of state and/or institutional support extended to Farmers.

In comparison to other countries, South Africa provide the lowest support to producers especially smallholders. There is a need to adequately support these Farmers otherwise the Agri-Park initiative would not be realised. Smallholder Farmers have inadequate access to high-quality inputs, and improvement in this area could increase the quality and quantity of their commodities.

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 first 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 was developed to address issues such as underdevelopment, hunger, poverty, joblessness, lack of basic services, and the challenges faced by small-Farmers and emerging commercial 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 Farmers in the agricultural sector and by doing so attend to the development of the rural areas is 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.

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:

I. 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

II. 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 suppliers primary and/or processed Farmers produce to the local community market, Agro-processers (at the Agri-Hub) and RUMC.

III. Agri-Hub

The Farmers produce (input) is processed in large scale at the Agri-Hub. The Agri-Hub also provides 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.

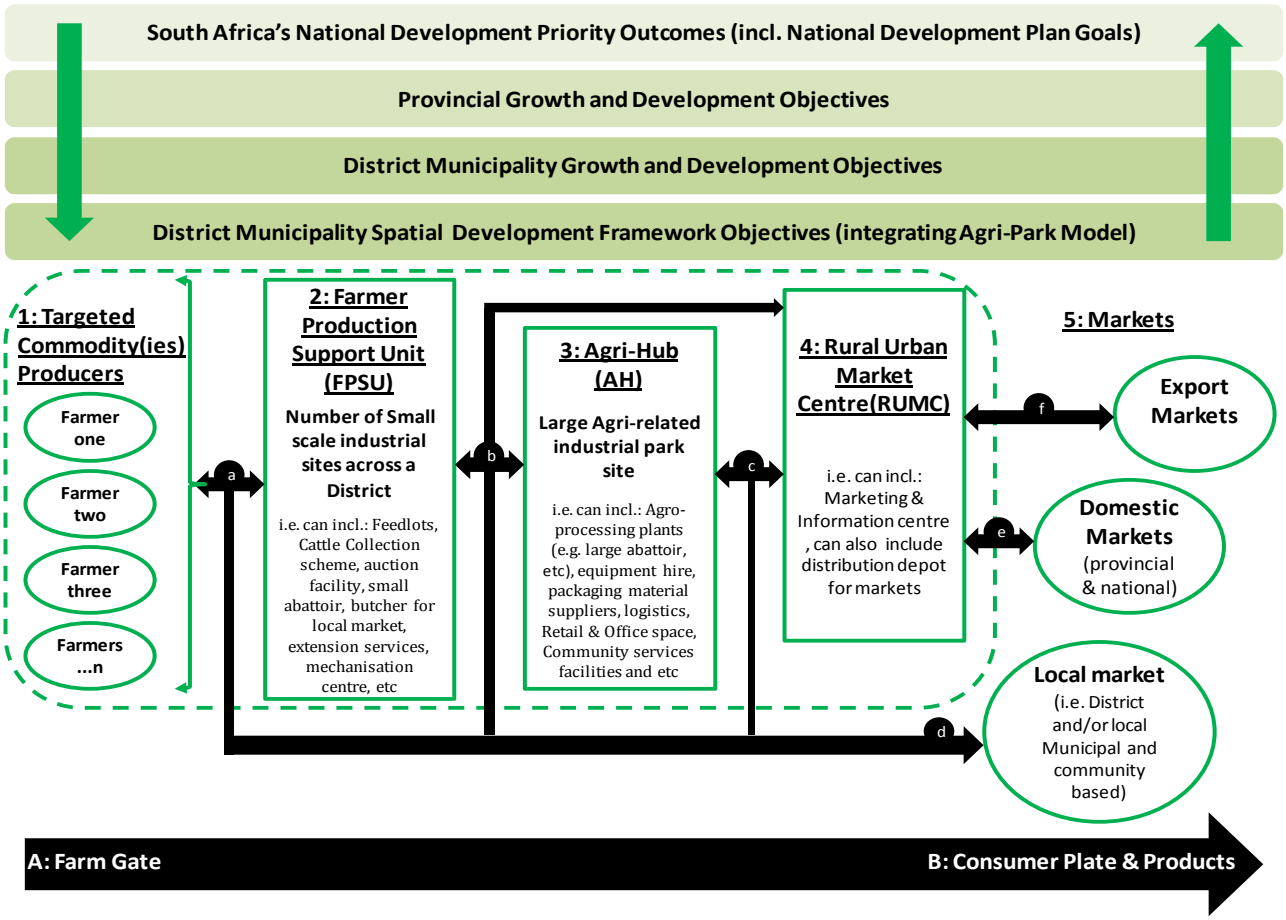
c. **Market**: The Agri-Hub mainly suppliers agro-processed products through the RUMC and local market.

IV. 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



V. 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 competiveness, and foreign currency earnings for local economies.

2.2. Agri-Park Support Institutional Framework

In order to conceive, develop policies for, guide and sponsor the establishment of Agri-Parks in South Africa, the DRDLR has identified a number of institutions which contribute different values to the creation and implementation of Agri-Parks, as depicted in Table 1 below:

Table 1: Agri-Park Support 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 Agri-Parks program Monitor progress against the business and project plans Assist with resolving any blockages at district and provincial level	National Agri-Park Advisory Council	National Agri-Parks Advisory Council (NAAC) will provide oversight to the functionality of the District Agri-Parks Management Councils (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 Agri-Parks business plan and to compile a provincial project register Monitor implementation Report to National Operations Team				

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 Agri-Parks business plan and to compile a district project register Report to provincial operations task team	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: Ngaka Modiri Molema Agri-Park Commodity Analysis

For the establishment of the Agri-Park, the NMMDM-selected dominant commodity is Maize. This section analyses the maize sub-sector in relation to the **NMMDM Agri-Park**. The chapter outlines the maize subsector and industry forces, maize production and consumption, industry structure and links with the Agri-Park, and value chain players

According to DAFF (2013)[1], maize is the most important grain crop in South Africa, being both the major feed grain and the staple food for the majority of the South African population. About 60% of maize produced in South Africa is white and the other 40% is yellow maize. Yellow maize is mostly used for animal feed production while the white maize is primarily for human consumption. Maize is the second large crop produced in South Africa after sugar cane. The maize industry is important to the economy both as an employer and earner of foreign currency because of its multiplier effects. This is because maize also serves as a raw material for manufactured products such as paper, paint, textiles, medicine and food. The gross value of production for maize is dependent on the quantity produced and prices received by producers.

Supply of maize is composed of maize harvested for a particular season, imports and carryover stocks from the previous seasons. Commercial agriculture produces about 98% of maize in South Africa, while the remaining 2% is produced by the developing agriculture.[2]

3. South Africa's Maize Production and Consumption

3.1 Maize Production

Given the 2012/2013 drought in the western production areas and virtually depleted soil moisture levels in the major producing areas, a contraction in the 2012/13 aggregate crop is expected. In addition, the final calculated 2013 maize crop as set by the Crop Estimates Committee is 11,690 million tons, approximately 1,2% less than 11,830 million tons of the previous season. Furthermore, after some planting delays in October due to dry weather conditions, the arrival of good rains in November may have helped stimulate an increase in the area planted to maize in the 2013/2014 production season, however, preliminary planting intentions point to a 3% year-on-year contraction in the maize area for 2014 (FAO,2013).

During the fourth quarter of 2012, the average opening stock for white and yellow maize was 3,5 million tons and 2,3 million tons respectively, while the average total opening stock (white maize plus yellow maize) was 5,8 million tons. During the fourth quarter of 2013, the average opening stock for white and yellow maize was

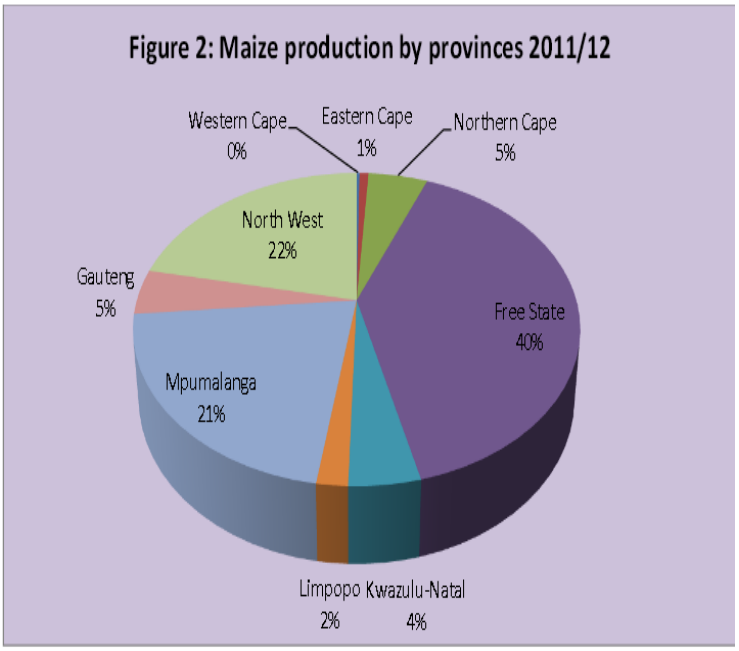
[1] DAFF (2013); Maize Market Value Chain Profile 2013

[2] ibid

2,7 million tons and 2,2 million tons respectively, while the average total opening stock (white maize and yellow maize) was 4,9 million tons, approximately 9% less than in the fourth quarter of 2012.(DAFF, 2014).

Figure 2: Maize Production by province, 2011-12

Figure 2 indicates that during 2011/12 season, the Free State province produced 40% of the total commercial maize in South Africa. North West produced 22% followed by the Mpumalanga Province which produced 21% of the total commercial maize grown in the country. During the same period Northern Cape Province produced 5%.
Source: (DAFF, 2013).[3]



Source: Statistics and Economic Analysis.

The recent drought of 2015 into 2016 has had a negative impact on the national maize production and has compelled South Africa to import millions of tons of both yellow and white maize in order to provide for local consumption.

3.2 Maize Industry Structure Analysis

Also, according to DAFF (2013), the maize production industry is divided into commercial and developing agriculture. Commercial maize Farmers are estimated at 9,000 and the number of developing agricultural Farmers is unknown. The North West Province has attempted to identify and even aggregate the number of smallholder maize Farmers as well as their production capacity, courtesy of the Maize Crop Massification initiative of the province.

The South African maize market has matured considerably since the deregulation of agricultural marketing. Producers, traders and other Intermediaries interact freely in the marketing of maize.

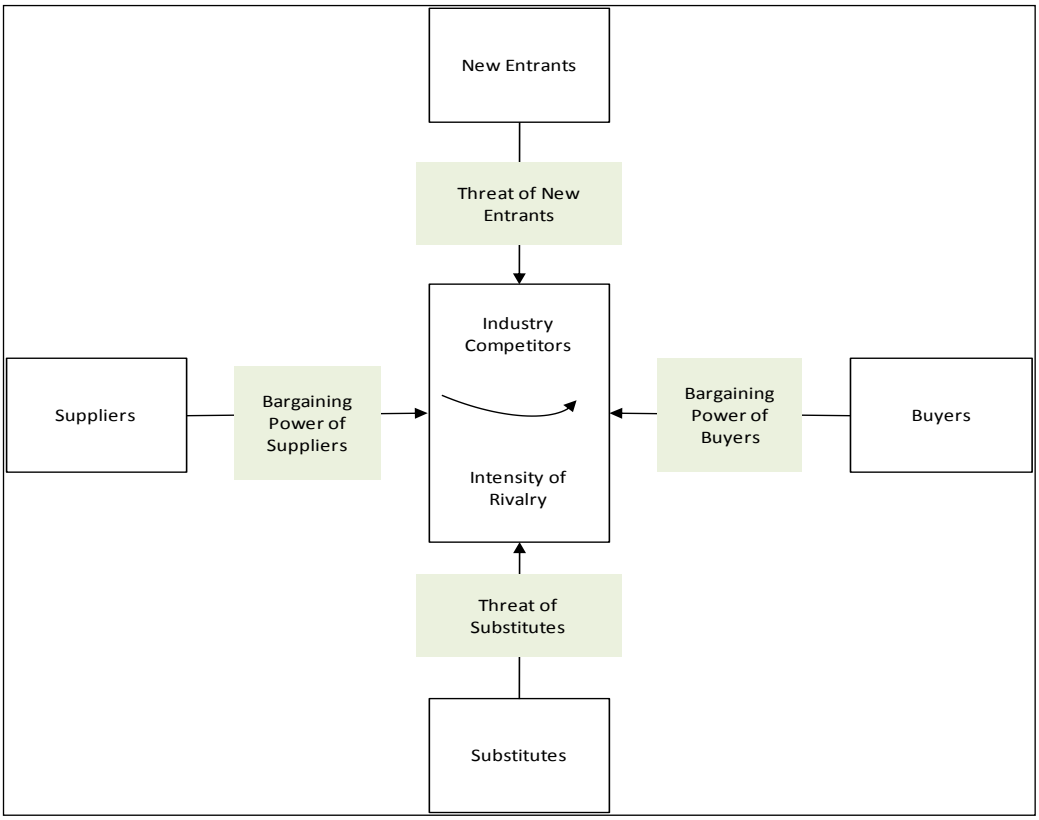
3.2.1 Maize Industry Forces

Porters 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 3 are:

[3] DAFF(2013); Maize Market Value Chain Profile, 2013

- **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 3: Porter Five-Force Model: Elements to be applied to the Maize Industry in SA



Source: (Oliver G. C., 2004)

New Entrants	**The threat of new entrants is low to medium:** • Initially, maize industry barriers are linked to normal difficulties of starting a maize farming business in terms of land acquisition, securing farming equipment and running the farm before harvesting and selling. At the same time, the industry entry requirements for established Farmers into maize industry are virtually are low because the Farmer can simple substitute a crop with maize farming. E.g. Shifting from Soya to Maize or Sunflower to maize. • 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, land claims, evictions and illegal land occupations.
Suppliers	**Bargaining power of supplier (Maize Crop Producers) is low:** • The number of primary producers far outstrips the number of silos and processors both as wet and dry produce, resulting in the Farmer being an absolute price taker. The cost of road transport, as well as the effect of travelling large distances implies that many

	producers have only a small number of silos that they can realistically deliver to. • Producers of maize industry are rational decision makers reacting to market and climate conditions.
Buyers	**Buyers have low bargaining power:** • Demand for maize is largely stable and growing owing to that maize is a staple food for many households, especially Black households and the South African population is increasing. • On the other hand, the Consumers have very little influence on the market prices that they are prepared to purchase their maize in retail and wholesale outlets. In addition to general economic factors like inflation, if anything, wholesale and retail market prices are highly influenced by the suppliers themselves by how they declare product availability, i.e. scarcity of maize.
Substitutes	**Threat of substitution is low:** • Maize is a staple food for the majority of the South African population including SADEC and many parts of the continent and as such remains in high demand all the time and grows with population growth. Moreover, as a basic ingredient for chicken feed especially, the demand for maize is also on the rise matching the growth in the demand for chicken meat as a protein source alternative to beef or other red meat.
Intensity of Rivalry / Competition	**Intensity of rivalry and competition is high:** • The intense rivalry is a result of market forces, tight margins and the importation of maize into the South African Market. • The maize supply chain has become more and more vertically integrated with players like SENWES and NWK dominating the market by participating across various value chains levels. • In addition to large commercial maize Farmers, limited and expensive silos space, there is an increase in small holder maize Farmers who end trading their produce in townships and informal markets at low prices.

3.2.2 Maize Industry Structure

The industry structure shown in Figure 4 below depicts the core components that drive the maize industry all centered around the Maize crop Farmer who is the producer of the maize crop and featuring the following main maize industry organizations:

- Grain SA (Grain producers)
- NAMM (National Association of Maize Millers)
- NCM (National Chamber of Milling)
- GSI (Grain Silo Industry)
- Oil Expressors Association

- Maize Industry Forum
- Animal Feed Manufacturers Association (AFMA)

Figure 4: Maize Industry Structure

Maize Farmers - These are the growers of maize crops and producers of maize grain which can be consumed as kernels or processed into various edible and non-edible products. Grain SA organizes and represents commercial maize growers in South Africa. For Black Smallholder Farmers organization is by African Farmers Association of South Africa (AFASA) and National African Farmers Union (NAFU), chiefly.

Inputs - Monsanto is currently the largest seed company in South Africa after purchasing shares in Sensako and Carnia. Other major players in this market include companies such as Pannar and Pioneer Hybrid International. There are various farming capital equipment suppliers like Ford, John Deere who supply various types of land equipment, including mechanized irrigation systems.

Storage - With deregulation of the maize industry, 90% of the co-operatives converted to private companies, which own 85% of the total storage capacity, which is currently 16.3 million tons. There are 432 silos, of which 172 are on-farm and 260 commercial. The commercial silos, owned by 17 silo owners, account for 94% of the available silo capacity. The three major commercial silo owners, namely AFGRI, NWK and SENWES Group, own 73% of the available storage capacity within the national grain storage market. Most of this storage capacity is also located in the provinces situated in the northern parts of the country. Grain Silo Industry leads the grain storage sector in South Africa.

Milling - The maize kernel is processed by two industries namely the Wet and Dry Milling Industries. Since deregulation, the number of informal millers increased sharply from 111 to 296 after 1996. Business forms within the milling industry include private and public companies. Major players include Pioneer Food Group (Pty) Ltd, Premier Foods Ltd, Pride Milling Company (Pty) Ltd, Ruto Mills (Pty) Ltd and Tiger Brands Ltd, as well as some silo owners such as NTK. The maize milling sector is led by the National Association of Maize Millers as well as the National Chamber of Milling.

Animal Feed Producers - According to the Animal Feed Manufacturers Association (AFMA), maize constitutes approximately 55% of the 4.2 million tonnes of feed produced by its members. Business forms within the animal feeds industry consists largely of private companies, co-operatives and converted co-operatives. The top animal feed manufacturers are AFGRI, Bokomo Voere, Epol, KK Animal Nutrition, Meadow Feeds, Noordwes Voere, and Senwesko Voere.

Traders - Traders perform a fundamental and core function in a free trade environment by moving the Farmer's produce to domestic or export markets. During times of shortage the traders source goods externally and bring products to the processor or the consumer in the domestic market. National players in the marketing and trading level of the maize supply chain include local traders, international houses and financial institutions that provide credit facilities. The large traders include Rand Merchant Bank, Senwes, Afgri, Cargill, Louis Dreyfus and Verus Farms. The smaller competitors are amongst others, Brisen, Bester Feed Exchanges, CTH, Farmwise, Unigrain and Free State Maize.

Transporters - Historically, rail transport dominated the maize market however, the free market system led to the development of a huge expansion in road transport and a reduction in the quantities transported by rail. In general, the ratio of rail and road transport used within the maize value chain has changed from 80% rail and 20% road to 50% rail and 50% road. The rail transport industry comprises a monopoly, Spoornet. Players in the road transport sector include companies such as Unitrans, Imperial Logistics and Bidfreight as well as smaller independent truck fleet operators.

Retailers - The formal retail market is relatively concentrated, with some national chain stores dominating the market. The seven major players in the formal retail industry include Pick'n pay, Shoprite, Metcash, Spar, Massmart, Fruit & Veg City and Woolworths.

Government through its various agricultural support institutions like DAFF, ARC, Land Bank, and others also adds support value to the maize farming community. At this level, we can also add private sector institutions like commercial banks who support Farmers financially.

3.2.3 Industry Structure link with the Agri-Park

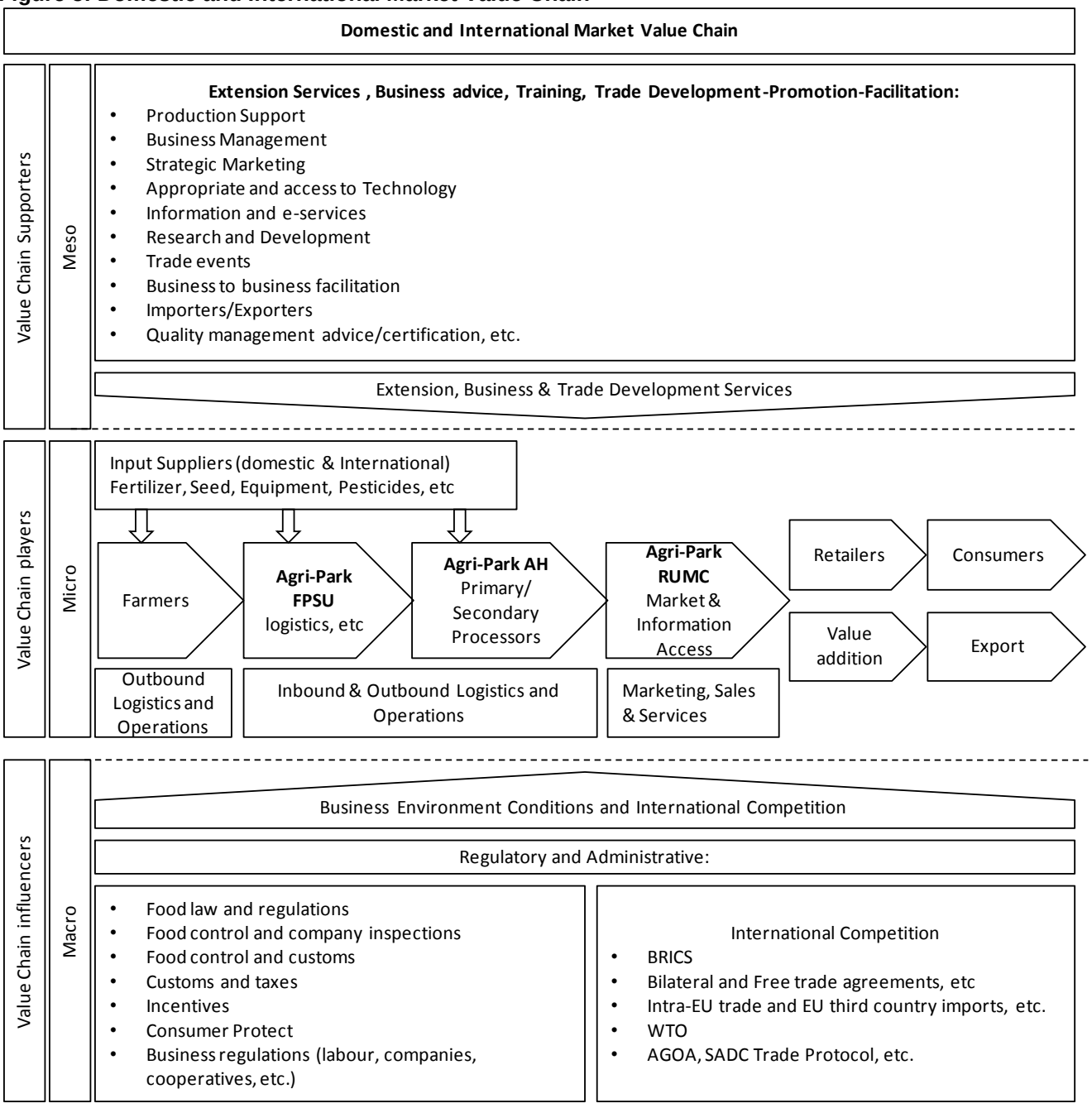
Table 2: Maize Industry bodies linked with Agri-Park

	Agri-Park Model			
	Emerging Farmers	**Farmer Production Support Unit**	**Agri-Hub**	**Rural Urban Centre Market**
Links with Maize Industry Organisations	➢ Grain South Africa – Capacity-building of Emerging Farmers ➢ AFASA – Advocacy and Farmer Development ➢ NAFU – Advocacy and Farmer Development ➢ Maize Industry Forum – Advocacy	• DRDLR: Farmer Enterprise Support i.e. RID, etc. • DAFF – Farmer Capacity-building • NAMM – Millers capacity building and technical advice • NCM - Millers capacity building and technical advice • OEA – Technical support and advocacy covering Maize Milling for oil extraction • Animal Feed Manufacturers Association (AFMA – Feed Quality technical Assistance and Lobbying		Grain SA - Quality and Market Access Support Maize Marketing Agents – Market Access Support
	• **Information, Research and Training**: DAFF, ARC • **Support, Training, Funding & Information**: Provincial and Local Agriculture Department and development agencies (e.g. North West Development Corporation - NWDC) • **Funding and Support: NWDC,** DRLR, DAFF, The dti, the National Empowerment Fund (NEF) and Industrial Development Corporation (IDC), Small Enterprise Development Agency (SEDA), Small Enterprise Finance Agency (SEDA).			

3.2.4 Maize Industry Value Chain Players, Supporter and Influencers Analysis

The analysis unravels the meso and macro environment within which the micro NMMDM Agri-Park environment will exist. Figure 5 below, depicts how the broader environment will impact upon and influence the daily operations of the Agri-Park and will thus assist Agri-Park management in maintaining a strategic direction for the Agri-Park.

Figure 5: Domestic and International Market Value Chain



Source: (adapted from Spies, 2011)

3.2.5 Maize Value Chain

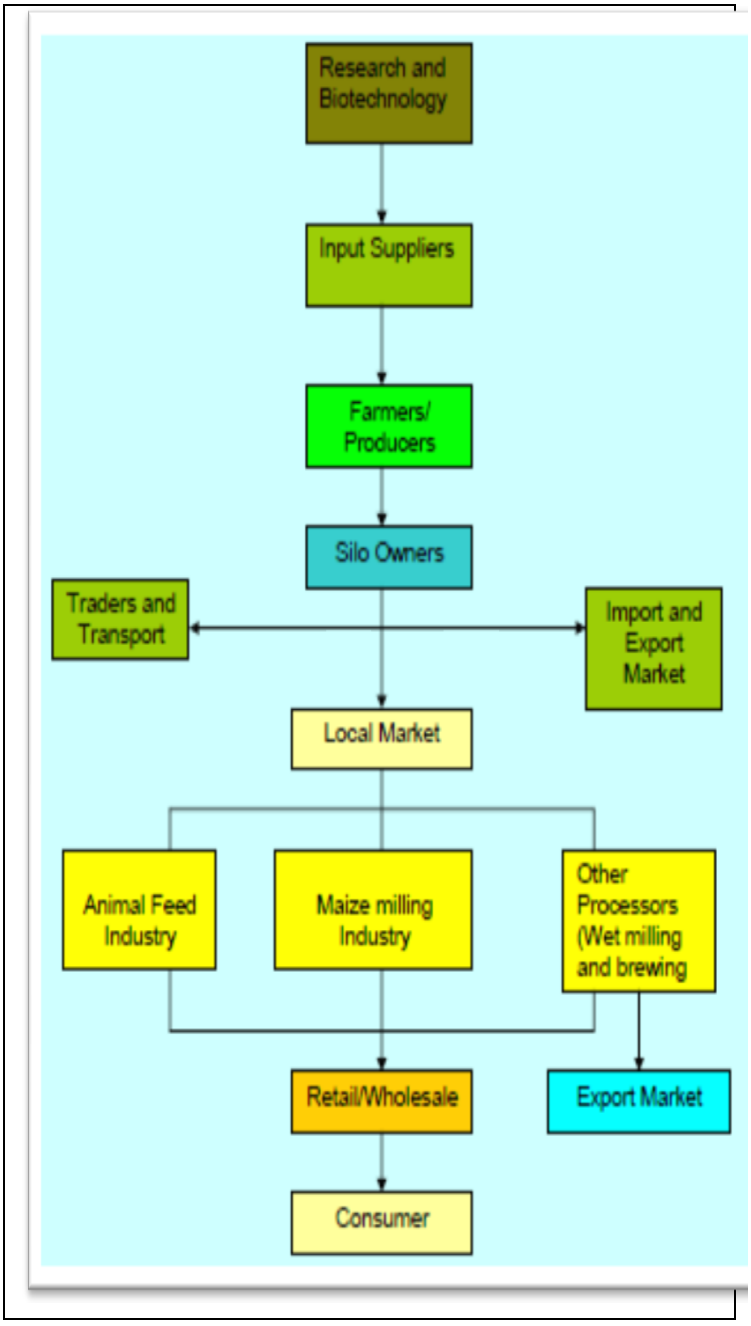
The maize industry is best described by its Value Chain which can be broken down into the following levels:

- producers of maize (Farmers);
- silo owners (who store maize for their own account and on behalf of others);
- traders in maize (who market and sell maize);
- millers of maize (who convert it into usable form);
- end users.

The maize primary sector consists of input suppliers, producers and silo owners. Silo owners provide storage facilities to handle the crops, to store maize safely and to supply it to buyers on a continuous basis throughout the year. The secondary sector consists of millers and animal feed manufacturers. Millers convert maize to maize meal for human consumption while animal feed manufacturers use yellow maize for the manufacture of broiler and layer feed rations. Maize products in the form of hominy chop (white maize by-product) are used in feedlots.

The tertiary sector consists of traders, retailers and transporters. Traders move the produce to the domestic or export market. There are three types of traders in the maize industry: *hedgers* who use futures and options to protect an existing portfolio against possible adverse market movements; *arbitrageurs* who profit from price differentials of maize in different markets; and *speculators* who use futures and options in the hopes of making a profit on short-term movements in prices. The retail sector provides infrastructure and services for the distribution of maize products from the miller to the final consumer. Transport helps to move the maize from the Farmers to the silo owner, from the silo owner to the miller and from the intermediaries to the final consumers.

Figure 6: Maize Market Value Chain



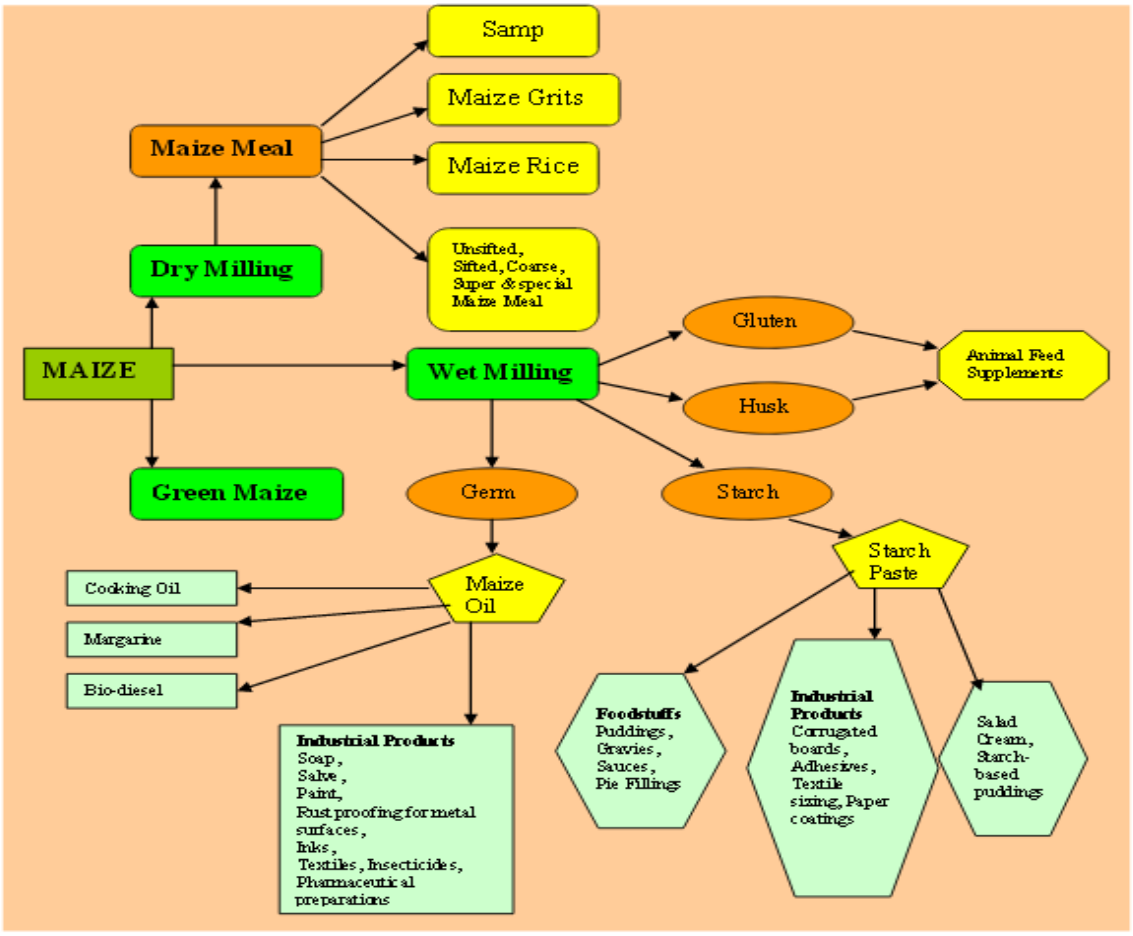
Source: Maize Tariff Working Group, (2005)

3.2.6 Agro-Processing Opportunities

The following diagram represents the various products and by-products that can be derived from maize. The significance thereof is that it depicts the many various manufacturing and value-adding enterprises that can be established at the Springbokpan Agri-Hub (industrial park) all drawing from Maize as the core commodity.

Maize can be consumed as green maize or it can be milled. During the milling process the maize kernel is processed by two industries namely, the wet and dry milling industries.

Figure 7: Maize Agro-Processing Businesses



During the dry milling process the maize kernels are refined to maize meal and, the products that can be derived from this process are samp, maize grits, and maize rice, unsifted, sifted, coarse, super and special maize meal. Wet milling is a process that is carried out in water during which pure starch is obtained from maize. The kernel is separated into its components namely, the husk, starch, gluten and the germ.

When the Starch from the wet milling process is heated in water, its amylase and amylo-pectin hydrates form a paste which allows food technologists to create foodstuffs such as puddings, gravies, sauces and pie fillings. The starch pastes from maize can be allowed to cool, thicken and congeal into a gel that provides starch -based puddings, salad creams and some adhesives. The starch paste also has industrial uses for paper coating and sizing, textile sizing, the manufacture of corrugated boards and adhesives.

The germ and the gluten that are obtained from the wet milling process are used in the manufacture of maize oil and animal feed supplements. The maize oil can be used in cooking, where its high smoke point makes it valuable frying oil. It is also a key ingredient in some margarine. Maize oil is also used as one source of bio -diesel. Other industrial uses for maize oil include soap, salve, paint, rust proofing for metal surfaces, inks, textiles, and insecticides. It is sometimes used as a carrier for drug molecules in pharmaceutical preparations. Figure 6 above depicts the various processing opportunities that can be derived from the maize crop.

For the NMMDM Agri-Park, the 3 main agro-processing business opportunities, covering both dry and wet milling, by order of preponderance proposed are:

a. Animal Feed Production (Chicken and Cattle Feed especially)
b. Maize Meal Production
c. Starch Paste Production

NB. Depending on the availability of sufficient bulk-water services to the Springbokpan Agri-Hub, the 3rd agro-processing opportunity may be Maize Oil Production. Ultimately though, the industrial make up of the Agri-Park must represent and reflect all the agri-processing opportunities linked to the core commodity, in this case, Maize. For, NMMDM, this means that both wet and dry maize processing must be used in order to design the Agri-Hub, especially.

3.2.7 Maize Industry SWOT Analysis

Strengths

- It is the second largest agricultural sector in terms of value after poultry slaughtered.
- Maize ensures self-sufficiency in the major basic food product.
- It also ensures food security in SA and the SADC region.
- It is an earner of foreign exchange through exports.
- The existing production infrastructure is well developed.
- There is enormous intellectual capital and experience that is available in the maize sector to drive its growth.
- There are low entry barriers, in the sense that grain producers can easily substitute other grains produced with maize.

Weaknesses:

- Production is largely dependent on climatic conditions which can only be partially manipulated by man through irrigation.
- International agricultural policies significantly distort international grain markets.
- Deteriorating research infrastructure and capacity may limit new technology development in the future.

- Export opportunities are mainly limited to African countries although exports are starting to grow into East Asia and Europe.
- Relatively high input and capital costs because a large proportion of production inputs are imported.
- High maintenance and delivery costs.
- Research results not user friendly especially to the emerging sector.
- Slow adoption of hedging mechanisms to reduce price risk.
- Inadequate protection against unfair regional and international competition and food aid.
- Lack of innovation for new products.
- Low export orientation.

Opportunities:

- It is expected that the demand for maize for animal feed will increase as the domestic poultry industry expand s and, the domestic demand for maize may be increased by approximately 30% in the medium term if the production of bio-ethanol from maize is commenced.
- With the increase in local and foreign demand for maize, there are opportunities opening up especially for Smallholder Farmers.
- The wide wet and dry processing opportunities offered by maize also suggests a range of business opportunities to expand Black Economic Empowerment.

Threats

- Transport by road has increased dramatically and this leads to out-loading problems as silos were constructed to primarily dispatch by rail.
- Furthermore, in the maize industry transport costs are high. The problem with transport arises from the inability of Spoornet to adapt to the market's increased service requirements as well as increased rail tariffs to maintain its old fleet. Moreover, Spoornet's inability to unilaterally increase rail tariffs is a clear indication of market power.
- The importation of GMO maize is also threatening the domestic markets
- According to the Competition Commission there is evidence of vertical integration in the South African maize market. Vertical integration occurs when a firm has interests in more than one level of the supply chain, linking producers, silos, traders and millers to final consumers. In SA there are dominant silo owners such as NWK, AFGRI and Senwes who in addition to supplying production inputs, also own trading companies as well as animal feed manufacturing companies.
- Drought in South Africa has posed a serious threat to the maize industry, drastically reducing maize production capacity and also threatening national food security.

Chapter Three: Ngaka Modiri Molema District Municipality Agri-Park Strategy

4. Ngaka Modiri Molema District Municipality (DC38)

Spanning an area of 31039 square km, Ngaka Modiri Molema District Municipality in the North West province is situated in the centre of North West Province and shares a border with Botswana. Its area of jurisdiction covers the local municipalities of Mafikeng (North),Ratlou (South), Ditsobotla (West), Tswaing (South–West), Ramotshere Moilwa (North – East)Local Municipalities. The principal towns in the district are Mafikeng, Zeerust and Lichtenburg. Mmabatho, in Mafikeng is the location of the municipal head office. The District Municipality covers an extent of 31039 Km_2, the District Municipality has a total of 2,788,844 hectares (26% of the Total number of hectares in the North West province).

The Ngaka Modiri Molema District Municipality shares borders with the following District Municipalities : Bojananla Platinum District Municipality on the East, DR Ruth Mompati District Municipality on the South, Dr. Kenneth Kaunda District Municipality on the South – East. It comprises the town of Biesiesvlei, Coligny, Delareyville, Disaneng, Groot Marico, Kraaipan, Lichtenburg, Madibogo, Mahikeng, Mmabatho, Ottosdal, Ottoshoop, Sannieshof, Setlagole, Zeerust.

Invariably, the district's strategy is aligned to the National Development Plan's Outcome 7 which is the primary mandate of DRDLR. Amongst the contributing departments are COGTA, DPW, DWA, dti, DSD, Energy, EDD, DHET, DOT, DPSA, DST etc. Outcome 7 is used as a vehicle to fast track service delivery in rural areas. It seeks to ensure that rural people's quality of life, their access to quality services, livelihoods and income are improved.

Table 3: NDP Outcome 7 and District Strategy Alignment

Outcome 7	**Vibrant, Equitable and Sustainable Rural Communities**
Outputs	1) Sustainable agrarian reform with a thriving farming sector 2) Improved access to affordable food – maize crop massification. 3) Improved rural services to support livelihoods 4) Improved employment and skills development opportunities 5) Enabling institutional environment for sustainable and inclusive growth
Vision	The NMMDM 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.
Mission	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.
Goal	By 2025 NMMDM rural areas and small towns would be transformed into thriving areas in terms of jobs, food security and opportunities to prosper.

4.1 District Spatial Development Framework

According to the IDP (2012-2016), NMMDM Spatial Development Framework is currently under review and as well their Rural development Strategy is under development. However, the IDP addresses Spatial Development Imperatives to some extent in Table 4 entitled "Spatial Rationale" as highlighted below:

Table 4: NMMD Spatial Development Rationale

Spatial Rationale – NMMDM		NMMDM Agri-Park Alignment
Objective 1	Promote Spatial Planning	Yes
	Support municipalities with the development of integrated land use management schemes	
Objective 2	Improve District Transport Planning	Yes
	Develop Road Master Plan	
Objective 3.	Enhance Integrated Rural Development	Yes
	Develop an integrated Rural development Strategy	
Objective 4:	Promote Economic development Planning	Yes
	Develop the District Growth and Development Strategy	
Objective 5	Promote Intergovernmental relations (IGR)	Yes

4.2 NMMDM Economy

NMMDM is a predominantly rural region. Farming activities focus on cattle ranching, game farming around Zeerust and maize, wheat, fruit and vegetable cultivation. Several kinds of mineral, including gold, diamonds, lime and salt, are also mined. Construction, electricity, manufacturing and transport as secondary sectors and employ only 14.0% of the economically active population. The tertiary sector (social, financial, wholesale etc) employed 43.8% of the economically active population. Agriculture and mining form the economic backbone of the district.

Community, social and personal services is the sector employing most people (principally in Mahikeng / Mmabatho and Ratlou), followed by agriculture and the wholesale and retail trade. The more skilled farm workers tend to be found in Ditsobotla and Tswaing, where commercial farms are located. Manufacturing is concentrated in Ditsobotla, around Lichtenburg, where non-metallic mineral products are manufactured in association with large national cement companies in the area.

4.3 NMMDM Strategic Intent

The NMMDM strategic intent below reconciles the strategies and objectives of the district municipality as extracted from the IDP with those of the NDP (Outcome 7) and those of the Agri-Park development policy. This alignment is crucial to ensure that the development and implementation of the NMMDM Agri-Park whilst driven by national enjoys all the necessary support of the NMMDM as expressed in the NMMDM IDP.

- NDP Outcome 7: Vibrant, equitable and sustainable rural communities and food security
- NMMDM Vision: "Leaders in integrated municipal governance."
- NMMDM Mission: NMMDM District to provide a developmental municipal governance system for a better life for all in Ngaka Modiri Molema District
- NMMDM Goal: As a predominantly rural are, the NMMDM will prioritise agriculture as one of the catalysts of the fight against poverty and hunger - Rural Transformation.

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

(A) Objective 1: Transformation and Modernization

Proposed Objective One for NMMDM Agri-Park –

- To transform and modernise rural areas and small towns in Dr. Kenneth Kaunda DM 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 provisions seeks to contribute to achievement of the NDP's "inclusive rural economy" and 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 the above. 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.

(B) Objective 2: Agri-Park Infrastructure Development

Proposed Objective Two for NMMDM Agri-Park –

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

According to the Agri-Park draft policy framework, 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.

(C) Objective 3: Agri-Park Governance and Management

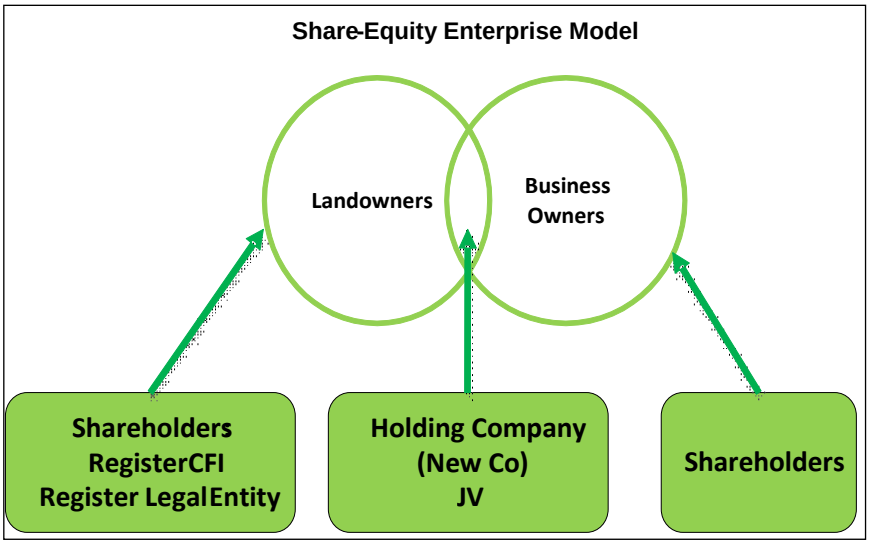
Proposed Objective Three for NMMDM Agri-Park –

- To facilitate the establishment and implementation of a sustainable **Agri-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 8 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 2: Proposed Governance and Management Model for NMMDM Agri-Park

In response to the Agri-Park draft policy framework share-equity model, a number of principles help to guide the ownership, governance and management question of the envisaged NMMDM Agri-Park, namely:

- ***Guiding Principle 1***: An Agri-Park must provide for Emerging Farmer/Producer ownership of the majority of Agri-Parks 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 five abovementioned business units to provide 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 maize.
  - 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 Agri-Park Manager will be to ensure that optimum cooperation and alignment is maintained between the Agri-Park and the abovementioned government initiated and supported institutions**.**

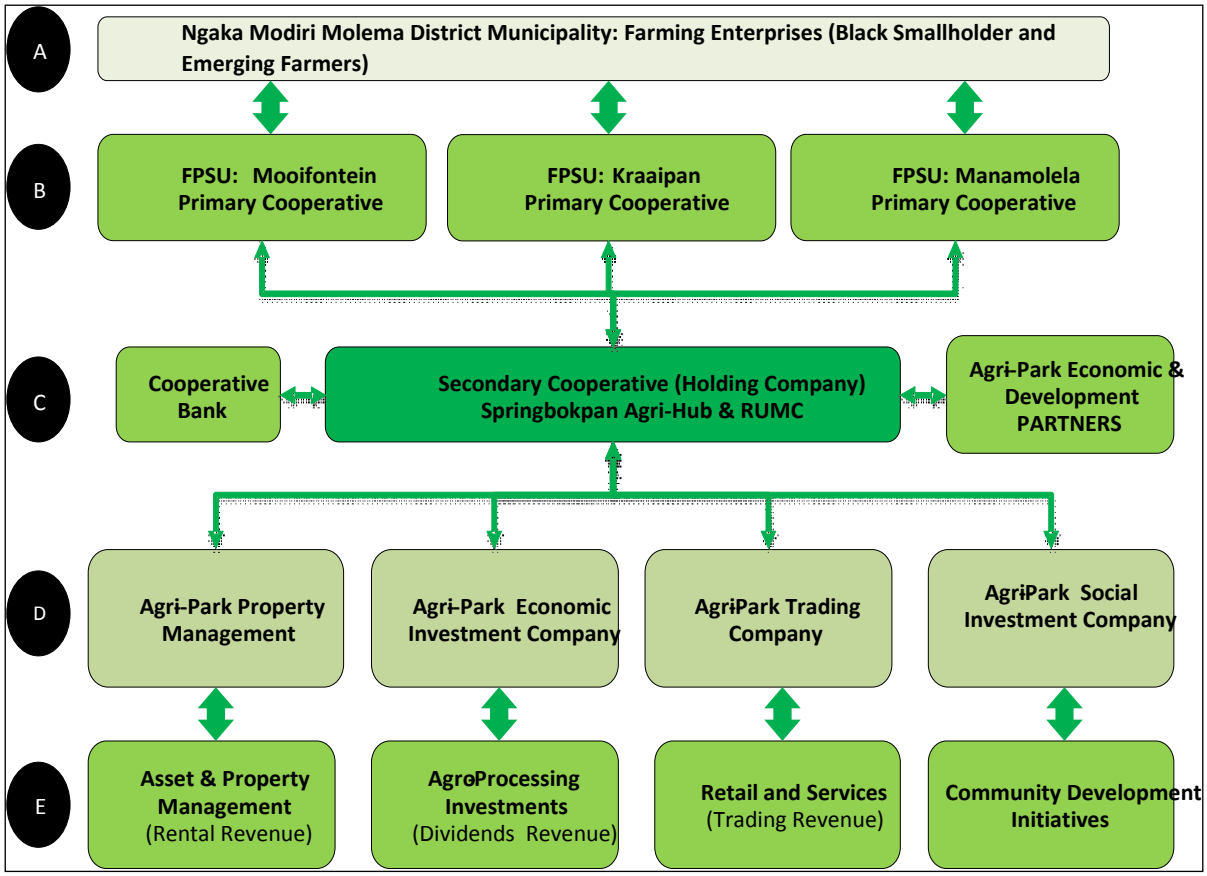
The table 5 and figure 9 below outlines a proposed Agri-Park ownership, governance and management model

Table 5: 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 For the Agri-Park, 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.	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. . 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. The business affairs of the Cooperative must be audited and Audited Reports, including Audited Financial Statements must be presented to Members at each AGM.	Board of Directors whose main responsibility will be to manage the business affairs of the cooperative. To dispense with its management duty, the Board has the power to appoint staff and engage external expert service providers.

Level	Ownership	Governance	Management
C	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.	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. . 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. The business affairs of the Cooperative must be audited and Audited Reports,	Board of Directors whose main responsibility will be to manage the business affairs of the cooperative. To dispense with its management duty, the Board has the power to appoint staff and engage external expert service providers. 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.
D	The Agri-Park 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 enterprises will either be 100% or spilt with external investors.	The special-focus enterprises will be separate legal entities (Juristic Persons) with own governance and audit arrangements suitable for each enterprises. As a subsidiaries, each enterprise will report to and account to the Agri-Park 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.	Each special-focus enterprise will assemble its own management arrangements best suited for its core business. However, the Agri-Park Holding Company will provide strategic management and performance direction to each special-focus enterprise.

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



(D) Objective 4: Agri-Park Funding

Proposed Objective Four for NMMDM Agri-Park –

- To facilitate funding, and investment for the development of the **Agri-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.

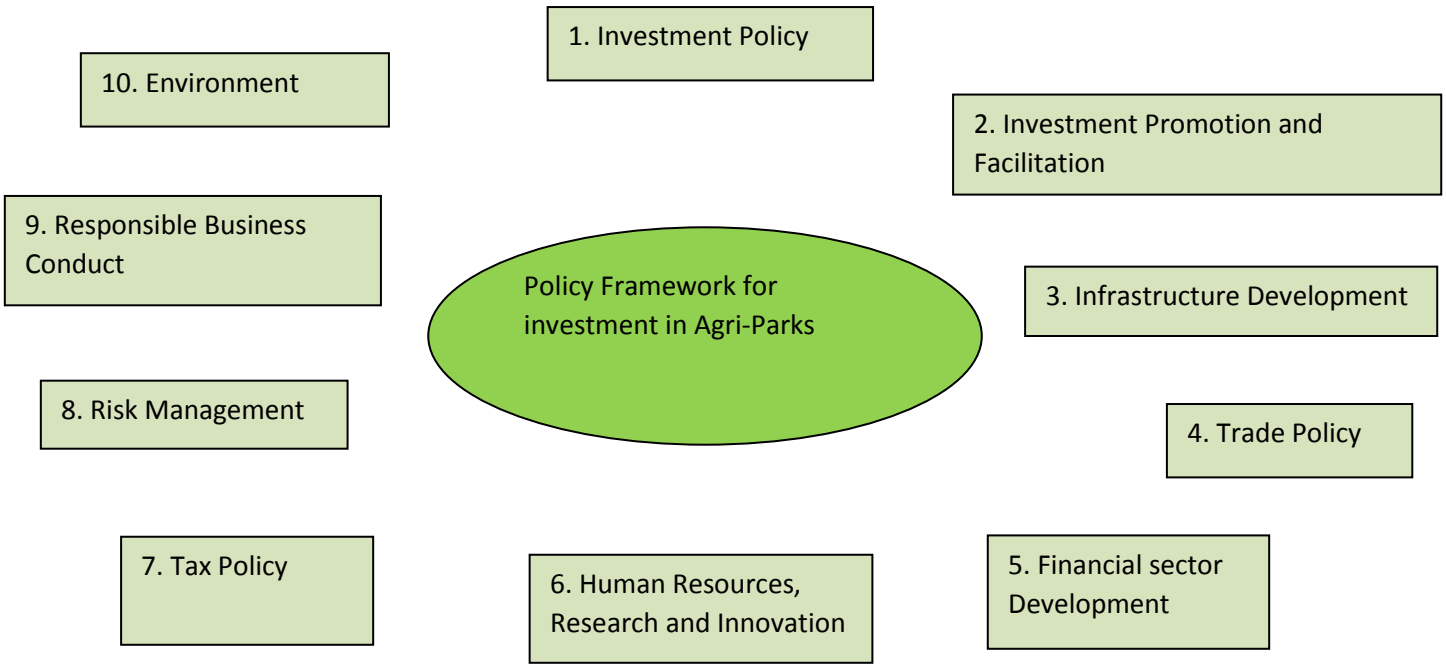
The renewed emphasis on and need for rural development in South Africa exposes the limited capacity of the Development Finance System(DFS) and other development agencies to transform the rural economy and reach marginalised enterprises in rural areas, notably the former Bantustans, where many of these 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: Agri-Park Investment Policy Framework



Source: Adapted from OECD, 2013

I. 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.

II. 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.

III. 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.

IV. 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.

V. 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.

VI. 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.

VII. 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).

VIII. 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.

IX. Responsible Business Conduct

Policies promoting recognized 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.

X. 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.

(E) Objective 5: Agri-Park Farmers and Communities Development

Proposed Objective Five for NMMDM Agri-Park –

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

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 family farmers (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.

(F) Objective 6: Agri-Park Implementation Capacity

Proposed Objective Six for the NMMDM 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.

Chapter Four: Ngaka Modiri Molema District Agri-Park Infrastructure Plan

5. NMMDM Agri-Park

According to the NMMDMIDP, parallel to the process of developing the District Growth and Development Strategy (DGDS) the district municipality is also working on reviewing the spatial development framework and several other sector plans like the Integrated Transport Plan and the Water Services Development Plan. As a predominantly rural district in character, the district will also develop a Rural Development Strategy, which will map-out specific development intervention that will be coordinated across the district.

Borrowing from the above statement linked to Spatial Development Planning in DR.KKDM, it is clear that the district's spatial planning will support the Agri-Park functionality especially when one considers critical infrastructure like roads, water, electricity and so forth.

In the ensuing section, the location of the NMMDM Agri-Park is mapped around the following elements:

- the socio-economic make-up of the district;
- a specific focus on agricultural activities within the said district,
- the Agri-Park Spatial Layout mapping it out and defining it around the maize, the core commodity.

5.1 NMMDM: Local Municipalities Demographics and Economy

The Ngaka Modiri Molema District Municipality shares borders with the following District Municipalities in the Republic of South Africa; Bojananla Platinum District Municipality on the East, DR Ruth Mompati District Municipality on the South, Dr. Kenneth Kaunda District Municipality on the South – East. It comprises the town of Biesiesvlei, Coligny, Delareyville, Disaneng, Groot Marico, Kraaipan, Lichtenburg, Madibogo, Mahikeng, Mmabatho, Ottosdal, Ottoshoop, Sannieshof, Setlagole, Zeerust

Table 6: NMMDM Local Municipalities Profiling

#	Local municipalities	Seat	Area (km²)	Population (2011)
1	Ditsobotla Local Municipality	Lichtenburg	6 465km²	168 902
Description: Ditsobotla Local Municipality comprises of 3 towns namely; Lichtenburg, Coligny and Biesiesvlei. Its main attractions are cultural, heritage and agricultural museums; the burning vlei – a unique vlei consisting of the thick layers of subterranean peat that burnt for years, creating a rare natural phenomenon; the Lichtenburg Game Breeding Centre; Eufees and Duch Roode Dams, situated between the CBD and Burgersdorp; and Molopo Oog/Wondergat. **Economy**: The main e*conomic sectors of* Ditsobotla *are* manufacturing (38.5%), agriculture(16.5%) as well as wholesale and retail (7.4%). In terms of Census 2011, unemployment in Ditsobotla stood at just over 28.3% and ranks 109 compared to other South African towns and cities.				
#	**Local municipalities**	**Seat**	**Area (km²)**	**Population (2011)**
2	Mafikeng Local Municipality	Mmabatho	3 703km²	291 527
Description: The municipality is considerably bigger than the other four local municipalities located within the area of jurisdiction of the Ngaka Modiri Molema District Municipality. The neighbouring local municipalities that border the Mahikeng Local Municipality are: Ramotsere Moiloa Local Municipality (previously Zeerust Local Municipality), Tswaing Local Municipality, Ditsobotla Local Municipality and Ratlou Local Municipality (previously Setla-Kgobi Local Municipality). The Mahikeng Airport, situated 5km west of the Mmabatho CBD, boasts a landing strip of 4.6km, one of the longest runways in the world. It is divided into 28 wards consisting of 102 Villages and suburbs.				

Economy: The main economic sectors of Mafikeng *are* agriculture, mining, manufacturing, trade and tourism. The untapped business market in Mahikeng continues to flourish as the municipality still offers lucrative business packages for industrial, residential and business developments projects. Mahikeng is a city of opportunities in the sector of agriculture manufacturing, cargo and aviation management. In terms of Census 2011, unemployment in Mafikeng stood at just over 35.7% and ranks 24 compared to other South African towns and cities

#	Local municipalities	Seat	Area (km²)	Population (2011)
3	**Ratlou Local Municipality**	**Setlagole**	**4 884km²**	**107 339**

Description: Ratlou Local Municipality is a Category B municipality situated in the Ngaka Modiri Molema District Municipality in the North West Province. It is categorised as the most vulnerable municipality in the NMMDMsuggesting high levels of poverty in the region. The municipality is predominantly rural in nature and is constituted by about 26 villages and commercial farms. Ratlou comprise the towns of Disaneng, Kraaipan, Madibogo, Setlagole.

Economy: Municipality is an agriculture-based municipality, where both livestock and crops are being farmed. Agriculture, mining, tourism are the cornerstone of the Ratlou economy and there is currently a drive to redevelop the Setlagole commercial hub. Most of the farming activities are between smallholder and subsistence farming activities around cattle and goats.

#	Local municipalities	Seat	Area (km²)	Population (2011)
4	**Ramotshere Moiloa Local Municipality**	**Zeerust**	**7 193km²**	**150,713**

Description*:* Ramotshere Moiloa Local Municipality (previously Zeerust Local Municipality) is situated within the Ngaka Modiri Molema District Municipality in the North West province. The seat of the municipality is Zeerust and is a commercial town situated in Ngaka Modiri Molema district North West Province, South Africa. It lies in the Marico valley, approximately 240 kilometres northwest of Johannesburg. It lies on the N4, the main road link between South Africa and Botswana.

Economy: There are large cattle ranches in the area, as well as wheat, maize, tobacco and citrus fruit farms. There are also fluorite and chromite mines in the vicinity. Tourism is also a developing industry in this municipality. The economy for the bulk of Black people still comprises of subsistence livestock farming with animals freely roaming for grazing and causing environmental. According to Statistics SA (Census 2011), the number of households active in agricultural activities owning sheep and cattle of less than 10 animals dominate this activity whilst crop farming is a lesser activity.

#	Local municipalities	Seat	Area (km²)	Population (2011)
5	**Tswaing Local Municipality**	**Delareyville**	**5 966km²**	**124, 218**

Description: District Municipality in the North West Province. The municipality is one of the five local municipalities located in the Ngaka Modiri Molema District. The major towns of the municipality are Delareyville, Sanieshof and Ottosdal. The municipality is divided into 15 wards. Setswana is the most dominant language in the municipal area with about 81.5% of people speaking Setswana as a first language, followed by Afrikaans with 6.5%.

Economy: The main economic sectors in Tswaing *are a*griculture, small-scale mining and the municipality has initiated the following local economic development projects, i.e. Ecogarden in Ottosdal Ward 12; Rethabile Toilet Paper Project in Delareyville; Retladirela Agricultural Primary Cooperative. Key local investments projects include the Henk Joubert Game Reserve and Barberspan Bird Sanctuary. The largest economic note of Tswaing is Delareyville which growing retail activities which is supposedly driven by local agricultural growth.

Source: (Stats SA, 2011) and (Stats SA, 2015)

5.2 Ngaka Modiri Molema District Municipality: Local Municipalities Agriculture

The tables and notes below analyse the spread and distribution of agricultural activities by household and by municipality within the DR.KKDM. Albeit household based, the analysis may bear on the location and development of agricultural infrastructure to support the Agri-Park envisaged in the district, notwithstanding that the core commodity for the Agri-Park is maize.

Table 7: Number of households by type of activity and municipality

Local municipality	Animals only	Crops only	Mixed farming	Other
Ratlou	9 818	140	1 001	389
Tswaing	7 116	573	1 960	373
Mafikeng	15 034	1 476	3 204	768
Ditsobotla	6 257	1 162	1 644	401
Ramotshere Moiloa	11 892	714	1 484	281
District Totals	50 117	4 066	9 292	2 212

The tabular analysis of agricultural activities by household and municipality within the Ngaka Modiri Molema District paints a picture of both levels and width of participation across agriculture in the areas of crop and animal farming. Notably, the animals include pigs, goats, sheep and cattle and excludes poultry. On the other hand, "crops" denotes vegetables and other crops excluding fodder and grass for animal feeding.

Clearly, Ratlou ranks low in all agricultural activities, essentially, this affirming poverty levels there. Whereas, it surpasses Tswaing and Ditsobotla by animals only, it ranks low in both crops and mixed farming activities.
Source: Statistics SA (Census 2011) data

Table 8: Number of agriculture households owning only livestock by local municipality

Local municipality	Cattle only	Sheep only	Goats only	Pigs only	Poultry only	Aimal combina	Other livestock
Ratlou	1 345	164	481	104	3 941	3 717	66
Tswaing	741	125	121	134	3 707	2 246	43
Mafikeng	1 925	155	581	123	7 314	4 876	60
Ditsobotla	850	70	111	147	3 575	1 457	47
Ramotshere Moiloa	1 912	74	439	40	6 307	3 078	42
District Totals	6 773	587	1 733	547	24 845	15 374	257

Source: Statistics SA (Census 2011) data

Given the structure of the Ratlou economy with no large scale commercial or industrial activities, it is understandable that the bulk of the households there will be involved in some agricultural activities, as depicted in the Table 13. Notably, Ratlou commands the smallest population size of all other towns in the district.

5.3 Ngaka Modiri Molema District Municipality: Proposed Agri-Park

An Agri-Park (AP) **is *not* only physical buildings** located in single locations (like ordinary industrial parks) per district ***but*** it is defined as:

- A ***networked innovation system*** of agro-production, processing, logistics, marketing, training and extension ***services*** located in a District Municipality. As a network, it **enables** the **growth** of market-driven ***commodity value chains*** and contributes to the achievement of ***rural economic transformation (RETM)***. An **AP** contains three ***service collections***:

  A. Farmer Production Support Unit (**FPSU**) with a focus on primary production towards ***food security***;
  B. Agri-Hub (**AH**); and
  C. The Rural Urban Marke Centre (**RUMC**)

5.3.i NMMDM Agri-Park Units/Sites Mapping

The initial makeup of the NMMDM Agri-Park will be laid out in terms of the location and spread of Farmer Production Support Units, the Agri-Hub as well as the Rural Market Centre as depicted in Fig. ??? below. Idealy, all the constituent local municipalities must participate in the Agri-Park and that to ensure that, indeed, the Agri-Park is a district-wide networked system of agro-production, processing, logistics, marketing, training and extension services.

The following mapping and location of the various Agri-Park sites by way of the Agri-Hub, the FPSU and the RUMC as decided upon by the district.

Figure 36: Conceptual NMMDM Agri-Park spatial location within the district

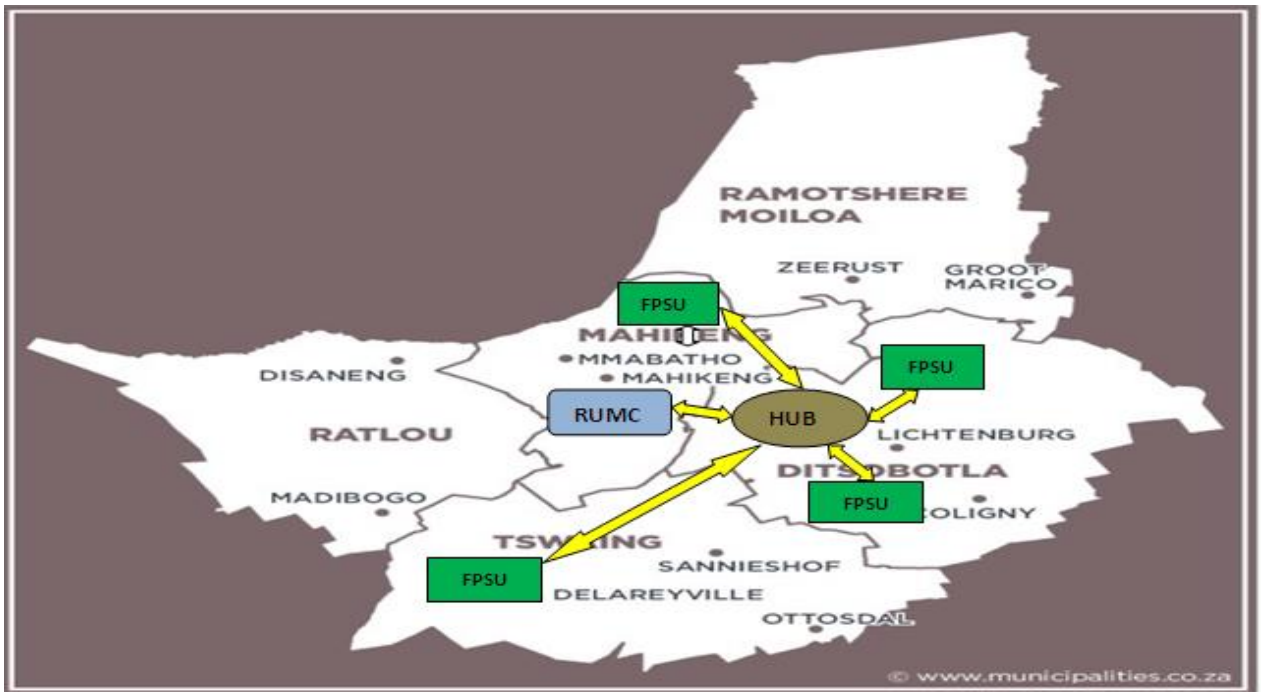


Table 9 below represents the placement of the Agri-Park sites, mapped above in Figure 11, by way of the Agri-Hub, the FPSU and the RUMC as decided upon by the district.

Table 9: NMMDM Agri-Park Site Locations

	Agri-Park Units/Sites	Location	Site Condition Comment
a.	Springbokpan Agri-Hub	Ditsobotla	Site with silos and site development technical plans drawn.
b.	Ditsobotla FPSU	Ditsobotla	Site yet to be determined near Zeerust bordering Ramotshere Moiloa municipality.
C.	Kraaipan FPSU	Ditsobotla	Site with existing Silos to link with Springbok pan Agri-Hub
d.	Vryhof FPSU	Mahikemg	Site with existing Silos to link with Springbok pan Agri-Hub
e.	Manamolela FPSU	Tswaing	Site yet to be determined in the Manamolela rural settlement.
f.	Rural Urban Market Centre	Mahikeng with Klerksdorp	Suitable Office Space Accommodation to be established

5.3.ii Functional Requirements of NMMDM Agri-Park Units/Sites (i.e. Agri-Hub, FPSUs, and RUMC)

Initially, because it is the nerve centre of the Agri-Park, the Agri-Hub, the industrial enterprises therein must be based on and comprise of the Agri-Park's core commodity and its processing opportunities. Thus, the ultimate number of factories therein (downstream & upstream) will depend on the processing opportunities offered by the core commodity.

(a) The Springbokpan Agri-Hub should include the following minimum facilities and support services: (TO BE CONFIRMED WITH NEO of RID)

- Already the facility has 10 Maize Grain Silos with a total storage capacity of 50 000 metric tonnes and a modest office with reception area.
- Intake, storage and dispatch facility for maize produce from the feeder FPSUS.
- Maize Meal Processing Facilities with granulation capabilities to manufacture/produce refined maize meal, samp and mealie rice.
- Importantly, the maize granulation facilities must allow production of maize for animal feed, as well.
- Maize Starch Paste Processing Facilities
- Training facilities including lecture halls and lodging for 20 trainees.
- Large maize bags storage and dispatch facility for finished and/semi finished processed maize stock.
- Local market facility to sell maize products to local and surrounding communities .
- Office space (open plan office with desks), boardroom (2) facilities, internet cafe and secretarial services for local emerging Farmers.
- Main Farmers Production Input Supply Facility (a Farmers Shop) of about 4000 m^2 (shop to sell production inputs like fertilizer, chemicals, seed irrigation equipment, small tools, etc) to be operated with a strategic partner along the following lines:
    - A small Farmer / emerging Farmer (Client) will approach the Farmers Shop for production inputs for a specific crop and quantity.;
    - The Farmers Shop and client will enter into a supply / purchase contract stipulating, crop or farming enterprise, quantity and timing, e.g. area to be planted with crop and when planting will take place. From this it will be clear as to what is needed, when and how much;
    - The Farmers Shop will inspect the clients operations on a regular basis to ensure that the client adheres to the contract;
    - The contract will also stipulate that the client must deliver the produce to the Farmers Shop who will grade and pay the client market price minus the costs of the inputs supplied. The Farmers Shop will then on-sell the produce delivered to one of the other facilities in the Agri-Hub for further processing of packaging;

- Agri-Hub/Farmers Shop personnel will, as part of their service, supply extension services to the client;

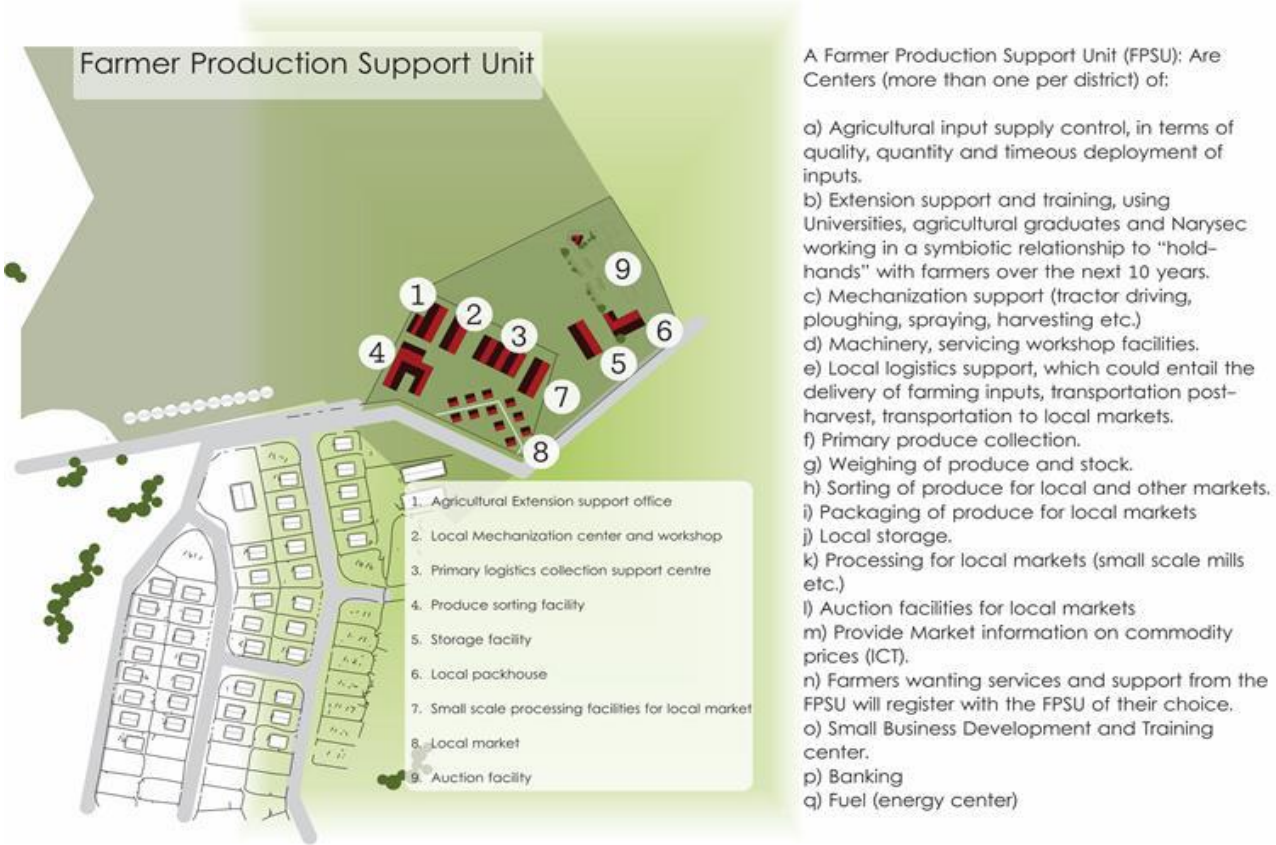
- Main mechanization centre and equipment servicing and repair centre with a small filling station of about 2000 m^2 to effect major repairs to the fleet of trucks, tractors and vehicles that service the hub and its feeder FPSU's
- Agricultural Extension and Laboratory Services with shared offices at the training centre.
- Market information centre with shared offices at the training centre.

(b) The Farmer Production Support Units (FPSUs)

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, as depicted in figure 12 below.

- Small Produce Handling Facility – receipt and dispatch of produce from the maize catchment areas surrounding the FPSU.
- Mechanization and Repair Centre.
- Local Market Facility to sell produce locally.
- FPSU production input supply facility (a local branch of the main production input supply facility).
- Small Meeting and internet facility for use by local Farmers.

Figure 12: FPSU Conceptual and Operational Outlook



Already, 4 FPSU sites have been located for the NMMDM Agri-park.

(c) The Mahikeng Rural Urban Market Centre Unit (RUMC)

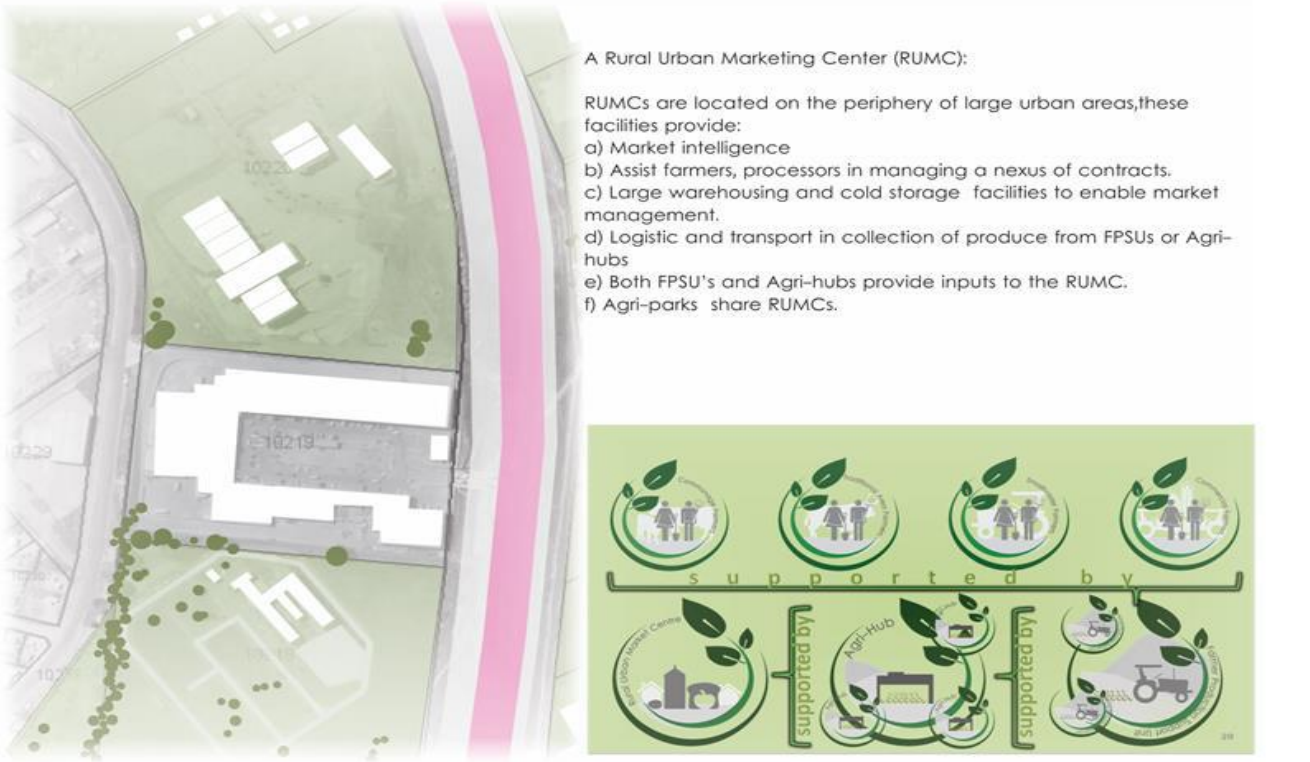
It is proposed that the NMMDM Agri-Park RUMC be situated in Mahikeng because this is the North West provincial capital city and a major commercial hub in the district has three main purposes. Moreover, the Mahikeng Airport Project will also help to connect the RUMC to locations like Johannesburg for purposes of business development by RUMC staff.

Basically, according to the CSIR, the RUMC will serve the following purpose to the Agri-Park:

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

Given the importance of maize as an animal feed ingredient, especially for chickens, and considering that the Dr. Kenneth Kaunda District Agri-Park's RUMC will be located in Klerksdorp, we advise that the Mahikeng RUMC consider co-locating a branch office with the Klerksdorp RUMC. In this way, Maize and or Maize Processed Products can be promoted to the Dr. Kenneth Kaunda District market accessing nearby towns of Potchesftroom, Wolmaranstad and even Gauteng and Free State towns in that area.

Figure 13: RUMC Conceptual and Operational Outlook



5.3.1 NMMDM AGRI-PARK Maize Catchment Areas

Below are the distance guidelines for establishing an Agri-Park and its constituent units stipulated by the DRDLR, with a special focus on distances amongst the units and locations.

Catchment guidelines for Agri-parks		
GUIDELINES FOR ROLLOUT OF AGR-IPARK UNITS		
COMPONENT	***Proposed catchment area in areas of low farmer density***	***Proposed catchment area in areas of high farmer density***
FPSU	30km	10km
AGRI-HUB	120km	60km
RUMC	250km	150km

Table 10: NMMDM Maize Farmers Clusters

Tswaing LDC cluster	Mooifontein LDC Cluster	Ditsobotla LDC Cluster	Ratlou LDC Cluster
Cluster A • Kopela • Thawane • Diretsane • Ntuane • Geluk	**Cluster (A) M** • Naauport • Nooitgedacht • Makouspan	**Cluster (A) D** • Pitfontein • Ga Motlatla • Litchtenburg • Looshof	**Cluster (A) R** • Madibogo • Setlagole • Setlhwatlhwe • Ramabesa
Cluster B • Gannalaaagte • Rakgwedi • Konopo • Vrischgewacht	**Cluster (B) M** • Bethel • Schoongezicht • Meetmekaar	**Cluster (B) D** • Itsoseng • Verdwaaal 1 • Verdwaal 2 • Springbok[an • Bodibe	**Cluster (B) R** • Kraaipan • Tlhakajeng • Mareetsane
Cluster C • Witpan 1 • Witpan 2 • Deelpan • Klippan • Kalkfontein	**Cluster (C) M** • Gelukspan • Uitkyk • Mooifontein		
Cluster D • Sione • Mofutso 1 • Mofutso 2 • Middleton C	**Cluster (D)** • Driehoek • Kaalpan • Brooksby		
Cluster E • Geysdorp • Middleton B • Middleton A	**Cluster E** • Lombaarslaagte • Enselrus • Weltervrede • Mooipan		

Cluster F • Khunwana • Shaleng • Morena • Majeng	**Cluster F** • Louisdal • Siberia		
Cluster G • Dwaalkraal • Sannieshof • Schoonoord • De Klipdrift			

A. Agri-Hub Site – Springbokpan in Ditsobotla Local Municipality

The Agri-Hub is the nerve centre of a fully functional Agri-Park and networks all the operational points of the system. According to CSIR (2016)[4], the Agri-Hub is a production, equipment hire, processing, packaging, logistics and training (demonstration) unit.

Figure 14: Agri-Hub Conceptual and Operational Outlook

[4] 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]

Springbokpan Silos site has been identified as a suitable Agri-Hub for the NMMDM Agri-Park. The following are critical considerations and findings to satisfy the requirements of an Agri-Hub:

A.1 Location and Site

Figure 15: Arial Picture of Springbokpan Agri-Hub

Site (Source: Google Maps)

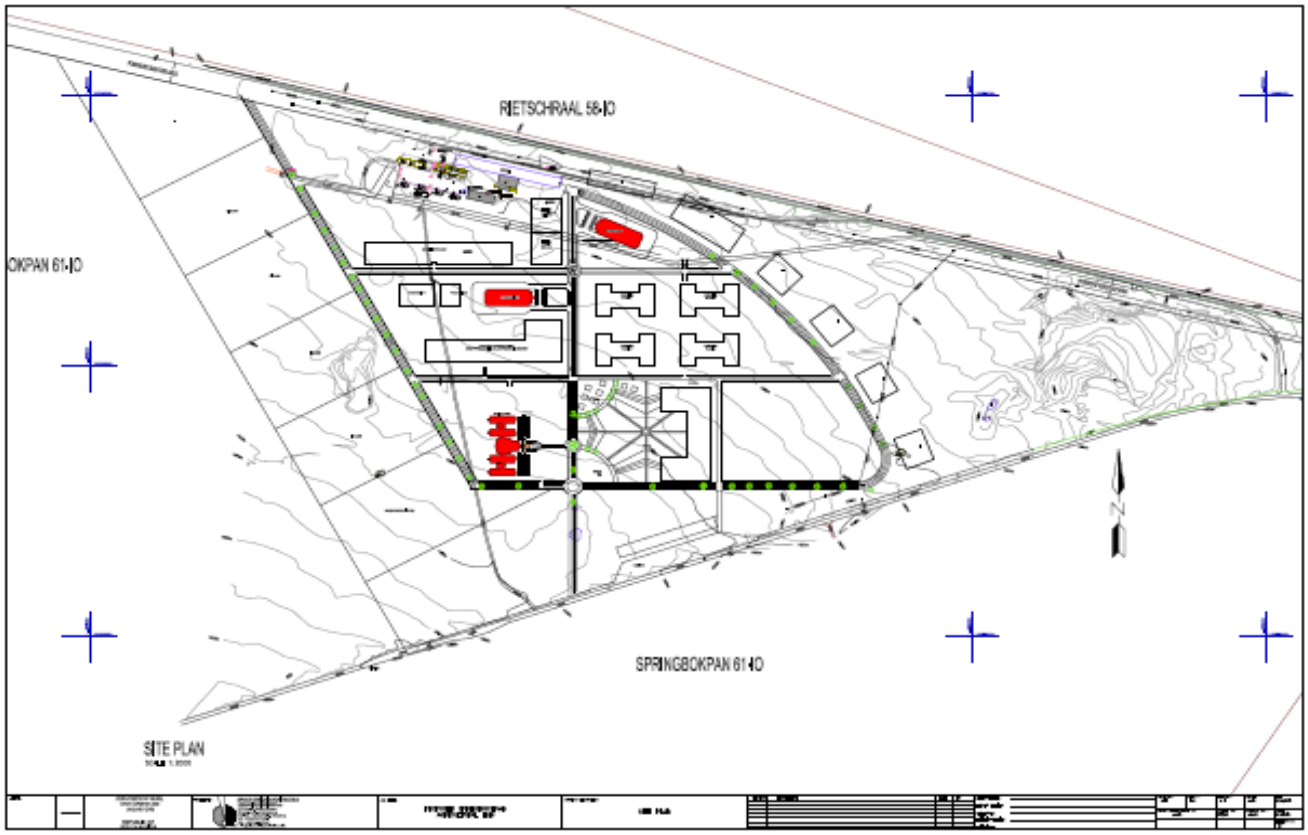
Location: Sprinbokpan is a Silos facility with offices that lies about 45km driving distance from Lichtenburg via the Itsoseng Road and it neighbours Itsoseng township and both are part of the Lichtneburg Local Municipality, their nearest town. The Agri-Hub site is a Grain Silos Facility, GIS coordinates:Longitude: 25.843567 and Latitude: -26.100250, with a feeder railway system located within a 20km driving distance from Itsoseng, a local water reservoir and within 5 km from the Sephako Cement factory to the east of the silos. Also, the nearest village starts at a walking distance away from the silos. The Springbokpan Silos facility is committed to the Ngaka Modiri Molema District Municipality to service the nearby villages within Tswaing, Ditsobotla and Ratlou Local Municipalities, initially. There are also the Mooifontein and Kraaipan Silos that can be functionally linked to the Springbokpan Silos to increase grain storage capacity within the district, overall.

Available Land Hectars: The Springbokpan facility land size is yet to be determined, but according to DRDLR Officials, as much land as is necessary can be secured from both the municipality and the traditional authorities in the area. However, it is not yet clear if the total land is in one parcel or in various locations around Ditsobotla.

Sufficient hectors, 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 hectors (some larger manufacturing (agro-processing) operations may need upwards of 40+ hectors, however, these operations typically select individual, stand alone sites).

Site Configuration: Configuration (square / rectangular preferred) – Square or rectangular sites offer the greatest flexibility and satisfy most uses. Below is the master design for developing the Springbokpan Agri-Hub site further in order to meet the initial operational/functional requirements as an Agri-Hub.

Figure 16: Master Plan for Springbokpan Agri-Hub Site



Source: RID-DRDLR (NW)

Specifically, the construction additions to the current Springbokpan Agri-Hub site comprise the following as depicted by the diagram above:

- NEO of RID to provide information

i. Distance from Urban Development/Human Settlement

Criteria: Ideally, because of its typical industrial park nature that emits noise and other pollution, an Agri-Hub 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. The consideration of separation distances between the Agri-Hub and human settlement will be determined by the Environmental Impact Assessment and Site plan for the Springbokpan Agri-hub.

Finding: The proposed site may be too close to human settlement given its proximity to the nearby village, depending on envisaged noise pollution emissions especially from milling and other associated industrial operations. This suggest that future developments of the hub must take into account the local community and measure must be taken to trap noise emissions for the convenience of the local community.

ii. Accessibility

Criteria: The site should be accessible from a permanent road and rail system to allow for ready delivery and transportation away of grains.

Finding: The proposed site runs parallel to a tarred road and has a dedicated road and rail system.

iii. Water Supply

Criteria: An adequate water supply is essential. While mains water is to be preferred, well or bore water will also be suitable provided the water meets drinking water standards.
Finding: Ditsobotla Local Municipality may need to consider linking the Springbokpan Agri-Hub to bulk water by way of the nearby water reservoir. Necessarily, there may be a need to assess and confirm water accessibility for the Agri-Hub, especially for ensilaged water-based grain processing later,

A.2 Infrastructure (e.g., utilities, rail, etc)

a) 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 is situated along to main arterial roads into the Agri-hub that connect the hub well with local villages and towns up to national roads .
- There is also rail line that services the proposed site which makes the site suitable overall.

b) 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:
- Possibly, Springbokpan Agri-Hub has ample access to bulk utilities like water, electricity, sewer and telecoms albeit broadband capacities were not assessed at this stage, judging by bulk infrastructure available to the nearby cement factory.

A.3 Prior Land Use

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:
- Being a silos facility, the site has been previously used for agricultural purposes and may suggest a need for capital infrastructure rehabilitation and overhauling, where necessary, in order to prepare it for Agri-Hub functionality. Already a Master Plan to develop the site further has been developed.

A.4 General Physical Condition

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 was generally assessed as being good and meeting the requirements because it is of generally flat topography. It is generally vacant grassland with no major trees in the area.

A.5 Regulatory Restrictions

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:

At the time of site inspection it did not emerge that the site may be subject to onerous regulatory restrictions. However further assessments will need to be conducted to confirm this especially during its ongoing development. *(EIA Exercise will be necessary and DRDLR-RID national will lead this initiative)*

A.6 Agri-Park Impact

The Agri-Park socio-economic impact is about the possibility of the Agri-hub economic activities positively impacting and shaping the social processes and make up of Ditsobotla Local Municipalities.

Finding:

Everything considered including land availaibility and proximity to human habitation, the site was considered suitable to derive the envisaged socio-economic impact of the Agri-Park.

B. Agri-Park Units Roll Out

The Agri-Park Units (i.e. FPSU, AH, RUMC) are to be rolled out in consultation with the respective municipalities and key stakeholders. The units are to be aligned to CRDP sites of the DRDLR.

Finding:

- The Agri-Park Units have been fully identified and lined up with agreements also by the DRDLR-NW.
- However, the actual kilometre distances amongst the various towns and Agri-Hub will be determined by SPLUM-NW.

5.3.2 Agri-Park Ownership, Governance and Management

Initially, a number of principles help to guide the ownership, governance and management question of the envisaged NMMDM Agri-Park, namely:

> ***Guiding Principle 1***: An Agri-Park must provide for Emerging Farmer/Producer ownership of the majority of Agri-Parks 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 five abovementioned business units to provide 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 maize.
- 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 Agri-Park Manager will be to ensure that optimum cooperation and alignment is maintained between the Agri-Park and the abovementioned government initiated and supported institutions**.**

a. AGRI-PARK OWNERSHIP, GOVERNANCE AND MANAGEMENT MODEL

Figure 17: Agri-Park Ownership, Governance and Management Model

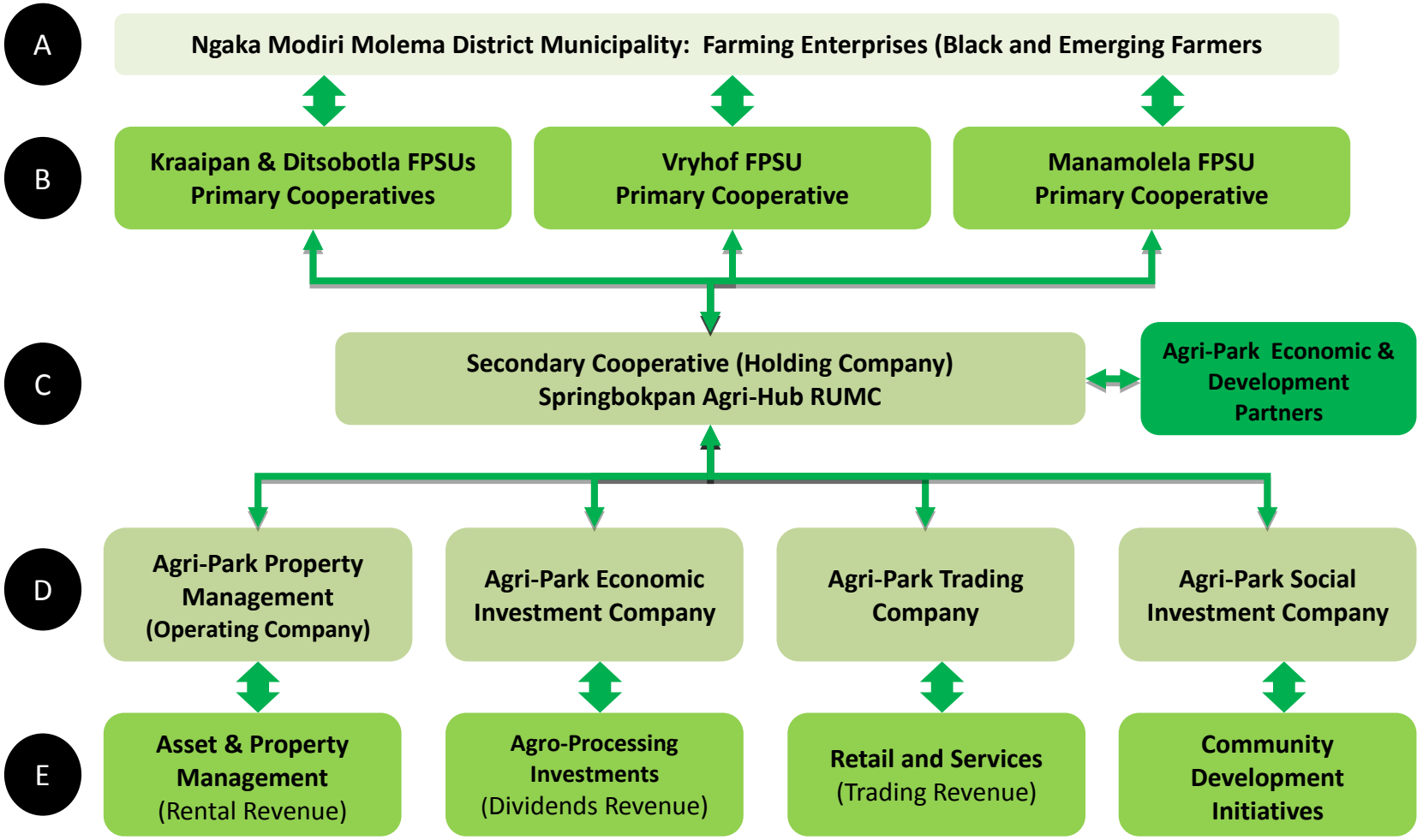


Table 18: Agri-park Ownership, Governance and Management

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 For the Agri-Park, Farmers will be clustered geographically based on FPSU locations and their respective catchment areas across the district. Each cluster will then from and own a Primary Cooperative linked to each FPSU.	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. . 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. The business affairs of the Cooperative must be audited and Audited Reports, including Audited Financial Statements must be presented to Members at each AGM.	Board of Directors whose main responsibility will be to manage the business affairs of the cooperative. To dispense with its management duty, the Board has the power to appoint staff and engage external expert service providers.
C	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.	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. . Chiefly, members of each Secondary Coop will be required to elect a Board of Directors, to serve for two years, whose main	Board of Directors whose main responsibility will be to manage the business affairs of the cooperative. To dispense with its management duty, the Board has the power to appoint staff and engage external expert service providers.

		responsibility will be to manage the business affairs of the cooperative. The business affairs of the Cooperative must be audited and Audited Reports,	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.
D	The Agri-Park 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 external investors.	The special-focus enterprises will be separate legal entities (Juristic Persons) with own governance and audit arrangements suitable for each enterprises. As a subsidiaries, each enterprise will report to and account to the Agri-Park 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.	Each special-focus enterprise will assemble its own management arrangements best suited for its core business. However, the Agri-Park Holding Company will provide strategic management and performance direction to each special-focus enterprise.

5.3.3 PESTEL Analysis (NMMDM Agri-Park)

5.3.3.1 Political Influencing Factors

Clearly, the political environment will impact the implementation of the NMMDM Agri-Park. Whereas, there is national commitment led by the DRDLR and its partner departments like the DAFF, Public Workd and others, the same level of political will is required at, provincial, district and local municipality levels. Fortunately, DRDLR leads the initiative at a provincial level and would have promoted the project to its counterparts at that level. In all instances, at local municipalities the Agri-Park will be led and driven by LED Offices. In Agri-Park consultations it emerged that LED offices are not optimally supported for them to achieve the local economic objectives. As such, it was noted that each municipality must take a Council Resolution that supports the Agri-Park and its manifestation at a local municipality level. Consequently, the necessary staffing and financial resources will be mobilised as will be determined from one municipality to another.

5.3.3.2 Legal Influencing Factors

The main legal considerations that will influence a successful operation of the NMMDM Agri-Park will be around legal founding, constitution, ownership and management structuring of the various companies that must operate the Agri-Park. Importantly, the municipalities will need to formalize their own relationships vis-a-vis the Agri-Parks ownership structures.

5.3.2.3 Social Influencing Factors

In line with one of the founding principles for the establishment of Agri-Parks in South Africa, i.e., that the Agri-Park must be Farmer led, the operation of the NMMDM Agri-Park will hinge on a string and effective mobilization of the local Farmers community. This will be necessary to achieve the necessary unity regarding Agri-Park ownership and management, irrespective of the various Farmer organizations that individual Farmers belong to.

Already, the DRDLR has initiated this process via the establishment of various District Agri-Parks Committees which are a transitional community consultation vehicle surrounding the establishment of each Agri-Park. The view that emerged in various consultations is that while wide consultations are necessary, they will have to focus on direct farming stakeholders, mainly Farmers and relevant support institutions including the local municipality, rather than address ordinary people who may have no direct stake, role and interest in agriculture.

5.3.2.4 Economic Influencing Factors

Agriculture is a primary economic sector that builds into it secondary economic activities by way of agro-processing activities. Its success largely depend on the forces of the market that prevail at a local, national and international level, especially given increasing regional, continental and global trade in agricultural commodities and products. Moreover, these forces will include the various economic sectoral and inter-sectoral policies adopted and implemented at various government spheres South Africa and by other countries. For example, how the EU regularly revisits its sourcing of agricultural produce from South Africa. Critically, the performance and success of agriculture depends on the demand for and consumption of agricultural produce and so the buying power of Consumers is very important. Initially, how South Africa's economy pens out and how this is impacted by provincial and local economic factors will also influence Farmers and thus Agri-Parks.

In order to get the most out of all agricultural produce and manage economic impacts, the NMMDM Agri-Park requires to sharpen up its market identification, development and sustainability methods through a well-resourced RUMC. Through reliable and sustained market access, the Farmers will thrive.

5.3.2.5 Technological Influencing Factors

Farming has evolved over time to integrate advanced modern technologies in its operations supporting various farming activities and commodities. Linked to this have been mechanization initiatives that seek to optimize agricultural yield and output at both production and agro-processing levels for the market. For example, maize Farmers can incorporate extensive mechanization solutions to deal with irrigation, ploughing and harvesting as opposed to the lesser efficient traditional. In this way they can optimize production and obtain the best quality animals that will fetch optimum market value. Technological advances in agriculture are therefore a strong influencing factor for the success of the industry, including the maize industry even amidst Farmers who continue to stick to traditional maize agricultural practices.

5.3.2.6. Environment Influencing Factors

Environmental management is a global concern especially given how land and spaces are used to accommodate growing populations. Also, it is concern how general industry impacts the environment in their production activities to meet market needs. Agricultural land use and environmental management is

therefore critical in securing agricultural economies, depending on both primary and secondary agricultural activities.

Increasingly, Farmers and agro-processors are required to adopt farming practices and value-adding processes that protect and sustain the environment. For the NMMDM Agri-Park, various land use and impact considerations will be critical including conducting environmental impact assessments depending on various targeted agricultural activities at farming, production and Agri-Hub levels. These measures will ensure sustained environment management. Moreover, various markets increasingly place importance on agricultural practices that protect the environment from degradation by mankind and production processes.

5.4 Agri-Park External Environment (SWOT Analysis)

A review of the significant trends, issues and changes in the external environment in which NMM District Municipality Agri-Park will operate identified several key factors that are likely to have a significant influence on the development and the implementation of the draft Agri-Park Policy Framework. The Agri-Park External Environment opportunities and challenges are proposed to inform decisions on the development and implementation of the Agri-Park Programme.

5.4.2 Threats

- General resistance to change envisaged by Agri-Parks into the South African agricultural landscape.
- Access to optimum and effective DAFF farming enterprise support services that empower and ready Farmers for Agri-Parks
- Strong and effective Agri-Parks support and facilitation by local municipalities, given general weakness of LED offices.
- The global, regional and national economic situation and associated market uncertainties
- Fragmentation amongst farming communities, especially the targeted beneficiary communities.
- Drought threat in South Africa which can hamper maize production planned by the Agri-Park
- Rising crime rate threatening livelihoods and farming operations in the community.
- Conflict of interest between local authorities and tribal heads in land development programmes,

5.4.3 Opportunities

- Growing populations and increasing demand for food and agricultural produce
- Optimally land use by rural municipalities and derivation of intended Agri-Park socio-economic benefits
- Growth of rural economies at the back of successful Agri-Parks.
- Job creation and skills development opportunities to benefit local communities.
- Maize massification for food security as articulated by government through DRDLR and DAFF
- Improvement in municipality and general government services for local communities, e.g. Road Infrastructure

5.5 Agri-Park Operating Environment (SWOT Analysis)

The internal operating environment refers to several political and institutional factors that will influence lead implementing government departments and targeted municipality's ability to implement the draft Agri-Park Policy Framework. Several strengths and weaknesses have been identified in this regard.

5.5.2 Strengths

- Strong and committed DRDLR co-ordination at both provincial and district levels as evidence in the North West Province.
- Equally, strong, well-resourced and willing District Municipalities as demonstrated by the DR.KKDM.

- Available Agri-Park take-off facilities and infrastructure by way of Springbokpan, Mooifontein and Kraaipan Silos, at the least.
- An existing business plan to drive take NMMDM Agri-Park
- Committed funds for the NMMDM Agri-Park

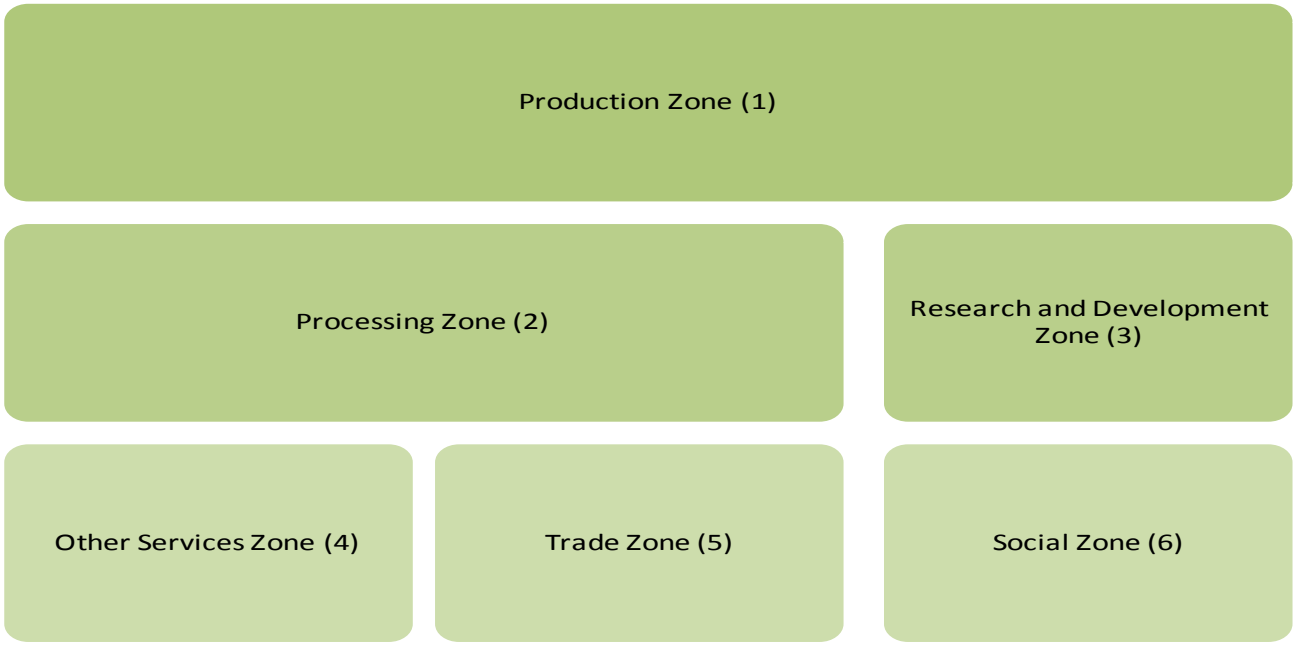
5.5.3 Weaknesses

- Weak and inadequately resourced LED offices at various municipalities
- Consequently, in some municipalities, actual land and/or facilities to support the Agri-Park have not been confirmed.
- Limited knowledge on new technology and niche products.
- Inconsistency of supply which also contributes towards existing market problems;
- Lack of cooperation between different role-players in order to supply producers with adequate and up to date information about markets, such as availability of markets, price trends, consumer trends re consumption levels, product demands, etc.

Chapter Five: NMMDM Agri-Park Implementation Plan

This chapter reviews Critical Success Factors for the implementation of the NMMDM Agri-Park and provides for detailed implementation. 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.

Figure 18: Agri-Park Conceptual Framework



6. NMMDM Agri-Park 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 11: Agri Park Success Factors based on International Experience

• Production Systems and Innovation:	○ 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.

• Smallholder Farmers Development	○ A programme to ready them for effective participation in the Afri-park. ○ Comprehensive Farmer support critical in relation to structure of the industry and persisting challenges ○ Expert Extension Services provided on a sustainable basis to ensure Farmer empowerment, ultimately. ○ Enterprises Development support services including access to business finance
• Enterprise and Industrial Development Support and enablers:	○ 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. ○ 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.
• Quality Product Development:	○ 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.
• Brand Building and Marketing:	○ 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.
• Business linkages and supply chains:	○ 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.

• Governance and Management	○ 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).
• Supply contracts in place for key inputs:	○ 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.

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

Table 12: Considerations for Agri-park Processing Plants

Location:	○ 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.
Processing planning:	○ 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.
Processing systems (Scalability):	○ **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.
Choice of processing technologies	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: o increasing farmer/artisan income by the full utilisation of available indigenous raw material and local manufacturing of part or all processing equipment; o cutting production costs by better utilisation of local natural resources (solar energy) and reducing transport costs; o generating and distributing income by decentralising processing activities and involving different beneficiaries in processing activities (investors, newly employed, farmers and small-scale industry); o 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; o 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

In addition, critical will leadership alignment and co-operation amongst all Agri-Park stakeholder entities governmental and extra-governmental, chief of which are DRDLR , DAFF (READ) and District and Local Municipality. Also, a widespread promotion and buy-in, especially amongst Farmers and other agriculture stakeholders.

7. NMMDM Agri-Park Strategy Implementation (Outcomes, Outputs, Targets and Activities)

STRATEGIC OBJECTIVE 1:	**Transform Rural South Africa through a modernised agricultural sector**		
Outcome(s)	**Measure (Outputs)**	**Targets & Milestones (Indicators)**	**Activities**
NMMDM District Agricultural Sector transformed and modernised	Vibrant FB District community and Food Security	% increase in households standard of living (socio impact)	Implement and manage Agri Park
	Percentage contribution of Agricultural to FB District economy	% increase in contribution of Agricultural sector to the FB District economy (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**
NMMDM Agri-Park Operational	Number of Agri Hubs (AH) developed	• AH Property Management Contract finalised • % occupancy of operational enterprises • One AH developed by 2018	• 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	• FPSU Property Management Contract finalised • % occupancy of operational enterprises • Two FPSUs established by 2018	• Land acquisition and zoning • Infrastructure Development Process (i.e. feasibility and design, professional teams, implementation and hand over)
	Rural Urban Market Centre (RUMC) established	• RUMC Property Management Contract finalised • % of business linkages facilitated by RUMC • One RUMC developed by 2018	• 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**
NMMDM Agri-Park Sustainably managed and operated	A farmer led company established through the company act	• Articles of association	• Develop Articles of Association for Agri-Park
	Management company responsible for both development and administration established	• Management contract	• Develop management contract for Agri-Park hubs and FPSU's
	District Statutory body responsible for oversight established	• Memorandum of Understanding • Municipal resolution	• 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 NMMDM Agri-Park	Investment generated	• Promoted investment opportunities in the Agri-Parks	• Create investment material • Develop bankable business plans • Present investment opportunities to potential investors
	Partnerships established	• Partnerships established for the various opportunities in the Agri-Parks	• Actively promote partnerships to potential investors • Meet potential partners

STRATEGIC OBJECTIVE 4: Generate funds and secure investment			
Outcome(s)	**Measure (Outputs)**	**Targets & Milestones (Indicators)**	**Activities**
	Investment promotion	• Investment in the Agri-parks generated	• Present bankable business plans to potential partners
			• Generate partnership agreements • Institute development of investment

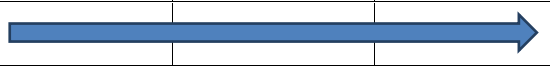
STRATEGIC OBJECTIVE 5: Improve coordinated delivery of support services (i.e. extension services)			
Outcome(s)	**Measure (Outputs)**	**Targets & Milestones (Indicators)**	**Activities**
NMMD Farmers producing competitive produce	Smallholder and Emerging Farmers businesses profitable and sustainable	• Extension services operational • Support services operational • Collection scheme operational • Farmers delivering quality product to market	• Implement an Intensive Farmer Readiness Programme preparing them for participation in the Agri-park • Develop extension services in the Agri-Hub • Develop support services model
	Smallholder and Emerging Farmers technical capacity and skills enhanced	• Training material developed • Farmers trained	• Develop training material • Train farmers

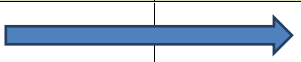
STRATEGIC OBJECTIVE 6: Improve Agri-Park Programme Implementation			
Outcome(s)	**Measure (Outputs)**	**Targets & Milestones (Indicators)**	**Activities**
NMMD Municipality effectively and efficiently coordinating and facilitating the implementation of the Agri-Park	Agri-Park generating income for the municipalities (rates and taxes)	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

8. Agri-Park 10-Year Implementation Plan

The following high level 10 year implementation plan provides an indication of the NMMDM Agri-Park's phased implementation:

Table 13: Agri-Park 10 Year Implementation Plan

NMMDM 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	NMMDM Agricultural Sector transformed and modernised	Vibrant NMMDM community and Food Security			
		Percentage contribution of Agricultural to NMMDM economy			
		Increased agricultural beneficiation (agro-processing activities)			
		Number Black Industrialists Developed	3	3	3
SO: 2	NMMDM 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	NMMDM 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 NMMDM Agri-Park	Investment generated			
		Partnerships established	2	3	5
		Investment promotion			

NMMDM 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	NMMDM 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	NMMDM 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			

9. Agri-Park 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)	
Ngaka Modiri Molema District Agricultural Sector transformed and modernised	Vibrant Ngaka Modiri Molema District community and Food Security	Emerging farmers will be able to produce high volumes of vegetables	√		Yes
	Percentage contribution of Agriculture to Ngaka Modiri Molema District economy	Reduction in vegetable production 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
Ngaka Modiri Molema District 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

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)	
	Number of Rural Urban Market Centres (RUMC) established	Government putting the required resources in the Agri-park	√		No
Ngaka Modiri Molema District 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 Ngaka Modiri Molema District 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)	
Ngaka Modiri Molema District 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
Ngaka Modiri Molema District Municipality 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

10. 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 14: 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	
Ngaka Modiri Molema District Agricultural Sector transformed and modernised	Vibrant NMMDM community and Food Security	Farmers unable to produce quality beef cattle			√			Farmers assisted to follow beef cattle production system
	Percentage contribution of Agricultural to NMMDM 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
Ngaka Modiri Molema District 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
Ngaka Modiri Molema District 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 Ngaka Modiri Molema District 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
Ngaka Modiri Molema District 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
Ngaka Modiri Molema District 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.

11. Agri-Park Implementation Partnerships

Strategic Objective	Measure (Outputs)	Potential Strategic Partners	Potential Private/NGO Sector Organisations	International Organisations
SO: 1	Vibrant Ngaka Modiri Molema DM community and Food Security Percentage contribution of Agriculture to Dr. Kenneth Kaunda DM economy	• The Presidency • Ngaka Modiri Molema DM & Local Municipalities • NW Premier 's Office • 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	Farmers 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).
	Increased agricultural beneficiation (agro-processing activities)		• Good Food Solutions • Unifoods • National Brands • Premier Foods • Tiger Brands • SAMPA • NERPO	•
	Number Black Industrialists Developed		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 Number of Farmer Production Support Units (FPSU) developed Number of Rural Urban Market Centres (RUMC) established	• Ngaka Modiri Molema DM & Local Municipalities • DRDLR, REID, RID, READ, DTI-SEZ • Eskom, DWA , Department of Communication (USASA) • Provincial department e.g. Public Works, Roads and Housing departments	• DAMC • DLRC • Private Property Developers	
SO: 3	A farmer led company established through a companies act Management company responsible for both development and administration established District Statutory body responsible for oversight established	• Ngaka Modiri Molema DM & Local Municipalities • DRDLR, REID, READ • North West Finance, Economy and Enterprise Development Department (feed) • National Treasury (Coop Bank), DSBD-SEDA	• DAMC • Legal Firms	

Strategic Objective	Measure (Outputs)	Potential Strategic Partners	Potential Private/NGO Sector Organisations	International Organisations
SO: 4	Investment generated Partnerships established Investment promotion	• Ngaka Modiri Molema DM & Local Municipalities • DRDLR, REID, feed • National Treasury (Coop Bank), DSBD-SEDA, SEFA, DTI, IDC, DBSA, Land Bank, DAAF	Agri-BEE entrepreneurs Commercial enterprises Commercial farmers Commercial Retailers Cooperatives, SMMEs, DAMC, BBBEE, Venture Capitalists Commercial Banks, Investment Houses, NAAC	
SO: 5	Smallholder and Emerging Farmers businesses profitable and sustainable Quality beef production increased Smallholder and Emerging Farmers technical capacity and skills enhanced	• Ngaka Modiri Molema DM & Local Municipalities • North West Finance, Economy and Enterprise Development Department, NWDC • NAMC , ARC, DST-TIA, DAFF • Department of Communication (USASA) • DSBD-SEDA, SEFA • DTI-Incentives	Agri-BEE entrepreneurs Commercial enterprises Commercial farmers Commercial Retailers Cooperatives SMMEs (formal & informal) Grain SA NAMM NCM GSI OEA MIF AFMA • Agri-SA, Agri-NW • Noordwes Kooperasie (NWK Group) • Agricultural Input Supply Companies, e.g. Omnia Group	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
SO: 6	Agri-Park generating income for the municipalities (rates and taxes) Agri-Park provided with reliable and consistent municipal services Capacitated coordinating structure operational Agri-Park contribution Monitoring and Evaluation	• Ngaka Modiri Molema DM & Local Municipalities • DRDLR, READ, REID • Northwest University	• Training, Systems and Management consulting companies	

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