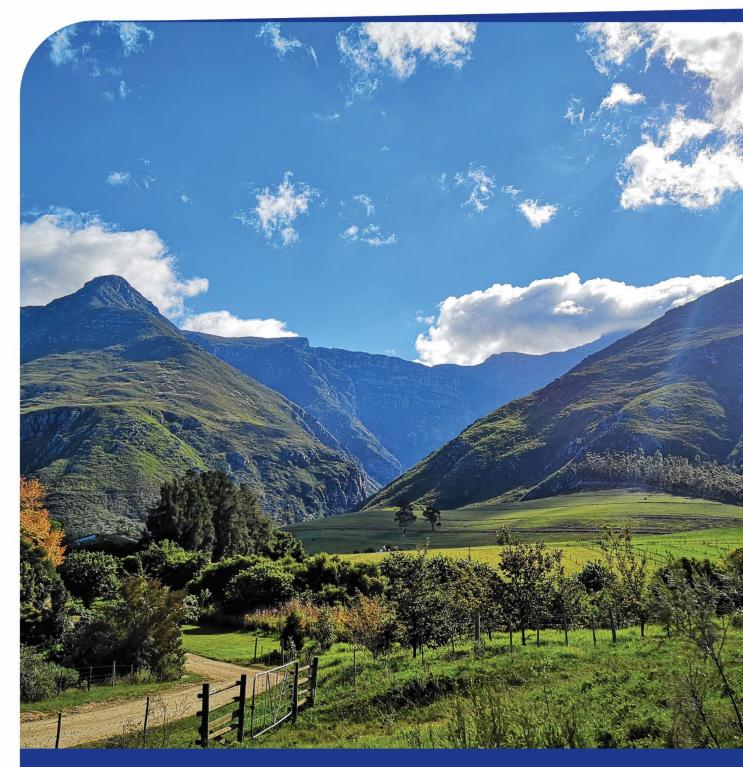


BETTER TOGETHER.



Strategic Plan 2020/21 - 2024/25

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Executive Authority Statement

I am pleased to submit the 2020/21 to 2024/25 Strategic Plan of the Department of Agriculture, particularly as it affords us an opportunity to set out our plans for the next five years.

The Provincial Strategic Plan outlines the next five-year strategic trajectory for the Western Cape Department of Agriculture and puts forward the strategic goals to guide us towards the realisation of an open opportunity society. It is the product of careful strategic analysis and thinking on the best way to ensure provincial growth and development.

The mission is a united, responsive and prosperous agricultural sector in balance with nature. This is driven by the vision to unlock the full potential of agriculture to enhance the economic, ecological and social wealth of all the people of the Western Cape.

The Strategic Plan provides the roadmap to providing direct tangible improvement in the quality of life for the Province's citizens. Enhanced benefits are achieved by improving the quality and quantity of services to the citizen.

Making an impact at the service delivery level not only protects the marginalised against adverse economic and structural poverty but also provides equal opportunities as a platform to uplift and improve the citizens' socio-economic circumstances.

Economic growth is an essential condition to improve the quality of life for all the citizens of the Province.

The goal is to grow our exports by 50% over the next five years. Investment, infrastructure, export facilitation, skills development and resource resilience have been identified as the five key levers to grow our exports on our path towards a significant improvement in the economy.

I have also identified five areas in which I aim to make a difference during my term in office. These can be summarised as:

- a) Structured education, training and research;
- b) Rural safety;
- c) Market access and international opportunities (products, farmers, staff);
- d) Farmer support (smallholder and commercial);
- e) Climate change (Innovation, Technology, Partnerships).

The WCDOA's Strategic Plan 2020/21 -2024/25 also captures the extent to which it will ramp up agricultural market access and rollout the Western Cape's rural safety plan.

I am looking forward to working with all the agriculture role-players, agri workers, producers and farmers to grow our economy and increase our food security.

Agriculture is the lifeblood of the rural economy and we will work hard to grow rural economies.

We do so #ForTheLoveOfAgriculture.

24 February 2020

Dr Ivan Meyer Minister of Agriculture

Date

Accounting Officer Statement

The Western Cape Department of Agriculture (WCDoA) went through a thorough planning process to ascertain the 5-year plan as it links to the national and provincial priorities as well as the constitutional mandate. This plan has taken into consideration the achievements of the past 5 years as well as the recommendations of independent evaluations.

During the planning process for the next five years, the combined output from the evaluations were very valuable to determine the 'Strengths and Weaknesses' of the Department and, in combination with a series of freshly developed Theories of Change (TOC), formed the scientifically developed foundation for the Department's actions over the planning period. Specific mention can be made of the TOC for rural safety as well as the TOC for market access as these are the Apex priorities of the Minister of Agriculture. The vision and mission of the Department remains the same:

Vision

A united, responsive and prosperous agricultural sector in balance with nature

Mission

Unlocking the full potential of agriculture to enhance the economic, ecological and social wealth of all the people of the Western Cape through:

- Encouraging sound stakeholder engagements;
- Promoting the production of affordable, nutritious, safe and accessible food, fibre and agricultural products;
- Ensuring sustainable management of natural resources;
- Executing cutting edge and relevant research and technology development;
- Developing, retaining and attracting skills and human capital;
- Providing a competent and professional extension support service;
- Enhancing market access for the entire agricultural sector;
- Contributing towards alleviation of poverty and hunger, and
- Ensuring transparent and effective governance.

Some of the key achievements of the Department over the past five years are discussed below.

Government is often accused of not spending sufficient time on the efficiency and efficacy of its actions. However, over the past five years the WCDoA has completed 22 external evaluations of its programmes and activities. As this achievement is unique, the South African Monitoring and Evaluation Association (SAMEA) awarded the Department the prize for the best evaluating department in 2017 and it may even be said that the Department sets the African benchmark for good practice in evaluations.

Human Capital Development in the Department is not vested in one Programme, but is a progressive collective action that is all interrelated. All Programmes have been externally evaluated. Thus, translating national, provincial and departmental objectives into action. Over the last 5 years, R53.7 million was spent on various initiatives, reaching 993 beneficiaries with almost 60% going into further studies with a departmental bursary. About 240 bursaries and 131 interns came from the Agricultural Partnership for Youth Development Programme (APFYD) consisting predominantly of agri-worker children. The APFYD programme was

developed after the strikes of 2013 and has grown exponentially, receiving accolades provincially, nationally and internationally. Some stats to highlight the emphasis on vulnerable groups in the last 5 years:

- a) 50% 60% of these beneficiaries were women;
- b) 98% were youth from the designated groups, and
- c) 11 936 youth were provided with agricultural career information to stimulate the youth to consider a career in agriculture.

The Little Karoo experienced the worst drought in more than 100 years and this drought is in the fourth consecutive year (predicted to continue). The consequences were a 70% harvest loss for fruit farmers, orchards and vineyards died off or had to be uprooted, 100% Lucerne harvest loss – 2 300 ha and 50% of the dairies had stopped milking and sold off their herds. An integrated drought response project (Calitzdorp, Ladismith, Zoar, Van Wyksdorp) is being developed but immediate interventions were required:

- a) 200 livestock farmers received monthly fodder support and
- b) Funding was reprioritised in August 2019 to support communities to earn an income through EPWP and a partnership arrangement with farmers, commodity organisations, municipalities and the Department facilitated support for 500 temporary jobs.

During 2015, the Department in collaboration with the industry (Deciduous Fruit Producers Trust/HORTGRO and the Deciduous Fruit Development Chamber) submitted a Jobs Fund application for the commercialisation of black producers. An amount of R119 524 237 was awarded to the project. The purpose of the project was to deepen commercialisation of black producers who are beneficiaries of land reform and thereby contributing to the successful land reform in the Province. The project benefitted 20 Western Cape farmers with a total 312 ha already planted to help expand their operations. Some of these farmers are exporting their produce thereby contributing to the growth of the Western Cape economy.

Methodical and comprehensive animal disease surveillance and animal disease control allowed Veterinary Services to provide the necessary zoo-sanitary guarantees required for the export of animals and animal products. Major components of these exports are ostrich meat and products as well as game meat to the European Union (EU). In addition, large volumes of dairy and poultry products are exported to sub-Saharan Africa.

The province continue to manage, control and avert animal disease within the provincial shores. Unfortunately, we still have to juggle with consequences of Avian Influenza (AI). A number of our producers are still having quarantine measures imposed on their properties as per International Trade protocols. This have resulted in producers loosing revenue, as they cannot supply exports markets.

To add to the situation, Foot and Mouth Disease [FMD] was reported last year in Limpopo province. It is hard to comprehend as to why a disease reported more than 1600 km from Cape Town should affect our farmers. A ban on trade with cloven-hooved animals and their products was enacted almost bringing trade to a standstill.

The Provincial Veterinary Laboratory (PVL) provides laboratory diagnostic support to a wide range of clients including state veterinarians, private veterinarians and both commercial and emerging farmers. As more emerging farmers are established so the need for veterinary diagnostic services has increased to aid these resource poor farming enterprises by providing rapid and affordable laboratory support. Our trading partners are demanding increasingly stringent and complex requirements for the exportation of animals and animal products, which require extensive sampling and the use of advanced diagnostic techniques.

The laboratory has increased capacity with the addition of Chemical Residue Laboratory [CRT] and special laboratory with biosafety level 3 [BSL 3] capability. The added capacity allows diagnostic testing for commercially important poultry diseases such as AI and Newcastle Disease. Other highly contagious and potent diseases like rabies and Brucellosis can now be added to our service offering.

The Western Cape has been prone to numerous climate-related hazards such as droughts, heavy rain, floods, storms (with strong wind and hail), wildfires and plant and animal pest and disease outbreaks over the last number of years. These are natural features of the climate of the Western Cape and will continue into the future as part of natural climate variability. However, climate change projections for the Western Cape suggest a likelihood of more frequent and more intense extreme weather events.

Climate-related disasters pose significant challenges to the agricultural sector. If not addressed adequately, the intensification of disaster risks associated with climate change has the potential to undermine the productivity and resilience of the sector. The impacts also extend significantly into the wider provincial economy. While the impacts on specific farming systems, value chains and localities will differ, there is increasing evidence that some farming communities in the Western Cape are approaching their limits to coping with current and future extreme events.

In an attempt to guide the agricultural sector in the Western Cape to become climate smart and foster greater resilience, the SmartAgri plan was developed as a "better together initiative of the Departments of Agriculture, and Environmental Affairs and Development Planning, and released in 2016. This is the first sector plan of its kind in the Western Cape and South Africa.

SmartAgri is not about doom and gloom – its addresses the challenges in a focused and natural resource sensitive way, but also offers opportunities at all levels to maximize protection of natural resources and nature. A highlight of SmartAgri was the inclusion of SmartAgri as a case study in the climate groups' Under2Coalition early in 2018. The case study was published in April 2018.

The Western Cape Department of Agriculture is leading the way in giving effect to the Fourth Industrial Revolution (4th IR) and its exciting opportunities for the agricultural sector (read the Departments' 4th IR report at http://www.elsenburg.com/content/4th-industrial-revolutionevaluation-report).

The use of drone technology on all levels, including research, service delivery optimization and farmer applications, as well as 3-D and sensor technology, has taken the Department and the sector to new innovative levels of problem solving. Embedding new and innovative technologies on student and youth level is taking place with drone awareness and training sessions at our Elsenburg College.

The Department of Agriculture, in collaboration with the United Nations Development Programme-GEF5 Sustainable Land Management project, the Endangered Wildlife Trust (EWT) and Department of Environment, Fisheries and Forestry (DEFF) hosted a two-day interactive Drone Users Conference during November 2019 on the use and application of drones as a monitoring and assessment tool in the agriculture and conservation sector. The purpose of the conference was to provide an opportunity for users, practitioners, service providers, policy and decision makers within the natural resource management field to interact, share lessons and build networks toward using drone and related technologies in achieving sustainable land management and conservation objectives. A second drone conference is planned for the latter part of 2020.

The team of GIS experts at the Department of Agriculture is also excelling with the development of online tools, of which Cape Farm Mapper (CFM) is a sterling example. This online tool (and its App CAMIS) is used by farmers and other stakeholders, even outside agriculture, to optimise planning and decision-making. The latest development is utilising the Sentinel satellite and its applications to develop more online tools and this has brought more opportunities to our sector – better information will lead to better planning and greater efficiency.

Market access is a critical variable in the growth of the agricultural sector and the Western Cape economy, hence a ministerial and an apex priority for the province. However, our market share, especially in the developed markets in Europe, is threatened by proliferation of standards. In an attempt to avoid audit duplication where possible and to save time and costs across the value chain, the Department has been partnering with the Sustainability Initiative of South Africa (SIZA) to be a South African multiple standard that does not only focus on ethical, but also on environmental requirements. SIZA is currently accepted by 252 businesses operating in 15 different international markets across the Southern and Northern Hemisphere. It therefore plays a critical role in maintaining and growing the market share of Western Cape agricultural products. The SIZA standard is currently affecting about 118 835 agri-workers in the Western Cape employed at 1 184 agribusiness.

Given increased focus on market access, and an attempt to diversify the product mix and markets for Western Cape agricultural and processed products, the Department will increase its trade facilitation efforts in markets like China and in the African continent. It is more so for the latter given potential opportunities awaited from Africa Continental Free Trade Agreement (AfCFTA) as the province can compete with about 171 products in the African market. Bottled wine ranks second of the top agricultural products exported to the African continent.

A new diploma in agriculture at the Programme: Structured Agricultural Education and Training was registered by the South African Qualifications Authority (SAQA). The first intake of students for the Diploma in Agriculture took place on 23 January 2020. The Diploma in Agriculture will focus on youth receiving education focused on the main commodities within South Africa. Diploma graduates will be able to seek employment within the Agricultural Sector, across the value chain, including entrepreneurship, agri-processing and will be empowered to embrace opportunities brought to the industry by the 4th IR.

The 20-year partnership with Burgundy continues and a new cheese-making course has been designed for implementation for the next 5 years.

The Rural Development Programme was establish through the National Comprehensive Rural Development Programme (CRDP) in 2010. The main purpose was to facilitate and coordinate development in the 16 prioritised rural areas in the Province. The aims are to enhance the image and socio-economic conditions of agri-workers and their families through the facilitation of training and development initiatives. The outcomes of these

interventions is to improve the quality of their lives. As a first of its kind, a comprehensive Agriworker Household Census was completed in the Province in March 2017. Through this census the real persistent needs of agri-worker communities were identified and therefore formed the basis for our interventions. The main upliftment project of the Department is the Western Cape Prestige Agri Awards, which is the only platform of its kind in the country whereby recognition is given to the labour force for their valuable contribution to the Agricultural Sector in the Province.

During 2019, 1 393 agri-workers from 16 different regions the Western Cape participated in the competition. This brings the total entrants to date to 13 427 agri-workers since inception.

In 2015, an independent evaluation of the Western Cape Prestige Agri Awards found that the competition had significant impact on the workers and their families. On individual level agri-workers felt recognised and rewarded for their contribution to agriculture, the participants develop self-worth, broaden their knowledge and enhanced their lives and seen as an example to other people.

Given the accomplishments and the situational analysis, the Department created a strategic direction to highlight the contributions and Imperatives for the sector and, more specifically:

"A transformed and sustainable Agricultural Sector ensuring food security and economic prosperity for all."

Through an iterative process, involving stakeholders, four (4) outcomes were designed and will be measured at the end of the term. These are:

- a) Increased agricultural production in a sustainable manner
- b) Improved food security and safety
- c) Transformed and inclusive Agricultural Sector
- d) Innovative and resilient rural economies.

The first year of implementation, the APP, presents the indicators that will be used to execute the Strategic Plan. The Department is ready to implement this plan, in partnership with industry, farmers, agri businesses, communities and the officials in the Department.

This plan is the accumulation of inputs from various role players, and so I would like to acknowledge their respective inputs and express my appreciation to all of them. But this is only start and their support, inputs and commitment is also required to implement the planned inputs to ensure the delivery of the outcomes.

Ms JS Iséacs Head of Department

17/02/2020 Date

Official Sign-Off

It is hereby certified that this Strategic Plan:

- Was developed by the management of the Western Cape Department of Agriculture under the guidance of Minister (Dr) Ivan Meyer
- Takes into account all the relevant policies, legislation and other mandates for which the Western Cape Department of Agriculture is responsible.
- Accurately reflects the Impact and outcomes which the Western Cape Department of Agriculture will endeavour to achieve over the period 2020/21 to 2024/25.

e. Ms R WENTZEL Signature: **Chief Director: Operational Support Services** Signature: Ms A PETERSEN Programme Manager: Sustainable Resource Management

Dr M SEBOPETSA Signature: . Programme Manager: Farmer Support and Development

Dr G MSIZA Programme Manager: Veterinary Services Signature:

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Signature:

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Dr DP TROSKIE Director: Business Planning and Strategy

Mr FJJ HUYSAMER Chief Financial Officer

Signature:

Mr DW Jacobs Signature Deputy Director General: Agricultural Development and Support Services

Ms JS ISAACS Accounting Officer

Signature:

Approved by: Dr Ivan Meyer Executive Authority

Signature:

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ABBREVIATIONS

4 th IR AA ACF AET	Fourth Industrial Revolution Action Area Alternative Crops Fund Agricultural Education and Training
AES	Agricultural Economics Services
AFASA	African Farmers Association of South Africa
AfCFTA	African Continental Free Trade Agreement
APFYD	Agricultural Partnership for Youth Development
AFS	Annual Financial Statements
AGOA	African Growth Opportunities Act
AgriBEE Al	Agricultural Black Economic Empowerment Avian Influenza
AIDS	Acquired Immune Deficiency Syndrome
AIMS	Agricultural Integrated Management System
AIU	Agribusiness Investment Unit
APAP	Agricultural Action Policy Plan
APFYD	Agricultural Partnership for Youth Development
APP	Annual Performance Plan
ARC	Agricultural Research Council
AU	African Union
BAS	Basic Accounting System
BFASA ASD	Black Farmers Association of South Africa Agricultural Skills Development
BBBEE	Broad-Based Black Economic Empowerment
BFAP	Bureau for Food and Agricultural Policy Research
BPCP	Black Producers Commercialisation Programme
BRICS	Brazil, Russia, India, China and South Africa
BSE	Bovine Spongiform Encephalosis
BSL	Biosafety Level
CAADP	Comprehensive Africa Agricultural Development Programme
CADIS	Cape Animal Disease Information System
CAMIS	Cape Agricultural Mobile Information System
CARA	Conservation of Agricultural Resources Act
CASIDRA CASP	Cape Agency for Sustainable Integrated Development in Rural Areas
CASE	Comprehensive Agricultural Support Programme Central Business District
CBO	Community Based Organisation
CC	Climate Change
CCA	Community Choice Approach
CCC	Confronting Climate Change
CCS	Compulsory Community Service
Cel	Centre for Electronic Innovation
CEO	Chief Executive Officer
CFM	Cape Farm Mapper
CFO	Chief Financial Officer
CITCOM	Central Information Technology Committee Core Mandate
CM Constitution	Constitution of the Republic of South Africa (Act 108 of 1996)
CoE	Compensation of Employees
002	

COS COSATU CPAC CPDS CRDP CRT DAFF DALRRD DARD DCAS DEADP DEDAT DEFF DEP DHS DJOC DLG DLRC DOCS DOH DOL DPAC DPME DPSA DRDLR DPAC DPME DPSA DRDLR DRM DSD DSG DTPW EATI ECSA ECSP EEA EIA EPA EPA EPA EPA EPA EPA EPA EATI ECSA ECSP EEA EIA EPA EPA EPA EPA EPA EPA EPA EPA EPA EP	Council of Stakeholders Congress of South African Trade Unions Commodity Project Allocation Committee Comprehensive Producer Development Support Comprehensive Rural Development Programme Chemical Residues Testing Department of Agriculture, Forestry and Fisheries Department of Agriculture, Land Reform and Rural Development Department of Agriculture and Rural Development Department of Culture and Sport Department of Environmental Affairs and Development Planning Department of Environment, Forestry and Fisheries Department of Environment, Forestry and Fisheries Department of Environment, Forestry and Fisheries Department of Human Settlements Department of Human Settlements Department of Human Settlements Department of Local Government District Joint Operating Committee Department of Local Government District Land Reform Committee Department of Planning, Monitoring and Evaluation Department of Social Development and Land Reform Disaster Risk Management Department of Social Development Department of Social South Africa Sconomic Competitive Support Package Empl
FBO	Faith Based Organisation
FRKP	Financial Record Keeping Programme

FSD FTA FWD GC GDP	Farmer Support and Development Free Trade Agreement Farm Worker Development Game Changer Gross Domestic Product
GHS	General Household Survey
GI	Geographic Indicators
GIS	Geographic Information Systems
gps gva	Global Positioning System Gross Value Added
ha	Hectare
HAS	Hygiene Assessment System
HCD	Human Capital Development
HCDS	Human Capital Development Strategy
HET	Higher Education and Training
HIV	Human Immunodeficiency Virus
HOD	Head of Department
hr Iamp	Human Resources
ICT	Immovable Asset Management Plan Information Communication Technology
IDP	Integrated Development Plan
IFMS	Integrated Financial Management System
IFSS-SA	Integrated Food Security Strategy of South Africa
IGR	Intergovernmental Relations
IGDP	Integrated Growth and Development Plan
IMF	International Monetary Fund
	Independent Meat Inspection
IPAP IPCC	Industrial Policy Action Plan Inter-governmental Panel on Climate Change
ISC	Intergovernmental Steering Committee
ISO	International Organisation for Standardisation
IT	Information Technology
JPI	Joint Planning Initiative
logis	Government Procurement System
LORWUA	Lower Olifants River Water Users Association
	Land Reform Advisory Desk
LM Ltd	Limited Mandate Limited
LUPA	Land Use Planning Act
MAP	Market Access Programme
MDG	Millennium Development Goals
MEC	Member of the Executive Council
MERO	Municipal Economic Review and Outlook
MIP	Management Improvement Plan
MOA	Memorandum of Agreement
MOOC MOU	Massive Open Online Course Memorandum of Understanding
MTEF	Medium Term Expenditure Framework
MTEC	Medium Term Expenditure Committee
MTSF	Medium Term Strategic Framework
NACTU	National Council of Trade Unions

	Notice of African Foundation of Country African
NAFU	National African Farmers Union of South Africa
NARS	National Abattoir Rating Scheme
NARS	National Agricultural Research System
NDP	National Development Plan Vision 2030
NEMA	National Environment Management Act
NEPAD	New Partnership for Africa's Development
NGO	Non-Governmental Organisation
NGP	New Growth Path
NIP	National Infrastructure Plan
NMNM	No Mandate
NMMU	Nelson Mandela Metropolitan University
NO	National Outcomes
NPC	National Planning Commission
NQF	National Qualifications Framework
NSDF	
	National Spatial Development Framework
OD	Organisational Development
OHS	Occupational Health and Safety
OIE	World Organisation for Animal Health
OQF	Occupation Qualifications Framework
OSD	Occupational Specific Dispensation
PAPA	Performing Animals Protection Act
PAY	Premier's Advancement of Youth Project
PDA	Provincial Department of Agriculture
PDG	Palmer Development Group
PDI	Previously Disadvantaged Individual
PDMC	Provincial Disaster Management Centres
PDP	Provincial Delivery Plan
PERO	Provincial Economic Review and Outlook
PFMA	Public Finance Management Act (Act 1 of 1999)
PLAS	Proactive Land Acquisition Strategy
PPECB	Perishable Products Export Control Board
PRKP	Production Record Keeping Programme
PSDF	Provincial Spatial Development Framework
PSHB	Polyphaegous Shot Hole Borer
PSG	Provincial Strategic Goal
PSP	Provincial Strategic Plan
PVL	Provincial Veterinary Laboratory
QMS	Quality Management System
RAAVC	Revitalisation of Agriculture and Agri-processing Value Chain
RD	Rural Development
RDC	Rural Development Coordination
RPL	Recognition of Prior Learning
RTD	Research and Technology Development
Sacnasp	South African Council for Natural Scientific Professions
Sacu	Southern African Customs Union
SADC	Southern African Development Community
SAET	Structured Agricultural Education and Training
SALA	Subdivision of Agricultural Land Act (Act 70 of 1970)
SAMEA	South African Monitoring and Evaluation Association
SANAS	South African National Accreditation System
SAQA	
JAQA	South African Qualifications Authority

SCM SCOA SDF SDG SEM SHEP SIME SIP SIZA SM SOC SOE SOFI SONA SOP SP SPLUMA SPS SRM SWOT TAD TNA TOC UAMP UN US USAAA UTA UN US USAAA UTA UN US VIP VOIP VPH VPN VS WCAPAP WCARF WCDOA	Spatial Development Framework Sustainable Development Goals Socio-Economic Measurement Smallholder Horticulture Empowerment and Promotion Strategic Integrated Municipal Engagements Strategic Infrastructure Plan Sustainability Initiative of South Africa Shared Mandate State Owned Company State Owned Company State Owned Entity State of Food Insecurity in the World State of the Nation Address Standard Operating Procedures Strategic Plan Spatial Planning and Land Use Management Act Sanitary and Phytosanitary Standards Sustainable Resource Management Strengths, Weaknesses, Opportunities and Threats Trans-boundary animal diseases Training Needs Analysis Theory of Change User Asset Management Plan United Nations University of Stellenbosch Union of South African Agricultural Associations Unit for Technical Assistance University of the Western Cape Vision Inspired Priority Voice Over Internet Protocol Veterinary Public Health Veterinary Procedure Notices Western Cape Response to the Agricultural Policy Action Plan Western Cape Agricultural Research Forum Western Cape Department of Agriculture
WCDoA	Western Cape Department of Agriculture
WCED	Western Cape Department of Education
WCG	Western Cape Government
WCPVL	Western Cape Provincial Veterinary Laboratory
WEF	World Economic Forum
WIETA	Wine and Agricultural Ethical Trade Association
YPP	Young Professionals Programme

Part A: Our Mandate

1. Constitutional mandate

The Western Cape Department of Agriculture (WCDoA) derives its Constitutional mandate largely from Section 104 (1) (b) of the South African Constitution (Act 108 of 1996) which conveys the power to provinces to pass legislation on any functionality listed in schedules 4A (concurrent) and 5A (exclusive provincial). Concurrent functions include agriculture, animal and disease control, disaster management, environment, regional planning, soil conservation, trade, tourism as well as urban and rural development. Exclusive provincial mandates include provincial planning, abattoirs and veterinary services.

The Constitution also provides the framework within which this concurrency must be executed. Section 40 of the Constitution constitutes government at national, provincial and local spheres. It also indicates that government at these spheres should be distinctive, interdependent and interrelated. Section 41 (2) of the Constitution rules that an Act of Parliament must regulate the relationship between the three spheres of Government, which resulted in the Intergovernmental Relations Framework Act (Act 13 of 2005). This Act makes provision for a number of platforms where functional and coordination issues can be discussed between the various spheres of Government.

No overview of the Constitutional mandate of the Department can be complete without referring to the Bill of Rights (Chapter 2) and the responsibility it conveys onto officials. Of most relevance to the Department is rights such as fair labour relations (employers and employees) (Article 23), protected environment (Article 24), property ownership (Article 25), food and water (Article 27) and just administrative action (Article 33).

Finally, the Constitution of the Western Cape, Act 1 of 1998, also guides the policies strategies and activities of the Department.

2. Legislative and policy mandates

National legislation:

- Adult Basic Education and Training Act (Act 52 of 2000)
- Agri-BEE Transformation Charter (Under Act 53 of 2003)
- Agricultural Products Standards Act (Act 119 of 1990)
- Agricultural Produce Agents Act (Act 12 of 1992)
- Agricultural Produce Agents Amendment Act (Act 47 of 2003)
- Animal Diseases Act (Act 35 of 1984)
- Animal Identification Act (Act 6 of 2002)
- Aquatic Animal Health Code of the World Organisation for Animal Health (OIE Office International des Epizooties)
- Basic Conditions of Employment Act (Act 75 of 1997)
- Broad Based Black Economic Empowerment Act (Act 53 of 2003) (as amended by Act 46 of 2013)
- Codex Alimentarius of the World Health Organisation (International Code of Food Safety)
- Companies Act (Act 71 of 2008)
- Compensation for Occupational Injuries and Diseases Act (Act 130 of 1993)
- Conservation of Agricultural Resources Act (Act 43 of 1983)

- Consumer Protection Act (Act 68 of 2008)
- Cooperatives Act (Act 14 of 2005)
- Division of Revenue Act (Annually)
- Disaster Management Act No. 57 of 2002
- Employment Equity Act (Act 55 of 1998)
- Employment of Education and Training Act (Act 76 of 1998)
- Extension of Security of Tenure Act (Act 62 of 1997)
- Fertilisers, Farm Feeds, Agricultural Remedies and Stock Remedies Act (Act 36 of 1947)
- Foodstuffs, Cosmetics and Disinfectants Amendment Act, No. 39 of 2007
- Further Education and Training Act (Act 98 of 1998)
- General and Further Education and Training Quality Assurance Act (Act 58 of 2001)
- Geomatics Profession Act (Act 19 of 2013)
- Government Employees Pension Law (1996)
- Government Immovable Asset Management Act (Act 19 of 2007)
- Higher Education Act (Act 101 of 1997)
- Income Tax Act (1962 4th standard)
- International Code for Laboratory Diagnostic Procedures for Animal Diseases of the World Organisation for Animal Health
- International Sanitary and Phytosanitary Code of the World Trade Organisation
- Labour Relations Act (Act 66 of 1995)
- Land Reform Act (Act 3 of 1997)
- Land Use Planning Act (Act 3 of 2014)
- Liquor Products Act (Act 60 of 1989)
- Marketing of Agricultural Products Act (Act 47 of 1996)
- Meat Safety Act (Act 40 of 2000)
- Medicines Control Act (Act 101 of 1965)
- Merchandise Marks Act (Act, 17 of 1941)
- National Archives Act (Act 43 of 1996)
- National Disaster Management Act (Act 57 of 2002)
- National Education Policy Act (Act 27 of 1996)
- National Environment Management Act (NEMA) (Act 107 of 1998)
- National Qualifications Framework Act (Act 67 of 2008)
- Natural Scientific Professions Act (Act 20(3) of 2003)
- Non-Proliferation of Weapons of Mass Destruction Act (Act No. 87 of 1993) (Non-Proliferation Act)
- Occupational Health and Safety Act (Act 85 of 1993)
- Performing Animals Protection Amendment Act (Act 24 of 1935)
- Preferential Procurement Policy Framework Act (Act 5 of 2000)
- Prevention of Illegal Evictions from and Unlawful Occupation of Land Act, (Act 19 of 1998)
- Promotion of Access to Information Act (Act 2 of 2000)
- Promotion of Administrative Justice Act (Act 3 of 2000)
- Protection of Personal Information Act (Act 4 of 2013)
- Public Administration Management Act (Act 11 of 2014)
- Public Finance Management Act (Act 1 of 1999 as amended by Act 29 of 1999)
- Public Holidays Act (Act 6 of 1994)
- Public Service Act (Act 103 of 1994)
- Public Service Commission Act (Act 46 of 1977)
- Rules relating to the practising of veterinary professions (GNR.2086 of 1 October 1982).
- Rules relating to the practising of the para-veterinary profession of veterinary technologist (GNR.1065 of 17 May 1991).

- Rules relating to the practising of the para-veterinary profession of animal health technician (GNR.770 of 24 August 2007).
- Sanitary and Phyto-Sanitary Agreement of the World Trade Organization
- Skills Development Act (Act 97 of 1998)
- Skills Development Levies Act (Act 9 of 1999)
- South African Qualifications Act (Act 58 of 1995)
- Spatial Data Infrastructure Act (Act 54 of 2003)
- Spatial Planning and Land Use Management Act (Act 16 of 2013)
- Subdivision of Agricultural Land Act (Act 70 of 1970)
- Terrestrial Animal Health Code of the World Organisation for Animal Health (OIE Office International des Epizooties)
- Trade Mark Act (Act 194 of 1993)
- Trade Practises Act (Act 76 of 1976)
- Veterinary and Para-Veterinary Professions Act (Act 19 of 1982)
- Veterinary and Para-Veterinary Amendment Act, 2015 (Act 16 of 2012)
- Waste Act (Act 59 of 2008)
- Water Act (Act 36 of 1998)
- Water Services Act (Act 108 of 1997)

Provincial legislation:

- Western Cape Appropriation Act (Annually)
- Western Cape Direct Charges Act (Act 6 of 2000)
- Western Cape Land Use Planning Act (Act 3 of 2014)

International policy mandates

- Africa Union Agenda 2063
- International Labour Organisation: Geneva June 2019 'Convention Concerning the Elimination of Violence and Harassment in the World of Work'
- International Sanitary and Phytosanitary Code of the World Trade Organisation
- The Comprehensive Africa Agricultural Development Programme (CAADP)
- SADC Industrialization Strategy and Roadmap: 2015 2063
- Sustainable Development Goals (SDG)
- OIE Manual of Diagnostic Tests
- Vaccines for Terrestrial Animals

National policy mandates

- Agricultural Policy Action Plan (APAP)
- Animal Welfare Strategy of DAFF (2014)
- Black Producers Commercialisation Programme (BPCP)
- Comprehensive Agricultural Support Programme (CASP)
- Comprehensive Rural Development Programme (CRDP)
- Comprehensive Producer Development Support policy
- Compulsory Community Service for veterinarians
- Council for Trades and Occupations (QCTO)
- DRDLR: Rural Development Framework (2013)
- Extension Revitalisation Programme (ERP)
- Extension and Advisory Services Policy
- Expanded Public Works Programme (EPWP)
- The National Policy on Food and Nutrition Security for the Republic of South Africa
- Fetsa Tlala Programme
- Further Education and Training Framework

- Game Regulations
- Governance and Financing Framework for ATIs of South Africa
- Graduate Placement Programme
- Higher Education Policy Framework
- The Higher Education Qualifications Framework
- Ilima/Letsema Programme
- Independent Meat Inspection
- Industrial Policy Action Plan (IPAP)
- Integrated Food Security and Nutrition Programme
- Integrated Food Security Strategy of South Africa
- Integrated Growth and Development Plan (IGDP)
- Medium Term Strategic Framework
- National Abattoir Rating Scheme
- National Agricultural Research and Development Strategy
- National Articulation Framework for Agricultural training programmes
- National Development Plan 2030 (NDP)
- National Education and Training Strategy for Agriculture, Forestry and Fisheries (2015)
- National Infrastructure Plan (NIP)
- National Mentorship Framework for the Agricultural Sector
- National Programme of Action with its 14 National Objectives (NO)
- National Qualifications Framework (NQF)
- National Skills Development Plan 2030
- National Skills Development Policy
- National Strategic Plan for HIV and AIDS
- Norms and Standards for Agricultural Extension
- Norms and Standards for Agricultural Training Institutes of South Africa
- Norms and Standards for Educators
- Occupations Qualifications Framework (OQF)
- Primary Animal Health Care Policy of DAFF
- Proactive Land Acquisition Strategy (PLAS)
- Quality Council on Trades and Occupations
- Revitalisation of the Agriculture and Agri-processing Value Chain (RAAVC)
- Settlement Implementation Strategy
- South African Qualifications Authority (SAQA)
- Strategic Infrastructure Projects (SIP) flowing from the NDP
- Veterinary Procedure Notices (VPN)

Provincial policy mandates

- OneCape 2040 Provincial Spatial Development Strategy
- Provincial Delivery Plan (PDP)
- Provincial Strategic Plan (PSP)
- Integrated Development Plans of Local Government
- Priorities identified during the annual Joint Planning Initiative (JPI) with municipalities
- Priorities identified during the annual Strategic Integrated Municipal Engagement (SIME)
- Provincial Spatial Development Strategy
- Western Cape Agricultural Sector Climate Change Framework and Implementation Plan (SmartAgri) (2016)
- Western Cape Green Economy Strategy Framework
- Western Cape Climate Change Response Strategy (2014)
- Western Cape Response to the Agricultural Policy Action Plan (WCAPAP).

3. Institutional Policies and Strategies over the five year planning period

On 8 May 2019, South Africa held its 6th democratic election at national and provincial level and the election manifesto of the new government was to be translated into the plan of action of the organs of state at all spheres. It was argued in Section 1 that Agriculture has been classified as a concurrent function in South Africa's Constitution. Thus, both national and provincial spheres of government have a legislative mandate on agriculture with the result that the manifesto of both spheres has to find resonance in the strategy of the WCDoA. Furthermore, agriculture is a crucial part of the economy in most rural areas. Indeed, it was found in the Provincial Economic Review and Outlook (PERO)¹ of 2015 that agriculture is the most competitive economic sector in all five of the district municipalities of the Western Cape. Furthermore, tourism, with very strong linkages to agriculture, is the second most competitive sector in all district municipalities. It follows that the WCDoA cannot develop a strategy without taking notice of strategies and priorities at the level of local government. Even at the international level bodies such as the United Nations (UN) and the African Union (AU) has identified agriculture as a vehicle towards achieving global priorities.

However, it must be recognised that the contribution of the Western Cape Agricultural Sector to the achievement of various policies and strategies is bounded by the 'envelope of the possible'. In other words, the natural (land, water and climate) and human (e.g. skills, demography, education, knowledge, managerial) resources as well as the economic structure of the economy (e.g. markets, technology, production capacity, capital) determines the products which can be produced as well as the farming systems to be followed. At the same time, a number of factors could prevent the Agricultural Sector of the Province to achieve its objectives. Alternatively, in other words, these are the risks, which will prevent implementation. Indeed, according to the Global Risks Report 2020 of the World Economic Forum (WEF), six of the top ten risks with the highest likelihood of occurring and seven of the top ten risks in terms of impact has a direct influence on farming. All these elements will be discussed in Section 8.1 of this Strategic Plan (SP).

For this reason the policies and strategies of the WCDoA has to take cognisance of developments in all these spheres of government and translate those priorities and strategies into its own strategies. Hence, the rest of Section 3 (Institutional policies and strategies over the five-year planning period) will be dedicated to exploring policies and strategies from international level down to local level. However, it is not sufficient to merely list these policies and strategies, but it must also take the next step and identify synergies and key messages for the Department to include in its own strategy. The 'envelope of the possible' as well as the risk environment will receive attention in Section 8.1 (external environment analysis).

At the beginning of the 21st Century, world leaders accepted a global vision to fight poverty. This vision was subsequently translated into eight Millennium Development Goals (MDG) and specific targets were set to be achieved by 2015. It follows that these goals provided the overarching development framework at a global level for the next 15 years. At the end of this period the achievement of the MDGs were evaluated and it was the concerted effort from various spheres of government that resulted in the lives of millions saved and the conditions of many more improved. It was further found that, with targeted interventions, sound strategies, adequate resources and political will, even the poorest countries can make dramatic and unprecedented progress. However, it was also acknowledged that uneven

¹ PERO (2015) Provincial Economic Review and Outlook 2015. Provincial Treasury, Western Cape Government, Cape Town.

achievements and shortfalls occurred in many areas. It was concluded that the work is not complete and that it must continue with new goals and targets in the next era (UN, 2015)².

The result was that a new set of goals, the Sustainable Development Goals (SDG) was approved by the General Assembly of the United Nations during September 2015. The SDGs consists of 17 goals and 169 targets to be reached by 2030 (UN, 2015b)³. In order to measure progress with achievement of the SDGs and its targets, 230 indicators were subsequently developed (UN, 2016)⁴. The SDGs as well as the number of targets and indicators relevant to the Western Cape Department of Agriculture can be found in Table 1.

STRATEGIC DEVELOPMENT INDICATORS			NUMBER	
NR	TITLE	TARGET	INDICATOR	
1	End poverty in all its forms everywhere.	2	3	
2	End hunger, achieve food security and improved nutrition, and promote sustainable agriculture.	7	12	
3	Ensure healthy lives and promote wellbeing for all at all ages.	1	1	
4	Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.	3	3	
5	Achieve gender equality and empower all women and girls.	3	3	
6	Ensure availability and sustainable management of water and sanitation for all.	4	5	
7	Ensure access to affordable, reliable, sustainable and modern energy for all.	2	2	
8	Promote sustained, inclusive and sustainable economic growth, full and productive employment, and decent work for all.	3	4	
9	Build resilient infrastructure, promote inclusive and sustainable industrialisation, and foster innovation.	2	2	
10	Reduce inequality within and among countries.	1	1	
11	Make cities and human settlements inclusive, safe, resilient and sustainable.	1	1	
12	Ensure sustainable consumption and production patterns.	2	2	
13	Take urgent action to combat climate change and its impacts (taking note of agreements made by the UNFCCC forum).	2	2	
14	Conserve and sustainably use the oceans, seas and marine resources for sustainable development.	1	1	
15	Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification and halt and reverse land degradation, and halt biodiversity loss.	1	1	
16	Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels.	4	5	
17	Strengthen the means of implementation and revitalise the global partnership for sustainable development.	1	1	
Sour	ce: Calculated from UN (2016)			

Table 1: The seventeen Sustainable Development Goals and the number of targets and indictors relevant to Western Cape Agriculture.

² UN (2015) The Millennium Development Goals Report: 2015). United Nations, New York

³ UN (2015b) Transforming our world: the 2030 Agenda for Sustainable Development. Adopted at the 69th Session of the General Assembly of the United Nations, New York.

⁴ UN (2016) Final list of proposed Sustainable Development Goal Indicators: Report of the Inter-Agency and Expert Group on Sustainable Development Goal Indicators. UN, New York.

This relevance is not always positive for the Agricultural Sector, but may have negative implications. Nevertheless, it is important to internalise the SDGs, its targets and indicators. Still, it is important to note that there is not one SDG with no relevance to the Western Cape. All has some form of relevance and more information is available on request.

It is a pity that the Food Security Report of the Food and Agricultural Organisation of the UN (FAO, 2019)⁵ indicates that, after decades of steady decline, the trend in world hunger (as measured by the prevalence of undernourishment) stopped declining in 2015. For the past eleven years, it remained virtually unchanged at a level slightly below 11 percent. Meanwhile, the number of people who suffer from hunger has slowly increased. As a result, more than 820 million people in the world are still hungry today, underscoring the immense challenge of achieving the Zero Hunger target by 2030. It is further estimated that about 2 billion people in the world experience some level of food insecurity, including moderate. People who are moderately food insecure may not necessarily suffer from hunger, but they lack regular access to nutritious and sufficient food, putting them at greater risk of various forms of malnutrition and poor health.

At the 21st Ordinary Session of the Assembly of Heads of State and Government of the African Union (AU) on 26 May 2013, a decision was taken that an agenda for a growth trajectory for Africa over the next 50 years should be developed. This agenda, termed 'Agenda 2063', was released in April 2015. The seven aspirations expressed in Agenda 2063 are provided in Table 2.

NR	TITLE
1	A prosperous Africa based on inclusive growth and sustainable development.
2	An integrated continent, politically united and based on the ideals of Pan-Africanism and the vision of Africa's Renaissance.
3	An Africa of good governance, democracy, respect for human rights, justice and the rule of law.
4	A peaceful and secure Africa.
5	An Africa with a strong cultural identity, common heritage, shared values and ethics.
6	An Africa whose development is people-driven, relying on the potential of African people, especially its women and youth, and caring for children.
7	Africa as a strong, united and influential global player and partner.
Sour	ce: AU (2015)

 Table 2:
 The seven aspirations expressed in Agenda 2063.

As part of these aspirations, it is foreseen that there will be a "Modern agriculture for increased production, productivity and value addition contributes to farmer and national prosperity and Africa's collective food security". It is also foreseen that science, technology, innovation and indigenous knowledge will be used to this end (AU, 2015)⁶.

Agenda 2063 then translate these seven aspirations into "A Call to action" with 17 actions. From the perspective of the WCDoA, the most important of these is Action (e) "Consolidate the modernisation of African agriculture and agro-businesses, through scaled up value

⁵ FAO (2019) The State of Food Security and Nutrition in the World 29019. Safeguarding against economic slowdowns and downturns. Food and Agricultural Organisation of the United Nations, Rome.

⁶ AU (2015) Agenda 2063: The Africa We Want. Final Edition, April 2015, African Union Commission

addition and productivity." It is further stated that, by 2063 the following targets should be met for this action:

- Completely eliminate hunger and food insecurity;
- Reduce the imports of food and raise intra-Africa trade in agriculture and food to 50% of total formal food and agricultural trade;
- Expand the introduction of modern agricultural systems, technology, practices and training, including the banishment of the hand-hoe;
- Develop and implement affirmative policies and advocacy to ensure women's increased access to land and inputs, and ensure that at least 30% of agricultural financing are accessed by women; and
- Economically empower women and youth by enhancing access to financial resources for investment.

Other actions of relevance include:

- Action d) "Transform, grow and industrialise our economies through beneficiation and value addition of natural resources" in which specific reference is made to "agribusinesses".
- Action f) "Act with a sense of urgency on climate change and the environment" in which "A climate resilient agricultural development programme such as CAADP" is mentioned.
- Action h) "Fast-track the establishment of the Continental Free Trade Area".
- Action p) "Set up an implementation, monitoring, evaluation system, underpinned by accountability and transparency, to ensure the attainment of the Agenda 2063 Aspirations" (AU, 2015).

Even before Agenda 2063 was agreed upon, it was clear that agriculture has a very important role to play. The Comprehensive Africa Agriculture Development Programme (CAADP) is the New Partnership for Africa's Development (NEPAD) framework for developing the Agricultural Sector in Africa. It was endorsed by Heads of State and government, in June 2003, Maputo, Mozambique. In this "Maputo Declaration", the Heads of State agreed to allocate at least 10% of their national budget to Agricultural Sector development; achieve at least 6% annual growth in the Agricultural Sector and develop an Implementation Compact (AU, 2003)⁷.

In the Malabo Declaration of 2014, the African Heads of State recommitted themselves to the principles and values of CAADP. It went further by committing to enhance investment finance in agriculture, to end hunger in Africa by 2025 and to halve poverty by 2015. To this end agricultural growth is to be accelerated by doubling agricultural productivity, sustain annual agricultural GDP growth of at least 6%, strengthen public-private partnerships and to create job opportunities in agricultural value chains (AU, 2014)⁸.

Indeed, in his most recent book⁹ emeritus Professor John W. Mellor, from Cornell University in the USA, indicates that a 6% growth in African agricultural production will lead to a 6,4%

 ⁷ AU (2003) Decisions and Declarations. Assembly of the African Union, Second Ordinary Session, 10 – 12 July 2003, Maputo, Mozambique. African Union Commission

⁸ AU (2014) Malabo declaration on accelerate agricultural growth and transformation for shared prosperity and improved livelihoods. Assembly of the African Union, 23rd Ordinary Session, 26 – 27 June 2014, Malabo, Equatorial Guinea. African Union Commission.

⁹ Mellor JW (2017) Agricultural development and economic transformation: Promoting Growth with Poverty Reduction. Palgrave studies in Agricultural Economics and Food Policy. Palgrave Macmillan

overall economic growth rate, 8% growth rate in the urban economic sectors and a 68% faster growth in employment.

At a national level, the National Development Plan (NDP)¹⁰ remains the overarching policy document. In May 2010, the National Planning Commission (NPC) was appointed by the President of South Africa and the 26 members were tasked to develop a vision for South Africa and to translate this vision into the NDP. The first step of the NPC was to conduct a diagnostic analysis of South Africa's achievements and shortcomings since 1994 and the resulting Diagnostic Report¹¹ was released in June 2011. In this report, the main reasons for slow progress were identified as a failure to implement policies and an absence of broad partnerships.

In order to combat these challenges, the NPC developed a draft NDP, which was released during November 2011. Following a wide consultative process, the final NDP was handed to the President on 15 August 2012 and endorsed by all political parties. The NDP consists of 15 Chapters of which a number provides guidance to the WCDoA, but none is as important as Chapter 6 focussing on "An integrated and inclusive rural economy". It challenges the South African Agricultural Sector (and its value chains) to create one million jobs by 2030 through a renewed focus on export orientated, labour intensive irrigated farming. At the same time, 20% of white owned land is to be transferred to black ownership.

The NDP is to be translated by the Department of Planning, Monitoring and Evaluation in the Presidency (DPME) into a NDP implementation plan as well as a Medium Term Strategic Framework (MTSF) for the period 2020/21 to 2024/25. During the State of the Nation Address (SONA) on 20 June 2019, the President of South Africa provided an indication of priority areas to receive attention over the next few years (see Table 3) and it was subsequently published as the official MTSF (DPME (2020)¹²

Iddle 3: The seven MISF priorities for 2020/21 to 2024/24.		
NR	TITLE	
1	A capable, ethical and developmental state;	
2	Economic transformation and job creation;	
3	Education, skills and health;	
4	Consolidating the social wage through reliable and quality basic services;	
5	Spatial integration, human settlements and local government;	
6	Social cohesion and safe communities;	
7	A better South Africa, Africa and World.	

Table 3: The seven MTSF priorities for 2020/21 to 2024/24.

Source: DPME (2020)

The seven MTSF priorities are at the core of the development of the Department's interventions over the next five years. At a later stage in this Section, its relevance to the Agricultural Sector will be analysed and it will be at the core of the District Development Model. In the Annual Performance Plan (APP), the link between Departmental indicators and the MTSF priorities will also be analysed in more detail. By including these links, and the

¹⁰ NPC (2012) National Development Plan: Our future – make it work. National Planning Commission, The Presidency, Pretoria.

¹¹ NPC (2011) Diagnostic overview. National Planning Commission, The Presidency, Pretoria.

¹² DPME (2020) Medium Term Strategic Framework 2019 – 2024. Department of Planning, Monitoring and Evaluation, Precidency.

targets set, in the APP, it provides the opportunity to update responsiveness on an annual basis. During the June 2019 SONA, the President also highlighted the goals which need to be achieved as the result of the activities under the priority areas (see Table 4).

Table 4:	The seven MTSF	priorities for 2020/21 to 2024/24.

NR	TITLE					
1	No person in South Africa will go hungry;					
2	Our economy will grow at a much faster rate than our population;					
3	Two million more young people will be in employment;					
	Our schools will have better educational outcomes and every 10 year-old will be able					
	to read for meaning;					
5	Violent crime will be halved					
Source: DRME (2020)						

Source: DPME (2020)

It is important to take note of a draft policy document (NT, 2019)¹³ recently published for comments by the Minister of Finance. It was argued that labour-intensive growth should be prioritised and to this end agriculture and certain components of the services economy should be prioritised. It was further stated that joint ventures could boost agricultural production whilst, at the same time, agrarian transformation could be boosted. It was also indicated that an enabling environment for investment in agriculture should be created with specific reference to:

- a) Innovative financing solutions for farmers.
- b) Adequate and affordable agricultural insurance.
- c) Improved extension services for smallholder and emerging farmers.
- d) Enhanced trade promotion and market access
- e) Access to water for irrigated agriculture.
- f) Investment in establishing innovative market linkages for smallholders.

During a "Writer's Workshop", organised by DPME in Centurion on 4 – 7 March 2019, it was indicated that a number of transversal matters will have to receive attention in the medium-term planning documents. These are:

- a) Women / Gender;
- b) Children / Youth;
- c) People with disabilities;
- d) 4th industrial revolution (IR);
- e) Climate Change;
- f) National Spatial Development Framework (NSDF).

In 2002, the Cabinet approved the national Integrated Food Security Strategy (IFSS) in order to create synergies between the wide range of food security programmes in South Africa (DAFF, 2012)¹⁴. Because of this strategy, a number of successes have been realised and the country is food secure at a national level and the incidence of hunger is declining. However, access to food (as is required by Section 27 of the Bill of Rights) is not secure for all and household food security is threatened by a number of factors; including food price volatility,

¹⁴ DAFF (2012) The Integrated Food Security Strategy for South Africa. Department of Agriculture, Forestry and Fisheries, Pretoria.

¹³ NT (2019) Economic transformation, inclusive growth and competitiveness: Towards an economic strategy for South Africa. Published for comments by the Minister of Finance on 27 August 2019. National Treasury, Pretoria.

and the impact of Climate Change. For this reason a Food and Nutrition Security Policy for South Africa was developed and four factors affecting food security were identified:

- a) Availability of food.
- b) Accessibility of food
- c) Utilisation of food
- d) Stability of food supplies.

In response to these challenges, a number of response pillars were prioritised:

- a) Effective food assistance networks.
- b) Improved nutrition education.
- c) Alignment of investments in agriculture towards local economic development.
- d) Improved market participation.
- e) Food and Nutrition Security Risk Management.

The Draft National Spatial Development Framework (NSDF) was published in the Government Gazette of 20 January 2020 for comments (DRDLR, 2020)¹⁵. In this document the five 'National Spatial Outcomes' are identified (see Table 5).

NO	TITLE	DESCRIPTION				
1	National urban network	A network of consolidated, transformed and well-connected national urban nodes, regional development anchors, and development corridors that enable South Africa to derive maximum transformative benefit from urbanisation, urban living and inclusive economic development				
2	National resource production regions	National corridors of opportunity enable sustainable and transformative national development, urbanisation, urban consolidation, mutually beneficial urban and rural linkages, and ecological management.				
3	National connecting and movement infrastructure	National connectivity and movement infrastructure systems are strategically located, extended and maintained, to support a diverse, adaptive and inclusive space economy and key national and regional gateways.				
4	Productive rural regions	Productive Rural Regions, supported through sustainable resource economies and regional development anchors, enhance resilience in rural areas, to enable access to the dividends of urban consolidation, rural innovation and climate adaptation.				
5	National ecological infrastructure and natural resource base	National ecological Infrastructure and the national natural resource foundation is well-protected and managed, to enable sustainable and just access to water and other natural resources, both for current and future generations.				

Source: Draft National Spatial Development Framework (2020)

The five National Spatial Outcomes were translated into four 'Sub-frames' which largely overlaps with the Outcomes (outcomes 4 and 5 is combined into one sub-frame with the

¹⁵ DRDLR (2020) National Spatial Development Framework. Published in the Government Gazette of 20 January 2020. Department of Rural Development and Land Reform, Pretoria.

name 'National ecological infrastructure and natural resource base'). In the final part of the NSDF five 'Strategic Spatial and Implementation Action Areas (AA) were identified. These are:

- Action area 1: National Transformation Corridors: (1) Buffalo City via Mthatha to Port Shepstone and (2) Mbombela-Bushbuckridge-Phalaborwa-Thohoyandou-Makhado.
- Action area 2: Central Innovation Belt: Emalahleni-Siyabuswa-Rustenburg-City of Matlosana-Sasolburg.
- Action area 3: National Resource Risk Area: The (1) Nkangala, (2) Olifants, (3) Waterberg, (4) Umgeni, (5) Berg, and (6) Breede River Catchments.
- Action area 4: National Urban Regions.
- Action area 5: Arid-Innovation Region.

It is clear that AA1 and AA2 is not relevant to the Western Cape. However, in the case of AA3 the Berg and Breede river catchment areas has been identified as risk areas where land use and water competition as well as pollution risks needs to be addressed. In the case of AA4, Cape Town has been identified as one of the three urban regions of national importance. The fact that one of the five action areas (AA5) focusses on an 'arid innovation region' is probably one of the most important shifts in focus. It is suggested that in the arid region, covering most of the Karoo (see Figure 1), a number activities should follow. These include regional adaptation, economic diversification and agri-innovation at scale. Emphasis is placed on cross-provincial and cross-municipal collaborative spatial development, planning and governance as well as strong regional growth and development compacts.



Figure 1: Arid-innovation Region overview

Source: Draft National Spatial Development Framework (2018)

In an effort to fast-track delivery on the commitments made in the NDP, the Operation Phakisa: Agriculture, Land Reform and Rural Development was launched in 2017. Operation Phakisa is based on the "Big Fast Results" methodology developed by Malaysia and is a results-driven approach through which clear plans on targets are set after which progress is continuously monitored. This approach was applied to a number of focus areas in South Africa and agriculture was fortunate to receive the attention of this intervention. At the time of its release, four national departments (i.e. Agriculture, Forestry and Fisheries; Rural Development and Land Reform; Labour; Higher Education and Training) were identified to take the lead during the implementation phase. The outcome of the process is that there are 27 Operation Phakisa initiatives that can be clustered into six focus areas: The latter are:

- a) Optimising the Management of Natural Resources
- b) Developing Skills and Capacity
- c) Funding and Finance
- d) Value Chain Development and Market Access
- e) Coordination and Knowledge Management
- f) Reconfiguring Space and Promoting Functional Rural Settlement.

At a Sector level, the recently re-configured Department of Agriculture, Land Reform and Rural Development (DALRRD) held a strategic planning session from 2 – 4 October 2019 to start the process of developing an intervention strategy for the period 2020/21 to 2024/25. The accounting officer and other officials from provincial departments of agriculture were also invited to attend this planning session and during this session the link between the MTSF framework and actions in the Agricultural Sector were agreed upon (see Table 6).

NR	MTSF PRIORITY	CONTRIBUTION	RATIONALE FOR SELECTION
1	A Capable, Ethical and Developmental State	Core	Good corporate governance, professional and ethical organisation
2	Economic Transformation and Job Creation	Core	Equitable land ownership, decentralised economy, ability to stimulate other sectors through the value chain, multiplier effect. Facilitate the commercialisation of black farmers to contribute to: GDP, Job creation, Transformation of the Agri-food value chain
3	Education, Skills and Health	Enabler	Agriculture colleges provide skills, mandate to skill existing farmers, nutrition security, building capacity through formal and informal training. Integrated Food Security and Nutrition strategy of South Africa, with specific focus on food safety
4	Consolidating the Social Wage through Reliable and Quality Basic Services		Coordination of the delivery of basic services through district rural development plans
5	Spatial Integration, Human Settlements and Local Government	Core	Integrated land distribution, Spatial transformation, Integrated land administration system, Equitable access to land for all land uses
6	Social Cohesion and Safe Communities	Enabler	Supporting social cohesion and safety of rural communities
7	A Capable, Ethical and Developmental State	Core	Good corporate governance, professional and ethical organisation
7	A better Africa and World	Enabler	Trade agreements and protocols for market access and implementation of the African free trade. Role to ensure that our borders are properly demarcated

Table 6: Linking MTSF priorities to the Agricultural Sector.

At this stage, the strategic process at national level has not yet been completed and four task teams have been selected to further investigate specific focus areas. These areas are:

- a) International trade: existing agreements linked to agriculture must be honoured and the team need to review them for opportunities for smallholder farmers.
- b) Land reform (Redress and equitable access to land): The task team must refine and consolidate recommendations regarding redistribution, restitution, property valuations, and a land reform fund. Spatial planning must also receive attention with specific recommendations on the implementation of the NSDF and the Spatial Planning and Land Use Management Act (SPLUMA) to be refined. The intention is to support local authorities and an integrated land administration system.
- c) Agricultural production, health and food safety: Focus should be placed on biosecurity, spatial transformation and the alignment of information. The establishment of a support fund should also be investigated.
- d) Rural enterprise and infrastructure: A rural development policy must be developed with the intention of addressing the needs of rural people. An asset-based approach to transformation must be followed. The team must also address aspects such as rural roads and collaboration between stakeholders.

In the Provincial sphere of government, the priorities for the Provincial Government were identified during the 'Cabinet Bosberaad' of 10 – 12 July 2019 and subsequently confirmed by the Premier during his State of the Province address of 19 July 2019. In the end, the Provincial Strategic Plan (PSP) (WCG, 2020)¹⁶ was approved during the Cabinet Bosberaad of 11 and 12 February 2020. The Provincial Priorities, subsequently named 'Vision Inspired Priorities' (VIP) are:

- a) Safe and cohesive communities;
- b) Creating an enabling economy and a job in every household;
- c) Empowering people (health, education and social development);
- d) Public transport, mobility and spatial transformation;
- e) Innovation and culture.

Although the WCDoA has a role to play in each of the VIPs, it is clear that the Department will have the biggest role to play in VIP 2 (economy and jobs). It is argued that the size of an economy is dependent on (household) consumption (C), investment (I), Government expenditure (G) and the net balance of international trade (Exports (X) minus Imports (M)). As consumption and government expenditure is constrained by domestic economic conditions, this leaves export growth as the main avenue towards a significant growth in the economy. For this reason, the apex priority for VIP 2 is to grow exports by 50% over the next five years and to this end five leavers have been identified:

- a) Investment
- b) Infrastructure
- c) Export promotion and facilitation
- d) Skills
- e) Resource resilience.

The Provincial Minister of Agriculture has subsequently also identified five areas in which he aims to make a difference during his term in office. These areas have been reiterated several

¹⁶ WCG (2020) Provincial Strategic Plan 2019 – 2024. Department of the Premier, Western Cape Government, Cape Town.

times (including during the 'Cabinet meets Agriculture' event of 14 August 2019) and can be summarised as:

- a) Market access and international opportunities (products, farmers, staff);
- b) Rural safety;
- c) Structured education, training and research;
- d) Farmer support (smallholder and commercial);
- e) Climate change (Innovation, Technology, and Partnerships).

The Premier of the Western Cape Province has also allocated an 'Apex' and a 'security' priority to each member of his Cabinet. In the case of the Minister of Agriculture these are: Apex priority: Ramp up agricultural market access Safety priority: Rollout of rural safety plan

OneCape 2040 was a joint attempt between the Western Cape Province and the City of Cape Town to stimulate transition towards an inclusive and resilient economic future. During the development of this plan, notice was taken of the NDP as well as a range of other policy documents and, following a contextual report, focus group discussions, research reviews and a range of consultations, the following vision for the Western Cape Region was developed: "A highly-skilled, innovation-driven, resource-efficient, connected, high opportunity and collaborative society". It was further argued that six "transitions", each with a desired state and specific goals, needs to take place.

- a) Knowledge
- b) Economic
- c) Ecologic
- d) Cultural
- e) Settlement
- f) Institutions

The first version of the Provincial Spatial Development Framework (PSDF) was released in 2009. Following an intensive internal and external consultation process, the updated version of the PSDF was released for public comment during October 2013. After the comments were considered, the PSDF was approved by Provincial Cabinet in April 2014. This document makes provision for three planning themes and, in the case of each theme, between three and five elements for implementation have been identified. The three themes are:

- a) Sustainable use of Provincial assets.
- b) Opening-up opportunities in the space-economy
- c) Developing integrated and sustainable settlements.

During August 2016, the Western Cape Province submitted its own strategic framework for household food and nutrition security to Provincial Cabinet. This framework identifies availability, access, utilisation and stability as the key elements underlying food insecurity and as a result, six response pillars with particular support programmes were identified. These are:

- a) Food assistance.
- b) Food awareness and safety.
- c) Food sensitive planning.
- d) Food resource management for the future.
- e) Inclusive food economy.
- f) Food governance.

It is important to also include the link between the Department's activities and the priorities identified at local government level. During October 2018, the Province arranged a series of

Strategic Integrated Municipal Engagements (SIME) at district level with all local governments in the Province. During these engagements three strategic priorities were identified for each of the districts and, more specifically:

Garden Route

- a) Building on inclusive growth and revitalisation of the economy.
- b) Building a smart region.
- c) Embedded good governance through integrated service delivery.

Central Karoo

- a) The use of technology and innovation to stimulate economic growth.
- b) Water security in order to attract investment.
- c) Exploring potential in waste management.

Overberg

- a) Climate Change and environmental management.
- b) Population growth in towns requires planning for growth and Infrastructure.
- c) Water security and waste management.

Cape Winelands

- a) Need for Waste Management.
- b) Impact of Climate Change on municipal service delivery.
- c) (Im)migration and its impact on planning and service delivery.

West Coast

- a) Need for Integrated regional management plans for waste management and water.
- b) Impact of Climate Change.
- c) Urbanisation requires planning for urban development.

The WCDoA subsequently analysed these priorities (as well as the discussion taking place during SIME), and it identified seven common themes of relevance to the Agricultural Sector (See Table 7).

	District						
THEME	Garden Route	Central Karoo	Overberg	Cape Winelands	West Coast		
Economic growth	Х	Х					
Innovation/tech/4 th IR	Х	Х					
Waste	Х	Х	Х	Х	Х		
Migration/Urbanisation				Х	Х		
Climate Change		Х	Х	Х	Х		
Water		Х	Х		Х		
Inclusion	X	Х	Х	Х	Х		

 Table 7:
 Link between SIME engagements and common agricultural themes.

It is clear from the discussion in this Section that there is a wide range of policies and strategies, which need to be addressed by the WCDoA. This spread may lead to conflicting priorities, subsequent confusion and lack of direction and for this reason, it is important to cluster the priorities with the intent of identifying synergies. With the logical clustering of the various policy objectives in Figure 2, a form of synergy begins to emerge. The synergy can be taken a step further with the identification of common intentions. For instance, if Priority 3 in the MTSF (Safer communities) were to be combined with the SONA priority of "social cohesion and safe communities", the SONA Goal of "halving violent crime halved" could be achieved. Similarly, if the Premier's priority of "safe and cohesive communities" and the Minister's priority of "Rural Safety" were to be combined, strong prospects emerge for achieving the common intention of "rural safety".

A graphical representation of these common intentions is provided in Figure 3 below. A further step can be taken by delineating various clusters amongst the common intentions (see Figure 4). This figure depicts crosscutting clusters, which emerge from common policy intentions. For instance, if the policy intentions of "South Africa, Africa and the world", "capable state", "enabling environment", "farmer support" and "innovation" are combined; a cluster emerges which can be described as the role government needs to play in an economy. Similarly, if "enabling environment", "farmer support" and "innovation" are combined with "water", "increased production", "economic growth", and "job creation", the cluster of agricultural development emerges. In this way a non-exclusive list of the identified clusters include (the colours refer to the colour of the lines in Figure 4) government's role (red), risk (black), rural development (black), transformation (yellow), transformation (blue) and the agricultural cluster (green).

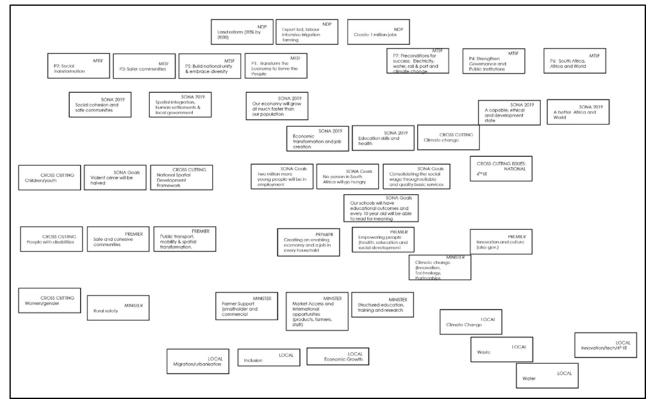


Figure 2: Plotting policy priorities emanating from the various spheres of government.

In this Section a comprehensive overview of policy priorities and strategies from international to local level of government were identified. These policies and strategies were mapped and a number of specific clusters to be addressed have emerged. Following further information and a situational analysis (see Section 8), a theory of change can be developed for the Department.

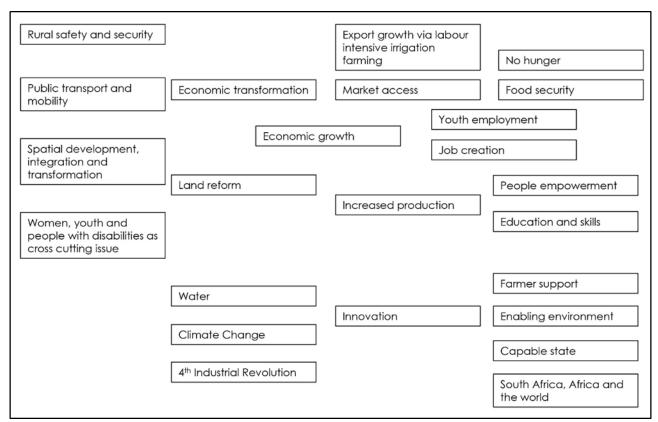


Figure 3: Common intentions emerging from clustered policy priorities.

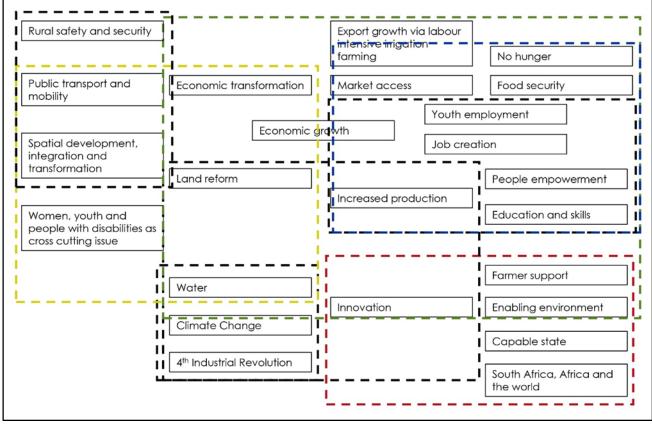


Figure 4: Clusters emerging from common policy intentions.

4. Relevant Court Rulings

Lamosa judgement:

On 29 July 2019 in the Pietermaritzburg High Court (Case no: 11340/2017P) handed down a precedent setting judgement, whereby the court ordered the District and Local Municipalities to provide farm dwellers and labour tenants with access to water, adequate sanitation and refuge collection. In addition, the municipalities were reprimanded for not including the rights of occupiers and labour tenants in their Integrated Development Plans (IDPs).

Lion Bone:

The Supreme Court of Appeal and the Constitutional Court in *Lenthongthai* and *NSPCA* matter: ruling on lion bone has declared that the set quota for the exportation of lion nob (of 800 lion skeletons) which was established by notice on 28 June 2017 is unlawful and constitutionally invalid as it is inconceivable that the State Respondents could have ignored welfare considerations of lion in captivity in setting the annual quota.

Department of Agriculture, Forestry and Fisheries on Protector's report on outbreak of brucellosis on farm:

The Department of Agriculture, Forestry and Fisheries (DAFF) has taken note of the report from the Public Protector entitled "Public Protector's Report on an Investigation into Allegations of Maladministration by the Free State Department of Agriculture and Rural Development (DARD), and the Department of Agriculture, Forestry and Fisheries (DAFF) relating to its Handling of an Outbreak of Brucellosis (Contagious Abortion) on the Farm of Mrs Ronel Behrens: Report 44 of 2018/19". DAFF has therefore sought legal advice on the contents of the report. Based on the advice received, the DAFF has instructed a legal team to prepare an application to review the findings and recommendation of the Public Protector

Part B: Our Strategic Focus

5. Vision

A united, responsive and prosperous agricultural sector in balance with nature.

6. Mission

Unlocking the full potential of agriculture to enhance the economic, ecological and social wealth of all the people of the Western Cape through:

- Encouraging sound stakeholder engagements;
- Promoting the production of affordable, nutritious, safe and accessible food, fibre and agricultural products;
- Ensuring sustainable management of natural resources;
- Executing cutting edge and relevant research and technology development;
- Developing, retaining and attracting skills and human capital;
- Providing a competent and professional extension support service;
- Enhancing market access for the entire agricultural sector;
- Contributing towards alleviation of poverty and hunger, and
- Ensuring transparent and effective governance.

7. Values

Caring:	We care for those we serve and work with.
Competence:	We will ensure that we have the ability and capability to do the job we
	were employed to do.
Accountability:	We take responsibility.
Integrity:	We will be honest and do the right thing.
Innovation:	We will be open to new ideas and develop creative solutions to problems
	in a resourceful way.
Responsiveness:	We will serve the needs of our citizens and employees.

8. Situational Analysis

It was argued in the introductory part of Section 3 of this Strategic Plan that the policy and strategy environment of the WCDoA stretches from the international to the local sphere of its environment. The same argument applies to the situational environment of the Department. In the next section, the external environment of the Department will be analysed and specific emphasis will be placed on the Strengths, Weaknesses, Opportunities and Threats (SWOT) of the Department. As part of the SWOT analysis, the 22 evaluations the Department has concluded over the past number of years will be discussed. The relevant sector statistics and the spatial distribution of production will be addressed and it is evident that the challenges and risks to be faced will have to receive attention.

During the analysis of the internal environment, specific attention will be given to the capacity of the WCDoA to deliver on its mandate from the perspective of both human, information technology and financial resources. This will include the Department's compliance pertaining to Broad Based Black Economic Empowerment (B-BBEE) as well as the attention given to vulnerable groups such as women, children and people with disabilities.

8.1. External Environment Analysis

8.1.1. SWOT Analysis

In the Framework for Strategic and Annual Performance Plans, released by the Department of Planning, Monitoring and Evaluation (DPME), a number of planning tools were suggested when developing a Strategic Plan (SP). One of these was a SWOT analysis and another was the development of a Theory of Change (TOC). It was also mentioned that the process of developing the SWOT and TOC might be more important than the actual result itself.

It is evident that a SWOT analysis could be superficial and receive attention during an hour as part of a strategic planning process. The alternative could be to spend more time and energy on the process with a more satisfying result. The WCDoA decided to undertake the latter and, with the help of a service provider, used a three-pronged approach:

- a) Over the past number of years, the Department has conducted 22 external evaluations and in each of these, a wealth of information has been captured. Hence, the first step was to analyse the evaluation reports in order to analyse the SWOT elements in it.
- b) The second step was to engage the Department's clients (organised agriculture, universities, agri-worker associations, industry associations, etc.) regarding their perception of the Department's SWOT.

c) The final step was an internal survey to determine the view of the Department's employees regarding its SWOT.

In addition to a SWOT analysis at Departmental level, the results are available per programme and per salary level¹⁷. For the purpose of consistency, all elements of the SWOT (both internal and external) will be discussed in this section. A summary of the SWOT analysis of the external evaluations is provided in Table 8.

nviro Rating Category	Weaknesses	Strengths	Threats	Opportunities
iternal Environment				
Strategy & Policy	-1	2		
Organisational alignment & Effectiveness	-4			
Human Resources	-9	1		
Design of Programme/Product/Service	-46			
Effectiveness & Impact of Programmes/Products/Services	-19	106		
Administration, Controls & Record Keeping	-10	1		
Management of Service Providers	-1			
Managing Collaborations & Networks	-3	4		
Marketing & Communication	-9			
Data & Information Management	- 3			
Financial Management & Resources	-11			
Infrastructure - Management & Suitability	-2	5		
Technology - Management & Use	-1	1		
licro Environment				
Government Funding				5
Government (National & Provincial) Alignment/Coordination				6 1
NGO's, Private Sector and other Role Players				4 1
Market/Client Needs & Perceptions			-2	26 23
Broader market acceptance/reputation				4
acro Environment				
Political: National Government Policy/Targets				-1
Political: Political Stability / Governance				4
Economic: Private Sector investment				-3 5
Economic: Economic Growth/Trade			·	-8 7
Economic: Legal/Regulatory/Compliance environment			-1	1
Economic: Employment levels/opportunities				6
Social: Consumer trends				1
Social: Eductation / Skills levels				.9
Social: Population demographics				-1
Technology: Emerging Technologies				-31
Environmental: Climate Change				- <mark>3</mark> 2
Environmental: Resource availability				4 3

Table 8: Summary of the SWOT implications of external evaluations.

Source:

PDG/Blue North (2019)

¹⁷ PDG/Blue North (2019) Consolidation of Output from the SWOT Analysis conducted as part of the WCDoA's Strategic Planning Process. WCDoA, Elsenburg.

During the analysis of the 22 external evaluations, 389 findings were made and each were categorised as part of the internal or external environment as well as whether it was a Strength, Weakness, Opportunity or Threat. Some of the most important observations include:

- a) The Evaluations have been deployed by the Department as an effective mechanism to understand the effectiveness and impacts of its products and services offered through its programmes and sub-programmes. This in itself can be regarded as a strength of the Department.
- b) The fact that the Evaluations are not utilised across all sub-programmes and are absent in total from the Veterinary Programme may indicate a weakness related to subprogramme design (perhaps with structures not lending themselves easily to external evaluation) and/or could point to organisational issues where leadership of different Programmes may have differing levels of commitment to or acceptance of evaluations as a management tool.
- c) The evaluations generally focus on evaluating the design and/or impact of the services and products offered by the Department and, understandably, these aspects account for the bulk of the findings indicating either weaknesses or strengths of the Department. It would appear, therefore, that while the evaluations do confirm the overall effectiveness and impact of the various programmes and sub-programmes (116 positive findings), they also do highlight some areas of weakness in the following aspects of the internal environment that are relevant to the SWOT analysis and warrant closer scrutiny in the forthcoming strategic planning phase;
 - a. Humans resources (9 negative findings) in particular related to insufficient Human resource capacity;
 - Design of Programmes/Products/Services (46 negative findings) specific challenges and limitations in certain of the department's programme/product/service design highlighted;
 - c. The effectiveness and Impact of Programmes/Products/Services (19 negative findings) specific challenges are highlighted that limit the intended impacts or outcomes of the department's programme/product/service design highlighted;
 - d. Administration, Controls and Record-keeping (10 negative findings) specific challenges highlighted related to the administration of the department's programmes/products/services, in particular systems for the collection of data needed for effective monitoring and evaluation.
- d) The scope of evaluations findings extend into the micro and macro environments. The top aspects of the external environment identify threats relating to;
 - a. Government funding (5 negative findings)
 - b. Coordination of effort between provincial and national government (6 negative findings)
 - c. Coordination of effort with private sector role players and NGO's (4 negative findings)
 - d. Market /client needs and perceptions (26 negative findings)
 - e. Private sector investment (3 negative findings)
 - f. Economic growth & trade (8 negative findings)
 - g. Legal/Regulatory compliance (11 negative findings)
 - h. Employment levels/opportunities (6 negative findings)
 - i. Education/skills levels (9 negative findings)
 - j. Resource availability (4 negative findings)

The questionnaires consisted of a structured and free form sections for both internal and external respondents. Some respondents to the structured SWOT questionnaire would consider a particular aspect as negative whilst other would give it a positive score. These responses were placed on a spectrum and in the process various features could be ranked. Of current relevance is the comparison between the opinions of internal and external respondents (see Table 9).

and strengths of the WCDOA.		
Feature of the Internal Environment	Department's Ranking	Stakeholder's Ranking
Compiling & sharing of needed information	1	1
Effectiveness/clarity of the Department's Strategy & Strategic Objectives	2	5
Suitability of Infrastructure, Assets & Equipment	3	9
Suitability of Technologies & IT Tools	4	8
Facilitating multi-party collaboration	5	6
Effectiveness of Administration & Project-management	6	2
Data collection for Monitoring & Evaluation	7	10
Effectiveness of Marketing of Services	8	4
Sufficiency of Financial resources/budgets	9	12
Effectiveness of the Department's Organisational Structure	10	7
Effectiveness of the Department's Organisational Culture	11	3
Sufficiency of Human Resources (quantity & quality)	12	11

Table 9:	A comparison between the internal and external perspectives on the Weaknesses
	and Strengths of the WCDoA.

Source: PDG/Blue North (2019)

It is clear that both groups gave the highest ranking to the Department's ability to compile and share needed information. Although officials of the WCDoA ranked the Department's effectiveness and clarity of strategy second, external stakeholders placed it only fifth on the list. It probably would be a surprise to most officials to learn that external stakeholders placed its effectiveness of administration and project management in second place. Similarly, officials place the Department's organisational culture in the 2nd last position, whilst external stakeholders placed this feature in the 3rd highest position. However, all agreed that sufficiency of human resources should be rated close to the bottom. A consolidated view (including internal and external as well as structured and free form responses) of the Department's weaknesses and strengths is provided in Table 10.

Feature of the Internal Environment	Indicating Weakness	Indicating Strength
Effectiveness of the Department's Organisational Culture	-198	221
Effectiveness of the Department's Organisational Structure	-147	195
Sufficiency of Human Resources (quantity & quality)	-115	186
Sufficiency of Financial resources/budgets	-74	180
Effectiveness of Marketing of Services	-63	194
Data collection for Monitoring & Evaluation	-39	189
Effectiveness of Administration & Project-management	-80	244
Suitability of Technologies & IT Tools	-78	242
Suitability of Infrastructure, Assets & Equipment	-38	225
Facilitating multi-party collaboration	-54	243
Effectiveness/clarity of the Department's Strategy & Strategic Objectives	-35	227
Compiling & sharing of needed information	-62	273

Table 10: Consolidated view of the internal environment of the WCDoA.

Source: PDG/Blue North (2019)

Based on this information a number of observations can be made regarding the internal environment of the Department:

- a) Apart from one feature rated by the stakeholders (sufficiency of finances/budgets) that has the same negative and positive scores, all the ratings of both survey groups have a greater positive than negative score, with the positive score in most cases being substantially higher than the corresponding negative score. As a result, there would appear to be no clear standout weaknesses that should be a cause for alarm, and the overall sense conveyed from the results is that both survey groups regard the Department as a healthy, well-functioning institution.
- b) The comparative ranking tables show that the Stakeholders perceive certain of the features of the Department in a more positive light compared to the Department's own staff. The external stakeholders were more positive regarding the organisational culture, the effectiveness of marketing and effectiveness of administration and project-management.
- c) Stakeholders also gave a lower rating compared to internal ratings on sufficiency of budgets, suitability of technologies and IT tools as well as suitability of infrastructure, assets and equipment.
- d) There is general consensus in the rankings as to the sufficiency of Human Resources being the feature of greatest relative weakness, and the compiling and sharing of needed information being the feature of greatest relative strength.
- e) The free-text responses derived from both sources show an interesting general pattern that is contrary to that for the structured survey in that the majority of the comments raised are negative by nature. It is clear that many respondents utilised the opportunity provided to raise concerns within their direct experience of either working within, or with, the Department. The aspect attracting the most negative comments from the employee survey relate to the department's organisational culture and organisational structure, while those attracting the most negative comments from stakeholders relate to the department's administration and project management and stakeholder engagement/collaboration.

- f) Notwithstanding the above observation, respondents did use the opportunity to also raise positive comments. Employee survey respondents in particular highlighted internal environment positives (strengths) related to organisational culture and human resources, and external environment positives (opportunities) related to stakeholder engagement and market opportunities.
- g) Stakeholder survey respondents, on the other hand, highlighted internal environment positives (strengths) related to the department's organisational culture, administration and project-management and stakeholder engagement/collaboration, and external environment positives (opportunities) related to stakeholder engagement, market access and transformation.
- h) The features of the internal environment that attracted the most free-text comments overall are; Organisational Culture, Organisational structure, Human Resources, Administration & Project-management, Stakeholder Engagement/collaboration and Technologies and IT tools.
- i) The consolidation of the structured and free-text output of the two surveys (employees and stakeholders) does not materially change the ranking order of the relative strength or weakness of the different features of the internal environment. However, what it does highlight is the wide range of views/perspectives between programmes as well as between employee and stakeholder perspectives. It is therefore important that the detailed findings be examined in the process of formulating strategies at the programme level.

For the external environment, the same approach was followed as for the internal environment. Both groups considered Climate Change as the biggest area of vulnerability for the Western Cape Agricultural Sector with population growth and urbanisation high up on the list for both groups (see Table 11).

Opportunities and inreats of the WCDOA.							
Feature of the External Environment	Env	Department's Ranking	Stakeholder's Ranking				
Vulnerability of Sector to Climate Change	Macro	19	19				
Population Growth & Urbanisation impacts on Food Security	Macro	18	15				
Sufficiency of Funding from National & Provincial Government	Micro	17	11				
National Government Policy	Macro	16	18				
Impact of Regulatory Environment on Sector	Macro	15	17				
Impact of New Technologies on employment in the Sector	Macro	14	12				
Attractiveness of Sector to Young people	Macro	13	14				
Stability/sufficiency of Trade Agreements	Macro	12	16				
Education & Skills levels impact on Sector	Macro	11	13				
Natural Resources availability impacts on Sector (water, soil, biodiversity	Macro	10	10				
General access of populous to the internet and computer technologies	Macro	9	7				
Willingness of Private Sector to invest in Sector	Macro	8	3				
Collaboration with other National & Provincial Departments	Micro	7	9				
Availability of Suppliers & Service Providers	Micro	6	8				
Client's clarity on their needs/priorities	Micro	5	5				
Impacts of New Technologies on competitiveness of Sector	Macro	4	1				
Reputation with Stakeholders in Sector	Micro	3	4				
Willingness of Private sector and NGO role players to collaborate	Micro	2	6				
Governance in the W.Cape	Macro	1	2				

Table 11: A comparison between the internal and external perspectives on theOpportunities and Threats of the WCDoA.

Source: SWOT Report (2019)

Internal respondents considered governance in the Western Cape as the most important aspect whilst external respondents also rated this feature fairly high. External respondents placed impacts of new technologies as the most positive feature and placed the willingness of the private sector to invest in the third place (internal respondents placed this in 8th position). It follows that this is a clear opportunity, which the Department must use over the next five years.

Other key observations from the external analysis include:

- a) The results for both surveys of the external environment show a far more distinct differentiation between features (as either a distinct opportunity or threat) than that shown for the internal environment. These points to far greater consensus across all respondents as to their ratings and greater agreement as to a feature being identified as an opportunity or threat.
- b) Department employees identify Climate change, population growth and food security and sufficient funding from Government as the top three threats and its reputation with its stakeholders, the willingness of the Private sector to invest and Governance in the Western Cape as the three largest opportunities.
- c) Stakeholders on the other hand, identify climate change, National Government policy uncertainty and the regulatory environment as the top three threats, and the impacts of new technologies (fourth industrial revolution), Governance in the Western Cape and the willingness of the Private sector to invest as the three largest opportunities.

- d) The free-text responses derived from both sources shed further light on the threats and opportunities faced by the Department. In terms of the number of comments raised, threats emphasised by employees relate to stakeholder engagement/collaboration, funding, collaboration with National government, safety & crime, education-levels/skills and climate change, while the stakeholder comments emphasise threats related to market access, transformation and climate change.
- e) Free-text responses from the Employee survey respondents also highlight external environment opportunities related to stakeholder engagement and market opportunities while comments raised by Stakeholder survey respondents highlight opportunities related to stakeholder engagement, market access and transformation.

The 17 key features/attributes of the Department's external environment that are deemed to most likely impact the Department's strategy over the next 5 years are set out in Table 12 below (the numbering is a reference and not a ranking order).

Table 12: The 17 key features/attributes of the Department's external environment that are deemed to mostly likely impact the Department's strategy over the next 5 years.

11	deemed to mostly likely impact the Department's strategy over the next 5 year					
#	Summary	Full description				
1	An acceleration of new technologies, collectively referred to as the Fourth Industrial Revolution	An acceleration of new technologies, collectively referred to as the Fourth Industrial Revolution (including networks & connectivity, "big data", the "internet of things", artificial intelligence etc.) is set to disrupt the agriculture sector by enabling better farm efficiency, resource-use and completeness through, for example, Precision Agriculture and related technologies, while impacting employment in the sector through associated increased adoption of automation and mechanisation etc.				
2	A complex regulatory environment	A complex regulatory environment driven by National, Provincial and Local Government laws and regulations related to resource access and use, labour management, housing and tenure rights, transformation etc. as well as multiple compliance requirements associated with market access (certification and audit schemes). While these can provide competitive advantage and strategic barriers-to- entry to some players, largely they place a drag on investment in the sector and serve as a significant barrier to new and aspirant entrants to the sector.				
3	A Private Sector with a high but unrealised potential for investment in the sector	A Private Sector with a high but unrealised potential for investment in the sector in the Western Cape to unlock growth and accelerate transformation in the sector. Factors such as policy uncertainty/risk, red tape, political intolerance, perceptions of crime/safety concerns in rural areas etc. supress this appetite, while the good governance, good infrastructure and the general functioning of government departments in the Western Cape serve to encourage investment.				
4	A policy environment that is uncertain and contested	A policy environment that is uncertain and contested - in particular as this relates to land reform and land expropriation without compensation. Political misalignment/tension between Provincial and National				

#	Summary	Full description
		Government as well as a fractious/tense overall political environment in the country tends to magnify this uncertainty.
5	Uncertainty over the stability/security of key trade agreements and uncertainty over new market access	Uncertainty over the stability/security of key trade agreements and lengthy/uncertain opening of new markets. This is relevant to key trading partners (AGOA for the USA and BREXIT-related uncertainty for access to the UK and Europe) and the opening and negotiation of favourable trade agreements in important new/growth markets in Africa and the Middle and Far East.
6	General scarcity of the education-levels, skills and expertise	General scarcity of the education-levels, skills and expertise in relation to the competitiveness and growth aspirations of the sector. This is compounded by a low aspiration of young people to enter the agriculture sector and the loss of scarce skills/expertise to other countries ("brain drain").
7	An acceleration of change and unpredictability in climatic patterns	An acceleration of change and unpredictability in climatic patterns; characterised by increasing summer and winter temperatures, reduced chilling units, greater unpredictability of rainfall timing and intensity, increasing drought episodes, higher wind speeds and storm energy etc. This will pose challenges to existing agricultural activities invested in plant and livestock genetics specifically adapted to historic climatic parameters. The distribution and occurrence of pests and diseases may also be impacted.
8	Resource-based constraints to the expansion of agricultural land (water, soil etc.)	Resource-based constraints to the expansion of agricultural land, in particular water scarcity brought about by a combination of increased competition for allocations of water within agriculture and to non- agricultural sectors of the economy, groundwater contamination/salinity, drought etc.
9	Constraints to expansion due to energy-constraints	Constraints to the expansion of agricultural land and agri- processing due to energy-constraints and supply uncertainty.
10	Mounting pressure/expectation to address the transformation imperative in agriculture	Mounting pressure/expectation to meaningfully address the transformation imperative in agriculture, being transformation projects that achieve genuine transfer of ownership and expertise, and which boost the economic performance and productivity of the sector.
11	A low growth economy with high levels of unemployment	A low growth economy with high levels of unemployment, particularly amongst the youth and an expectation for the agriculture sector to be an engine for economic growth and employment in the Province.
12	Prevalence of crime/lawlessness	Prevalence of crime/lawlessness in general and declining rural safety in particular
13	Silo inter-working between Local and	A working environment characterised by silo mentality and sub-optimal inter-working between Local and National government departments. Compounded by challenges in

#	Summary	Full description
	National government departments	aligning the delivery of services with formal mandates (for example Water Affairs and Sanitation as the custodian of water resources and the WCDoA's need to provide services to irrigation-dependent agriculture in the Province) undermines support/delivery of services to the sector.
14	A complex implementation environment	A complex implementation environment with multiple private sector role-players. Compounded by sub-optimal communication and awareness of "who is doing what"
15	Population growth and influx of people to urban areas	Population growth and influx of people to the Province and to urban areas in the Province will increase demands on services in general and pressure on food production and ensuring food security in the Province.
16	National Government funding constraints	The availability of Funding from National Government is constrained, and budget are under pressure to not rise or to be reduced.
17	A Sector of Stakeholders and Role- players that hold WCDoA in high regard	Stakeholders hold the WCDoA in high regard and Role Players in the sector expresses appreciation for the Department's personnel and work undertaken. It follows that the Department is regarded as a credible agent within the Sector.

Source: PDG/Blue North (2019)

8.1.2. Demographic profile

A total of 6.6 million people were reported to reside in the WC in 2018, almost 12% of the national population. Figure 5 shows how the provincial population has grown, both in absolute and relative terms compared to the national population. In 2008, the WC population was 5.3 million, which was then less than 11% of the national population. Additional to the need to provide more employment opportunities, the province's large and growing population also imposes a strong demand on the agricultural sector in order to be able to feed the population. Without an increase in agricultural production, the increase in the population will lead to growing food insecurity in the province.

The majority of the province's population reside in the Cape Town metropole area (64%). As can be observed in Figure 6, the relative breakdown of the population has not changed significantly over the past decade, with the population of the West Coast growing slightly faster than the rest of the province and that of Eden slightly slower.

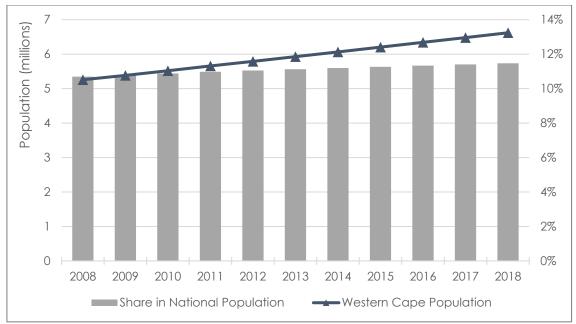


Figure 5: Western Cape Absolute and Relative Population.Source:Partridge, Morokong & Sibulali (2019)18

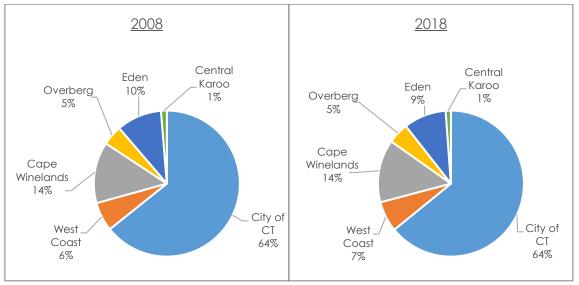


Figure 6: Western Cape Population by district. Source: Partridge, Morokong & Sibulali (2019)

Figure 7 breaks down the WC population in 2018 by age and gender. The province has slightly more females than males, with the female share of the population standing at 51%. In terms of age groups, a large portion of the population fall between the ages of 25 and 34, these two cohorts together accounting for almost one fifth (18.8%) of the total population.

A very important part of the demography of the Western Cape Province is the number of agri-workers working on farms. The number of agri-workers varies with the seasons and ranges between 183 875 (Q2 2019) to 252 976 (Q1 2015). The number of agri-processing workers shows as much variation and ranges from 245 017 (Q2 2019) to 194 412 (Q2 2015). This is

¹⁸ Partridge, A, Morokong, T & Sibulali, A (2019) Western Cape Agricultural Sector Profile 2019. Western Cape Department of Agriculture, Elsenburg.

equal to between 21,4% and 26,8% of all agri-workers in South Africa and between 16,8% and 20,1% of all jobs in the Western Cape Province.

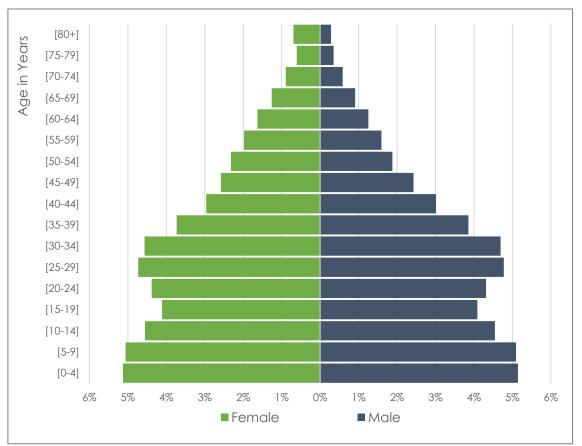


Figure 7: Western Cape Population by Age and Gender (2018).

Source: Partridge, Morokong & Sibulali (2019)

As there is often a lack of information on the status and needs of this very vulnerable group of citizens, the Department has embarked on an annual rolling census of agri-workers in the Western Cape. Over the past few years a census of agri-workers was conducted in two districts per year and during 2019 the second iteration of the census started. The total number of farms canvassed within the whole province was approximately 6 000, while the total number of farms surveyed was 2 991. The total households surveyed were 11 028 and the number of people covered by the censuses was 42 982. Among the households surveyed, 8 326 households indicated that they had a house on the farm. Aspects addressed during this census includes:

- a) Household characteristics
- b) Access to education
- c) Access to health care services
- d) Employment
- e) Access to social services
- f) Access to vital documents
- g) Social participation
- h) Dwelling and infrastructure
- i) Land tenure and access
- j) Services, marketing and communication

Whilst the full report of the first round of the agri-worker census is available, it remains important to highlight some of the most important findings. There were marginally more male adults (13 106) and male children (8 028) within the farms as compared to the female adults (12 926) and female children (8 001). Majority of the household members were below the age of 35 years (over 60%), with a very small number above 65 years.

The analysis shows that:

- a) 8.5% of the total population has completed Matric.
- b) 0,002% of the total population had a tertiary qualification
- c) Those attending school make up 26.3% of the total population
- d) 5% of the population are too young to go to school
- e) 87.7% of the population that are of working age have not completed a matric qualification (under-educated)

With regards to the general healthcare of agri-workers and their household members, the most common response was difficulties with eyesight (1 183). Cape Winelands recorded the highest number of people in the province with difficulties in seeing (557: 47.1%). The most requested assistance for a healthcare service was the Road to Health card, with 5 009 requests followed by requests for medication (1 366). A significant number of women requested assistance with access to pap smear screenings (1 245). With regards to critical health services that agri-workers and their family members require assistance with, the majority of the agri-workers within the province needed assistance with the management and treatment of chronic illness (1 463 cases). The other critical health care needs were with respect to TB (180) cases, terminal illness (131 cases) and HIV (96 cases).

Seventy eight percent (78.0%) of agri-worker households reported being situated on the farm. Of the various types of agri-worker dwellings 'on the farm', the data showed that 7 482 (91.1%) household dwelling structures on the farm are brick houses. Informal dwellings (2.3%) followed by RDP (1.6%) and mud houses (1.0%) were other types of structures that agri-worker households based on farms lived in. When compared to 'off farm' dwelling types it was found that brick structures dropped considerable to 47.5% and informal dwellings increased to 22.3%.

The results indicate that the main source of electricity for all agri-worker households is from the mains (94.0%) and electricity is the main source of fuel used for cooking and lighting. In terms of source of water, the results indicate that 8 644 (79.2%) of households in the Western Cape have access to piped water inside the house. Of this number, 55.7% are found in the Cape Winelands region. "Piped tap water on site" is the next most popular source of water across all agri-worker households that participated in the census (1 588, 14.6%). Less popular sources of water include flowing streams, dams or pools and boreholes.

A total of 6 522 (60.9%) households indicated that their refuse was removed by the farmer while 1 736 (16.2%) households said that they were responsible for the removal of their own waste followed by the remaining 2 447 (22.9%) households that cited the municipality as being responsible for removing refuse. Most 9 553 (88.1%) of the households also indicated they had access to flush toilet/s on the premises. Despite this, 448 households indicated that they had no toilet facilities; 31.9% of which are located in the Cape Winelands, 31.0% in the Eden and 22.8% in West Coast regions.

In respect of home ownership, the results show that of the total respondents, 1624 (35.2%) dwellings were owned by the agri-worker household and 1464 (31.8%) households rented their dwelling places while 1509 (32.8%) of households indicated other forms of ownership.

8.1.3. Agricultural production

Even before the recent drought in South Africa, the performance of the national Agricultural Sector had not managed to reach the levels required in order to achieve the country's development aspirations (BFAP, 2018). A recent report by the World Bank (2018) even cites the poor performance of the sector as one of the main contributors to the country slipping into a recession. The already poor performance was further exacerbated by the recent drought, although there appears to be some level of a recovery in the sector at the national level (RSA National Treasury, 2019). The delay in rains to the Western Cape has meant that performance of the provincial sector has remained poor (WC Provincial Treasury, 2019).

Taking a broader view of agriculture to include agri-processing activities in the food, beverages and tobacco sector, Figure 8 illustrates the performance of these sub sectors in terms of the annual real GVA. Of the three sub sectors, agriculture was the largest in 2008 where it accounted for approximately 47% of total GVA across the subsectors. However, the value added in agriculture has experienced a real decline since 2008, falling at an average annual rate of 2.17% over the observed years. This has meant that agriculture's share has fallen to 36% in 2018. The food sector grew rapidly over this period, with real annual growth of 5.63%. The strong growth in the food subsector propelled it to becoming the largest sector across the three agriculture and agri-processing sub sectors looked at. In 2018, the share in the food subsector accounted for 45% of the total gross value added, up from 28% in 2008.

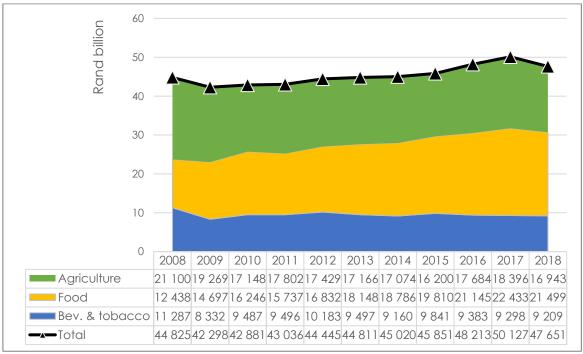


Figure 8: Real GVA in Agriculture and Agri-processing (2018 values). Source: Partridge, Morokong & Sibulali (2019)

The WC accounts for a large share of national output in both the agriculture and the food, beverages and tobacco (FBT) sector. The WC's share in the national GVA for these two sectors is shown in Figure 9. Both sectors show a gradual downward trend suggesting the

province's output in these sectors moves in line with what is happening on a national scale, albeit at a slightly lower growth rate. The decline in share was stronger in the agricultural sector compared with food, beverages and tobacco. In 2018 WC accounted for 18.4% of national agricultural GVA and 20% of national GVA from FBT.

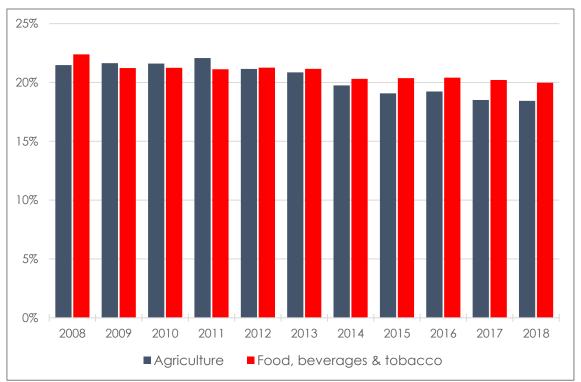


Figure 9: Western Cape Share in Real National Agriculture and Food, Beverages and Tobacco GVA.

Source: Partridge, Morokong & Sibulali (2019)

At the district level, WC agricultural activity is most concentrated in the Cape Winelands, accounting for 34% of all the provincial GVA. As the geographic breakdown of agricultural GVA in Table 13 shows, this 34% is quite evenly distributed over the five local municipalities. The West Coast is the next biggest contributor with 25%, followed by the City of Cape Town Metropole at 18%.

The share of activity within the Cape Metropole seems high given the perceived concentration of agricultural activities in rural areas where land cultivation is more readily available and less susceptible to the various pollutants, which tend to result from urban commercial and residential activities. The high share is due to the important activities, which take place in the peri-urban areas on the outskirts of the Cape Metropole, such as the Phillipi Horticultural area. These areas have been facing increasing encroachment of the built up areas around them, and increasing competition for the land they utilise to be used for various non-agricultural uses. Despite these challenges, these areas have provided a critical source of food and nutrition security for local residents as well as being a significant source of fresh produce to the City of Cape Town (Battersby-Lennard & Haysom, 2012; City of Cape Town, 2012).

	Agriculture	Food	Beverages & Tobacco
City of Cape Town	17.7%	58.7%	64.2%
City of Cape Town	17.7%	58.7%	64.2%
West Coast	24.6%	16.4%	11. 9 %
Matzikama	5.8%	1.1%	1.3%
Cederberg	3.7%	2.4%	0.6%
Bergrivier	6.3%	3.3%	0.7%
Saldanha Bay	1.6%	3.9%	5.5%
Swartland	7.1%	5.7%	3.8%
Cape Winelands	33.7%	13.1%	16.6%
Witzenberg	7.6%	2.5%	1.4%
Drakenstein	8.1%	3.6%	6.6%
Stellenbosch	4.9%	2.6%	4.9%
Breede Valley	7.9%	2.3%	1.9%
Langeberg	5.3%	2.0%	1.9%
Overberg	10.6%	3.8%	2.5%
Theewaterskloof	6.9%	1.6%	1.1%
Overstrand	1.1%	1.3%	0.9%
Cape Agulhas	1.0%	0.5%	0.3%
Swellendam	1.6%	0.4%	0.3%
Eden	10.7%	7.8 %	4.8%
Kannaland	1.2%	0.4%	0.2%
Hessequa	2.0%	0.6%	0.3%
Mossel Bay	1.0%	1.4%	0.6%
George	3.3%	3.4%	2.4%
Oudtshoorn	1.9%	1.3%	0.8%
Bitou	0.6%	0.3%	0.1%
Knysna	0.6%	0.6%	0.4%
Central Karoo	2.8%	0.2%	0.1%
Laingsburg	0.6%	0.0%	0.0%
Prince Albert	0.6%	0.0%	0.0%
Beaufort West	1.5%	0.1%	0.1%

Table 13: Geographical spread of Western Cape Agricultural GVA (2018)

Source: Partridge, Morokong & Sibulali (2019)

These findings were supported by the Indego study¹⁹, which confirms that the greater PHA is unique and should be retained for horticulture. The Indego study found further that the PHA continues to be actively farmed, with at least 89% of the "core" land under production. Thirty horticultural products are being produced with carrots, lettuce, cabbage, spinach and cauliflower being the top five crops. There are about thirty active farmers in the PHA, of which five are classified as large commercial.

The report states that PHA producers are firmly embedded in the Western Cape agricultural value chain through the sourcing of inputs, logistics, services and markets. For every R1 million spent in the vegetable industry 4.65 direct jobs are created and 46.5 indirect jobs translating

¹⁹ Indego (2018) Development of a Socio- Economic Agricultural Plan for the PHA. Commissioned by the Western Cape Department of Agriculture, Elsenburg.

into the PHA contributing about 3 000 direct jobs and 30 000 indirect jobs to the regional economy. It estimated that the PHA further contributes about R484 million direct and R938 million indirect turnover into the regional economy. It was predicted that this could grow further through more land being made available for farming and the adoption of new technologies.

Moving away from primary agriculture to the activities less dependent on land, industries tend to have a higher concentration in the Cape Metropole, responsible for the largest share in both of the food (60%) and beverages and tobacco (64%) subsectors.

There were approximately 2 million hectares recorded as being used for crop production in the WC in 2017. Of this, 338 588 hectares (17%) were being used for wheat. Aside from wheat, the top 10 crops in terms of area planted in the province in 2017, as shown in Figure 9, were wine grapes (91 221 ha), canola (90 523 ha), barley (86 670 ha), rooibos tea (58 996 ha), apples (21 512 ha), table grapes (13 095 ha), pears (10 711 ha), oranges (7 704 ha) and lupines (72 99 ha) (see Figure 10).

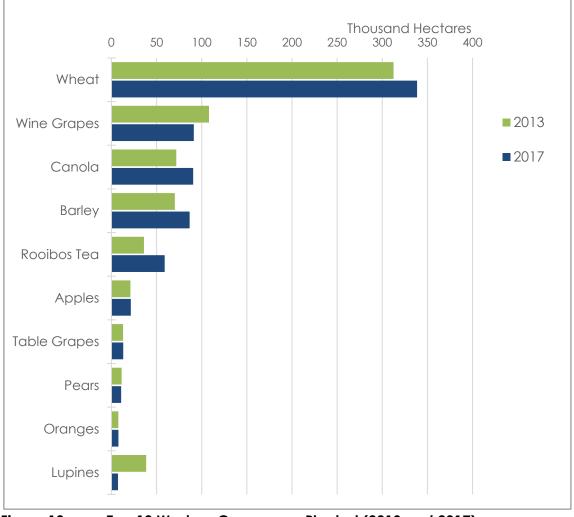


Figure 10:Top 10 Western Cape crops Planted (2013 and 2017).Source:Partridge, Morokong & Sibulali (2019)

Most of the province's grains, oil seeds and lupines are grown in the West Coast (35%) and the Overberg (30%). The West Coast also has the largest recorded area being used to grow vegetables (36%) as well as tobacco, teas and hops (99%). More than half of the province's

orchards are located in the Cape Winelands district (57%). Table 1 below shows the amount of broad crop categories grown in each municipality as at 2017 (see Table 14).

	Grains, Oil	•	Tobacco,			
	Seeds,	Orchards	Teas &	Vegetables	Other ²⁰	Total
	Lupines		Hops			
Cape Town	34 933	6 072	0	1 961	2 692	45 658
City of Cape Town	34 933	6 072	0	1 961	2 692	45 658
Cape Winelands	111 013	104 224	13	5 724	50 688	271 663
Breede Valley	4 032	24 135	0	624	12 784	41 576
Drakenstein	39 561	18 359	8	679	2 132	60 7 40
Langeberg	21 627	23 571	0	588	17 255	63 041
Stellenbosch	7 027	15 009	0	745	1 625	24 406
Witzenberg	38 765	23 1 50	5	3088	16 892	81 900
Central Karoo	8 108	1 067	0	476	9 153	18 803
Beaufort West	4 739	188	0	41	4 841	9 809
Laingsburg	1 284	334	0	291	2 875	4 783
Prince Albert	2 085	545	0	144	1 436	4 210
Eden	331 784	7 589	633	3 134	64 519	407 659
Bitou	7 728	110	5	14	298	8 156
George	43 003	2 956	467	1 539	30 975	78 939
Hessequa	194 142	794	4	290	10 791	206 021
Kannaland	8 280	2 763	20	366	4 254	15 684
Knysna	7 947	66	0	22	686	8 720
Mossel Bay	52 938	473	6	314	5 258	58 990
Oudtshoorn	17 745	427	130	589	12 258	31 149
Overberg	420 837	20 866	97	2 118	27 206	471 124
Cape Agulhas	142 189	377	58	701	7 508	150 833
Overstrand	146 58	1297	37	765	714	17 470
Swellendam	139 748	3 009	1	196	12 642	155 595
Theewaterskloof	124 242	16 184	1	457	6 343	147 226
West Coast	479 953	41 740	58 967	7 664	212 317	800 641
Bergrivier	143 751	5 811	15 790	2 961	50 827	219 140
Cederberg	33 422	11 349	33 972	3 548	77 413	159 703
Matzikama	12 571	10 841	8 379	846	62 619	95 255
Saldanha Bay	60 734	42	806	97	8 220	69 899
Swartland	229 475	13 698	21	212	13 239	256 644
Total WC	1 386 627	181 558	59 711	21 075	366 577	2 015 547

 Table 14:
 Geographical spread of Western Cape crops planted in 2017 (ha)

Source: Partridge, Morokong & Sibulali (2019)

It is important to note that there were significant changes in the composition and spread of the production of irrigated crops over the period 2013 to 2017 (Figure 11). It is clear that various types of berries have increased rapidly throughout the Province over this period, but the growth was particularly marked in the George area.

²⁰ "Other" includes fallow land, old fields, stubble and weeds.

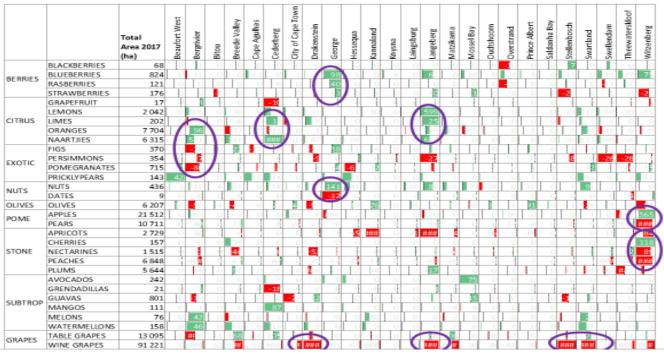


Figure 11: Change in the geographical spread irrigated crops (2013 and 2017). Source: BFAP (2018)²¹

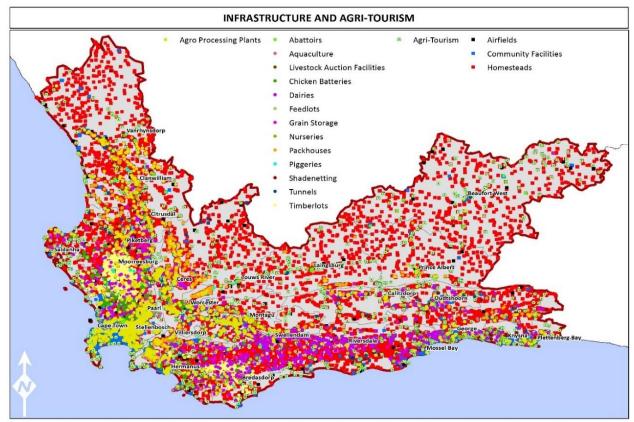


Figure 12: Agricultural and agri tourism infrastructure in the Western Cape (2017). Source: BFAP (2018)

²¹ BFAP (2018) Mapping of Agricultural Commodities and Infrastructure in the Western Cape. BFAP, WCDoA and SIQ, Elsenburg.

A similar rapid growth in the area planted to citrus (particularly lemons, limes and naartjies) were observed in the Langeberg, Cape Agulhas and Bergrivier municipalities. The area under apricot production declined sharply throughout the Province and in the Witzenberg area other stone fruit (nectarines and peaches) also declined sharply. Throughout the Province, the area under wine grapes showed a significant decline.

An overview of the geographical spread of agricultural as well as agri tourism infrastructure is provided in Figure 12. It is of importance to note that the Western Cape has a good geographical spread of infrastructure such as agri-processing facilities (such as wine cellars, pack houses, cooling facilities, drying facilities, etc.) as well as tourism infrastructure. More detail, down to specific geographical references, is available on Cape Farm Mapper, which can be found on the website of the WCDoA and the report as attached as Annexure C.

8.1.4. Agricultural trade

The value of exports from the WC agricultural sector has been increasing considerably faster than inflation, resulting in strong real growth in the value of exports. In 2008, the real value of exports from the sector in 2018 prices was less than R19 billion. Average real growth of 6.4% per annum has pushed this up to R35 billion in 2018. Imports in this sector have not grown in real terms over the ten years, resulting in the trade balance growing strongly from R15.8 billion to R31 billion in 2018 (see Figure 13).



Figure 13:Western Cape Agricultural TradeSource:Partridge, Morokong & Sibulali (2019)

Food, Beverage and Tobacco (FBT) exports from the WC have shown significant growth, maintaining a 3% average real annual growth rate between 2008 and 2018, despite the sharp decline between 2016 and 2018. This trend is shown graphically in Figure 14 below. The key difference from the trade observed in the agricultural sector in Figure 13 above is that

imports of FBT have also grown strongly in real terms, meaning that the trade balance has not grown much over the period analysed, although it has remained positive.



Figure 14: Western Cape Food, Beverage and Tobacco Trade Source: Partridge, Morokong & Sibulali (2019)

The WC account for approximately half (50%) of all South African exports of agricultural products and (21%) of all imports. The share of the national exports is slightly higher than what it was in 2008 (48%), but has remained relatively constant over the 10 years. The share in imports has also remained relatively stable since 2008. Both series are plotted on the bar chart in Figure 15.

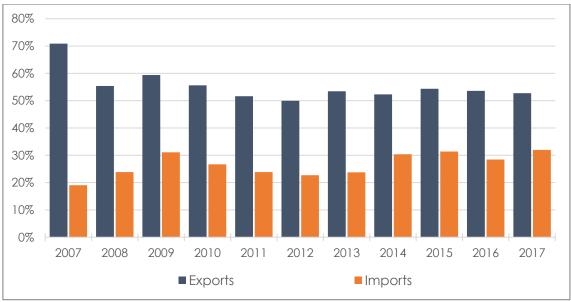


Figure 15: Western Cape Agricultural Trade.Source:Partridge, Morokong & Sibulali (2019)

The WC's share in national FBT exports between 2008 and 2018, shown in Figure 16, was at its highest in 2008 (51%). In 2018, the WC's share in exports from the sector was just below 40%, with the province also responsible for 32% of South Africa's FBT imports.

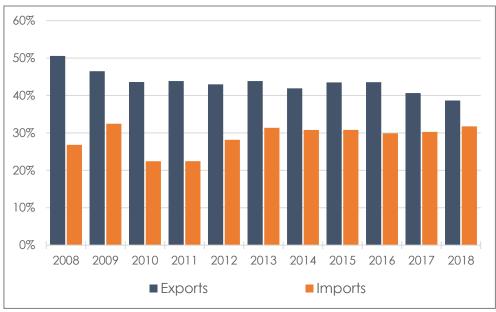


Figure 16: Western Cape share of national FBT Trade Source: Partridge, Morokong & Sibulali (2019)

Figure 17 compares the main export destinations of agricultural products for 2008 and 2018, in terms of the value of exports. The top three destinations remained the same for the two time periods. The combined share of these three countries, the UK, the Netherlands and Russia, did fall slightly from 48% to 46%. China and Hong Kong showed strong growth over the period to become the next two most important destinations.

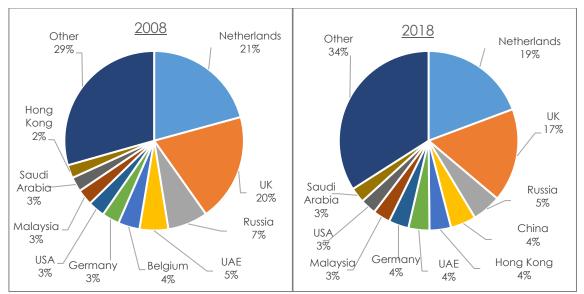


Figure 17: Western Cape export destinations: countries. Source: Partridge, Morokong & Sibulali (2019)

Europe's importance for the sector is further illustrated through the regional breakdown of the WC's agricultural export destinations in Figure 18. In 2018, 54% of all exports from the

sector went to Europe. Despite this dominance and the fact that the UK and Netherlands maintained their collective share, Europe's overall share in agricultural exports fell to its current level from 65% in 2008. This drop was made up by strong growth in the share of exports going to Asia (22% to 32%) and Africa (7% to 9%).

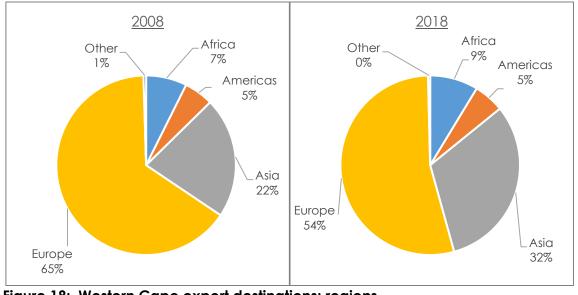


Figure 18: Western Cape export destinations: regions. Source: Partridge, Morokong & Sibulali (2019)

Looking at the FBT sector, there are more dramatic shifts with Namibia and Botswana rising from nowhere to be the first and third biggest destinations in 2018. This is expected to be at least partially due to the impact on trade data associated with the South African Customs Union (SACU). China has also emerged as a key destination with most European destinations exhibiting significant declines in their relative importance to the WC's FBT sector (see Figure **19**).

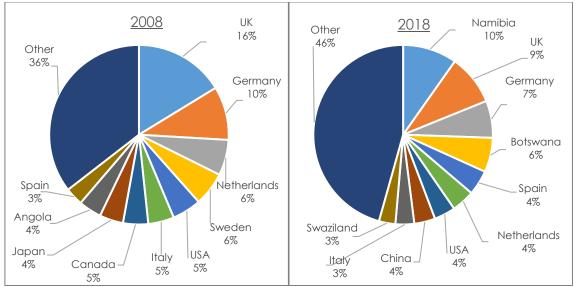
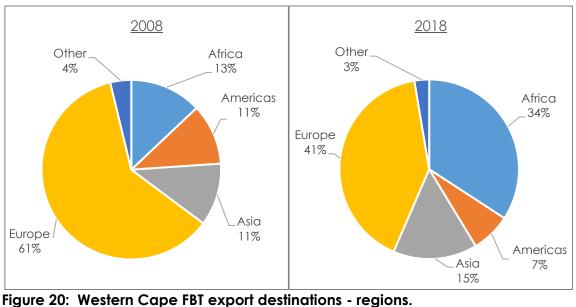


Figure 19:Western Cape top FBT export destinations - countries.Source:Partridge, Morokong & Sibulali (2019)

The significance of the rise of Africa as a destination of the WC's FBT exports can be further seen in Figure 20, which shows the regional destinations of all exports from the sector. Africa's

share stood at only 13% in 2008 but this climbed to 34% in 2018, making it comfortably the biggest regional destination. Europe's share fell over the same period from 61% to 41%.



Source: Partridge, Morokong & Sibulali (2019)

In addition to being the biggest destination country for WC FBT exports, Namibia was also the second biggest origin of agricultural imports (16%), as shown in Figure 21. The biggest two suppliers of agricultural imports into the WC in 2007, Argentina and USA, each made up only 5% of imports in 2017, down from 25% and 18% respectively 10 years prior. In general, there is evidence of significant diversification of the WC's agricultural imports with the share of imports coming from the top 10 countries falling from 82% to 64%.

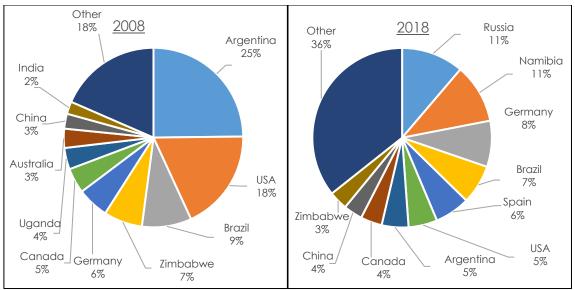


Figure 21: Western Cape agricultural import origins (countries). Source: Partridge, Morokong & Sibulali (2019)

Regionally between 2008 and 2018, as shown in Figure 22, there was a large drop in the share of agricultural imports coming from the Americas and Asia. This drop was made up by large increases in the imports of agricultural products from Europe and Africa.

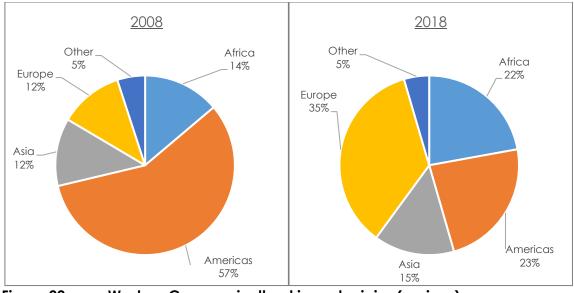


Figure 22:Western Cape agricultural import origins (regions).Source:Partridge, Morokong & Sibulali (2019)

The biggest supplier of FBT imports to the WC in 2008, shown in Figure 23, was the UK making up 19% of all FBT imports. This share fell to 9% by 2018 with the UK being overtaken as the biggest supplier by Thailand and Namibia (both 11%).

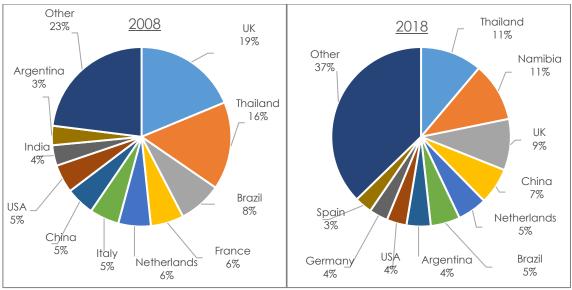


Figure 23:Western Cape FBT import origins (countries).Source:Partridge, Morokong & Sibulali (2019)

The regional breakdown of WC FBT import origins, shown in Figure 24, again showed a sharp increase in Africa's prominence, increasing the region's share from 2% to 19%. This was at the expense of declines in the shares held by all other regions.

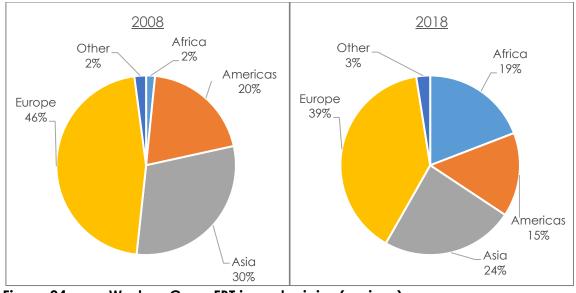


Figure 24:Western Cape FBT import origins (regions).Source:Partridge, Morokong & Sibulali (2019)

The remainder of the trade analysis is conducted at the detailed HS6 product level. The high level of product specification allows agri-processing products to be identified, which fall under other manufacturing sub sectors, such a textiles, where they could not previously be identified at aggregated product levels. Agriculture and agri-processing is thus broadly taken to include a range of agriculture, forestry, fisheries and agri-processing products. Specifically all products falling under codes HS01-HS24; HS41-HS48; and HS50-HS53 (Pienaar & Partridge, 2015). Table 15 shows the main WC agricultural exports in terms of value, at the detailed HS6 digit level according to this definition.

#	HS6	Description	Value (Rand) of Exports 2018	Share 2018	Real 10yr Annual Growth
1	080510	Oranges	6 881 248 102	10.21%	3.36%
2	080610	Table grapes	6 005 657 079	8.91%	3.76%
3	220421	Bottled wine	5 872 440 962	8.71%	-2.71%
4	080810	Apples	4 315 829 313	6.40%	3.25%
5	080521	Soft citrus	2 586 430 172	3.84%	
6	080830	Pears	2 318 651 052	3.44%	
7	220429	Bulk wine (> 10l containers)	2 266 181 267	3.36%	-1.38%
8	080550	Lemons and limes	1 794 887 126	2.66%	8.09%
9	030474	Hake fillets	1 660 946 538	2.46%	
10	240220	Cigarettes	1 496 730 004	2.22%	9.38%
11	080540	Grapefruit	1 358 005 586	2.01%	4.70%
12	230120	Fish meal	1 220 869 687	1.81%	17.32%
13	100590	Maize	1 153 403 172	1.71%	23.58%
14	081040	Blueberries	1 051 275 827	1.56%	48.52%
15	121299	Fruit stones, kernels & other veg	1 011 429 286	1.50%	
16	030743	Frozen crayfish and squid	918 393 917	1.36%	
17	080940	Plums	911 260 694	1.35%	5.64%
18	200990	Mixed fruit juice	777 876 568	1.15%	13.68%

#	HS6	Description	Value (Rand) of Exports 2018	Share 2018	Real 10yr Annual Growth
19	080620	Dried grapes	752 687 212	1.12%	6.23%
20	220422	Bulk wine (2I - 10I containers)	743 328 740	1.10%	
Oth	Other agricultural exports		22 315 801 519	33.10%	-

Source: Partridge, Morokong & Sibulali (2019)

The biggest agricultural export from the WC in 2018 at HS-6 digit level was fresh oranges, accounting for a total value of R6.9 billion. The only other product to break the R6 billion mark was table grapes (R6 billion) with bottled wine falling from R6.5 billion in 2017 to R5.8 billion in 2018. These three products accounted for 27.8% of all agricultural exports.

There were some products where growth was very rapid but from a very small base. Table 5 lists the fastest growing export between 2017 and 2018. All 20 products listed make up only a little over 1% of total agriculture and agri-processing exports but are worth taking note of, due to very high real growth rates, as high as 242% per annum over two for tropical wood.

#	HS6	Description	Value (Rand) of Exports 2018	Share 2018	Real 10yr Annual Growth
1	440349	Tropical wood	3 437 374	0.01%	242.29%
2	240399	Chewing tobacco	21 419 436	0.03%	194.77%
3	230500	Peanut oil	616 812	0.00%	185.24%
4	190520	Gingerbread	3 874 729	0.01%	159.30%
5	230630	Sunflower oilcake	21 405 316	0.03%	137.55%
6	110630	Fruit powders	2 119 007	0.00%	134.75%
7	530310	Raw or retted jute	814 454	0.00%	132.96%
8	510910	Yarn >=85% wool	214 478	0.00%	129.94%
9	150790	Soya-bean oil	10 828 494	0.02%	128.05%
10	520100	Cotton, uncarded	10 343 294	0.02%	124.18%
11	481620	Self-copy paper	246 120	0.00%	120.65%
12	190430	Bulgur wheat	334 433	0.00%	112.49%
13	080211	Almonds in shell	819 104	0.00%	102.67%
14	240110	Raw tobacco	8 486 000	0.01%	101.09%
15	510130	Carbonised wool, uncorded	14 639	0.00%	92.67%
16	430400	Artificial fur products	777 815	0.00%	89.27%
17	220510	Bottled vermouth	47 996 603	0.07%	88.60%
18	020311	Pig carcases	7 792 902	0.01%	84.79%
19	080122	Shelled brazil nuts	116 985	0.00%	84.62%
20	140420	Cotton linters	2 482 001	0.00%	84.05%
Other agricultural exports 67 256 d			67 256 689 513	99.77%	-

Source: Partridge, Morokong & Sibulali (2019)

The biggest import classified as agriculture or agri-processing in 2018 was beer, accounting for a total of R1.5 billion as shown in Table 17. Other big imports recorded for the year were: whisky; chicken offal (frozen); wheat; and tinned sardines. Particularly impressive growth was observed in imports of roasted malt; and dog and cat food.

#	HS6	Description	Value (Rand) of Imports 2018	Share 2018	Real 10yr Annual Growth
1	220300	Beer	1 549 685 193	4.65%	2.18%
2	220830	Whisky	1 530 544 254	4.59%	-5.54%
3	020714	Chicken offal, frozen	1 240 874 040	3.72%	12.58%
4	100199	Wheat	1 131 439 037	3.39%	
5	160413	Tinned sardines	1 098 619 846	3.30%	3.46%
6	050400	Animal guts	992 050 258	2.98%	6.01%
7	030353	Frozen sardines	813 447 823	2.44%	
8	100630	Milled rice	781 071 101	2.34%	-4.24%
9	240220	Cigarettes	719 094 472	2.16%	44.14%
10	200979	Apple juice, Brix > 20	659 657 752	1.98%	9.22%
11	200969	Grape juice, Brix > 20	524 400 089	1.57%	3.70%
12	240120	Processed tobacco	517 158 741	1.55%	-2.14%
13	220210	Flavoured water	506 860 308	1.52%	2.61%
14	030617	Frozen shrimps and prawns	485 900 400	1.46%	
15	230910	Dog and cat food	447 208 780	1.34%	69.74%
16	100640	Broken rice	444 025 340	1.33%	11.31%
17	160414	Tinned tuna	412 568 603	1.24%	-0.32%
18	030474	Hake fillets	402 951 525	1.21%	
19	110720	Roasted malt	387 222 483	1.16%	116.05%
20	030366	Frozen hake	369 797 706	1.11%	
Oth	ner agricu	Itural imports	18 326 932 642	54.97%	-

Table 17: Biggest Western Cape agricultural and agri-processing imports by value.

Source: Partridge, Morokong & Sibulali (2019)

There were again some other products which exhibited impressively high growth rates from small bases as listed in Table 18. Between 2008 and 2018 imports of peppers grew up by 325% per annum over and above inflationary increases. There were also a very strong growth in imports of butter and cottons linters where average annual growth rate over the past ten years were 277% and 167% respectively.

Table 18: Fastest growing Western Cape agricultural and agri-processing imports.

#	HS6	Description	Value (Rand) of Imports 2017	Share 2017	10yr Annual Real Growth
1	070960	Peppers	3 395 851	0.01%	325.88%
2	040510	Butter	151 343 209	0.45%	277.21%
3	140420	Cotton linters	12 271 300	0.04%	167.15%
4	040310	Yoghurt	67 893	0.00%	158.03%
5	200840	Pears	181 782	0.00%	145.90%
6	200870	Peaches & nectarines	3 408 702	0.01%	140.45%
7	230690	Miscellaneous vegetable oils	4 423 026	0.01%	135.75%
8	070410	Cauliflower and broccoli	2 876 317	0.01%	121.23%
9	110720	Roasted malt	387 222 483	1.16%	116.05%
10	410120	Buffalo hides	7 961 661	0.02%	109.24%
11	030612	Lobsters	156 963	0.00%	105.36%
12	081020	Raspberries & blackberries	1 072 473	0.00%	91.59%

#	HS6	Description	Value (Rand) of Imports 2017	Share 2017	10yr Annual Real Growth
13	021099	Miscellaneous meat & offal	3 961 121	0.01%	89.31%
14	160249	Miscellaneous preserved pork	39 144 928	0.12%	83.65%
15	040520	Dairy spreads	206 298	0.00%	82.31%
16	220720	Denatured ethyl alcohol	451 725	0.00%	81.02%
17	080620	Dried grapes	2 670 814	0.01%	76.71%
18	071021	Peas	17 242 611	0.05%	75.25%
19	040620	Cheese, grated or powdered	2 891 145	0.01%	74.92%
20	040291	Unsweetened dairy concentrate	3 179 280	0.01%	74.43%
Other agricultural exports		32 352 146 386	97.03%	-	

Source: Partridge, Morokong & Sibulali (2019)

The full report²² on the profile of the Agricultural Sector of the Western Cape Province is available on request.

8.1.5. Risk and trend analysis

It was argued in the introductory part of Section 3 that the achievement of government objectives are bounded by the envelope of the possible on the one side and by the risk environment on the other. At the global level the annual global risk report of the World Economic Forum (WEF, 2020)²³ is probably one of the best points of departure and the top ten risks in terms of likelihood and impact is summarised in Table 19. It is interesting to note that six of the ten risks with the highest potential likelihood potentially has direct relevance for the WCDoA. In the case of impact, the relevance is seven of the ten risks potentially impact on the activities of the WCDoA.

Rank	Top 10 risks in terms of:		
Kank	Likelihood	Impact	
1	Extreme weather	Climate action failure	
2	Climate action failure	Weapons of mass destruction	
3	Natural disasters	Biodiversity loss	
4	Biodiversity loss	Extreme weather	
5	Human-made environmental disasters	Water crisis	
6	Data fraud or theft	Information infrastructure breakdown	
7	Cyberattacks	Natural disasters	
8	Water crisis	Cyberattacks	
9	Global governance failure	Human-made environmental disasters	
10	Asset bubbles	Infectious diseases	

Table 19: Top ten global risks

Source: WEF (2020)

At the global level OECD-FAO (2019)²⁴ argues that several years of strong supplies have reduced the international prices of most agricultural commodities, with cereal, beef and

²⁴ OECD-FAO (2019) OECD-FAO Agricultural Outlook 2019 – 2028. OECD Publishing / Food and Agricultural Organization of the United Nations, Rome.

²² Partridge, A, Morokong, T & Sibulali, A (2019) Western Cape Agricultural Sector Profile 2019. Western Cape Department of Agriculture, Elsenburg.

²³ WEF (2020) The Global Risks Report 2020 (15th Edition). World Economic Forum, Geneva.

sheep-meat prices showing short-term rebounds. For nearly all commodities covered in the *Outlook*, real prices are projected to remain at or below current levels over the coming decade, as productivity improvements continue to outpace demand growth.

A growing global population will continue to use increasing amounts of agricultural products as food, feed and for industrial purposes. Much of the additional food demand over the coming decade will originate in regions with high population growth, in particular Sub-Saharan Africa, India, and the Middle East and North Africa.

Per-capita consumption of staple foods is expected to be stagnant as demand is saturated for most of the world's population. Meat demand is expected to be relatively strong in the Americas, while low incomes continue to constrain meat consumption in Sub-Saharan Africa. Fresh dairy products will meet much of the demand for protein in Asia (notably India and Pakistan). More widely, per capita consumption of sugar and vegetable oils is expected to rise, driven by urbanisation and the shift to more processed and convenience foods.

A combination of excessive calorie consumption, unbalanced diets and declining activity levels imply a growing burden of overweight and obesity in various countries across the world. In many low and middle-income countries, these problems coexist with undernourishment and micronutrient deficiencies, implying a "triple burden" of malnutrition.

Robust demand for animal foods products provides incentives to expand production in the livestock sector through larger herds. Paired with assumed improvements in offtake rates, demand for animal feed will be stimulated, with feed crops such as maize and soybeans expected to increase their shares in the global crop mix. Hence, the growth in feed use of cereals is expected to exceed the expansion of food use over the coming decade.

Biofuels formed a major source of crop demand growth between 2000 and 2015, but the expansion will be lower over the coming decade, with additional demand coming mainly from Indonesia, using vegetable oil for biodiesel, and the People's Republic of China and Brazil, using cassava and sugarcane for ethanol.

Agricultural production is expected to grow by 15% over the coming decade, while global agricultural land use is expected to be broadly flat. The projected expansion in crop output can be attributed primarily to yield improvements and higher production intensity, driven by technological innovation. The foreseen growth in livestock production will be based on an expansion of herds, greater feed use and a more efficient use of feed. Because of the limitations in capture fisheries, nearly all projected growth in fish and seafood supply will be from aquaculture, pushing its share of total production to about 55% by 2028.

Agriculture continues to be a significant contributor to global greenhouse gas emissions. Direct emissions of agriculture, mostly from livestock, as well as rice and synthetic fertilisers, are expected to grow by 0.5% p.a. over the coming decade, compared with 0.7% p.a. over the past ten years. This is lower than the growth in agricultural production, indicating a declining carbon intensity as productivity increases.

International trade will remain essential for food security in a growing number food importing countries. It also continues to be important to incomes and livelihoods in exporting regions such as Latin America and the Caribbean, which is expected to further increase its share of global agricultural exports. The Black Sea region will consolidate its position as a leading exporter of wheat and maize, with most exports going to the Middle East and North Africa.

World agricultural markets face a range of new uncertainties that add to the traditionally high risks facing agriculture. On the supply side, these include the spread of diseases such as African Swine Fever, growing resistance to antimicrobial substances, regulatory responses to new plant breeding techniques and responses to increasingly likely extreme climatic events. On the demand side, they include evolving diets, reflecting perceptions with respect to health and sustainability issues, and policy responses to alarming trends in obesity. A further factor is the heightened uncertainty with respect to future trading agreements between several important players on world agricultural markets. An escalation of ongoing trade tensions has the potential to reduce and redirect trade, with repercussions for international and domestic markets.

At the local level, it is indicated in BFAP (2019)²⁵ that after a multi-year period of growth, the post-2015 period came as a shock to the South African Agricultural Sector. International commodity prices remains low, the disposable income of consumers remain under pressure and there were a number of shocks (e.g. Avian Influenza, Listeria, Food and Mouth disease as well as droughts) in the domestic Sector. It follows that the real growth in the Agricultural Sector was limited and that this situation will not change over the next decade. In addition to increasingly unstable international market dynamics, local macro-economic conditions are not as conducive to economic growth as was expected a year ago.

The South African consumer landscape is characterised by cultural and socio-economic diversity, high levels of income inequality, a young (but ageing) population and continued urbanisation. Despite positive nominal growth in households' disposable income over the last ten years, the per capita disposable income of households increased by only 0.1% in real terms from 2017 to 2018 – thus barely keeping up with inflation. Several factors contribute to the pressure on households, such as high levels of unemployment, rising debt and a large share of youth, which have to be supported within the financial structures of households. Limited access to food is a reality faced by some 25% of people and 21% of households, while almost half (±45%) of households in the country are classified as poor (Stats SA, 2017). A more positive note has been the performance of monetary policy, with inflation trending downwards over much of the period.

Growth in agricultural exports over the past decade has been supported by the horticultural sector. Industries such as citrus, table grapes and pome fruit have all succeeded in capturing an ever increasing share of global trade volumes. The rapid growth attained by several fruit industries over the past decade reflects the success and competitiveness of these sectors, but continuous expansion of market access is critical to absorb the additional products that will enter the market over the next few years. This is particularly true for soft citrus, lemons and limes, where many young orchards have already been established. Failure to expand market access could result in over-supply in current markets, with an accompanying reduction in prices.

Based on this risk analysis combined with other developments of local relevance, a list of trends with potential impact on the activities of the WCDoA can be identified. These trends, in no particular order of priority, are:

²⁵ BFAP (2019) BFAP Baseline Agricultural Outlook 2019 – 2028. Bureau for Food and Agricultural Policy, Pretoria.

- a) South Africa is currently in the middle of a Parliamentary process to determine whether Section 25 of the Country's Constitution needs to be amended to make provision for the dispossession of land without compensation. It can be expected that, irrespective of the merits and outcome of this debate, land reform will be accelerated. This, in turn will lead to more "new" landowners requiring the support of the WCDoA putting additional pressure on the institutional capacity and financial resources of the Department.
- b) Given its importance at household and national level, it is worth noting that the most significant agricultural industries (labour intensive, export focussed irrigation agriculture prioritised by the NDP) are also the most vulnerable to disruption. This reality is harshly illustrated by the three consecutive dry winters the Western Cape has been experiencing. The Inter-governmental Panel on Climate Change (IPCC) has found that there is a global increase in the occurrence of extreme climatic events since 1950. Furthermore, although Climate Change (CC) may have some positive effects (e.g. new areas may be opened for agricultural production), a series of multi-run simulation models is predicting a decrease in agricultural yields over time. In response to the challenges associated with CC, four strategic focus areas were identified in the "Smart Agri Plan" for the agricultural sector completed in 2016. Nevertheless, it is expected that the most recent drought have shaved R4.8 billion off the provincial Gross Value Add. The calculation of 30 000 jobs to be lost as a result of the drought proved to be very close with a decline of 28 418 jobs in the Agricultural and Agri-processing Sectors of the Western Cape Province between Q2 of 2017 and Q2 of 2018 (StatsSA).
- c) Although consensus is still to be reached on its name, it is commonly accepted that economic, social and political systems will be disrupted by the so-called 4th IR. Furthermore, it is expected that farming may carry the brunt of this disruption (particularly the labour intensive, export focussed irrigation-based industries). It can be argued that autonomous vehicles, 3D printing, advanced robotics, new materials and digital as well as biological developments are some of the key drivers, which will lead to this disruption. The potential impacts of these drivers will be found in the economic, employment, workplace, business, crime, government and conflict spheres of society. Indeed, the question companies and industries need to face is no longer "will I be disrupted", but rather "when will my business?" Hence, the WCDoA has commissioned a study to investigate the trends underpinning the 4th IR, its impacts and, even more importantly, what can be done to ensure the best possible outcome for the people of the Province. The results have been discussed above and these actions will form part of the Provincial response to the 4th IR²⁶.
- d) The demand for farm products is closely related to the number of stomachs. On the one hand people's need to eat is one of the primary drivers of human existence, but a person can also eat only so much. It is common knowledge that the world's population is to increase from 7,6 billion in 2018 to 11,2 billion by 2100. The result is an additional 3,6 billion people (46% growth) which needs to be fed and clothed within the next 80 years. Of even more importance is the fact that 90% of these people (3,2 billion) will be on the continent of Africa. In other words, the population of Africa will increase from 1,3 billion today to 4,5 billion by 2100 (almost the same as Asia's population); an increase of 247%. By that time the biggest populations will be in Nigeria (794 million), Ethiopia (646 million), Tanzania (320 million) and Kenya (253 million) and even South Africa's population will

²⁶ For more details, please consult the 4th IR Diagnostic Report on The Elsenburg Website.

increase by 35 million to 92 million (UN, 2017). As the rural countryside in Africa will not be able to accommodate all these people, they will have to migrate to urban centres with the result that cities such as Lagos, Kinshasa, Luanda, Nairobi and Dar es Salaam will double in size between now and 2035 (just 17 years from now). Even Johannesburg will have to accommodate an additional 2,5 million people and Cape Town will need to make space for 1,7 million additional inhabitants (UN, 2018). As one of the implications of urbanisation is that people are being divorced from their means of food production, it is clear that agriculture will have to produce their food requirements. However, if people cannot afford to purchase the food, the demand for food quickly turns into a need with a whole range of accompanying social implications. Hence, in addition to producing the food, it will be expected of African (and Western Cape) farmers to produce the food at affordable prices whilst absorbing the surplus labour which will be generated due to population growth.

- e) Over the same period (2018 2100) the population is set to decline by 89 million (3% of current population) (UN, 2017). As the Agricultural Sector of the Western Cape is traditionally focussed on the export market, and specifically Europe, the implication is that the Sector must prepare it for increased competition in Europe on the one hand whilst finding alternative markets in Africa and Asia at the same time. To face increased competition in Europe, products focussed on an ageing, quality conscious and increasingly discerning population must be supplied.
- f) It has been argued in d) that, although the number of stomachs determines the demand for agricultural products, an absence of the means to purchase these products may result in a need and not a market. According to the International Monetary Fund (IMF, 2018) the Gross Domestic Product (GDP) of Nigeria is set to grow by 114% between 2018 and 2023. Other African countries such as Burundi (88%), Eritrea (87%), Senegal (59%) and Uganda (57%) are also to show significant growth over the next five years. Asian countries such as India ((64%), Philippines (57%), Malaysia (56%), China (53%) and Indonesia (44%) will also be showing rapid economic growth. It follows that Africa and Asia are the developing markets to target in the near future.
- g) South Africa's economy remains under pressure with the result that the fiscal envelope is becoming smaller. The result is that the Department's resources are under pressure.
- h) As the United Kingdom (UK) remains South Africa's biggest destination for agricultural exports, the decision by the British electorate to exit the European Union (EU) (so-called "Brexit") already had a number of negative impacts on the Western Cape Agricultural Sector. The weakening pound not only dampened the British demand for South African fruit and wine, but also resulted in less British tourists visiting the wine routes of the Western Cape. The full impact still needs to be determined following the conclusion of the UK's negotiations to exit the EU.
- i) Since taking office at the beginning of 2017, the President of the United States of America (USA) took a number of actions which can only be considered to be anti-globalisation and anti-trade. It follows that these actions will eventually influence South Africa's continued benefits under the African Growth Opportunities Act (AGOA).
- j) In addition to the threat to South Africa's AGOA benefits, the anti-trade actions of USA's President has instigated a trade war between the USA and China. In addition to resulting global instability, which will have an impact on emerging markets, it can be expected

that agricultural products, suddenly excluded from markets, may find its way onto the domestic market as well as onto the markets of South Africa's trade partners. This, in turn, may have a negative impact on the prices, which is received by South African farmers.

k) Extreme weather conditions are not the only potential impact of CC; it is expected that the spread of pest and disease will follow in its wake. Over the past few months the southward migration of Fall Armyworm (FAW) has been reported. Although it has not reached the Western Cape as yet, the Agricultural Sector of the Western Cape has been kept informed and is on high alert as a pro-active measure. A number of extension officers of the Department have also recently undergone training by DAFF in the identification of FAW and, in collaboration with their office in Stellenbosch, migration will be monitored. Other pests like Polyphaegous Shot Hole Borer (PSHB) has also been detected and plans are developed to combat this in the most effective way

The End of Term Report for the previous strategic period provided an excellent opportunity to reflect on the key lessons learned over the past five years. These lessons include:

- a) There is a clear case to be made for focussed interventions which could efficiently and effectively unlock the achievement of specific government opportunities. However, in doing so a number of questions emerge:
 - a. How to identify and select the most appropriate key strategies? Government is globally notoriously bad at selecting key interventions and businesses are often focussed on a specific opportunity for which government support is necessary to make it viable.
 - b. Whether these interventions should be at project level or more focussed in the enabling environment.
 - c. What is the data requirements and required analytical capacity for government to make informed decisions?
 - d. Is a clear chain of causality available and has option analysis been done before a decision is taken?
 - e. Is the time available to conduct the necessary analysis?
- b) Irrespective of key interventions which could result in quick, fast results, government has a role in providing public goods. Or, in other words, goods which cannot be feasibly provided by individuals (either natural or corporate) in society. Hence, the basic role of government in society can never be neglected.
- c) Partnerships has an important role to play. These partnerships could be at the level of either:
 - a. Intergovernmental (i.e. the Brandvlei project).
 - b. Between government and business (i.e. the commodity approach).
 - c. Between the Province and international bodies (i.e. Burgundy exchange).
 - d. Between government and tertiary institutions.
 - e. Between government and funding organisations.
- d) Agriculture and its associated value chains is a key sector of the economy, but it is bound to be disrupted. These disruptions needs to be addressed and solutions has to be found. Disruptions could be at the level of:
 - a. Technology (i.e. 4th Industrial Revolution)
 - b. Climate Change (i.e. drought, floods, adverse climate, hail).
 - c. Social (i.e. strikes, rural unrest).

- d. Socio/Political (i.e. expropriation without compensation).
- e. Economic (i.e. economic crisis)
- f. International (i.e. Brexit and AGOA decisions driven by President Trump).
- e) There will always be new innovations. These innovations can either be seen as a threat or as a solution with the former to be mitigated and the latter embraced. Innovations could be:
 - a. Impacting at sector level leading to efficiencies and opportunities at production level or throughout the value chain.
 - b. Enhancing service delivery to the citizens of the province.

The challenge will always be to identify these innovations and implementing service delivery innovations within the framework created by government systems and procedures.

- f) A problem is never solved at the level it is observed. Government needs the capacity to analyse problems and issues and to develop solutions going beyond the immediate and obvious.
- g) Agriculture is in the unique situation that it cannot be defined to only one element of sustainability. Agriculture has an impact on, and is impacted by, developments in the social, economic, natural as well as governance spheres of the environment. Hence, responses should include interventions in the whole spectrum of expanded sustainability.

8.1.6. Context and priorities relating to women, children and people with disabilities

The NDP highlights the importance of equality and the eradication of poverty to bring about a better life for all citizens by 2030. Agriculture is expected to make a major contribution in this regard as it is viewed as the one sector most likely to ensure food security and to create jobs.

Women, and people with disabilities have continued to be marginalised and have not necessarily received the intended and expected support and services required for their inclusion in agriculture. Skills development offers a chance to create greater economic opportunity. With the heightened focus on the inclusion of these vulnerable groups into all aspects of the economy and in particular agriculture, their mainstreaming into all the programmes and services of the department will be vital.

In accordance with the Employment Equity Act (EEA), women and people with disabilities have always been identified as part of the designated groups. Policies and selection criteria for all human capital management and development programmes and practices specifically include women, youth and people with disabilities. The youth form more than 60% of the South African population and more than 50% are unemployed. Extensive focus has been placed on informing the youth about the career opportunities and skills development programmes available to bring new entrants into the sector. Sharing of career information will take a more targeted approach focusing on schools where agriculture is offered as subject. Youth development and training programmes have remained innovative and has been adapted to include entrepreneurship, agri-processing, strong industry partnerships, 4th IR skills and competencies in order to stay abreast with development in the sector.

Planning service for these specific groups and disaggregated data reporting will have to be provided by all programmes.

8.1.7. Emerging priorities and opportunities over the planning period

Skills development continues to be a priority and at least 50% of beneficiaries of all human capital development programmes that will be implemented by the department, will be females with the priority being black females, 30% youth, and although particularly challenging as people with disabilities interested in agriculture are scarce, the aim will be to strive towards achieving a 2% representation, inclusive of all races and gender. The demand for the various external human capital development programmes outweighs the available resources. New partnerships e.g. with schools offering agriculture as a subject will be explored. Such schools could serve as feeder schools and encourage interested youth to follow a career in agriculture.

International economic realities changed irrevocably in the recent years. These include the shift of power from the West to the East and shifts within regions. These power shifts have own dynamics and affecting the trade environment. The emergence of trade wards between China and the USA, Brexit in Europe are typical examples that present opportunities especially for South African fruits and wines while also present challenges at the same time. Another global trend is rapidly rising demand for food, fuelled by population and income growth, which will provide major opportunities for agri-food systems to accelerate employment creation and transform African economies. Sub-Saharan Africa has the world's young people are expected to reach working age by 2035 on this continent. However, the reverse is true in the developed countries e.g. in Europe which are characterised by an aging population.

The above trends will influence consumption patterns and have serious implications for the agricultural sector especially in the Western Cape Province with its large exposure to the export market. At the same time this offers numerous opportunities including increased demand for food which in most cases can only be met through imports i.e. of both primary and processed goods. In other markets, especially in developed economies, demand for niche and differentiated products will be on the rise and that is where products with special qualities, for example, linked to geographical locations, or differentiated through production systems etc. will benefit.

The Provincial Economic Review and Outlook (PERO) 2019 has once again revealed the importance of agriculture and agri-processing sector in the economy of the Western Cape especially with regards to exports. The sector's comparative advantage has also been confirmed in most districts of the province, emphasising the importance of this sector especially in the rural economy. A research project conducted by this Department through PROVIDE in 2012 revealed that a 5% increase in exports of certain competitive agricultural commodities in the Western Cape could result to more jobs being created. More specifically, 22 931 jobs of which 13 446 are in the off-farm industries and 9 505 on-farm jobs.

These trends and facts are some of the reasons Market Access is the Ministerial Apex priority, over and above it being one of the Apex priorities of Provincial Cabinet. Hence one of the strategic outcomes of the department is to "Support the provincial agricultural sector to at least maintain its export position for the next 5 years by growing its value added". This will be achieved through continuation of upholding our dominance in our traditional markets while

also giving more attention to developing and growing markets in the East e.g. China and in Africa especially looking at other markets like Uganda, Ghana, Mozambique, Kenya in addition to existing investments in markets like Angola. This is amongst the reasons that the African Continental Free Trade Agreement (AfCFTA) has become vital as the operation phase of this signed agreement took effect on 7 July 2019. The agreement is set to become one of the world's largest free trade areas and will include around 90% of all traded products between African countries.

This Free Trade Agreement (FTA) is expected that it will firstly, boost Intra-African trade by at least 52% through the reduction of import duties and improved harmonisation of trade liberalisation and facilitation instruments. Secondly, it will increase the competitiveness of African industry by providing opportunities for scale production, continental market access and improved resource allocation. Thirdly, it is expected to meet the growing food demand, which is projected to reach USD 1 Trillion by 2030. This agreement is further expected to unlock new opportunities and expand existing trade between South Africa, including the Western Cape and the rest of Africa. Indeed, the Western Cape has expanded its agricultural exports into the African continent, growing from R1.4 billion in 2007 to R12.9 billion in 2017 (ITC, 2019). This has led to the share of the total agricultural exports from the Western Cape to Africa to grow from 8% to 21% in the same period.

The NDP calls for better opportunities for rural communities to participate fully in the socioeconomic context with the creation of one million new jobs by the agricultural sector. The NDP also argues that a strong agri-processing sector will play an important part in creating a vibrant rural community and create the envisaged 1 million rural jobs. It was also to respond to this call that the Department of Agriculture, Land Reform and Rural Development gave effect to the Revitalisation of Agriculture and Agri-processing Value Chain (RAAVC) through various interventions including the Comprehensive Agricultural Support Programme. Since 2010, employment in agri-processing increased quarterly by an average of 1.1%. In the fourth quarter of 2018, the Western Cape accounted for 21% of total South African jobs in the agriprocessing sub-sector. In addition, this subsector contributed approximately R22.825 billion to provincial GVA. In other words, it is one of the very few sub-sectors where the curse of jobless growth can be turned around and the increase in the number of jobs can be faster than economic growth.

The significance of the Western Cape in agricultural exports is notable as about 45% of South African agricultural exports are produced in this province. However, the products exported are mainly in their primary form. Hence, agri-processing becomes important as it offers tremendous opportunities to develop new forms of utility for agricultural products to create jobs and to change the province's export basket. Similarly, it can be further argued that a healthy Agricultural Sector cannot be created by focussing on primary production alone, but the capacity of the whole value chain, from inputs, production and, finally, to consumption that needs to be enhanced. As various actions and processes need to take place, this capacity needs to be both on-farm and off-farm. These are therefore some of the reasons why agri-processing is prioritised as one of the strategic interventions to achieve the departmental outcomes and the National Development Plan at large.

The key activities promoting the sustainable use of natural resources which the Programme Sustainable Resource Management (SRM) aims to achieve, includes the following;

- a) Engineering services rendered to clients
- b) Conservation farming demonstrative projects for emerging farmers
- c) Area wide planning

- d) Farm planning
- e) Pro-active engagement with municipalities Land-use management and
- f) Disaster risk support services to mitigate the impact of natural hazards.

The DAFF had embarked on a project to ensure that all farmers/producers in South Africa are registered to enhance planning and tracking of progress in achieving government outcomes. The department will undertake the same project for Western Cape farmers and update the database every 5 years to enhance service delivery.

The Programme: Structured Agricultural Education and Training is developing e-learning and immersive technology platforms as part of a blended learning approach, in addition to existing teaching and learning methods. The Programme will offer a newly accredited 3-year Diploma and will include courses related to Agritourism, Extension, Agri-processing and Marketing. SAET will continue to address current developments in the 4th IR environment relating to the industry.

In embracing the 4th IR and in alignment with the outcome of innovation, researchers in the programme RTD will fast track new technology development within their respective research portfolios, but will also pursue new technology to add value to the research effort and optimising of data to the benefit of the sector. Cape Farm Mapper (CFM), a web-based tool through which a range of spatially referenced data sets are made available to clients of the department, and own staff to optimise their planning abilities, will be updated with new functionalities. CAMIS (Cape Agricultural Mobile Information System), the smart phone version of CFM, which is a mini, location-based version of the existing CFM desktop web application, will follow the upgrading and expansion. Drone technology used in small grain research data accumulated for inclusion in the GIS platform will be expanded, whilst 3-D printing of components necessary for making monitoring tools/sensors for research purposes will continue and the latest developments in the field of 3-D printing incorporated in the research and technology development efforts.

Furthermore, as part of our 4th IR drive, our visionary and futuristic approach to "big data" and its applications will undoubtedly bring new dimensions of spatial planning and spatial transformation, which will now be more than ever based on evidence in a spatial context.

8.1.8. Performance of policy and regulatory institutions

In addition to the process of evaluations, comments are provided on applications for the rezoning and/or subdivision of agricultural land in terms of the Subdivision of Agricultural Land (Act 70 of 1970; SALA) in order to preserve the medium and high potential agricultural land for agricultural production in accordance with the municipal and provincial spatial development plans.

With the implementation of the Spatial Planning and Land Use Management Act (SPLUMA), decision-making powers are transferred from the Department of Environmental Affairs and Development Planning (DEADP), as custodians of spatial planning, to the local authorities (municipalities). This has a huge impact on the way that the WCDoA assesses applications. With this new era, every local authority may make decisions according to their own legislative frameworks (Spatial Development Frameworks, by-laws, etc.), which now differ from municipality to municipality. This creates the potential for municipalities to override concerns and objections by other government departments, without the other government

departments having any remedy. The challenge lies in how to align processes and goals of the other departments with that of the municipalities and for them to incorporate the goals, restrictions and spatial view of the other departments into their legislative frameworks.

In certain instances the department depends on other organs of state to complete and complement its responsibilities and to this end, the development of relationships with other organs of state is of the utmost importance. In some cases, the department can only provide advice whilst the final decision is located elsewhere. For instance, in SRM, the subprogramme: Land Use Management provides comments on applications for sub-division and /or rezoning of agricultural land in view of the need to prevent the fragmentation of agricultural land and to protect valuable agricultural land and natural resources for productive purposes (agriculture and ultimately food security), taking into account conservation imperatives.

Performing Animals Protection Amendment Act [PAPA] has brought about an additional regulatory function for execution by Provincial Veterinary Services. It is unfortunately that this mandate is unfunded and this will further burden the overstretched personnel capacity. Additional capacity is warranted to prevent placing personnel under chronic stress which result in a deteriorating service offering.

Western Cape has instituted a Food Microbes surveillance programme. This is a programme where veterinary services samples, monitors and evaluates human food safety by testing food products for microbial and residual safety. Antimicrobial resistance will be tested and reported as part of the programme. The WCDoA is also working with the Department of Health to do further testing of relevant pathogens in order to enhance food safety monitoring and market access by providing proof to trading partners.

The Western Cape Provincial Veterinary Laboratory (WCPVL) forms part of the Department of Agriculture in the Western Cape Government. It renders an extensive diagnostic service to the livestock, poultry and ostrich industries and supports services to other provincial and national departments. Consideration of the agri-processing activities identified during the first two phases of Project Khulisa indicated that the Chemical Residues Testing (CRT) facility should be set up at the WCPVL. The Chemical Residues Testing facility has been set up and with all the necessary equipment already connected and ready to start working whilst waiting for finalisation of post evaluation in order to implement the process.

8.1.9. Background information on demand driven services

The Western Cape Province is a semi-arid region where a lack of sufficient water is the most significant resource constraint on development. The Programme: SRM aims to decrease the impact of natural disasters and related risks through an integrated and coordinated manner by providing sustainable resource management support services to clients/farmers.

The key strategic challenge highlighted in the NDP will be to promote the more efficient use of water by both commercial and smallholder farmers and hence the continuation of the water wise and biodiversity awareness campaigns and the FruitLook project. Through this project, information on actual crop water use and 8 other growth parameters are provided on a weekly basis to farmers via the FruitLook web portal. Climate change will lead to additional demands on the limited water resources in the Province and special attention will be required over the next five years to assist farmers to utilise their agricultural water as efficiently as possible. Water quality and not just availability, will require a refocus as this is linked to the focus on market access.

The efforts to assist farmers to utilise their irrigation water more efficiently will not only contribute towards sustainable utilisation of the resource, but also assist them to increase the area irrigated, whilst using the same volume of water, thus creating more jobs, increase production and improve the financial viability of the farming enterprises.

Similarly, the area wide planning initiatives will enable farmers to increase the area under production on their farms whilst conserving the areas that require critical biodiversity management and conservation initiatives.

The Programme: Structured Agricultural Education and Training will incrementally implement e-learning in addition to existing teaching and learning methods. In response to growing requests, the Sub-Programme: Agricultural Skills Development will offer more short-term courses throughout the province, at the five decentralised training centres.

Agricultural Economics is often a catalyst in most services provided by the department. In addition, the clientele of the programme is very diverse and inclusive of all the clients of the department. It is expected of the programme to provide the services to all the citizens of the province regardless of its limited capacity compared to its counterparts. The services mainly in demand are farm level services linked to financial planning and marketing. Policy planning and/or strategic decision-making information is also of high demand given the dynamic and unpredictable nature that our clients operate under, as we are part of the global economy besides our own local induced challenges. The unpredictable disasters like droughts, biological pests and diseases (both animal and plant), floods and hail among others, are also adding to the demand and brought about challenges in setting the targets for the programme.

8.1.10. Challenges to be addressed and potential interventions

The Department is currently under severe fiscal pressure, perhaps more than most. This is mainly due to two realities:

- a) The physical location of its head office (due to the nature of its mandate), making it mostly impossible to share services like municipal, Eskom, maintenance, cleaning and security services with other departments as is the case in the Central business district. Municipal and Eskom services have escalated well beyond the inflationary increases the Department receive annually from Provincial Treasury. They are expected to do even more so, given their financial challenges. Furthermore, the Department is dependent on more than entry control with respect to security, and the "holistic approach", although very efficient, comes at a high price.
- b) The Department is by its nature dependent on people to deliver its services (like Education and Health). Thus personnel equates services. With the rather generous compensation adjustments over the last more than five years, its fiscal pressure increased even more.

The past five years have been a period of many disasters, with drought reaching extreme proportions in areas like Central Karoo and the northern parts of the West Coast. These have put severe pressure on monetary sources and has led to the Department cutting, withholding and postponing funding wherever it could. However, all these efforts are not sustainable, and with disasters expected to increase due to Climate Change, a more flexible system for quicker response must be found at a national level.

Attracting people with disabilities for the various human capital development programmes needs to be optimised by involving NGO's and BPO's with the awareness and application processes.

Budgetary limitations may result in targets of the human capital development programmes being reduced However, expanding partnerships with farmers as host employers and mentors could indirectly expand available resources.

The last five years, more specifically the last three years, has seen a significant decrease in the mean annual rainfall which has been exacerbated by an increase in the mean annual temperatures. Concomitantly, there has been a significant decrease in the yield of the major water catchments in the province. The Western Cape Water Supply System has seen a decrease by 10% in the yield due to invasive plant species in the catchment.

The level of the invasive alien plants in the province is the highest in the country. Furthermore, invasive alien plants are seen as one of the biggest threats to ecosystem functioning and water security. Considering the climate change predictions, this province will be become drier and hotter. The magnitude of invasive alien plants has resulted in a reduction of the yield of available water resources and as such, investing in the removal of invasive alien plants is the cheapest option to augment our water supply in the province.

SRM will strive to build and support initiatives with private landowners in their efforts to eradicate invasive plant species. These efforts will include initial clearing and ensure followup is maintained by private landowners as per our memorandum of agreements. The eradication of invasive alien plants will directly impact water availability as one hectare of invasive alien plants utilises approximately 2800 m³ of water per year, thus reducing the level of invasive plants in water catchments whilst creating jobs.

In addition to water losses, the ageing infrastructure of the 278 km Lower Olifants River canal has resulted in numerous breakages, which has resulted in significant loss of productive agricultural land and has impacted all water users extracting water from the canal due to interrupted water flow (releases).

The support to the Lower Olifants Water User Association (LORWUA) is of strategic importance as the regional economy is fully dependant on the effective functioning of the LORWUA canal. The LORWUA aged concrete lined canal is the only bulk water supply infrastructure serving all agricultural irrigation, various industries and domestic water supply to municipal towns in the Matzikama Municipality. The support to LORWUA with ongoing preventative maintenance construction mitigates the impact of water delivery associated with the potential failure of the canal and especially given the impact of climate change. As the concrete lined canal has reached twice its economic serviceable lifespan, the work is focussed on the prevention of leakages and the safeguarding against catastrophic canal breakages, thereby safeguarding water supply to all affected water users.

Over the last 10 years there has been at least one agricultural disaster per year. In the last 5 years, however, the disaster incidents have increased to at least 2 to 3 per year. The disaster incidents are consistent with climate change predictions that states that there will be an increase of extreme climatic events, e.g. floods, droughts, fires, hail. The number, frequency and intensity of disasters require expertise and interventions to build resilience in the

agricultural sector to address the impact of these disasters. Once a disaster has occurred, there is an urgent need to be responsive to contain the impact of the disaster and support those affected. Natural disasters have a significant impact on agriculture in terms of food and job security.

Technical assistance to land owners during these disasters is included in the objectives of the Department. Apart from being involved with post disaster mitigation and recovery, it is also necessary to have a pro-active approach towards natural disasters. The department's ability to respond to these disasters requires significant capacity to strengthen the WCDoA's response in developing early warning mechanisms and systems, building resilience, and providing distressed farmers easy access to information and support. As such, the department has started with a bi-annual disaster monitoring assessment, which includes a veld condition assessment, as an early warning mechanism. The evaluation of the impact and success of disaster mitigation aid will be done to strengthen future implementation.

The Province continues to experience the worst drought in recorded history in many areas across the province and as a result, the agricultural sector is suffering considerable damage. Drought relief in the form of fodder has been provided to farmers in critically classified areas in the Western Cape. The consequence of the current drought affects veld conditions, dwindling flock numbers, job losses and socio-economic impacts such as hunger. Many postdrought intervention projects will be initiated to support those severely impacted by the drought. One of these interventions is the Kannaland drought intervention project where unemployed agri-workers, both permanent and seasonal, are employed in projects promoting sustainable management of agro-ecosystems, e.g. invasive alien clearing, fencing (benefits include sustainable veld management through rotational livestock grazing); increase lambing percentages and job creation in rural areas. Some of the employment opportunities include first aid, mixed farming practices and chain saw operations.

The national study on extension by DAFF (2007) revealed that the department needed to employ 120 extension personnel to be able to effectively service farmers in the province. It must be noted that there are only 60 extension workers and this target will never be achieved due to the current fiscal constraints and therefore the department relies on partnerships to augment for this shortage of staff.

Restricted resources may lead to a review of courses offered but may also lead to innovative teaching solutions such as immersive technology, telematics and more partnerships with internal and external stakeholders. The latter could also be used to address the retention of skilled and experienced lecturing staff.

Climate change impacts on the agricultural sector in the Western Cape are projected to be generally adverse for a wide range of activities across the value chain. These adverse impacts are projected for key cereal crop production, high value export agricultural production (such as wine and fruit) and intensive animal husbandry practices, and will also be felt by the sector through continued drought, limited water allocations, and the effects of changing climate patterns on agricultural pests and diseases.

The effect of climate change on the sector is one of the major determinants of the sustainability and competitiveness of farmers, irrespective of the size of the farming operation. The SmartAgri plan completed in 2016 by the department in collaboration with DEA&DP, and in its third year of implementation, serves as the roadmap for the sector and

the department in adapting to, and mitigating, the challenges of climate change. The design and implementation of the plan will be evaluated in the 2019/2020 financial year and the outcomes of the evaluation will be used to improve the plan to ensure a more resilient sector and department. Stakeholders are expecting the department to lead the way in the sector and for this reason the service delivery agenda should also be climate-focussed and climate smart to lead to increased agricultural production in a sustainable manner.

The service delivery agenda of the Department will embrace climate change as the most important game changer towards improved food security and production, and sustainability of all farmers on all levels. The research, advisory and technology development services will include decision-making support with relation to the choice of farming activity, the optimal use of natural resources (water and land), the promotion of conservation agricultural practises and the generation of appropriate and sustainable technologies and information. Rural areas and its people are depending on agriculture for economic growth and an increase in job opportunities and these areas will be largely challenged by climate change. The SmartAgri plan also focuses on vulnerable rural communities and the envisaged outcomes will also be beneficial to these communities, contributing to building a resilient workforce on farms.

Following an analysis of the impact of the long-term crop rotational trials at Langgewens, Research Farm it was found that 98,8% of farmers in the area are actually implementing the advice provided. Some of the other findings were that farmers would like to see the trials continue and they would also like to see a range of new technologies to be incorporated in the research programme. The findings have given new impetus to the conservation agriculture programme on small grains and its expansion. This was followed by an evaluation of the research needs of dairy producers in the Western Cape. It was found that less than half access the research and scientific reports published by the Dairy Research Unit. Hence, it was recommended that trust relationships between researcher and farmer should be reestablished and means of communication should be changed towards open days, "walks and talks" dairy study groups, etc. These findings have been addressed as milk production is one of the cornerstones of agri-processing in the province.

Climate change will also bring new opportunities to explore innovative ideas. The role of alternative crops will grow as these new and novel crops will undoubtedly fill a specific space in the Western Cape agricultural sector with the challenges of climate change. Alternative crops could also secure specific markets nationally and internationally and add to the export figures and subsequent economic wealth and job creation in the Western Cape. Research funding for alternative crops have been fragmented, with the larger crops (like rooibos) being able to set up their own research funds. The smaller crops, like figs, fynbos, berries, honey bush and pomegranates, for example, are not in the fortunate position to tap into levy funds and therefore have to rely on smaller contributions within their own industry or funds from government (provincial and national) to address important research needs. The Alternative Crops Fund (ACF), launched in 2014, will give impetus to the drive to counter climate change with innovation and also the introduction of new crops to the province. The growth of the alternative crops portfolio will also open up new agri-processing and valueadding opportunities for entrepreneurs. In rolling out this initiative, cost sharing with industry will be promoted and multi-stakeholder funding will emphasise the Better Together approach and will optimise funds to support alternative industries.

Research projects and spatial intelligence tools have and will assist in identifying resource limitations or opportunities of the sector, whilst the spatial analysis support (maps and other

tools) have proven to be invaluable to extension officers and farmers, to name but a few. Furthermore, the sustainability of agricultural production is also based on production technologies, and in this regard research efforts will continue to focus on yield-increasing and/or cost-decreasing climate-smart technologies in plant and animal production. The analytical services will continue to provide pivotal information on water, soil and plant analyses which assist in judicial fertiliser usage and optimising production methods.

The impact of the 4thIR on the sector and department, respectively, will undoubtedly lead to innovation and technology development and will advance the sector on various levels, including competitiveness and forefront production practises. Skills development linked to the 4th IR will also demand more focus within the department to grow youth with the necessary skills set.

Maintaining market access and ensuring access to markets require that producers comply with the requirements of the market both locally and abroad. It should be noted that the market environment is very complex especially internationally, as it is characterised by a number of tariff and non-tariff barriers. The latter is now seen in another disquise of private standards that has flooded the market in the recent years, while new ones are being introduced on a regular basis. These are influenced by a number of things e.g. lobbyists, but at the main it is consumers that are shaping this environment. As a result the department provides a number of services including veterinary services (public health, export control and analytical services), including the support given to the industries and producers to comply with crucial public and private standards. Another complexity is brought by power, and political dynamics like trade wars, Brexit, AGOA uncertainty etc. The department conducts research on these issues to understand implications while also exploring opportunities in various markets. There are also limited budgets to increase the programme capacity and to escalate interventions aimed at market development. Hence, the department has forged partnerships with various stakeholders for a broader reach and for efficiency gains. These partnerships also bridge the gap on challenges linked to access to data and/or information.

Agri-processing is viewed to be the catalyst to change the woes of high unemployment as expected by the NDP. Similarly, moving beyond primary production into value addition is put forward in theory of change as an important strategy in strengthening black smallholder enterprises. It can boost their revenue and is a form of diversification which, if successful in the market, can help them become more resilient and more competitive. The ability to move into value addition is also a proxy for the business management skill applied, as it requires the business to perform a different set of operations than what is required for primary production. Although there are high expectations concerning agri-processing, noteworthy interventions might be limited as it is largely an unfunded mandate within the department and is further constrained by the fiscus that is under pressure. This will therefore have negative implications on the percentage of black smallholders engaging in agri-processing as one of the expected outcomes to address the problem of limited business growth. However, an organisational development intervention under Programme: Agricultural Economic Services is one of the steps towards addressing the capacity requirements for agri-processing. The current research conducted within the programme demonstrated its importance in giving strategic direction to the agri-processing subsector. This work will form the base in developing the provincial agri-processing strategy during this term of administration. This is one of the critical interventions required in taking the subsector to the next level. There has never been any better timing than the current strategic period as the national Department of Agriculture, Land Reform and Rural Development (DALRRD) together with the Department of Trade and Industry are setting the scene for agriculture and agri-processing strategy development.

The renewed focus and the debate around the accelerated reform (expropriation with/without compensation or any other legal means) imply that there will be an increased demand for support by the new farmers. It is important to note also that international experience has shown that for every one rand spent on land purchasing, another rand should be spent on post-settlement support if a land reform programme is to be successful. It is for this reason that the Department will continue implementing the commodity approach as a strategy towards the creation of an ecosystem of support for successful land reform. To this end, the department had signed 11 MoUs with industry partners to strengthen support rendered to farmers. Furthermore, the partnership arrangements help ensure the provision of commodity specific extension support to land reform farmers.

The department conducted an external land reform evaluation aimed at determining the performance of agricultural land reform projects that had been supported during 2014 - 2019. The study, which rated projects on 39 indicators based on the triple bottom line i.e. social, environment and financial, revealed that 72% of projects were successful in the period between 2014 and 2019.

Given that there is already 40% participation of women and youth in the department's programme, the intention is to reach a 50% women and youth participation in all the programmes during this planning period. The programme Farmer Support and Development will continue to provide support to food insecure households through the suitcase strategy, to enhance food security targeting women and youth, thereby contributing to Outcome 1: Improved food security and safety.

The programme: Structured Agricultural Education and Training has an on-going role to play in ensuring a vibrant and transformed economy through its educational offerings to new and prospective agri-workers, farmers, entrepreneurs and leaders. In so doing, it will offer a newly accredited and registered 3-year Diploma and will include courses related to Agritourism, Extension, Agri-processing and Marketing. E-learning platforms are being developed to ensure an integration of formal and innovative educational learning opportunities.

The impact of the 4thIR on the sector and department will lead to innovation and technology development to advance the sector on various levels, including competitiveness and forefront production practises. The Programme: Structured Agricultural Education and Training will continue with facilitating Drone Technology and Coding workshops to staff and students and the use of immersive technology within the learning environment.

Chapter six of the National Development Plan (NDP) clearly highlights an inclusive rural economy with increased job opportunities along the value chain, as a priority. Despite the prevailing fiscal pressures, the department has maintained its commitment to the coordination of rural development efforts within the rural areas in the province in order to achieve the Medium Term Strategic Framework commitments and the imperatives imbedded in the Provincial Strategic Plan.

Rural urban migration is resulting in increasing informality and the demand for innovative service delivery, in urban areas, will require efficient and effective programme rollout in rural areas, as the fiscal envelope shrinks and resource allocation is prioritised to high-density settlements. Institutional arrangements, resourcing and alignment to other departments' programmes within the Province, such as the Regional Socio-Economic Programme (RSEP), is critical to success in addressing the multidisciplinary mandate of rural development.

This has been further enhanced by engagements with municipalities on specific district and local matters arising from the Joint Planning Initiatives and integrated planning processes. Other key focal points steering planning and resource allocation in rural areas is of course the demands presented by the prevailing drought, the findings of the Agri-worker Household Census, particularly relating to human capital development programmes for rural youth and support that could contribute to local and regional economic development.

8.1.11. Relevant stakeholders contributing to the achievement of outcomes.

It was established in Section 3 that South Africa has three distinct spheres of government; leading to the situation represented in Figure 25. National government consists of a number of departments and statutory bodies. These agents of state usually have offices or branches geographically located in the area of responsibility of provinces. At the same time some tertiary institutions, although established under national legislation, is also situated in one or more province with an associated provincial footprint. Provinces, being a distinctive sphere of government, have their own range of organs of state (departments and statutory bodies) accountable only to the Provincial Parliament. At local level, still within the geographical area of provinces, the three types of municipalities (local, district and metro/city) have their own set of functions, responsibilities and lines of accountability. Furthermore, each of these organs within each sphere has a particular mandate outside which any expenditure will be unauthorised.

This complexity can partially be described from the viewpoint of a hypothetical small scale farmer. This farmer received a land reform farm from the Land Reform Branch of the (national) Department of Agriculture, Land Reform and Rural Development and an operational loan from the (national) Land Bank. Infrastructure needs gets funded via the Comprehensive Agricultural Support Programme (CASP) which is a programme of the (national) Department of Agriculture and implemented by provincial departments of agriculture. However, to build a shed he must get approval from the local municipality which will grant approval according to guidelines developed at provincial level at the hand of prescripts provided by national legislation. Additional water, a prerequisite for successful farming in most areas of South Africa, is a competency of the (national) Department of Human Settlements and Water Affairs. Before he can export his apples he needs inspection from the (national) Perishable Products Export Control Board (PPECB), but the export of animal products needs to be licensed by the (provincial) veterinary services. Should his products not make the grade for export, it will be sold at local (municipal) markets.

Given this complexity, a large number of (unschooled) smallholder farmers struggle to access the range of services available to them. The same principles apply to other agricultural activities such as research, protection of the natural environment, training, exports, etc. With the wide range of actors from different spheres of government having a stake in agriculture, it is easier to develop consensus on agricultural matters with private sector players than between organs of state.

The complexity of the relationships and inter-linkages of the people living on Western Cape farms are not much better than the case of organs of state. These people can be grouped into three broad categories (see Figure 26):

- a) The owner of the farm or, in the cases of absentee owners, the most senior manager.
- b) Farm workers. Although some live in towns or "agri-villages" and commute on a daily basis to the place of work, by far the greater majority still lives on the farm.

c) Other people living on the farm. In a number of instances these people are not necessarily working on the farm.

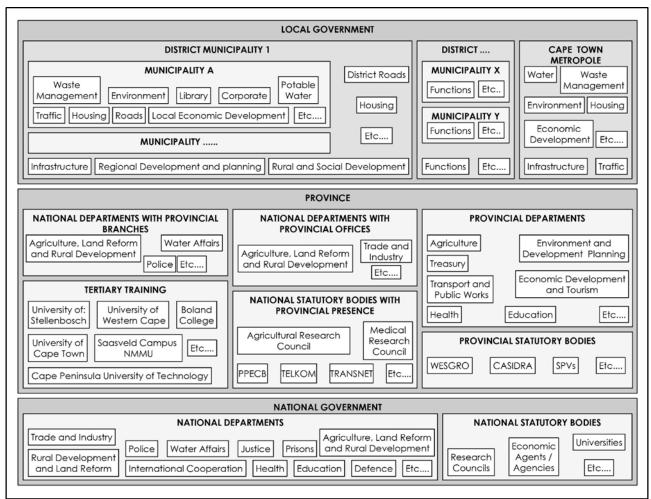


Figure 25: Schematic representation of institutional silos in government.

Source: Adapted from Troskie (2013)²⁷

The majority of commercial farmers belong to a farmers association and / or one or more industry organisations which jointly forms Agri West Cape and eventually Agri South Africa. However, in some instances certain industry organisations are loosening its ties with the Agri West Cape structures and are finding alternative administrative homes in newly established organisations. Although there is currently no credible alternative structure representing commercial farmers in the Western Cape, TAU SA does exist at national level and is attempting to expand into the Western Cape. This association has politically more conservative objectives and is increasingly becoming involved in non-agricultural issues. There are also a range of other organisations such as AfriForum, Solidariteit and Saai with specific agendas being pursued.

There are currently three organisations representing smallholder farmers in the Province. The first is the Western Cape Branch of the National African Farmers Association (NAFU) and the second is the African Farmers Association of South Africa (AFASA). There are also a range of

²⁷ Troskie, DP (2013) Provinces and agricultural development: challenge or opportunity? Agrekon 52 (1): 1 – 27.

other organisations such as Black Farmers Association of South Africa (BFASA) and United South African Agricultural Association (USAAA).

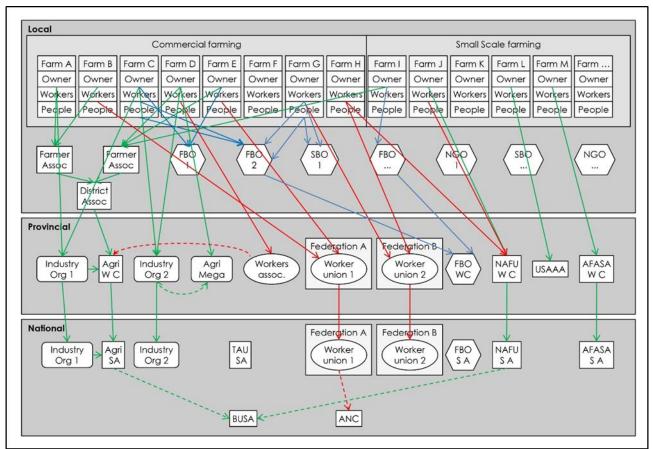


Figure 26: Schematic representation of some of the actors in the Western Cape Agricultural Sector.

Source: Adapted from Troskie (2013)

Within and between these organisations (whose actual paid-up membership remains a secret) there are often differences of opinion and personality clashes. Organisations representing the interests of the other people living on farms (workers and rural dwellers) are even in a worse disarray of diversity. A number of labour unions and worker organisations represent some of the farm workers as well as workers in associated industries (i.e. canning, transport, etc.). A number of these labour unions (i.e. Food and Allied Workers Union (FAWU)), are affiliated to the Congress of South African Trade Unions (COSATU). Other worker federations with agricultural related affiliated unions include the Federation of Unions of South Africa (FEDUSA) and the National Council of Trade Unions (NACTU). Nevertheless, most farm workers in South Africa remain un-unionised.

An even wider range of organisations maintain that they speak on behalf of the people living on farms and, sometimes, also on behalf of farm workers. This range of organisations include faith-based organisations (FBOs), community based organisations (CBOs) and other nongovernmental organisations (NGOs). Most of these organisations are dependent on donor money and their activities range from specific or general advocacy of real or perceived challenges faced by people living on farms (i.e. Women on Farms) to addressing particular concerns (i.e. Foetal Alcohol Syndrome). In addition to these stakeholders, the Western Cape agricultural sector is privy to information that is important for planning and decision making at least in the short and medium term. This is possible through partnerships like the Bureau for Food and Agricultural Policy (BFAP). In collaboration with GreenCape, the department has established a GreenAgri Portal, which is a web-based platform and a one-stop tool targeted at clients and stakeholders interested in getting involved in the green economy. Through this partnership, the sector also benefits from the services of the Agri Desk i.e. an annual Market Intelligence report that is a collection of research conducted to stimulate the uptake of smart agri production and green solutions, like renewable energy generation on-farm. In a sector that needs to create more jobs, increased investment is therefore vital. However, for a number of years, the sector has been suffering from declining investments. Hence, the partnership with Wesgro through the Agribusiness Investment Unit is critical to look at promotion of the agricultural sector and to facilitate investment into the sector. Furthermore, relations with export councils and commodity associations, standard setting bodies, relevant government institutions (provincially and nationally) are critical for market access and for synergies in market development initiatives locally and abroad.

The Programme: Structured Agricultural Education and Training will continue to strengthen existing partnerships and build new partnerships to optimise the use of limited resources and alignment with industry needs, especially:

- a) The Host Farmers accommodating students during Workplace Integrated Learning,
- b) Academic support for scientific innovation and input to curriculum development, accreditation and quality assurance of courses,
- c) International exchange of students,
- d) Industry initiatives to position the college as a centre of excellence.

8.1.12. Other external matters

The Programme: Structured Agricultural Education and Training will continue to ensure that all training needs of agri-workers and rural communities are addressed as identified by the Programmes: Rural Development and Farmer Support and Development and the agricultural community.

The department is one of only two provincial Departments of Agriculture in the country, which has a dedicated Farm Worker Development sub-programme, focussing on socioeconomic upliftment of agri-workers. Collaboration with industry partners and other government departments has been pivotal in ensuring access to government services for agri-workers and rural communities, addressing and stabilising potential volatility related to labour matters as well as promoting ethical practice on farms, ultimately contributing to international market accessibility.

As a result of the provincial-wide Agri-worker Household Census, it is clear that poor education levels and rural youth unemployment will be critical pressure points in the outer years. According to the findings, the rural youth matriculation rate is 8.5% and those accessing tertiary qualifications account for less than 1%. The final results indicate that the percentage of individuals exiting the job market is significantly lower than the number entering the job market over the next fifteen (15) years. This will require dedicated efforts by the department to utilise the census data to ensure that the necessary linkages of rural youths to the various educational and training programmes offered across departments in the province are made to facilitate a more capable workforce in the sector. This Census is ongoing, the second iteration has commenced and will enable data on trends as responsive programmes are rolled out and targeted where data is most needed to guide such programmes in rural areas.

The Rural Development programme will be focussing its service delivery improvement on the agri-worker referral system, utilised to ensure access to services.

The spate of farm attacks has compromised and undermined the safety of producers and workers within the agricultural sector, all of which has had an adverse effect on the economy and food security.

The current lack of safety not only affects the people, but also the economy, all of which compromises the ability of the sector to create jobs, enable food security and grow the economy. Agri-processing also remains a key driver to create jobs and stimulate economic growth. The safety of all stakeholders within the agricultural value chain is therefore key to addressing rural poverty. Two provincial structures namely the Inter-Ministerial Committee and Technical Committee on Rural Safety were established during 2019 to coordinate the rural safety priority plans.

8.2. Internal Environment Analysis

8.2.1. Capacity to deliver on mandate: Human Resources

The total approved staff establishment for the department as confirmed by the OD needs investigations, is 1 611 and include funded and unfunded posts. Six-hundred-and-ninety-two (692) or ± 43% of the approved posts are unfunded. This implies that the department is delivering its services with a huge under-capacity. This is mainly ascribed to budget limitations and the ceiling on the filling of posts. It is now more obvious than ever that the personnel capacity is stretched to the limit. Reduction in services and targets may well become a reality if this situation prevails.

Nine-hundred-and-nineteen (919) posts are funded of which 862 are filled. The current vacancy rate due to natural attrition is 2.5%, and is well within the nationally accepted DPSA norm. The filling of any funded vacancies within a period of six months, is eagerly pursued by all programmes. However, the expanding demand for services and adherence to lengthy compulsory HR processes and directives places a further burden on the existing staff complement.

The programme Research and Technology Development (RTD) will enter the next five year cycle with the challenge of a large number of its staff retiring. The lack of successors for scientists and technicians within the department will need a focussed effort of recruiting and headhunting incumbents from the external environment. This will even be more urgent as the delivery of services to clients and the servicing of industry funded projects will depend on the availability, retention and training/expertise of our technical staff.

This recruitment drive may be hampered by the following factors:

- a) Unavailability of suitably qualified technical staff;
- b) Although incumbents may be available, they may not be affordable in the framework within which civil servants must operate;
- c) Agriculture is still perceived as an unattractive career;
- d) Working for government may be considered in a negative light;
- e) Young people may not be willing to work in rural areas;

f) Students matriculate without mathematics and science as subject. The result is that they cannot be appointed as research technicians and researchers due to the SACNASP registration needed for OSD posts.

In order to address these problems, each departmental programme will annually have to revise their human resource plans and people planners so that aspects of transformation, development and succession planning are timeously addressed.

The RTD human resource plan addresses both its' scarce and critical skills, succession planning and transformation needs. New models of capacity development, especially on the researcher and technician level, with partners (both commodity and tertiary institutions) are being investigated and implemented and aim to grow agricultural youth and undergraduates in a "better together" way with the ultimate aim to establish agriculture as the career of choice. The in-service training initiatives, as well as post-graduate student programmes, are building the new generation of technicians and researchers with guidance and mentorship by senior and specialist researchers.

Efficiency gains will be sought with a closer collaboration and integration between the Programmes RTD, FSD and SAET. Lecturers should ensure that the latest information, emanating from research, is included in their training curricula, whilst extension officers should be "tooled and schooled" in the latest technology and information to convey to clients. In a similar way, the extension officers should refer research needs of farmers to the research colleagues to address in a focussed way.

Renewed Memoranda of Understanding (MOU) with the University of Stellenbosch and Nelson Mandela Metropolitan University (NMMU) will be signed in 2020. These agreements will further support the focus on post-graduate studies and research collaboration on all levels.

On the extension and advisory services front, the Department will continue to partner with commodity organisations to facilitate access to commodity specific extension for smallholder farmers. This also helps augment the Department's limited extension capacity, i.e. we only employ half of the required capacity according to national norms and standards. There are currently 10 MOU's signed with commodity organisation to strengthen the support delivered to farmers.

The Programme: Structured Agricultural Education and Training is under severe capacity constraints. Current capacity is augmented by the utilisation of external training facilitators which places pressure on the budget of the programme and is not sustainable. Efficiency gains will be sought through closer collaboration and integration between the Programmes RTD, FSD and SAET. SAET will continue to form new partnerships with industry role-players.

Programme: Agricultural Economic Services (AES) did its full circle evaluation during 2017. A number of areas were identified where there are gaps and or a need to strengthen. The priorities include resource economics with emphasis on climate change, market access, and agri-processing. These were mainly highlighted by our clients and stakeholders and were the top three in terms of prioritisation. All these areas require special skills which are difficult to get, and if available, are difficult to attract in the public service. Those that are already in the public service are difficult to retain, due to lack of career progression. The Programme is again entering this strategic period with limited capacity to service the sector with all its diverse clients. Even though there are plans in place to engage in human capital

development initiatives to address the challenge of scarce skills, the Programme has been constrained by the limited budget to fill its vacant positions. The Programme has undergone a work-study investigation, even though this is expected to address some of the gaps identified, but becomes impractical if not funded. The fiscal pressures are also adding to the realisation of an objective structure for Programme: Agricultural Economic Services.

8.2.2. Capacity to deliver on mandate: Information Technology

The Department is the only one in the Provincial Government that runs on the Agrinet platform, whereas all others are on Openet. However, in the Western Cape Province, the human resources are centralised under the Centre for E-innovation within the provincial Corporate Services Centre. The above anomaly means the Department is responsible for its own IT-architecture and hardware, but dependent on CEI for human capacity. This is by all counts hardly ideal.

However, it is navigated rather successfully with regard to maintenance of infrastructure and update of systems and hardware. The challenge lies with neither dedicated resources for IT governance, nor dedicated development capacity on premises.

With respect to the hardware side of IT, the Department is at the forefront of using technology efficiently. Due to its rural nature, the Department embarked in 2005 on erecting a wireless network that would connect all its offices (45) throughout the Province and has now come full circle by stabilising the network with redundancy connections towards all areas. This has resulted in a network so stable that the Department could replace its very expensive and outdated telephone exchange system with a Voice Over Internet Protocol (VOIP) system with very attractive cost saving results. Bandwidth is regularly increased as new technologies become available.

The Department has created a Disaster Recovery Site off premises for improved continuity and security.

The provincial electronic content management system is expected to be implemented in the department within this financial year. Certain budgetary implications must be expected as some related infrastructure will have to be procured.

In aligning to the departmental outcomes of improved food security and safety, as well as innovative and resilient rural economies, the 4th IR and associated innovation will be significant game changers in the service delivery agenda of the department. GIS experts and innovation specialists have embraced the challenges of the "online" age through the development of a number of web-based tools to make data available to a wide range of stakeholders, including other provincial departments and local government. This has gone beyond the scope of the departments' datasets, and also provides programming and infrastructure support for WCG initiatives. It is envisaged that these services and tools will expand in the next five years and capacity and excellence in this field will have to be built. The ICT capacity of the department will subsequently have to be supportive of these initiatives.

8.2.3. Capacity to deliver on mandate: Financial Resources

With respect to funding resources, the Department is dependent on the fiscus for 97% of its funding. The Department is not a revenue seeking institution, therefore, only 3% of its funding

consists of external revenue. With the exception of paying students, all other revenue of the Department are spin-offs from either research, or incidental. Services such as laboratory services are there for internal purposes; and where capacity is available these services are rendered on a limited scale and on a cost recovery basis. The principle is not to compete with the taxpayer with resources paid by the taxpayer. The Department views doing so as unethical. Thus - since the national fiscus is under pressure, so is the Department's, and may become even more so with any form of accelerated land reform.

All transversal systems (BAS, LOGIS, PERSAL and Vulindlela) are outdated and only provide the bare minimum with regard to accounting services. There is little or no management support available and analytical work is almost always done on spreadsheet. This is not ideal. Budgeting remains an Excel exercise with limited capacity for needs and often stability challenges.

With regard to personnel, the Department has done well despite being severely understaffed. Very capable and experienced individuals could only achieve continuous good results through continuity in key positions. However, by adhering to answering to fiscal constraints, the Chief Directorate: Finance could not capacitate one senior management level and this is about to create severe continuity challenges when the Chief Financial Officer (CFO) reaches retirement age in the next five years. Although this is well known, the fiscal pressures elsewhere prevents the Department from negotiating this challenge.

Elsenburg previously housed laboratories and a research farm, but has evolved over time and became the administrative head office of the department housing more than 60% of its staff. The building is in dire need of modernisation.

This will now be done through the Modernisation of Elsenburg project, a major project that will be completed in phases over the next five years. The project has officially commenced on 18 September 2019, and will bring about legislatively compliant new laboratories, a new conference centre, and modernised office space that will be constructed in a way that will provide far better use of existing space.

Service delivery is certainly expected to be affected during this period of renovation and construction. Large cost implications are also envisaged as the department will have to carry the cost of all new office furniture.

The programme Research and Technology Development will continue its challenges in the following areas:

- a) Limited funding for the present research portfolio and subsequent inability to respond to all research needs of stakeholders and agricultural industries in the Western Cape.
- b) Limited funding for new areas of research and technology, i.e. climate change research, game farming, etc.
- c) Limited funding to support external research projects of importance to the agricultural sector in the Western Cape (e.g. the Alternative Crops Fund).
- d) Limited funding to upgrade research equipment of pivotal importance to research, for example harvesters, tractors, planters, laboratory equipment.

8.2.4. Budget in the context of the 5-year Strategic Plan

A few very powerful drivers will determine the budget environment for Agriculture over the next five years. The expected introduction of accelerated land reform process (with or

without compensation), will be central to all plans and resource allocation. This will be closely followed by the intensifying impact of Climate Change and natural disasters and extreme weather patterns that seem to accompany it. The discussion document by Treasury also places Agriculture central to its efforts to accelerate the economic growth of the country. It is also seen as central to economic growth in the Provincial Economic Review and Outlook (PERO) and Municipal Economic Review and Outlook (MERO). In the Western Cape the emphasis will be on job creation and increased exports. Renewed budgetary emphasis on women, youth and the disabled is also expected.

All the above, often seemingly contradictory factors, will make proper budgeting and planning a challenge. The only constant here seems to be a severely constrained fiscus. Thus – a very volatile period is expected which will demand regular re-assessments of mandatory actions. Since the Department seems to get closer to its fiscal cliff, radical downscaling, or even stopping certain mandatory functions are not impossible. That is, if budgetary allocation is not going to follow the set priorities.

8.2.5. Status of the Department regarding compliance with the B-BBEE Act

The Department has been doing business with suppliers and/or service providers since inception of the B-BBEE Act 53 of 2003 as amended by Act 46 of 2013. The implementation of said Act has always been done in accordance with its 2011 and 2017 regulations respectively. To give effect to the regulations all suppliers/service providers were required to be registered on the Western Cape Government's Western Cape Supplier Database (WCSD) that houses all BBBEE certificates. All transactions where the Department does business would then export the BEE certificate levels from the database, extract the points for B-BBEE and calculate it to the price in order to attain a total preference points for award.

The Preferential Procurement Regulations, 2017 requires that at least 30% of a contract in excess of R30 million be subcontracted to EMEs or QSEs as per regulation 4 of the PPR, 2017. The WCG and this Department has made a policy decision to subcontract the 30% where contracts exceed R10 million (lower the target threshold), thereby making a concerted effort to address the redress of the past. However, the lowering of the threshold is subject to a feasibility study.

As part of the AgriSector BEE Charter driven by DAFF (now DALRRD), the Western Cape Department of Agriculture (WCDoA) provides annual data inputs (i.e. spend in relation to B-BBEE companies) for monitoring purposes to all elements that speak to AgriSector Charter. The following is audited by DAFF (DALRRD) which is:

Enterprise and Supplier Development: The Preferential Procurement Element measures **the extent** to which enterprises (all organs of state) buy goods and services from suppliers with **strong** B-BBEE procurement recognition level.

The WCDoA is also part of the steering committee which is responsible for implementation of the Economic Procurement Policy framework that has been adopted by the WCG. The Department has, to date, provided inputs into the implementation plan to achieve inclusive economic stimulation for informal sectors as well as formal business sectors within the Western Cape Province. This is an ongoing process and the success of this initiative will only be measured by the desired impact it will have on the Western Cape citizen/business. The above initiatives and practices of the past will continue to be implemented for the next five years, thereby forming part of this strategic plan of the Department.

The 2018/19 Financial Year's SCM Insight Report received from the Provincial Treasury highlights the success of the WCDoA in that amongst all other, the above mentioned has been achieved. The following are snapshots of the SCM Insight Report provided by Provincial Treasury. The tables show the number of suppliers registered on the WCSD and CSD per B-BBEE Level, as well as the total amount of payments made for each B-BBEE Level during the period (see Table 20 and Table 21).

B-BEEE Level	WCSD Count	CSD Count
Level 1	3 377	3 134
Level 2	444	422
Level 3	56	56
Level 4	1 048	986
Level 5	14	14
Level 6	12	12
Level 7	18	18
Level 8	46	45
Non-Compliant contributor	11 637	9 411
Total	16 654	14 098

Table 20: Suppliers per B-BEE level

Table 21: Payments per B-BEE level

B-BEEE Level	Payment Amount (R)	Level (%)
Level 1	28 424 430	44.38
Level 2	14 327 232	22.37
Level 3	587 500	0.92
Level 4	6 666 656	10.41
Level 5	286 138	0.45
Level 6	0	0.00
Level 7	472 033	0.74
Level 8	466 722	0.73
Non-Compliant contributor	12 812 207	20.01
Total	64 042 918	100.00

Visual Reference: WCSD 004

From the information in these tables it is clear that the total value of payments made by the Department amounts to R64,042 million for the 2018/19 financial year. 79,99 % of this value was paid to suppliers with a B-BBEE Contributor status level. 20,01 % of this value was paid to suppliers with a Non-Compliant Contributor B-BBEE status.

The ownership category as well as the business size of the entities from which the Department procured during the 1018/19 financial year is provided in Table 22 and Table 23.

Black Ownership Category	Payment Amount (R)	Category (%)
At least 51% Black Owned	39 314 298	61.39
Less than 51% Black Owned	24 395 400	38.09
Not indicated	333 220	0.52
Total	64 042 918	100.00

Table 22: Expenditure to suppliers registered on the WCSD per ownership category

Table 23: Expenditure to suppliers registered on the WCSD per business size

Business size	Payment Amount (R)	Category (%)
Exempted Micro Enterprises (EME) – annual turnover < R10 mil	32 631 280	50.95
Qualifying Small Enterprises (QSE) – annual turnover >R10 mil < R50 mil	15 408 037	24.06
Large - > R50 mil	8 576 331	12.39
Not indicated	7 427 270	11.60
Total	64 042 918	100.00

Note:

- a) Information extracted from BAS, WCSD and CSD for the period 1 April 2018 to 31 March 2019.
- b) Not indicated means the supplier did not indicate ownership/turnover details when registering.
- c) Ownership and turnover information was extracted from the CSD.

The total value of payments made by the Department to suppliers registered on WCSD and CSD amounts to R64,043 million for the 2018/19 financial year. 61,39% of this value was paid to suppliers with at least 51% Black Ownership and 0,52% of the value could not be allocated to an ownership category due to such payments being made to entities registered on the CSD that did not indicate ownership category. 50,95% of the total value of expenditure for goods and services was paid to EME's and 24,06% was paid to QSE's. 13,39% of expenditure was paid to large companies. 11,60% of the value could not be allocated to an ownership category due to such payments being made to entities registered on the CSD that did not indicate turnover. The Provincial Treasury is consulting with suppliers to request them to complete their turnover and ownership information on the CSD. In terms of turnover, the percentage not indicated has decreased from 28,58% in the 2017/18 financial year to 11,60% in the 2018/19 financial year.

The Department is in the process of applying for a BBBEE certificate which will encompass, amongst other, the information discussed above and serve as audited proof from an external verification body that the Department remains compliant to the B-BBEE Act 53 of 2003 as amended by Act 46 of 2013.

The objective of the Department is to maintain the status of this practice as it extends beyond the target set for the Department and the Province. Any further improvement in terms of the Departments performance will be beneficial and felt by the citizen of the Western Cape supporting the socio-economic objective of all of government and not merely to comply with the B-BBEE Act.

8.2.6. Status of the Department regarding women and people with disabilities

There was substantial progress in terms of employment equity within the department over the last 14 years. Female representation increased from 31% in 2005 to 43.7% in 2019 against the target of 46%. In senior management the target for female representation was achieved in 2018. This is a vast improvement from 2005 at which time the SMS was 66.6% White and 33.3% Coloured with only 22% female representation.

Racial representation also progressed over the same period although not as rapidly. White representation declined from 39% in 2005 to 24% in 2019, but is still over the target of 15%. Coloured over representation also dropped from 54% to 52%, but is still over the target of 47%. However, the over-representation is in the post levels 1-3, whilst it is the opposite in the white group where the over representation is on post levels 9-12. Decline in representation of the two mentioned groups made an increase in African representation possible: this group increased from 7% to 23% in 2019 against a target of 38%.

The current status for women in the department are as follows:

Gender distribution:

The economically active population of the province, males should be 54%, and females 46%. Currently the gender status is 56.3 % for males, slightly over-represented, and slightly under-represented at 43.7% for females.

The statistics for economically active population of the province indicate that males should have 54%, and females 46% representation in the workplace. Currently the gender status at 56.3 % for males is slightly over- represented and 43.7 for females, slightly under-represented.

Racial distribution:

Coloured:0,7% over-representedIndians:0,4% over-representedWhites:3,3% over-representedAfrican:5,2% under-represented

Salary level distribution:

African: The majority are represented on levels 7 - 12, i.e. the highly skilled and professional occupational categories, and the rest on levels 4 - 5 skilled and administrative.

White: This group is mostly represented on level 7 - 12, the highly skilled and professional occupational categories, with a few on level 5 (skilled and administrative).

Coloured: This group is predominantly employed on level 5 and lower (skilled administrative and lower skilled).

Indians: Makes up a very small proportion of the staff (5 employees) and mostly employed on levels 7 - 11 (highly skilled and professional occupational categories).

Senior Management

The total females on senior management amounts to seven (7) out of the overall total of nineteen (19). Until very recently the 50 % target for women in senior management was reached but dropped to 43.75 % with the resignation of 2 managers. However should the current vacant SMS posts be filled with one Coloured male and two African females, this category will be race and gender representative.

People with disability

The department has achieved 1.8% against the required target of 2% and this group of employees are equally distributed across all salary levels. Six of the total of 16 are women. The department is aware of people with disabilities who do not wish to disclose their status. thus rendering these statistics inaccurate.

8.2.7. Any other matters

The department continually strives towards obtaining greater resource efficiency at its own services points and has implemented many different resource-saving measures. Energy and water usage are continually monitored through the Live-view electronic system. Eskom is slowly implementing the more cost-effective electricity tariffs, but the savings effect is not visible as yet.

With the assistance of the Department of Transport and Public Works a photo voltaic system and third borehole was installed for the department. Its water supply is independent from that of the municipality though the latter is still available when required. More energy storage infrastructure will be needed though to secure the availability of power at the time of crises and until such time that legislation changes are made regarding putting energy into the grid.

8.2.8. Causality model for the Department

Up to this part of the Strategic Plan of the Department, the policy and strategy expectations from the Department has been analysed. This has been followed by an analysis of the External Environment as well as the internal environment. The next step will be to incorporate all into a causality model for the Department.

Agricultural production is about the combination of natural resources (e.g. land and water), human resources (technical and management skills), as well as capital (monetary and intellectual assets) during the production process. Agricultural research is nothing but to find more efficient ways in using these resources during the production process. Primary production can be in the form of either subsistence (urban or rural), communal (collective or commonage), smallholder (resource poor or lifestyle), or commercial production (small, medium or large). The outputs from primary production will go either directly to households, markets (domestic or export) or to secondary production (i.e. agri-processing or other forms of value adding). From secondary production, the value-added products then flow to domestic or international markets.

The number of jobs in both primary and secondary agricultural production is directly related to the nature of the production process (the production system followed); in other words, in the way that the various inputs are combined during the production process. Similarly, economic returns from agricultural production come from domestic or international markets. Economic growth, in turn, adds to the pool of monetary capital necessary for agricultural production (see Figure 27).

Households could either produce their food for own consumption via household or communal food gardens, or by consuming part of the output from smallholder or commercial production. However, the number of households with access to resources for 'own production' is declining and one of the consequences of urbanisation is that households are becoming divorced from their means of production. It follows that these households obtain their food from domestic markets.

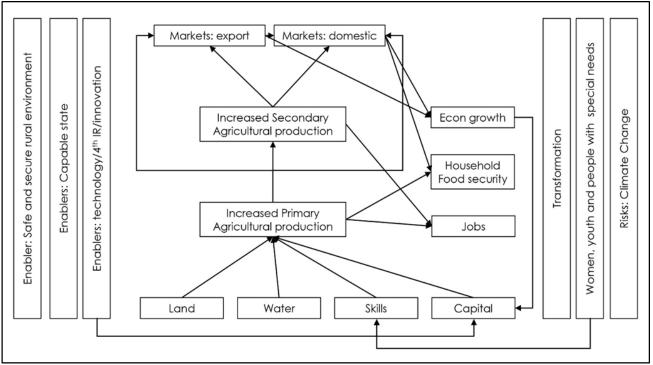


Figure 27: High-level Theory of Change for the WCDoA

In this instance, domestic markets can be either in the form of formal markets (e.g. supermarkets), informal markets, or social markets (e.g. food distribution schemes or food aid). Imported products (e.g. rice not produced in South Africa), also find their way to local households via domestic markets. In order to obtain products from the domestic market, households must have some form of currency (either monetary or social), products must be obtainable (e.g. within reasonable travelling distance), they must be culturally acceptable (e.g. Halal, vegetarian, etc.), and they must be safe (e.g. not contaminated).

As there is an inverse relationship between the share of food in the household expenditure on the one side and the Socio-Economic Measurement (SEM) of households on the other, households on the margin of food security are also the most vulnerable to changes in food prices. At the same time, it is also a well-known fact that the consumer price of food item drastically declines if a commodity moves from import parity to export parity.

For an agricultural system to operate successfully, a number of enablers (some may call it sanitary factors) needs to be in place. There must be: (a) a safe and secure rural environment; (b) a capable state creating a viable institutional environment; and (c) the systems must be in place to provide the right technology, ensure innovation and ensure the on-boarding of 4th IR challenges and opportunities. The latter enabler adds to the skills base and intellectual capital underpinning the production process.

At the same time a number of externalities needs to be internalised if the agricultural system is to be sustainable over the long term. In the first instance, transformation needs to take place, not only in terms of resources, but also throughout the value chain from primary production to markets. The same applies for the system to be able to absorb women, youth and people with special needs. Finally, the system needs to adapt itself to Climate Change and associated risks.

In short, it is argued that increased demand for primary and secondary agricultural products (from households, domestic and international markets) will lead to increased production. This, in turn will stimulate economic growth, improve food security and create jobs. For agricultural production to increase, resources of the right quality and integrity must be available at the appropriate cost to the system. For the whole system to operate, a number of enablers must be in place, and to ensure its social and natural sustainability, a number of externalities must be internalised.

Part C: Measuring Our Performance

9. Institutional Performance Information

Strategic direction: A transformed and sustainable Agricultural Sector ensuring food security and economic prosperity for all.

9.1. Measuring the Impact

Impact statement Improved livelihood for all

9.2. Measuring Outcomes

MTSF priority	Economic Transformation and Job Creation		
Outcome	Outcome Indicator	Baseline	Five year target
Increased agricultural production in a	O.1: The Provincial Agricultural Sector increase its export by at least 5% over the next 5 years.	R68,2 billion in 2018.	R71,6 billion
sustainable manner.	O.2: Enhanced agri- processing capacity at both primary and secondary level.	R17,41 billion in 2018	R19,151 billion by 2024
Improved food security and safety.	O.3: Increased Gross Value Added (GVA) through sustainable agricultural production in the Western Cape	GVA R16,254 billion in 2018	GVA R17,879 by 2028
Transformed and inclusive Agricultural Sector.	O.4: Success of supported land reform projects	72% success rate. (Based on 2018 external evaluation)	At least 70% of all supported agricultural land reform projects in the Province are successful over the next 5 years.
Innovative and resilient rural economies. O.5: Development of an enabling environment to increase agricultural and related jobs		325 703 (2018)	358 274 (2023)

9.3. Explanation of Planned Performance over the Five Year Planning Period

9.3.1. Contribution of outcomes to the strategic framework.

Based on Outcomes described above, the causality model developed in Figure 27 above can be used to develop the sub-outcomes to be achieved over the next five years (see Table 24). In order to achieve the 1st Outcome (Increased agricultural production in a sustainable manner), the export position of the provincial agriculture sector must at least be maintained, value must be added in agri-processing, primary agricultural production must increase, and the sustainable use of water and land resources must be ensured.

OUTCOME SUB-OUTCOME		
1. Increased	1.1. At least maintain the export position of the provincial agricultural sector	
agricultural	1.2. Enhance the agri-processing value-add in the province	
production in a sustainable	1.3. Increase sustainable agricultural production (primary provincial commodities)	
manner	1.4. Optimise the sustainable utilisation of water and land resources	
	1.5. Enhance the Climate Change resilience of the Sector	
2. Improved food	2.1. Increase access to community/household produced food	
security and	2.2. Ensure affordability of food.	
safety	2.3. Ensure that animal products are safe for consumption.	
3. Transformed and	3.1. Improve the success of agricultural activity among black farmers	
inclusive	3.2. Increase relevant skills within the agricultural sector	
Agricultural Sector	3.3. Improve the participation of youth, women and people with disabilities in the agricultural economy	
4. Innovative and	4.1. Increase access to agricultural and related economic opportunities for rural communities	
resilient rural economies	4.2. Develop an enabling environment for job creation in the agricultural sector	
	4.3. Improve safety and security in rural areas	

Table 24: The sub-outcomes for each outcome

The first 'sub-outcome' of the 'second outcome' (Improved food security and safety), must link closely with primary production, by increasing access to community/household produced food (own production for own consumption in household or community gardens). Those who cannot produce their own food need to purchase it and for this reason the containment of food price inflation by increased production, is the second outcome. The third sub outcome addresses the food safety matters.

In order to realise the 3rd Outcome (Transformed and inclusive Agricultural Sector), the success rate of production amongst black farmers must receive increased support through initiatives such as skills development and training programmes, which would allow for the growth of both primary and secondary agricultural production. The third sub-outcome addresses the need to improve the participation of youth, women and people with disabilities in the agricultural economy.

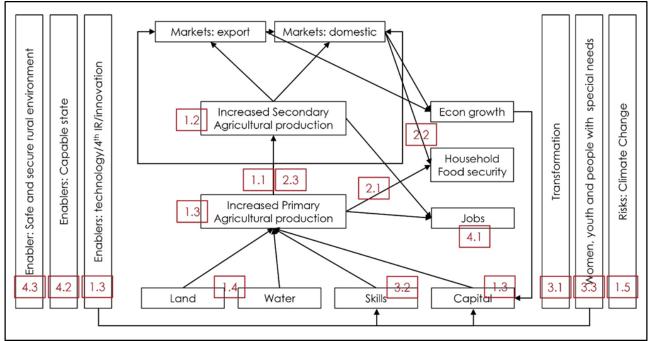


Figure 28 Link between the outcomes and the high-level TOC of the Department

For the 4th and last Outcome (Innovative and resilient rural economies), it is necessary to increase access to economic opportunities for rural communities. At the same time an enabling environment for job creation in the agricultural sector needs to be created whilst safety and security needs to be improved in order to ensure resilient rural communities. The link between the sub-outcomes and the high-level TOC is presented in Figure 28.

9.3.2. Developing the implementation plans

It is all good and well to have a high-level causality model for the Department and to develop this model into outcomes and sub-outcomes. However, this is not the end of the story and the next level of action and response needs to be developed. During the development of interventions at sub-outcome level, a series of planning mechanisms were used. Some of these interventions entailed a fresh approach by developing a TOC at sub-outcome level (e.g. for market access and food security), whilst in other circumstances a recently completed evaluation was used (e.g. LandCare and agri-processing). In some instances, current evaluations will be used to design interventions (e.g. SmartAgri) and in other instances, evaluations will be conducted in 2020/21 to design interventions (e.g. government services to farm workers). The full list of mechanisms used is provided in Table 25 and it is clear that there are not a single methodology, which may solve all planning requirements at a strategic level.

The process followed in each of these mechanisms will be described. The next section will focus on the various TOCs after which the other interventions will receive attention.

It was mentioned in the introduction that one of the requirements for the next generation planning documents was the development of a TOC for the Department's activities. Based on the macro TOC model, background research and the SWOT analysis, a number of topics to receive attention were identified during the Department's Strategic Session of 24 – 26 July 2019. During this session the first draft of the problem tree for these topics were also developed and seven were subsequently identified for the development of a full TOC. The full list of topics, as well as the link of each to a sub-outcome to be addressed, is provided in Table 26.

Table 25:	The planning mechanism to be used to develop an intervention logic for e	
	of the sub-outcomes.	

	PLANNING MECHANISM
	FLANNING MECHANISM
1.1 The provincial agricultural sector at least maintains its export position	Develop market access TOC
1.2 Enhanced Agri-processing value-	Finalise the 'Khulisa: Agri-processing Management
add in the province	Improvement Plan'
1.3 Increased sustainable agricultural production (primary provincial commodities)	Develop TOC for private sector investment
1.4 Optimised sustainable utilisation of water and land resources	Develop TOC for resource availability (water and land); Results from LandCare, SRM and Smart Agri evaluations
1.5 Enhanced Climate Change resilience of the Sector	To be determined based on the results from the SmartAgri evaluation
2.1 Increased access to community/household produced food	Develop food security TOC
2.2 Affordability of food is assured (Minimised food inflation or reduced inflationary costs as indicators)	Increase sustainable agricultural production (sub- outcome)
2.3 Animal products are safe for consumption	Use results from the meat safety evaluation
3.1 Improved success of agricultural activity among black farmers	Develop TOC for Support to land reform beneficiaries/50 smallholder to commercial farmers)
3.2 Increased relevant skills within the agricultural sector	Develop agricultural training TOC
3.3 Improved participation of youth, women and people with disabilities in the agricultural economy	Develop aggregated data and plans for youth, women and people with disabilities.
4.1 Increased access to agricultural and related economic opportunities for rural communities	Use results from rural development evaluation
4.2 An enabling environment for job creation in the agricultural sector is created	Use results from evaluation of government services to agri-workers
4.3 Improve safety and security in rural areas	Develop TOC for safety and security in rural areas

In the case of each of the topics, at least one workshop was held in the Manor House at Elsenburg. The emphasis was on involving the relevant officials from the different programmes in the Department as well as to invite key role players from outside the Department. The purpose of the workshops was to finalise the problem tree and it is important to note that this problem tree reflects the perspectives of the participants and it is not inconceivable that a different group may reach an alternative conclusion. However as the participants were selected for their knowledge, practical experience and the role they fulfil, it can be argued that their view is the most appropriate for the WCDoA at this point in time.

Торіс	Sub- Outcome	Programme title / Statement of topic	
Market access	1.1	DoA's strategy in response to uncertainty over the stability/security of key trade agreements and lengthy/uncertain opening of new markets.	
Private sector investment	1.3	DoA's strategy in response to a Private Sector with a high but unrealised potential for investment in the sector in the Western Cape to unlock growth and accelerate transformation in the sector.	
Resource availability	1.4	Resource-based constraints to the expansion of agricultural land, in particular water scarcity brought about by a combination of increased competition for allocations of water, groundwater contamination/salinity, drought etc.	
Food security	2.2	Population growth and influx of people to the province and to urban areas in the province will increase pressure on food production.	
Transformation	3.1	Smallholder Support Programme	
Agricultural skills	3.2	General scarcity of the education-levels, skills and expertise in relation to the competitiveness and growth aspirations of the sector.	
Rural safety and security	4.3	Prevalence of crime/lawlessness in general and declining rural safety in particular	

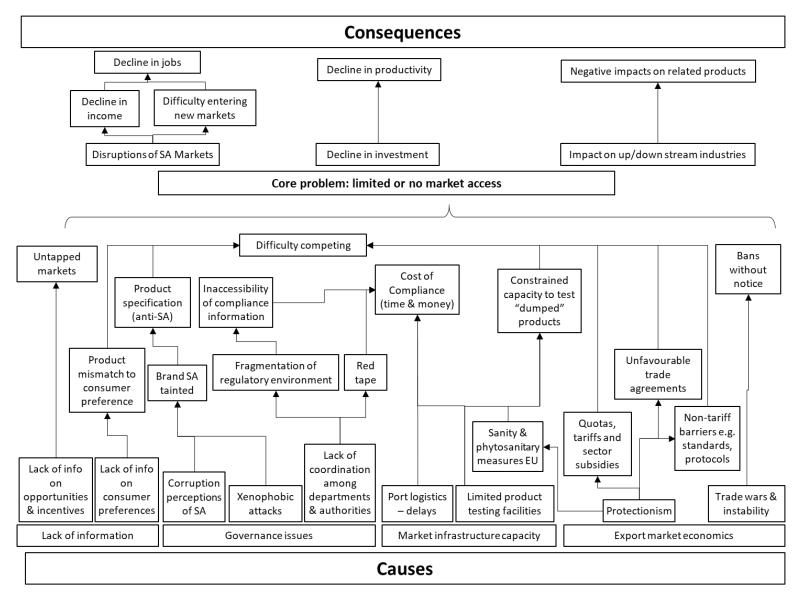
Table 26:The seven topics for which a Theory of Change (TOC) were developed.

Subsequent to the finalisation of the problem tree, the desired outcomes to be achieved in this particular topic were identified. Based on these, the logic work backwards via intermediate outcomes, outputs and, eventually, the inputs to be procured and the activities to take place. This model of logic were further refined and consulted before being finalised. In the rest of this section, each of the seven sub-programme level TOCs will be discussed in more detail. This whole process was facilitated and supported by Parmer Development Group (PDG).

9.3.3. TOC: Market Access

9.3.3.1. Problem tree

The problem tree shown in Figure 29 depicts root causes and consequences of limited market access for South African agricultural producers. During the workshop on 16 October, participants expressed that the issue is not that South African producers do not have access to markets for their products, the issue is rather limited market access due to various constraints within the local and export environment. Therefore, limited market access is defined in terms of all the factors that constrain South African producers' ability to export more of their products. Additionally, market access is about both retaining existing markets as well as entering new ones.





The participants noted that the discussion on limited market access does not necessarily reflect smallholders because market access in the context of smallholders is largely about market readiness. Therefore, the primary challenge is getting smallholders into the value chain and from there onwards, the conversation on exports can take place.

Lack of information

Starting from the bottom left of the problem tree, participants conveyed causes stemming from producers' lack of market information. On the one hand, lack of information on opportunities and incentives leave markets untapped. On the other hand, lack of information on consumer preferences creates product mismatch to consumer preferences thus making it difficult for South African producers to compete.

Governance issues

According to participants, issues of governance create corruption perceptions about South Africa – thus tainting Brand SA. In addition, the xenophobic attacks towards African immigrants living in South Africa feed into the damage incurred by Brand SA. Other issues also taint "Brand SA", including high greenhouse gas emissions; and concerns from a working conditions/human rights perspective. If these negative perceptions are not offset sufficiently through positive perceptions and/or brand-promoting efforts, product specification on the consumer side becomes anti-SA. Participants also identified a lack of coordination among departments and authorities who are responsible for regulation as an issue that exacerbates fragmentation of the regulatory environment thus leading to inaccessibility of compliance information. In this context, producers have to spend money and time to find the right channels to comply with regulations before they can export their products. This combined with red tape, increases the cost of compliance.

Market infrastructure capacity

According to participants, cargo shipping is the most utilised form of transportation for exports while other alternatives such as air cargo and rail either are too expensive, few or geographically limited. Therefore most issues concerning infrastructure discussed are linked to ports and shipping. As mentioned earlier, market access is also about retaining the market, therefore, problems with port logistics such as delays make it difficult for producers to compete. Currently port capacity is severely constrained. Producers lose products and customers when products do not reach the destination in time due to delays. Export products have to be tested to ensure that they comply with certain standards and criteria before they depart. However, producers have to spend a lot of time waiting due to limited product testing facilities and thus lose money when their products do not reach their destination in time.

Export market economics

Another root cause of limited market access as identified by participants is protectionism. Protectionism is characterised by other countries placing quotas and tariffs on certain products, as well as sector subsidies. This places limits on the amount of South African exports that can enter other markets. Other limits stemming from protectionism are non-tariff barriers (i.e. standards and protocols) and unfavourable trade agreements. Packaging and labelling requirements (non-tariff barriers) can result in a product not reaching the market because guidelines were not followed. Another challenge with non-tariff barriers is that labelling requirements and protocols vary for different market destinations. The problems mentioned above make it difficult for South African producers to compete. Participants also expressed barriers like EU sanitary and phytosanitary regulations. South Africa also has its own rules on testing products, for instance animal products, intended for export. In the context of limited infrastructure such as testing facilities, South African producers can thus be unable to tap into certain markets due to the high cost of compliance testing.

Another aspect of export market economics is trade wars and instability characterised by bans without notice. Participants mentioned that for instance, Botswana would close the market for fruits and vegetables during the season without sending notifications.

Consequences

In conjunction with identifying causes, participants also mapped out the effects of limited markets access. Causes of limited market access can lead to disruptions of South African markets, which result in a decline in income for producers, and ultimately a decline in jobs as producers are unable to afford labour. Disruption in SA markets also affects the ability of producers to tap into new markets. This constitutes a missed opportunity for WCDoA because research has shown that when new markets are penetrated, it can be expected to result in increased exports, which will enable an increase in job creation. Participants noted that there would be a decline in investment thus decline in productivity without the necessary capital. Furthermore, the country would see a negative impact on up/downstream industries, which will hurt related products.

9.3.3.2. Theory of change

The diagram in Figure 30 illustrates the TOC developed by stakeholders at the workshop on 16 October, which was then refined and organised by PDG. It must be noted that workshop participants selected only some of the key outcomes to focus their attention on in the limited workshop time. Other problems from the problem tree may also require the WCDoA's attention in the upcoming strategic period. The diagram depicts actions in which the WCDoA has a primary role to play as well as actions for other stakeholders to initiate intended to attain specific outputs and results.

The diagram, starting from left to right, shows the causal links of the changes that need to happen for the WCDoA to attain its intended outcomes related to addressing the core problem of limited market access for South African producers. The problem tree illustrated that there is a lack of information related to opportunities and consumer preferences. Accordingly, the first strategy is to do a market trend analysis to enable dissemination of Wesgro trip intelligence from their international export promotion trips (as well as from the grower associations such as Citrus Growers, Hortgro, SATI and others), informed advice to Western Cape exporters on the market, and sharing of the trade lead bulletin information from DTI. The latter is already published periodically, but is not reaching all the provincial sector producers that could potentially benefit from it. Assuming that acquired information is of quality, targeted, accessible and centralised, producers would then have better information on markets. In addition to the previous strategy, it was proposed that the WCDoA has joint events (with private sector actors) to build an export culture. This is intended to foster intergovernmental and industry collaboration. The TOC shows that training on how to export would be needed. Ultimately, these strategic actions would see the agriculture industry respond strategically to market shifts. The TOC also shows that training on how to export would also lead to a strategic response to market shifts.

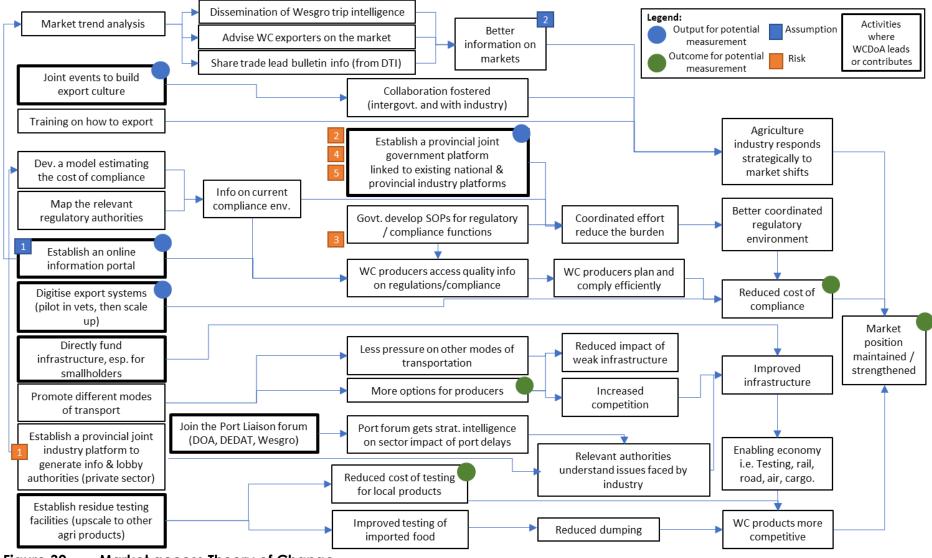


Figure 30 Market access Theory of Change

During the workshop, participants noted a constraint with poor information coordination between relevant departments and authorities. Consequently, there is a lack of accessibility to information about compliance and regulatory bodies. Accordingly, the development of a model estimating the cost of compliance and mapping of the relevant regulatory authorities needs to be done. This would then produce information on the burdens of the current compliance environment that is intended to be used to inform government of the issues, so that they can make a coordinated effort to reduce the burden. To strengthen this kind of coordinated effort, a provincial joint government platform linked to existing national and provincial industry platforms would be established.

The ultimate intended outcome is a better-coordinated regulatory environment. The participants noted three risks associated with the collaboration and reliance on partnership. The first risk is that the industry has competing stakes, which affect their willingness to collaborate. The second risk is that there would be meeting fatigue. The final risk noted is that there is a lack of national sphere involvement, where some of the compliance issues are within the mandate of national, not provincial entities to address.

One of the issues noted by participants in the problem tree development is the high cost of compliance in accessing the market. The WCDoA is to establish a centralised, online information portal on all relevant regulations and compliance for all Western Cape producers of agricultural and related products. The intention of this portal is to ensure that WC producers have access to quality information on regulations/compliance. An assumption driving the establishment of such a portal is that market access is a high priority for the current administration, so it is assumed this could be launched by the Premier and enjoy political support. Accordingly, the activities mentioned above will see WC producers be able to plan and comply efficiently. To further reduce the cost of compliance, WCDoA takes the lead to digitise the export systems by piloting it with veterinary services, then scaling it up. Workshop participants noted that some countries have already diaitised their systems, so the province could draw on these examples. In addition to the digitisation of export proposed strategy is for the government to develop SOPs systems, а for regulatory/compliance functions intended to assist Western Cape producers to plan and comply efficiently. However, participants noted the risk with this strategy is that the development of intergovernmental SOPs depend on government coordination, which is identified as a current weakness. Based on the stakeholder engagement, high compliance costs come with the amount of effort spent seeking information to meet the requirements for market access. Therefore, attaining a better-coordinated regulatory environment is intended to also reduce the cost of compliance.

Stakeholders expressed that one of the root causes of limited market access is inadequate market infrastructure, especially national infrastructure. They specifically mentioned transportation related to transit of goods as a big constraint. Participants noted that there is an ongoing research project to provide evidence to show the economic effects of the degrading infrastructure. A distinction was noted between the types of infrastructure in question being (1) enabling infrastructure; (2) bulk infrastructure; and (3) economic infrastructure. The TOC refers more to economic infrastructure (i.e. ports and harbours) and enabling infrastructure (i.e. testing facilities).

The TOC shows that the WCDoA will directly fund infrastructure, especially for smallholders (e.g. pack houses), which is expected to lead to improved infrastructure. In addition, the Theory of Change depicts that different modes of transportation must be promoted. An example cited in the workshop was that an increasing number of international flights fly

directly to and from Cape Town, and some agriculture-based commodities are suitable for transport by air. If producers leverage a variety of different types of transport, this will allow for less pressure on other modes of transportation as well as more options for producers. Ultimately, there will be a reduced impact of weak infrastructure since they will be less dependent on a single / limited number of transport options. It will also result in increased competition between different modes of transport, which will incentivise improvements in infrastructure.

Stakeholders expressed the need to have better coordination and collaboration among partners to work towards improving infrastructure. Therefore, a starting point is for WCDoA, DEDAT and Wesgro to leverage existing partnerships by joining the Port Liaison forum. This will see the port forum get strategic intelligence on the sector impact of port delays. Another activity is for a private sector entity to establish a provincial joint industry platform to generate information and lobby authorities regarding infrastructure challenges. Even though Wesgro was noted as a possible private sector body to drive this initiative, traditionally agriculture is not their focus and it was noted that their capacity is constrained. Accordingly, a risk noted with this activity is that the most appropriate private sector entity to drive this initiative still needs to be identified. Ultimately, the intermediate outcomes expected is that relevant authorities understand the issues faced by the industry. (This platform could also coordinate efforts to build Brand SA / Brand Agri Western Cape to counteract negative perceptions.)

The problem tree shows that issues of protectionism, limited product testing facilities and inability to comply make it difficult for producers to compete. Thus, it is necessary to find ways of ensuring the competitiveness of Western Cape products in local and international markets. It was proposed that there be an establishment of residue testing facilities, starting with an animal products testing facility that is currently being established, and then upscale to other agricultural products. The expected output is the reduced cost of testing for local products. In addition, there would be improved testing of imported food which would reduce dumping, specifically of unsafe products into South African markets. Participants noted that often dumped products are produced at a cheaper rate or/and subsidised thus when they enter South African markets, they are sold at a cheaper price than South African products. Consequently, South African producers and their products are disadvantaged. While not reflected in the TOC, participants noted that improved testing of imported food is essential towards ensuring the safety of food entering South Africa.

9.3.4. Assumptions and risks

During the development of the TOC for market access, the following assumptions emerged:

- a) Market access is a high priority for this administration, so it is assumed this could be launched by Premier and enjoy political support.
- b) Good information is of a high quality, targeted (matching content to audience), accessible, and centralized.

At the same time, a number of risks emerged:

- a) The most appropriate private sector entity to drive this initiative still needs to be identified.
- b) Industry has competing stakes, which affect how they are willing to collaborate.
- c) These activities also depend on government coordination, which is identified as a current weakness.
- d) Risk of meeting fatigue.
- e) Risk of a lack of national sphere involvement.

9.3.5. TOC: Private sector under-investment

9.3.5.1. Problem tree

The problem tree shown in Figure 31 shows the root causes and consequences that participants expressed to be relevant to the core problem of private sector underinvestment. Securing investment was understood as both a matter of maintaining existing investors as well as getting new investors.

Starting from the bottom left of the problem tree, participants noted policy issues that affect interest in investing in the industry. South Africa has labour and tax laws that are deemed unfavourable for investors. In general, these and other aspects of the regulatory environment collectively create "red tape". Potential investors must navigate time-consuming and costly legislative and regulatory requirements associated with a new investment. In addition, the country is experiencing some uncertainty about land reform. The challenge the department has with land reform is that they cannot drive it but can only provide the support once a farmer owns the land. Other participants expressed that the issue of land and transformation needs to be seen from an opportunity perspective. For instance, in other parts of the country, the land is in tribal ownership and is not being currently used. Thus, the potential for growth in certain commodities is significant.

Furthermore, participants stated that the word "transformation" needs to be seen in terms of the socio-economic context, therefore the land is but one aspect of it. There are transformation imperatives for business ownership as well. Either way, there are perceived risks and lower profit margins, which make the agriculture sector less attractive.

One major issue around private sector investment is information constraints stemming from a lack of robust engagement between industry and investors. There is also an inadequate flow of information between industry and international representatives. Wesgro was said to have better data than other provinces. However, it is still difficult to get firm-level data. Participants further pointed out that any available industry data is too broad. As a result, investors tend to have poor sector knowledge. It was added that a lack of sector knowledge is also present from the sector viewpoint. For instance, there are not specific economic sectors that are chosen as a point of focus when going into the market. Without ignoring other sub-sectors, there needs to be a focus on areas, where there is a need to drive employment.

Due to the lack of understanding and knowledge of the agricultural sector, participants expressed that there seem to be unrealistic profit expectations from investors. From a sector point of view, there is lack of awareness of investment opportunities. Adding further pressure on these problems is that investors and applicants are unclear on compliance processes and steps, which can cause unanticipated delays or costs that impact on the expected return on investment.

Another identified cause of private-sector under-investment is weak organisational synergy between development finance institutions such as the Land Bank and IDC. . This is characterised by limited data sharing capacity among them, along with a shortage of information being made available to applicants on how to access the funding available from these different institutions As a result, applicants have to navigate a disparate funding environment. Participants pointed out there are big funding gaps therefore there is a need for someone or a vehicle to manage funding.

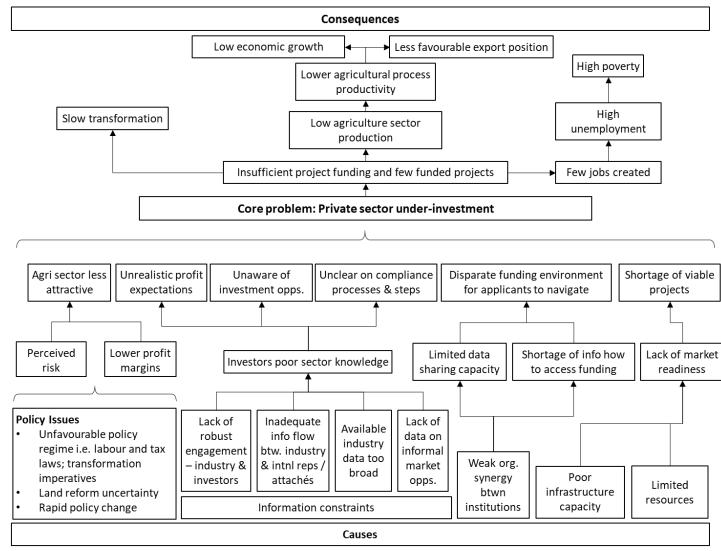


Figure 31 Private sector investment problem tree

Participants identified poor infrastructure capacity, especially severely constrained port capacity (to handle increased volumes of cold-chain cargo) and limited resources as other root causes of private sector under-investment. The main challenge here is that it is largely the responsibility of the public sector to maintain infrastructure. A constraint for farmers is that they need this infrastructure and resources to get them to be market-ready. Without support and capability, there ends up being a shortage of viable projects for investors to invest in. Presenting viable projects is a big part of attaining private sector investment. Furthermore, participants felt that a good project should never fail due to lack of capital. Therefore, there needs to be better linking between existing good projects and investors.

Consequences

In addition to articulating the causes to private sector under-investment, participants mapped out the effects of the core problem. Without investment, there is insufficient project funding and few funded projects. Consequently, there will be slow transformation in the sector and a missed opportunity to create more jobs. Instead, high unemployment will persist, which increases levels of poverty. The relationship between low/reduced investment and low levels of job creation is a key strategic concern, since job creation is the focus of Value Inspired Priority (VIP) 2. Moreover, without investment, the agricultural sector will likely experience low levels of production and low agri-processing productivity. Ultimately, as one of the main contributors to GDP, the country will see low economic growth and will be in a less favourable export position.

9.3.5.2. Theory of change

The diagram in Figure 32 illustrates the TOC developed by stakeholders at the workshop on 14 October, which was then refined and organised by PDG. The diagram depicts actions in which the WCDoA has a primary role to play as well as actions for other stakeholders to initiate intended to attain specific outputs and results. In addition, risks and assumptions underpinning this TOC are reflected in the colour-coded numbers.

The TOC diagram, starting from left to right, shows the causal links of the changes that need to happen for the WCDoA to attain its intended outcomes related to addressing the core problem of private sector under-investment. It must be noted that workshop participants selected only some of the key outcomes to focus their attention on in the limited workshop time. Other problems from the problem tree may also require the WCDoA's attention in the coming strategic period.

In the problem tree, it was noted that due to information constraints and the complexity of the regulatory environment, investors are often unclear on compliance processes and steps. Accordingly, participants proposed that the WCDoA develops an investment compliance checklist for the agricultural sector, especially e.g. for compliance with environmental regulations, access to land and water etc. Extension officers will then share the checklist with the agriculture sector. Accordingly, the sector will have simple, clear information on compliance. The ultimate intended outcome is to make compliance easier to plan for and more efficient to achieve as time and cost of seeking out information will be reduced.

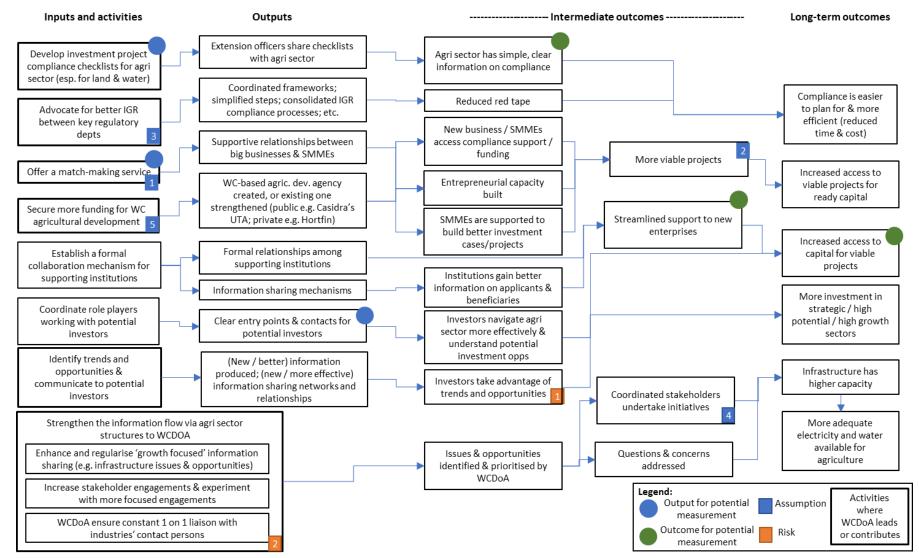


Figure 32 Private sector investment Theory of Change

Participants also identified weak organisational synergy between institutions as a challenge towards compliance. Therefore, assuming that National departments facilitate and drive investments, the WCDoA will need to advocate for better intergovernmental relations (IGR) between key regulatory departments. This strategy will result in improvements like coordinated frameworks; simplified steps and consolidated IGR compliance processes. Accordingly, there will be reduced red tape, which will, in the end, reduce the cost of compliance.

During the development of the problem tree, participants stated that new businesses often lack capacity and resources to be market-ready. As such, participants put forth a strategy for the WCDoA to offer a matching service. This can take a variety of forms, including events such as "speed dating", including information about interested commercial enterprises into a broader service to SMMEs, or making individual introductions. Based on the assumption that big businesses have an incentive to support SMMEs, this strategy would foster supportive relationships between big businesses and SMMEs. As a result, new businesses / SMMEs would access compliance support and funding and they may develop their entrepreneurial capacity through the inputs and example of the commercial partner. As part of this, the intention is to ensure that SMMEs are supported to build better investment cases/projects. With such support, the expectation is that there would be more viable projects thus increasing access to viable projects for ready capital. Participants noted that it is important to understand that what a viable project looks like is different for the department as it takes a developmental approach as compared to financing bodies like the commercial banks.

In the discussion on the problem tree participants expressed the view/goal that no good project should fail due to a lack of capital. Following this discussion, participants called for the WCDoA to secure more funding for WC agricultural development. There is an assumption here that some services exist, but their capacity and reach are constrained by resources. Therefore, considering a need for increased funding, a Western Cape agricultural development agency should be created or existing ones, such as Casidra's Unit for Technical Assistance and HortFin, should be strengthened. The intention is to build entrepreneurial capacity and provide access to compliance support/ funding for SMMEs. Essentially, there would be an increase in the number of viable projects which ready capital would go to. Even with more viable projects, participants identified climate change, 4th Industrial revolution and rural safety and security as risks that can deter investors from financing agricultural projects. In addition, this strategy to boost private sector investment assumes that there is high investor confidence in the sector. Participants expressed interest in seeing more commercial banks and large agribusiness help in development.

To address the issue of information constraints, participants proposed the establishment of a formal collaboration mechanism for supporting institutions such as the Land Bank, IDC and others. This would materialise into formal relationships among supporting institutions as well as information sharing mechanisms. Wesgro, Landbank and IDC were tasked to explore information sharing logistics further. Sharing of information would see institutions gain better information on applicants and beneficiaries. Eventually, there would be streamlined support to new enterprises. The intended outcome is that there would be increased access to capital for viable projects.

During the development of the problem tree, participants identified a lack of robust engagement between industry and investors as one of the causes of private sector underinvestment. Therefore, the department needs to coordinate role players working with potential investors. This would allow for clear entry points and contacts for potential investors. This strategy intends to enable investors to navigate the agriculture sector more effectively and understand potential investment opportunities.

As shown in the problem tree, participants said that available industry data is too broad to allow investors to make informed decisions. Therefore, the WCDoA must identify trends and communicate to potential investors. This would see new or better information produced as well as new and/or more effective information sharing networks and relationships. The intention here is that investors take advantage of trends and opportunities. Consequently, this strategy would result in more investment in strategic, high potential and high growth sectors.

Another challenge, also identified in the problem tree, the TOC seeks to address is poor infrastructure capacity (especially electricity and water) and limited resources. Participants proposed that the WCDoA strengthens the information flow via agriculture sector structures to WCDoA in three ways. Firstly, WCDoA must enhance and regularise 'growth focused' information sharing such as infrastructure issues and opportunities. Secondly, increase stakeholder engagements and experiment with more focused engagements (as opposed to large, broad-purpose engagements that have not always been valuable for all involved, and sometimes lead to meeting fatigue). Finally, WCDoA should ensure constant one on one liaison with industries' contacts persons. These three activities will result in issues and opportunities that are identified to be prioritised by WCDoA. The intention is to then have coordinated stakeholders undertake initiatives and for questions and concerns to be addressed. There is an assumption here that once stakeholders are coordinated around an issue/arowth opportunity, there would be several intermediate steps such as research and packaging initiatives. Overall, the expected outcome is that infrastructure has higher capacity meaning that infrastructure would help to enable adequate electricity and water available for agriculture. This is subject to the effective execution of other natural resource interventions (see the TOC on addressing constrained natural resources for agriculture, which focused among others on the WCDoA's role in coordinating stakeholders to address shared problems and opportunities pertaining to water).

9.3.5.3. Assumptions and risks

The assumptions identified during the development of the TOC for private sector investment are:

- a) Big businesses have incentives to support SMMEs
- b) High investor confidence
- c) National departments facilitating and driving investments
- d) Once stakeholders are coordinated around an issue / growth opportunity, several intermediate steps are assumed here e.g. research and packaging of the initiative
- e) Some services exist, but their capacity and reach are constrained by resources. Either the capacity of a public agency (such as the WCDoA Unit for Technical Assistance (UTA)) can be strengthened, or an industry-driven agency (such as Hortfin, but with a wider mandate) can play this role.

A number of risks were also identified:

- a) Climate change; 4th industrial revolution; and Rural safety and security
- b) Industry association represents different business interests

9.3.6. TOC: Natural resource constraints

9.3.6.1. Problem tree

The problem tree of natural resource constraints was first developed during the Department's strategic session and subsequently expanded by workshop participants on 28 August. The final product is presented in Figure 31. Because of the fact that this problem statement was initially created as a list rather than a flow chart, and because the discussion of it was unstructured, there are not necessarily causal relationships between all of the causes and consequences that were identified. Rather than inferring causal relationships that may misrepresent participants' meaning, the diagram is presented without arrows, but with issues thematically clustered. The TOC that follows afterwards further helps to demonstrate how some of the problems are related.

The core problem was defined as constrained natural resources for agriculture. Specifically, this problem is characterised by water unavailability, scarcity, land degradation, and land unavailability. The discussion as illustrated in the diagram was therefore disaggregated into water, land and climate change with the recognition that the impact of climate change threatens these natural resources.

Climate change

Starting from the bottom on the left, there is recognition that climate change is an important factor to be considered given its implications on natural resources and effectively the agricultural sector in the Western Cape. Extreme weather conditions such as extreme heat and less rain exacerbates the natural resources constraints in the sector, feeding into several of the other land and water challenges above it on the diagram.

Water unavailability

Participants were of the view that there is a lack of proactive planning for the development of new dams. The discussion was linked to fragmented planning which delays development. In addition to this, there has been a reduction of water catchment due to climate change. With less rain and less frequent rain, participants also identified insufficient water storage capacity as a cause contributing to water scarcity. This is exacerbated by aging infrastructure that is currently in place particularly water storage infrastructure contributing to water losses. Water loss and water wastage therefore featured as a key theme, highlighting that there is unsustainable management and use of the existing water resources. Participants further highlighted that there is limited diversification of water sources and untapped potential water sourcing and storage opportunities, which could alleviate the pressure on existing, water sources.

There was acknowledgment that the Water Act No. 36 of 1998 is a strong guiding legislative document however, the administrative support for the Act is poor and deteriorating. This effectively has implications and creates barriers for effectively implementing the Act. Poor quality of water was also identified as a key issue.

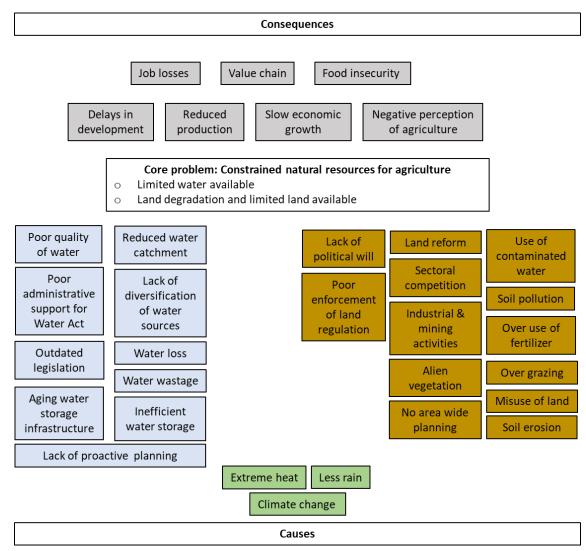


Figure 33 Resource availability problem tree

Land degradation

The discussion around land degradation centred on the interrelationship between water and land challenges, especially within the context of the agricultural sector. Starting on the far right, participants identified a set of causal factors, which can be grouped together as unsustainable farming practices, or use of land. The misuse of land, over grazing, the overuse of fertilizer, soil pollution and the use of contaminated water are all different unsustainable use of land and farming practices, which contribute to degradation of available land. Some of these issues, like overgrazing for instance causes soil erosion which was also identified as an issue. In addition, the infestation and spread of alien vegetation further causes soil damage and erosion.

Participants additionally discussed the political and economic environment, which influences and has effects on land use. Politically, land reform was discussed as a current ongoing political factor. Several participants noted that the connection of water and land means that these two should be collectively considered within the transformative redistribution of land, therefore water rights should be linked to land. However, there is currently a disjuncture between the two. An unclear or uncertain land reform policy environment may also create a sense of tenure insecurity and reduce existing landowners' incentive for long-term resource management planning. Economically, there is recognition that the sector operates in a competitive economy thus while land degradation is an issue, it is equally important to realise that there is also competition within the sector for land that is available. In addition, industrial and mining sectors are also in this competitive economy for land, sometimes encroaching on high potential agricultural land, and the activities from these sectors contribute to land degradation. Furthermore, the lack of area wide planning has resulted in silo management of water and land and contributed to competition for land, whereas through area wide planning there would be potential for harmonising the interests of different industries and land users, to an extent. Conservation is also an important priority and where possible it should be harmonised with agriculture rather than conflicting with it.

Lastly, there is generally poor enforcement and regulation of existing farming practices and land uses, and a lack of political will to address this and the other challenges described above. For example, a participant pointed out that the Conservation of Agricultural Resources Act (CARA) creates provision for people to farm within a certain portion of land, however this is poorly enforced and regulated.

Consequences

Participants identified consequences and the effects of natural resource limitations and constraints. Inadequate planning has caused delays in development, which is linked to and creates a risk of reduction in production. Considering that agriculture is a key component of the province's economy, this will effectively slow down the province's economic growth. The negative implications on the province's economic growth therefore will affect employment leading to job losses and increased unemployment. The loss of viable agricultural land and water unavailability further poses a direct threat to production and food security and the value chain of industries that process agricultural products or supply to the agricultural industry.

The poor management of land and water resources, and therefore degradation of these resources, creates negative perceptions of the agricultural sector from those concerned with the environment. This may further affect the willingness of stakeholders to accommodate agricultural priorities in negotiations around land use and environmental regulations,

perpetuating the root causes of fragmentation of planning, sectoral competition, and lack of political will to support agriculture.

9.3.6.2. Theory of change

During the initial phases of this project, a TOC in the form of a results chain was considered. However, due to the complexity of both land and water being included as well as the fact that not all considerations could be included in a logical way, alternative TOC formats were therefore considered and an outcomes hierarchy format was selected. An outcomes hierarchy offers the opportunity instead to focus on the outcomes that the department seeks to contribute to, in terms of the different roles that the department plays. This TOC helps decision makers to clarify the rationale behind existing areas of work. Recognising that problems and opportunities may shift or more information may become available that requires the Department to respond, this TOC is also flexible enough that it can help the Department assess a proposed new activity or strategy. The TOC in Figure 34 focuses attention on whether a proposed activity or strategy is aligned with the roles that the Department should play, and whether it contributes to the outcomes the Department seeks to influence.

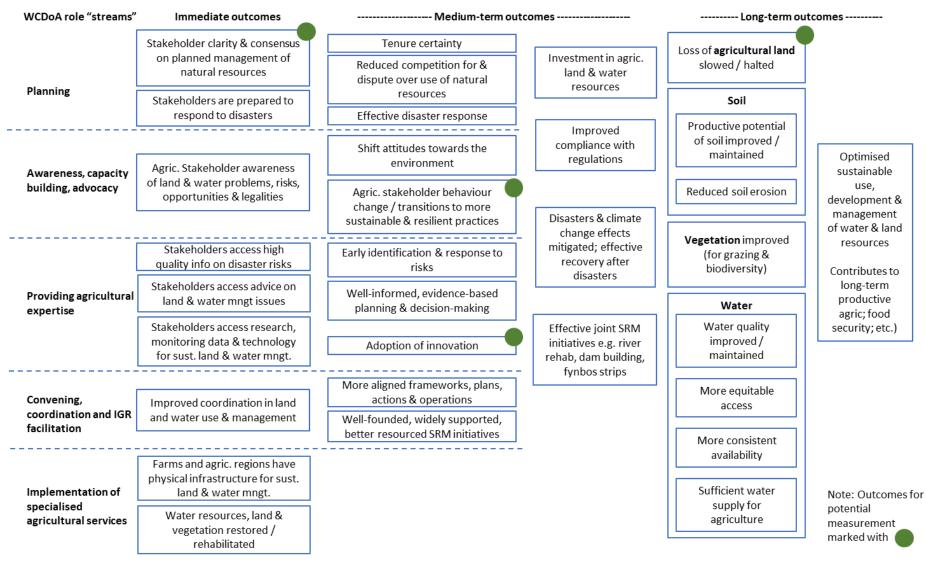
In light of the problem statement outlined in the previous section, the long-term intended outcome for addressing natural resource constraints is optimised sustainable use, development and management of water and land resources. This will in turn contribute to addressing the risks and consequences of the problem tree by seeking to contribute to long-term productive agriculture and food security.

The TOC identifies the WCDoA's role across five different streams (in no particular order) namely:

- a) Planning;
- b) Awareness, capacity building and advocacy;
- c) Providing agricultural expertise; and
- d) Convening, coordination and intergovernmental relations (IGR) facilitation;
- e) Implementation of specialised agricultural services.

A wide variety of WCDoA activities and outputs fall under each of these streams. In practice, these streams are not always so distinct; for instance, in developing plans the department would convene and coordinate a range of stakeholders. However, for clarifying why each departmental role is important, these have been depicted as separate streams.

Within each stream, a shared cluster of common outcomes is sought. The diagram depicts the stream-specific immediate outcomes (which can be expected to follow quite immediately or directly from the products and services of the WCDoA). It also depicts some stream-specific medium-term outcomes, which should follow. Further down the causal chain, through the interaction of stream-specific outcomes, some crosscutting medium-term outcomes are expected to emerge. The long-term intended outcomes are articulated in terms of natural resources: land, soil, vegetation and water. This makes it clear that the improvement and/or maintenance of the condition of these natural resources is the ultimate goal of all the efforts in this TOC. Through this, it is expected that there will be sustained benefits for agriculture.





Starting on the left side of Figure 3, the WCDoA in its planning role can contribute towards stakeholder clarity and consensus on planned management of natural resources as an immediate outcome. This includes, for instance, clarity on planned land use, collective understanding and buy-in to environmental protection initiatives in a given region (through area-wide plans). Municipalities are important stakeholders as they are responsible for spatial planning. The WCDoA has a role in ensuring that municipalities have accurate data on agricultural activities so that they can plan their development with the benefits and needs of agriculture in mind. In terms of land use plans, clear understanding of all stakeholders' plans will create tenure security (where appropriate). Furthermore, the consensus / buy-in on these plans will help reduce competition for and dispute over use of natural resources. With clarity about planned use, landowners will have increased incentive to invest in agricultural land and water resources, because they will have more certainty that the investment will reap long-term benefits for them. The reduced competition and dispute will also free up resources for investment. It is anticipated that improved compliance will also follow as crosscutting medium-term outcome. It will be driven partly from stakeholders clearly understanding what status their land and water resources have and what type of protection is required; and through tenure security, from stakeholders having a long-term stake in cooperating with the authorities and maintaining the quality of natural resources. Another type of planning is disaster risk management planning. Through planning, the WCDoA ensures stakeholders are prepared to respond to disasters - including internal departmental stakeholders as well as other key stakeholders. In this way, WCDoA helps to ensure an effective disaster response if disasters do occur, which helps to ensure effective recovery after disasters. (This causal chain is, of course, dependent on the assumption that funding will be made available in the event of a disaster.)

The WCDoA plays an awareness, capacity building and advocacy role in order to create awareness amongst stakeholders within the agricultural sector on land and water problems and the risks, opportunities and legalities relevant to these natural resources. (This role is closely linked to the provision of agricultural expertise, in that it will often involve sharing information.) It is anticipated that increased awareness will shift agricultural stakeholders' attitudes towards the environment – i.e. a recognition of their role in the responsible use and protection of natural resources. This in itself may increase stakeholders' openness to contributing to the other streams, such as participating in SRM initiatives, making use of specialised agricultural expertise to improve resource management on their land, etc. It is also anticipated that, whether because of embracing their role in the environment, or simply because of better awareness of problems, risks, opportunities and legalities, they will change / make transitions to more sustainable and resilient agricultural practices. In combination with outcomes from the other streams, more resilient agricultural practices will help the agriculture sector to mitigate the effects of potential disasters such as floods and fires, and climate change effects such as hotter, drier summers. Better awareness of legalities may also improve compliance with laws and regulations that seek to promote sustainable resource management. In some cases, improved compliance may also be a by-product of adopting more sustainable and resilient agricultural practices.

The Department also provides agricultural expertise on a range of relevant matters. This includes research, monitoring etc. of possible disaster risks (including pests), which is shared internally and externally so that stakeholders have access to high quality information on disaster risks. This enables early identification and response to such risks, which combined with stakeholder readiness (through planning) helps to mitigate these risks. More broadly, the immediate outcome of providing agricultural expertise on a range of relevant topics is that agricultural stakeholders access advice on land and water management related issues, and

that stakeholders access research, monitoring data and technology for sustainable land and water management. This will aid their understanding of challenges and options. As a result, they are expected to make decisions and plans that are well informed and evidence-based, and to adopt innovations where appropriate, optimising the likelihood that they will be effective in furthering the intended long-term outcomes of improving or maintaining the condition of land and water resources. Furthermore, as part of quality planning and decision-making, it is anticipated that stakeholders will recognise where there are opportunities and incentives for them to collaborate with others and will therefore contribute to effective joint SRM initiatives. (This causal strand also has crucial crosscutting effects for the other WCDoA role "streams".)

Through its convening, coordination and IGR facilitation capacity, the WCDoA can contribute to improved coordination in land and water use and management. Effective coordination will ensure that in general, between relevant stakeholders across sectors and at different levels, there are more aligned frameworks, plans, actions and operations. Furthermore, improved coordination is also expected to lead to undertaking of specific SRM initiatives, which, by virtue of consultation and buy-in of many of the relevant stakeholders, are well founded, widely supported, and better resourced. Benefiting also from the Department's agricultural expertise, such SRM initiatives are more likely to be effective than in the absence of the Department's coordination role.

It is worth noting here that many stakeholders could benefit directly from improved coordination on sustainable resource management initiatives. This includes contractors and workers who implement services such as alien clearing or construction of relevant infrastructure. The short-term economic benefits are not stated as an outcome in themselves because that is not the core purpose of this TOC. It can rather be seen as a crucial by-product, which is highly prized in the context of inequality, poverty and unemployment, and which is prioritised whenever possible in the pursuit of the long-term natural resource outcomes. In addition, the final long-term outcome of agricultural productivity speaks to the intended long-term economic benefits to the agriculture sector, and thereby to rural economies and opportunities.

Lastly, the Department implements specialised agricultural services directly. These services often include infrastructure projects, contributing to farms and agricultural regions that have the physical infrastructure for sustainable land and water management. In addition to promoting the long-term outcomes of improved or maintained condition of natural resources, this infrastructure may also contribute to mitigating disasters such as floods, which could otherwise seriously degrade the resources. Where damage has already occurred, some services are also aimed at ensuring that water resources, land and vegetation is restored / rehabilitated.

The combination of these immediate and medium-term outcomes should produce a set of long-term outcomes. These are crosscutting outcomes to which all of the streams contribute to some extent, but where there is a particularly strong link with some of the earlier outcomes these will be highlighted in this discussion. Starting from the top diagram, the loss of agricultural land should be slowed down or halted – particularly from the outcomes of the planning stream and due to improved compliance with regulations. Soil should maintain or improve its productive potential (in terms of soil health and fertility) and there should be reduced soil erosion, particularly from the more sustainable farming practices, mitigation of risks (especially flooding), and infrastructure for sustainable land and water management. In terms of vegetation, it is anticipated that vegetation will be improved in terms of being

available for grazing (not overgrazed) and that it will support biodiversity in natural veld (not dominated by a few species, especially alien invasive species) which mitigates further against pests, disasters including flooding and fires, etc. Noting the connection and link between land and water, the immediate and medium-term outcomes across the five streams are intended to produce improved or maintained water quality, more equitable access (especially from the planning and coordination streams of work), more consistent availability (particularly through mitigation of droughts and the joint SRM initiatives such as dams) and sufficient water supply for agriculture (particularly through improvements in farming practices and infrastructure. The result will be more efficient use of the available water – "more crop per drop").

9.3.7. TOC: Improving food security

9.3.7.1. Problem tree

During the Department's strategic session, a group of stakeholders worked together on articulating the core problem and creating a problem tree relating to the problem of food (in) security. This was defined in terms of four pillars as articulated by the Food and Agriculture Organisation (FAO): lack of availability, instability in food availability, lack of access, and poor utilisation.

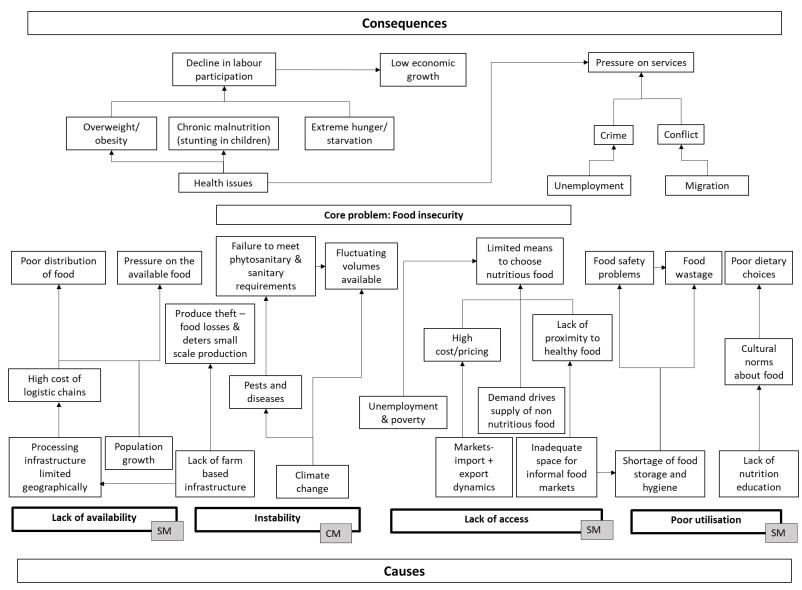
When the second group of stakeholders met at the TOC workshop on 12 November 2019, they undertook an exercise whereby they expanded the first draft problem tree. The articulation of the core problem remained food insecurity and the group unpacked what is meant by this term. There was an agreement among the participants that the issue is not that the province does not produce enough food. The issue is more around access to food as well as improving utilisation of food.

After the TOC workshop, PDG then developed a refined problem tree, presented in Figure 35, to reflect the complete problem tree.

As seen on the problem tree, the workshop retained the FAO's four pillars of food security that were put forward in the first draft problem tree: lack of availability; instability; lack of access; and poor utilisation. Participants expressed that the country produces enough food, however access to nutritious food for all parts of the population, and proper utilisation of food are at the centre of food insecurity in the province. The participants also distinguished which of the depicted causes are a shared mandate (SM) or a core mandate between the department. Most of the issues above were identified as shared mandate between the department and stakeholders while issues around instability were identified as the core mandate for the department.

Lack of availability

Starting from the bottom left of the problem tree, participants articulated the causes stemming from food processing infrastructure being geographically limited which is exacerbated by lack of farm-based infrastructure. This has resulted in the high cost of logistics chains, which leads to poor distribution of food. When food does not make it to people whom need it, especially with population growth, which places pressure on the available food. An export orientation to agriculture, while having a range of economic benefits, also limits the amount of locally produced food that makes it into local markets.





Instability

According to participants, lack of farm-based infrastructure (in terms of security infrastructure such as fences) also creates a vulnerability that cultivates an opportunity for theft of produce leading to food losses and deters smallholder production. The workshop participants cited an example of smallholder farmers near a low-income urban area, who have stopped farming because of constant theft of their produce. Another cause of the core problem is climate change, specifically droughts and extreme weather conditions, which can affect the size of harvests and even cause a decline in agricultural activity. Climate change, both in its gradual effects and acute events, also increases the prevalence and risk of pests and diseases that compromise the quality of produce. Therefore, producers fail to meet phytosanitary and sanitary requirements and their product does not make it to the market. As such, there are fluctuating volumes of food available.

Lack of access

The theme around access to food emphasised that people often cannot afford food even when it is available for sale. Because of unemployment and poverty, people are faced with limited means to choose nutritious food. Participants explained that often non-nutritious food is cheaper than healthier food. Therefore, under the circumstances, those with little money do not make food choices based on quality but rather on quantity. Participants also remarked that the market with import and export dynamics create high cost/pricing thus making it even harder for those that are poor or unemployed to afford healthy food. Because low-income earners cannot afford healthy food, it was said that, the demand drives supply of non-nutritious food to these populations.

The issue of access to food was discussed from a perspective that healthy food should not be only in supermarkets in cities but be closer to communities, especially poorer communities. Thus, the problem is not food security at a provincial level, but household food security. Participants noted that most of these communities are served by informal markets, however, there is inadequate space for informal food markets to sell nutritious food. This means that there is food available for communities to buy through informal markets, however, there is still a lack of proximity to nutritious food. For low-income communities with limited time, money and transport, they then have limited means to choose nutritious food, which is located far in supermarkets. (There was discussion on whether the market is in equilibrium, i.e. are markets offering limited nutritious food to low-income communities because of limited demand for it; or is there latent demand for nutritious food that is going unmet in these communities because of limited supply? More research would be helpful here, as differing perspectives were expressed.)

Poor utilisation

Furthermore, participants said that inadequate space for informal food markets not only offers limited food choices but also means there is a shortage of food storage and hygiene. Most informal markets are located where there is no power supply for freezing food or running water to clean food. This creates food safety problems as food goes off, leading to food wastage.

Participants also attributed poor food utilisation to lack of nutrition education, compounded by cultural norms about food. It was explained that across cultures, certain foods are valued (e.g. meat and starch) and these are sometimes consumed to the exclusion of most other food types. This can be characterised as poor dietary choices.

Consequences

Workshop participants articulated not only the cause of food insecurity but of the effects as well. Lack of access to nutritious food can lead to health issues such as overweight and/or obesity in adults as well as a range of illnesses. In children, chronic malnutrition leads to stunting. These health issues can affect the ability of people to work, thus resulting in a decline in labour participation. With the loss of workers, the province experiences low economic growth. In addition, high levels of health issues among the population places pressure on services such as the health system.

Hunger can lead to desperation and crime. Furthermore, unemployment due to hunger or health issues could also create desperation among people leading them to commit a crime to survive thus placing pressure on services such as policing. Furthermore, migration as people search for opportunities can cause conflict over limited resources and food. This also places pressure on not only policing but on municipal services to provide for the increasing population.

9.3.7.2. Theory of change

The diagram in Figure 36 illustrates the TOC developed by stakeholders at the workshop on 12 November, which was then refined and organised by PDG. It must be noted that workshop participants selected only some of the key outcomes to focus their attention on in the limited workshop time. Other problems from the problem tree may also require the WCDoA's attention in the coming strategic period. In particular, it was stated that an important core mandate of the WCDoA regarding food security is to support productivity and resilience in provincial agriculture, thereby helping to ensure food price stability. This was not unpacked further in the TOC, but helps to motivate for the Department's work in a range of other areas (such as promoting private sector investment, supporting climate change adaptation, promoting sustainable agriculture to safeguard agricultural resources for future production, etc.).

The TOC diagram, which can be read from left to right, shows the strategies and actions, which the participants at the workshop proposed, must happen to address the core problem of food insecurity. The diagram depicts actions in which the WCDoA has a primary role to play as well as actions for other stakeholders to initiate in order to attain specific outputs and results. In addition, risks and assumptions underpinning this TOC are reflected.

In the workshop, it was discussed and then reflected in the problem tree that poor communities often buy their food from informal markets or smallholder vendors. Workshop participants were of the view that there is potential for more smallholder producers to deliver their produce to markets in nearby low-income areas. Many existing smallholdings are located near low-income areas and could therefore keep food processing and transport costs low while contributing to access to nutritious food for these areas. More such producers may also emerge depending on market incentives and market access support. The TOC therefore shows that WCDoA should link small producers to local/informal food markets through three actions. Firstly, provide WCDoA supported farmers with information and access to markets upfront, before they commence production, enabling them to plan. Secondly, create physical space for fresh food vendors, which is the responsibility of municipalities. Thirdly, identify and massify and/or share apps and SMS systems for local access. (Innovative solutions already exist in this space and WCDoA can simply help to increase their uptake.)

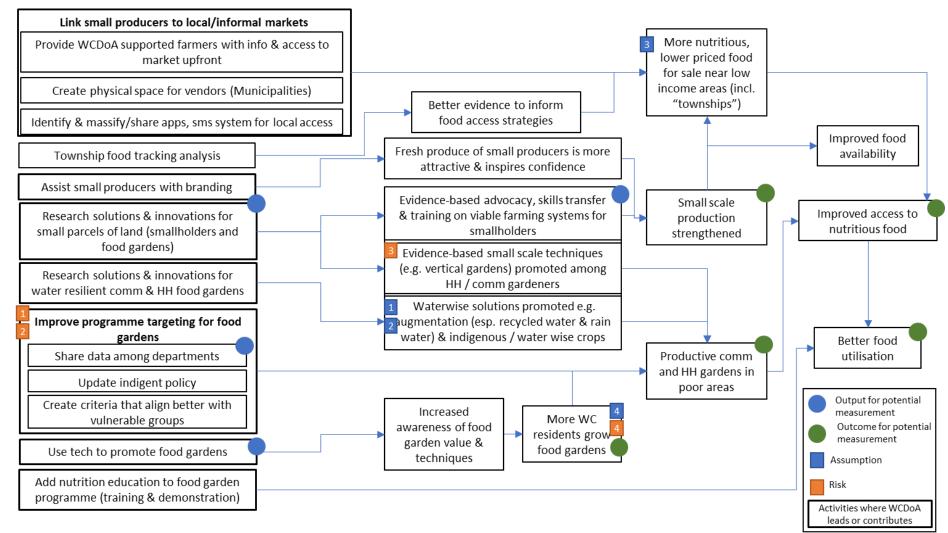


Figure 36 Food security Theory of Change

These three actions should increase the volume of fresh food for sale near low-income areas. Given proximity between source and market, food may also be relatively low priced. Thus there should be more nutritious, lower priced food for sale near low-income areas. This includes, specifically, "townships", which although not having a single established definition, is a population, which was considered particularly underserved in terms of this strategy.

Although the workshop discussed strategies for how to address inadequate access to nutritious food for low-income populations, there was some debate about the exact nature of the problems in this regard. Workshop participants discussed their impressions that poor communities are unable to afford nutritious food at supermarkets, or that supermarkets in poor areas tend not to sell as much nutritious food, or that some poor communities have no supermarkets nearby. Therefore, it is important to gain an understanding of how nutritious food is / can be sold at affordable prices closer to these communities. Participants recognised that WCDoA and stakeholders could benefit from better information on these issues. Thus, participants proposed that WCDoA conduct or get access to results of a township food tracking analysis, focusing among others on the availability and price of nutritious food in "townships" (low-income urban areas). It was noted that the Centre of Excellence in Food Security at the University of Western Cape (UWC) is already doing this kind of research. Such information will enable better evidence to inform food access strategies for WCDoA, other government entities, and other stakeholders, so that food access can be improved. Participants highlighted that the focus on townships is not about improving township economies as this is outside the mandate of the department but rather it is about enhancing access to nutritious food.

It was further pointed out that although smallholder producers are often producing good quality food, they do not always market their food well. Accordingly, participants proposed that the WCDoA assist small producers with branding and packaging / presenting their products. (It should be understood that WCDoA's first priority should be to ensure that smallholder producers produce safe food, but once the fundamentals of food safety are in place, WCDoA can assist them in this way.) The intention is that with the right kind of packaging / presentation (for instance, excess soil removed) and branding (for instance carrying a farm label that consumers can start to recognise over time), fresh produce of smallholder producers will be more attractive and inspire confidence thus encouraging people to buy. As a result, the increased demand for fresh produce will see smallholder production strengthen and, assuming that some small producers are located close to low income areas, and with the support to link them to local / informal markets, this should increase the amount of nutritious food sold at relatively low prices, geographically accessible to low income households.

Participants also noted the issue of land availability for small producers with small pieces of land. However, the department has no mandate for changing or influencing land ownership, thus it was proposed that the WCDoA research solutions and innovations for farming on small parcels of land. It was pointed out that some types of livestock and crops can be viably produced on small parcels of land, while others require economies of scale in order to be financially viable. The intention here is to enable evidence-based advocacy, skills transfer and training on viable farming systems for smallholders. This strategy feeds into strengthening smallholder production. This will result in improved availability of food in the province as a whole. Assuming some smallholder farmers are located near low income areas and sell their food there, this will further contribute to having more nutritious, lower priced food for sale near low income areas (incl. "townships").

Another means of promoting food access is to promote food gardens (own production). The Department already has a programme promoting community and household gardens. These gardens are typically much smaller than smallholdings, and face some unique challenges to be productive. Ideally (from a food security perspective), government should allocate more land for community gardening, but different groups have conflicting priorities for land such as housing and conservation. Thus it was proposed that the research on solutions and innovations for small parcels of land should also contribute to an evidence-base for food gardening techniques in small spaces, such as vertical gardens so that these can be promoted among households and community gardeners and they can optimise their productivity within the constraints of the space available.

In the problem tree, it is noted that a shortage of rain and extreme weather because of climate change places pressure on the amount of food produced and creates fluctuations on the volumes of food available. Additionally, using municipal water to maintain food gardens tends to be expensive. To address this challenge, the WCDoA should research solutions and innovations for water resilient community and household food production systems. Assuming that there is municipal buy-in, the food security programme would be able to promote these research-based solutions. The workshop highlighted that these solutions would include, among others, augmenting municipal water sources, especially through recycled water and rainwater and the cultivation of indigenous / water-wise crops. (The extent to which these solutions can be promoted through provision of the actual inputs or equipment, such as rainwater tanks, depends on departmental resource availability.) Ultimately, these actions would lead to improved productivity on small pieces of land and productivity despite limited water. Therefore, despite these constraints, the Western Cape would have more productive community and household gardens in poor areas.

Considering the role of the food security programme further, participants proposed that the WCDoA improve this programme's targeting) using three methods. Firstly, through sharing data among provincial departments about other programme beneficiaries/participants who may meet the criteria for the WCDoA food security programme. For instance, they suggested that certain provincial Department of Social Development programme participants could, over time, progress/graduate onto the WCDoA food security programme. Secondly, they agreed that the national Department of Cooperative Governance and Traditional Affairs should update the national indigent policy as the participants expressed that the current indigent registers do not assist in optimal targeting for programmes like the food security programme. Local municipalities are responsible for indigent registers, but they manage these registers based on the national policy, and therefore to improve the lists the national policy needs to be amended. Thirdly, create programme-targeting criteria that align better with vulnerable groups with a focus on gender and race gaps. In the end, these above-mentioned methods would help the programme to create more productive community and household gardens in poor areas.

Given the potential value of food gardens for food security, the TOC shows that the WCDoA should use technology to promote food gardens among the general public, whether they are beneficiaries of the food garden programme or not. Without engaging with them and training them directly, WCDoA could nevertheless influence a larger set of Western Cape residents to take up food gardening. For instance, participants suggested 'how-to videos' for food gardens. These materials could be disseminated purely digitally or they could be shared through food gardening awareness and promotion sessions. This would lead to increased awareness of the value of food gardens and techniques for food gardening. By these means, more Western Cape residents will grow food gardens, and assuming this includes residents in

poor areas, this will further contribute to the presence of productive food gardens in poor areas. It should be noted, however, that poorer residents have more limited access to technology, so this strategy would require careful planning to ensure those who need food gardens most, are reached.

All of the above strategies are expected to improve levels of access to nutritious food for the population of the Western Cape. However, the problem tree illustrated that poor dietary choices are driven not just by lack of access to nutritious food but also by lack of education on nutrition and cultural norms about food. Accordingly, participants proposed that the WCDoA should add nutrition education to the food garden programme during training and demonstrations. This could include things like using vegetables while they are still fresh, and how to cook food to retain optimal nutritional content. The expected outcome of this strategy is better food utilisation (i.e. the proper use of food to support health and productivity), predominantly for the food security programme participants who would receive this education directly, and with possible spillover effects for others in their communities.

9.3.7.3. Assumptions and risks

The assumptions under which this TOC was developed are:

- a) There are resources available to support adoption of techniques (e.g. co-funding greywater systems)
- b) There is municipal buy in.
- c) Some smallholder producers are located near low-income areas and will produce what is locally consumed and therefore be able to sell their food in the local market.

The risks for implementation are:

- a) Disparate registers between different entities.
- b) Incorrect targeting of beneficiaries, thus leading to abandonment of initiatives/projects.
- c) Conflicting priorities for land.
- d) Poorer residents (who could benefit most from food gardens) have more limited access to technology.

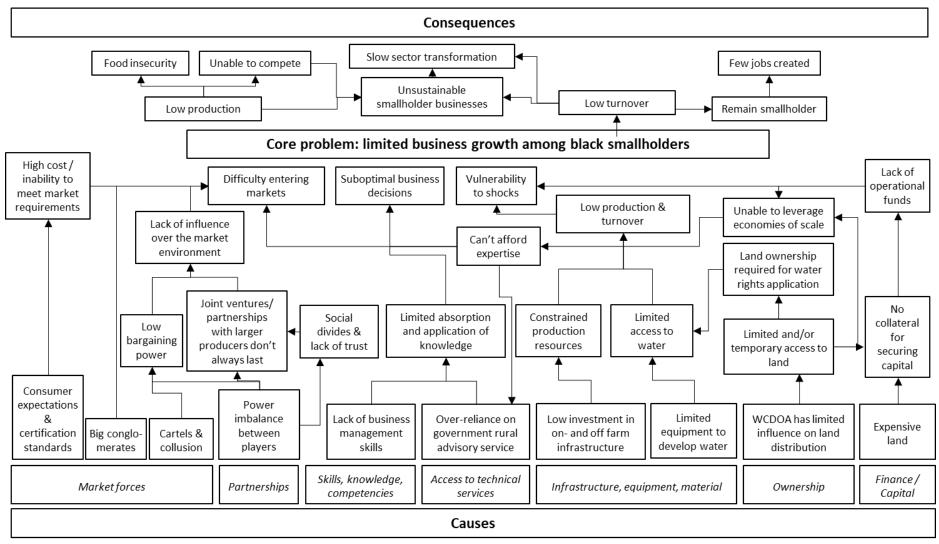
PDG was requested to identify a number of indicators that would measure progress towards the results in the TOC. More information on each is available in the report submitted by PDG and, due to a lack of sufficient space, only indicator names are provided in **Error! Reference s** ource not found.

9.3.8. TOC: Limited business growth amongst black smallholders

9.3.8.1. Problem tree

During the strategic session, a group of stakeholders worked together on articulating the core problem and creating a problem tree relating to the topic transformation. The core problem was described as lack of transformation in the land reform space.

For the TOC workshop, a decision was made to focus on the problems of black smallholder producers. The participants thus created a problem tree depicting the causes and consequences of black smallholders' low success rate and limited business growth. After the TOC workshop, PDG then developed and refined the problem tree, presented in Figure 37, to reflect the contributions from the workshop.





As seen on the problem tree, the causes are organised into seven themes: market forces; partnerships; skills, knowledge and competencies; access to technical services; infrastructure, equipment and material; ownership; and finance/capital. Workshop participants thus discussed issues around smallholder producers along these themes, while noting that these themes often overlap and combine to create problems in the sector. The topic is expressed as smallholder producers instead of smallholder farmers because participants wanted it to encompass both primary and secondary smallholders.

Before discussing the content of the problem tree, it should be acknowledged upfront that agriculture is inherently risky. Farmers that do not face the problems described in the problem tree, nevertheless often fail, or struggle to grow. It should therefore not be assumed that these problems are the only ones standing between black smallholders and success, or that addressing these problems will automatically guarantee all black smallholders' success. However, these are pertinent problems which often aggravate their circumstances and which, if addressed, could make success more likely for them.

Market forces

Starting from the bottom left of the problem tree, participants said that because smallholder producers operate at a smallholder, consumer expectations and certification standards cannot be met through economies of scale. They may also be new to the sector and thus not as familiar with market requirements as more established enterprises, and not having the systems in place to meet these requirements. Smallholders therefore experience market requirements as imposing high costs, affecting their bottom line and sometimes leaving them unable to meet market requirements. Along with high costs, participants also noted that the existence of big conglomerates make it difficult for smallholders to enter the market. These have a competitive advantage in a range of ways, including in their ability to deliver much higher volumes. In addition, they face cartels and collusion, which create a market environment in which smallholders have low bargaining power and lack of influence over the market environment.

Partnerships

Feeding into an already hostile market environment are the power imbalance between players. Large, established, largely white-owned enterprises dominate the market in which most black smallholders are only starting to establish themselves. Social divides and a lack of trust among these role players, which are driven by a host of historic and contemporary forces, exacerbate tensions. According to participants, these factors affect the dynamics in how partnerships are entered into and how they are implemented, and as a result, joint ventures/partnerships with larger producers do not always last. While not reflected in the problem tree diagram, participants also highlighted that there are divisions among smallholders themselves, which make it difficult to work together as well. The workshop agreed that these social issues are multifaceted and significant drivers of the challenges in this space, which the department will have to address further in another session because of the time constraints of the workshop.

Skills, knowledge, competencies and access to technical services

The area of skills, knowledge, competencies and the theme of access to technical services overlap in the way they contribute to the core problem. During the problem tree development, participants pointed out that smallholder producers generally know the production side of farming/production, but do not know how to manage the business aspects of the enterprise. Accordingly, smallholder producers are said to lack business management skills such as understanding tax laws, people management and labour laws, investment expertise and financial management. Simultaneously under the theme of access to technical services, it was said because of the size of their business smallholders often cannot afford expertise that would help them effectively manage their business as a result they have an over-reliance on government rural advisory services. Under these conditions, smallholders tend to have limited absorption and application of knowledge and make suboptimal business decisions.

Infrastructure, equipment and material

Participants pointed out that there is low investment in on-and off farm infrastructure, which leads to constrained production resources. This is partly driven by lack of access to finance because of the land ownership issues described below. The Western Cape has been experiencing droughts and participants said that the fact that 95% of water is allocated to white farmers places smallholder producers at a disadvantage. Smallholder producers tend to have limited equipment to develop water, which leads to limited access to water. In the end, there is low production and turnover, which makes smallholders vulnerable to, shocks.

Ownership

Like water, land is an essential natural resource for smallholders. Most smallholders lease their land because they are not in a financial position to buy it. During the TOC, participants expressed that the WCDoA has limited influence over land distribution, which means that there is limited and/or temporary access to land for smallholder producers. Although temporary access to land can discourage smallholders from investing in it (e.g. infrastructure), participants acknowledged that when it comes to addressing land constraints, a blanket approach must be avoided because not all production activities depend on long term tenure. Furthermore, smallholders are often limited in their ability to access larger pieces of land, and thus unable to leverage the economies of scale that can be derived from working on a larger piece of land.

As mentioned earlier, water is a scarce resource in the Western Cape. Businesses must apply for water rights; however, land ownership is required for water right application which is a problem for smallholders who are leasing from government and private owners. Participants noted that government tend to be slow in completing water rights applications. As a result, smallholders have limited access to water which affect their production volume and turnover.

Finance/Capital

Another issue facing smallholder producers is access to finance and capital to run or grow their business. Land ownership is not only essential for production but for accessing finance. However, land is expensive and often unaffordable for smallholders. Essentially, without land ownership, smallholders have no collateral for securing capital through lending banks. As a result, they lack operational funds, leaving them with low production and turnover (unable to expand) and therefore vulnerable to shocks and enable them to afford expertise.

Consequences

Participants also articulated the consequence of low success rate and limited business growth among black smallholders. Firstly, there would be low production by this part of the sector, leading to food insecurity (especially for low-income areas to which local smallholders could be selling more food – see the TOC on food security) and inability to compete with larger enterprises in the market. This would make these smallholder businesses unsustainable, leading to their failure, and causing slow sector transformation.

For the smallholders that do not fail but experience limited business growth, they would continue to have relatively low turnover, which means a small market share for black farmers/producers in agriculture, contributing to slow sector transformation. With low turnover, smallholders would remain smallholders rather than graduating to commercial producers, thus limiting the amount of jobs created.

9.3.8.2. Theory of change

The diagram in Figure 38 depicts the TOC developed by stakeholders at the workshop on 2 December, which was then refined and organised by PDG. It must be noted that workshop participants selected only some of the key outcomes to focus their attention on in the limited workshop time. Other problems from the problem tree may also require the WCDoA's attention in the coming strategic period. The focus of this TOC is to drive transformation in the sector through supporting and growing black smallholder producers.

The TOC diagram, which can be read from left to right, shows the strategies and actions, which the participants at the workshop proposed, must happen in order to address the low success rate and limited business growth among black smallholder producers. This TOC is underpinned by two crosscutting assumptions. The first assumption is that all activities benefit from the contributions of all relevant WCDoA units, including Sustainable Resource Management, Farmer Support and Development, Veterinary Services, Research and Development Services, Agricultural Economics Services, and Rural Development. (For instance, extension services draw on the information, expertise, products, networks, etc. of all these units in order to support clients in a wide range of ways.) Secondly, WCDoA organises smallholders by commodity and offers tailored support (commodity approach) – strengthening the relevance of the activities listed in the TOC to specific smallholders' needs.

During the problem tree development, participants highlighted that most smallholders face infrastructure shortages. The WCDoA's role in providing grant finance to black smallholder producers is aimed at helping them increase their assets and infrastructure both on-farm and off-farm. The expectation is to see increased productive capacity that leads to increased production.

Although it was noted in the problem tree that partnerships between smallholders and larger producers sometimes fail, this is nevertheless an important and valuable strategy for supporting smallholders. WCDoA coordinates and facilitates partnerships/linkages between these players. It is anticipated that this will enable smallholders to access networks and partnerships, helping them learn to draw on more established players to access resources and markets more efficiently, support them in effective/good decision making and practice better business management.

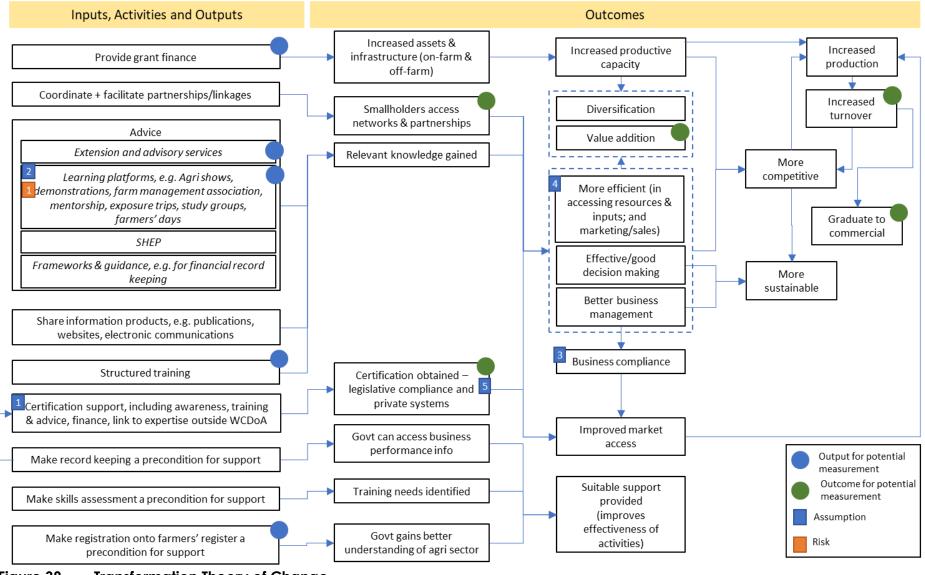


Figure 38 Transformation Theory of Change

It was acknowledged that unlike large, established agricultural producers, smallholders usually could not afford to have extensive expertise in-house. Furthermore, many smallholders are new to the sector, and not all have studied agriculture extensively. WCDoA therefore offers advice through a wide range of activities. Firstly, it offers comprehensive extension and advisory services. Secondly it offers various learning platforms such as agricultural shows, agricultural demonstrations, farm management associations, mentorship, exposure trips, study groups and farmer' days. There is a risk that exposure would not always lead to application; participants stressed the importance of ensuring that learning platforms are participatory, giving smallholders hands-on experience with what they are learning, to help them absorb knowledge and gain confidence to apply what they have learnt. (Many of these platforms have the added benefit of exposing smallholders to networks and partnerships.) Thirdly, WCDoA promotes important agri-business principles through its Smallholder Horticulture Empowerment and Promotion programme. Fourth, WCDoA develops frameworks and guidance to strengthen smallholder enterprises, for instance on financial record keeping. In addition to providing advice through these activities, WCDoA units share information products with smallholders through publications, websites and electronic communications as well as provide structured training. This is intended to give smallholders relevant knowledge. Ultimately through advice, information and partnership, the TOC posits that smallholders would become more efficient (in accessing resources and inputs; and marketing / sale of their produce); be able to make effective/good decisions and get better at business management. In some cases, where smallholders see it as in their best interest and are equipped to do so, this would lead to smallholders diversifying their production and/or introducing value addition. Through better business management, smallholders will be better able to comply with laws and regulations governing agribusinesses (for instance, being able to obtain a tax certificate). This would protect them from punitive measures and allow them to meet the requirements for certain contracts where proof of business compliance is required. Business compliance therefore is likely to lead to improved market access for smallholders.

In the end, it is then expected that smallholders will become more competitive (for instance, able to win larger or more lucrative contracts) and subsequently more sustainable (in the sense that they can overcome internal and external problems, and adjust to changes in the market, rather than going under). As they become more competitive, they can increase production. It is assumed that as a prerequisite for increasing production, these smallholders should (already) have market access. If this is the case, then increased production will lead to increased sales and therefore increased turnover, which will enable them to graduate out of smallholder status to commercial status. (It is important to note that this term was not defined in the workshop, although there is consensus that higher turnover is part of the definition). Workshop participants noted that while some smallholders are happy to remain small, many aspire to become commercial farmers/producers and workshop participants see this as part of what constitutes black smallholder "success" in agriculture. When black smallholders graduate to commercial status, it will usually mean greater income and more possibilities for further business growth for the smallholder, potentially a more productive agriculture sector and more job creation for the province, and progress toward racial transformation of the economy. (Commercialisation can also help ensure business survival / sustainability, because research has shown that smallholder production is inherently challenging in current market conditions, in South Africa and globally.)

As discussed in the workshop and shown in the problem tree, the nature of market forces is characterised by consumer expectations and certification standards which smallholders often struggle to meet. This is caused by both lack of relevant knowledge on certification procedures and inability to afford the prerequisites of compliance. It was noted and shown on the problem tree that without proper certification, smallholders have difficulty entering markets. This is why WCDoA offers certification support to smallholders, including awareness (making smallholders aware of certification benefits and what it entails), training, advice, finance and (where appropriate) links to expertise outside WCDoA. This strategy assumes that WCDoA will prioritise support to achieve regulatory compliance so that they can access local and international markets. Compliance with private certification such as SA GAP, Global GAP, Fair Trade, etc. can then follow where appropriate. The intention is to see smallholders obtain certification for both legislative compliance and (where appropriate) private systems. It is expected that with proper certification there will be improved market access for smallholder producers. Of course, certification is not a guarantee of improved market access; this will only occur if other factors are in place e.g. ability to produce to consumer preferences, engagement with potential buyers, logistics, etc. The other activities can help to promote these factors as well, for instance, smallholders can learn about consumer preferences from their peers in WCDoA-supported networks or they can engage with potential buyers through their partnership with larger producers. If these is improved market access, it is likely to stimulate increased production.

Participants expressed that it is often difficult to tell what kind of support smallholders need and to what extent. Therefore, WCDoA has made a basic standard of record keeping a precondition for support. Not only is this precondition expected to enable certification support, it will give government access to business performance information for monitoring, analysis, and to inform decisions about further support. WCDoA has also made skills assessment a precondition for support to identify training needs. (There is a move away from formal skills audits, which have onerous requirements.) Furthermore, WCDoA is making registration onto the new farmers/producers register a precondition so that government gains a better understanding of agriculture sector to improve planning. In the end, these preconditions are intended to ensure that suitable support is provided thus improving the effectiveness of all activities listed on the left of the diagram.

9.3.8.3. Assumptions and risks

Crosscutting assumptions:

- a) Activities benefit from the contributions of all relevant WCDoA units (Sustainable Resource Management, Farmer Support and Development, Veterinary Services, Research and Development Services, Agricultural Economics Services, Rural Development).
- b) WCDoA organises smallholders by commodity and offers tailored support (commodity approach) strengthening the relevance of the activities listed in the TOC to specific smallholders' needs.

Specific assumptions:

- a) WCDoA will prioritise support to achieve regulatory compliance; compliance with private certification standards can then follow where appropriate.
- b) Farmers participate out of choice rather than coercion
- c) Although the link is not shown, compliance with the recordkeeping and skills assessment preconditions will also enable better business management.
- d) Grant finance can also help increase efficiency
- e) Certification can only result in improved market access if other factors are also in place, e.g. ability to produce for consumer preferences; engagement with potential buyers; logistics etc.)

Risks:

a) Exposure does not necessarily lead to application.

9.3.9. TOC: Challenges in agricultural education and training

9.3.9.1. Problem tree

During the Strategic Planning session, a group of stakeholders worked together on articulating the core problem and creating a problem tree related to education and training. The core problem was stated as ineffective education system. This first draft problem tree assisted the facilitators in preparing for the workshop on 15 October.

At the workshop on 15 October, participants were asked to develop a more detailed problem tree writing down their own understanding of what the causes of the core problem are. The participants then clustered the causes into emerging themes. From this exercise, the core problem was then articulated as a general scarcity of education levels, skills and expertise to the agriculture sector. The root causes and consequences of this problem were clustered into themes and discussed. After the workshop, PDG developed a refined the problem tree, presented in Figure 39, to reflect the exercise from the Theory of Change workshop.

The problem tree shown above illustrates the root causes and consequences that participants identified as relevant to the core problem of the general scarcity of education levels, skills and expertise. This manifests as both a scarcity of skills (quality) and the number of skilled people (quantity). It also manifests at both the lower skilled / worker level as well as the higher-skilled / managerial level. The constraints are more acute given the growth in the sector and the further growth opportunities that need skilled people.

The causes have been clustered together and colour coded for ease of reading and presentation. The theme of no holistic approach to training reflects challenges within the agriculture sector and among education and training institutions. The theme of content not being delivered appropriately reflects the challenges experienced specifically in the basic education sector. The themes in dark blue colours, challenges in the institutional environment and agriculture not being a career of choice, reflect the challenges faced by education and training institutions.

Lack of a holistic approach to training

Starting from the left, the yellow cluster on the problem tree depicts causes related to training. Some of the participants noted that one of the causes of skills shortcomings is that employers often do not know about training offered by the department. They therefore do not enrol their staff for this training. Other participants expressed that agriculture training is not readily accessible. However, in instances that it is available, participants conveyed that the length of in-service training courses is too long. This is problematic for employers who must then close their businesses for long periods and lose potential income in the process while their staff go for training. In addition, participants said that there is an increased need for practical vs theoretical training and that without more focused and job-specific training, graduates tend to not be ready for the workplace. This was discussed particularly in relation to the more academically advanced courses, which are oriented towards higher-skilled occupations.

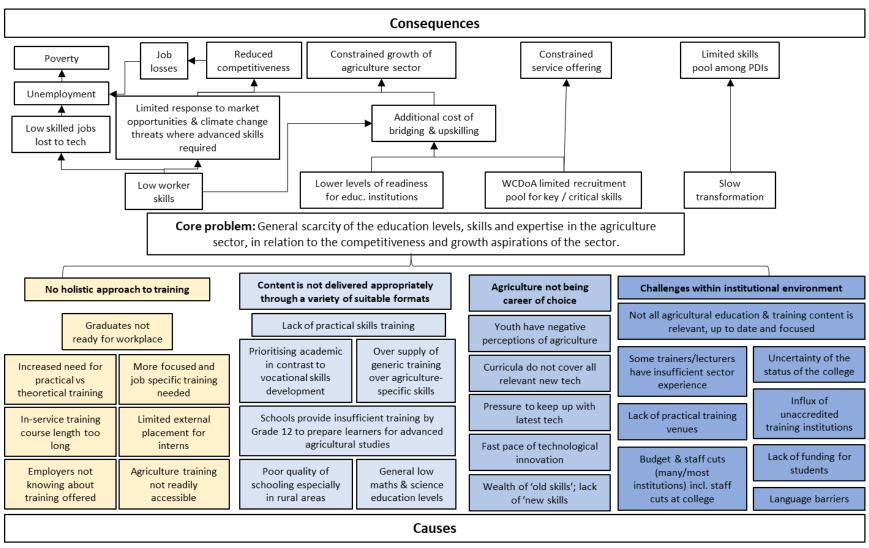


Figure 39 Agricultural skills problem tree

Inappropriate modes of content delivery

Participants raised issues within the basic education sector that are causing skills shortages in the agriculture sector. These causes are clustered together in light blue blocks in the diagram. Poor quality of schooling, especially in rural areas, was cited to be a primary issue characterised in particular by low maths and science education levels. Participants also felt that schools provide insufficient training by Grade 12 with too much prioritisation of academic streams in contrast to vocational skills development. As a result, there is an oversupply of generic training over agri-specific skills. This is a challenge at both the "worker" and "management" levels in agriculture

Agriculture is not a career of choice

Participants expressed concern over the lack of interest the youth have in the sector, whereas they felt youth would be attracted to the sector if they were more aware of the full scope of opportunities available. Given the disinterest of young people in the sector, there is a wealth of 'old skills' and lack of 'new skills' among workers / work seekers in the sector. Participants expressed that there is pressure on the sector to keep up with the latest technology as competitors are embracing technology and climate change is putting pressure on conventional farming approaches. However, the shortage of new skills has meant that the department struggles to keep up with the fast pace of technological innovation, also termed as the 4th Industrial Revolution (4th IR). Participants reasoned that the pressure of the 4th Industrial revolution is exacerbated by the fact that agricultural curricula do not cover all relevant new technology (i.e. curricula are not entirely keeping up with the pace of innovation). During the workshop discussion, it was agreed that a constraint in catching up with the 4th IR is the fact that new technology is expensive and difficult for the department to afford. As a result, the youth has a negative perception of agriculture because they deem it to be only labour intensive, primary production focused and without any room for their technological skills and interests. One participant noted that, for instance, the sector has a robotics department however, the marketing of these departments has been lacking. Consequently, young people tend to see agriculture, not as a career of choice.

Challenges within institutional environment

The dark blue cluster on the right presents the challenges faced by higher education and training institutions offering programmes in agriculture and related fields. Most of the challenges speak to Elsenburg Agricultural Training Institute as it is part of the department, but participants believed that many of the challenges are prevalent across institutions. Participants noted that many education and training institutions are experiencing budget and staff cuts. This includes staff cuts at EATI. This affects the resources available for education and training. In particular, the participants described a lack of practical training venues and that some trainers/lecturers have insufficient sector experience. As such, not all the content that students receive is not relevant, up to date and focused. There is also currently some uncertainty of the status of the college due to about the intention of the Department of Higher Education and Training to take over agricultural training institutions from provincial departments. According to the participants, this uncertainty affects the levels of investment into the college and contributes to budget and staff cuts. A decrease in the commitment towards the college poses a major risk for the Elsenburg Agricultural Training Institute as a vehicle for agricultural skills development.

Participants identified other causes of the core problem that are primarily centred on the students' ability to attain agricultural skills. In the course of the workshop discussion, participants expressed that the department also prioritises drawing students from previously

disadvantaged backgrounds into the sector. However, the issue of lack of funding for students compromises this goal and prevents potential agricultural students from attaining essential and appropriate agricultural skills. Further threatening the development and quality of agricultural skills is the influx of unaccredited training institutions, which potential students might find to be cheaper. Participants also identified language barriers as an issue for students. Learners often struggle with the language of instruction at a higher education institution because of inadequate nature of schools that previously disadvantaged students come from; thus, compromising their performance in post- or- extra-curricular school learning programmes.

Consequences

The causes discussed above have consequences on the sector. Poor education and training leads to low worker skills. While there are many low skilled Agri-workers in the sector, there is a significant need for more supervisory and management skills, inhibiting the growth of the sector. With the emergence of technological innovation, low skilled jobs are likely to be lost to technology thus leading to unemployment and poverty. In addition, the sector is limited in its response to market opportunities and climate change threats, where advanced (technological and market driven) skills are required. As other economies seize market opportunities, for instance using technology to improve the efficiency of production or responding to demand for a new (skill-intensive) crop, the Western Cape agricultural sector is becoming less competitive. In addition, climate change puts pressure on the sector to adapt, without which it may also lose its competitive edge against economies less affected by or better able to adapt to climate change. With reduced competitiveness come the risk of industries declining, leading to job losses and feeding into the major challenges of unemployment and poverty that the country already faces.

The poor basic education outcomes result in youth having lower levels of readiness for (further/higher) education institutions. Consequently, education and training institutions face the additional costs of bridging and upskilling students in order to enable them to succeed – putting pressure on these institutions' resources, which can affect the quantity of students accepted, or the quality of programmes offered to them. In addition, as alluded to above, a surplus of unskilled workers as well as challenges in education and training lead to constrained growth of the agriculture sector.

Furthermore, with low skill levels in the sector, the WCDoA faces a limited recruitment pool for key or critical skills, requiring WCDoA to spend resources upskilling its staff, thus leading to constrained service offering. Also, limited resources and capacity means that the department experiences slow transformation. Furthermore, the low levels of basic education means that many previously disadvantaged individuals cannot access the training and educational opportunities that would upskill them for work in the agriculture sector. As result, the sector has limited skills pool among previously disadvantaged individuals are not the only factors affecting employment transformation dynamics in the sector. Access to job opportunities, the number of jobs available, etc. also shape these outcomes.)

9.3.9.2. Theory of change

The TOC diagram in Figure 40 illustrates the TOC developed by stakeholders at the workshop on 15 October, which was then refined and organised by PDG. The blocks with thick borders in the diagram depict actions in which the WCDoA has a primary role to initiate as part of the efforts to attain specific outputs and results. In addition, the risks and assumptions underpinning this TOC are reflected in colour-coded numbers.

The TOC diagram, starting from to left to right, shows the causal links of the inputs, activities, and outputs that need to be produced for the WCDoA to attain its intended outcomes related to addressing the core problem of low education levels and skills shortages. From there it work towards improved skill levels in the sector in general, while ensuring that previously disadvantaged individuals specifically are successful in the sector. It must be noted that workshop participants selected only some of the key outcomes to focus their attention on in the limited workshop time. For instance, participants acknowledged the importance of addressing issues concerning basic education, however, they decided not to focus on this issue in developing this TOC. Similarly, other problems from the problem tree may also require the WCDoA's attention in the coming strategic period. It should also be noted that there was not enough time in the workshop to clearly distinguish between internal (departmental) and external training needs. Given the interests and expertise of the workshop participants, this TOC tended to focus more on external individuals (learners, students and interns) than on developing the capacity of WCDoA staff. In the future, the department can expand on this TOC to address internal training and skills levels.

The problem tree exercise illuminated that there is a mismatch between the content students learn and is the skills that are needed in the agricultural sector. Based on this, participants proposed a skills summit or reference group for institutions. By helping to ensure that institutions communicate about their respective programme offerings and get input on what is needed to meet current and future sector growth, this summit is anticipated to create better synergy among institutions and their respective offerings, so that together, they produce what the sector needs. It would also ensure that improvements in education and training offerings are informed by evidence. Ultimately, the intended outcome is to ensure content is sufficiently focused and specialised.

The TOC further shows that the WCDoA will undertake a design and implementation evaluation of agricultural education training. Acknowledging the risk that industry staff are stretched and may have limited time to engage, training institutions will engage industry representatives on course design while the WCDoA takes lead in organising periodic meetings of an employer reference group. The expected output is that there will be information on industry needs. In the end, the information generated from all these initiatives is intended to be used as evidence for improvement in education and training offerings.

Participants also articulated the changes that need to happen to ensure content is sufficiently focused and specialised as well as to ensure that content is relevant and up to date which is depicted on the right-hand side of the diagram under outcomes. Assuming there are incentives for stakeholders to collaborate with institutions, it was proposed that stakeholders must build partnerships with agricultural input and technology providers. This strategy would provide students with access to facilities and workplaces to supplement their theory and classroom learning with practical experience. In terms of keeping up with technology, the WCDoA should of course ensure that programmes cover the kind of technology that the WCDoA itself is developing / driving / implementing. Furthermore, assuming that teachers and lecturers stay up to date with technology and know what new types of technology need to be included in their programmes, they can also build partnerships with relevant companies, farms or associations in order for their institutions to gain access to new technology. Thus, where access to facilities can be secured through partnerships, it will feed into attaining diversified learning programmes.

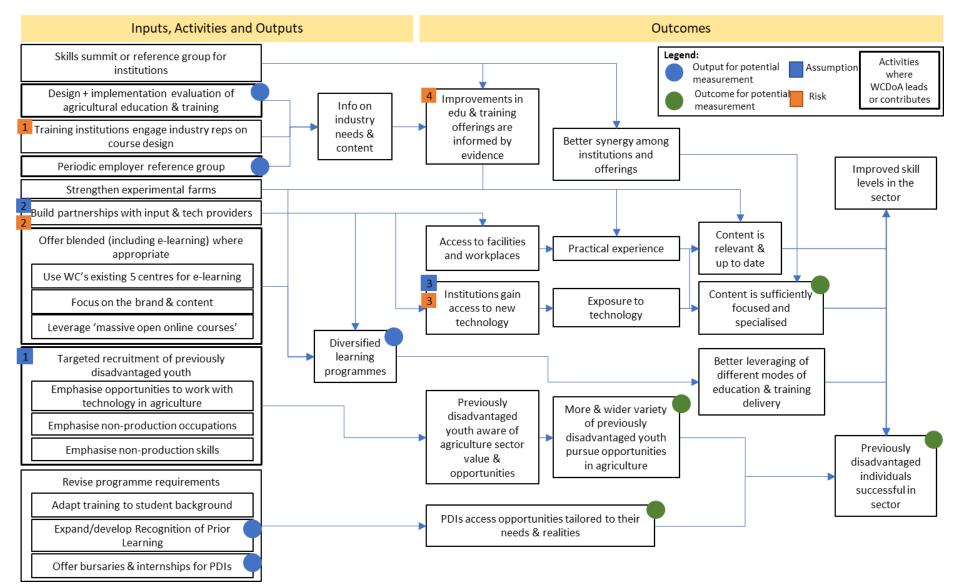


Figure 40 Agricultural Skills Theory of Change

Essentially, through leveraging partnerships, institutions gain access to new technology resulting in exposure to technology for agriculture students. However, the risk is that this strategy is highly dependent on partnerships, which are not fully within the control of WCDoA or the training and education institutions. Partners may choose to withdraw or not meet their commitments. Furthermore, the high turnover rate of staff in education institutions threatens the continuation of partnerships. High turnover also means that skills learned by instructors are often lost to the institutions.

It was stated in the problem tree that there is an increased need for practical and work integrated learning vs theoretical training. Accordingly, participants suggested that there must be efforts to strengthen experimental farms, giving students practical experience. This strategy speaks to students in training institutions as well as those in internship programmes within the department. Accordingly, the outcome to be attained is that content is relevant and up to date.

Participants took into account that in-class learning is not always accessible or sufficient for all learning needs and that there is a need to train more students despite resource constraints. Therefore, it was proposed that the WCDoA, specifically Elsenburg Agricultural Training Institute, should offer blended learning where appropriate. This will be done using Western Cape's existing five centres for e-learning. In addition, WCDoA will focus on brand and content while leaving the e-learning platform design to developers. In addition, the department will leverage Massive Open Online Courses (MOOCs), building them into their curricula where appropriate (especially for teaching more generic skills). The TOC shows that these activities are expected to result in diversified learning programmes. In the end, the department and training institutions will have better leveraging of different modes of education and training delivery. However, participants felt it is unlikely that any quality course in this sector can be based purely on online learning. They pointed out that e-learning must also be accompanied by practical "fit-for-purpose" fieldwork. This sentiment is captured in the proposal for experimental farms and access to facilities and workplaces for practical experience. Improved course content will benefit the sector in general by improving skill levels in the sector; if improved course content is combined with the actions described below to support previously disadvantaged individuals, then more previously disadvantaged individuals are expected to be more successful in agriculture.

During the problem tree development, participants noted that young people, including those from previously disadvantaged backgrounds, tend to not choose careers in agriculture due to perceptions that the sector is only labour intensive with no opportunity to pursue the kind of activities that young people find interesting. The participants thus proposed that the WCDoA must embark on targeted recruitment for the Elsenburg Agricultural Training Institute and the overall sector in three ways. Firstly, during recruitment, the WCDoA should emphasise opportunities to work with technology in agriculture. The application of drones, artificial intelligence, coding and robotics in agriculture were highlighted as some of these tech spaces in the sector; there are many more interesting technologies being introduced into agriculture including several that the Department is driving such as Cape Farm Mapper and Fruitlook. Secondly, WCDoA should emphasise non-production occupations such as marketing and Agri-tourism. Youth should be made aware of the exciting growth happening in Western Cape agriculture, that it is globally competitive and offers opportunities to be involved in export and global trade. Finally, the WCDoA would have to emphasise nonproduction skills. Through this recruitment strategy, the aim is that previously disadvantaged youth become aware of the value of agriculture and the opportunities that it offers them. As a result, the sector would see more and wider variety of previously disadvantaged youth

pursue opportunities in agriculture. In terms of "wider variety", participants discussed the need to draw diverse youth in, for instance, youth with different levels of education (from strong academic candidates to those who did not complete school) youth from rural as well as urban areas (see below); and youth who are interested in production as well as non-production occupations in the sector. The ultimate intended outcome is that previously disadvantaged individuals should be successful in the sector.

Participants noted there are constricting factors that inhibit interested students from pursuing careers in the agriculture sector. During the workshop, discussion it was also emphasised that recruitment for agriculture must be directed at all youth, rural, urban including those unemployed, and no longer in the education system. In other words, a lack of background in agriculture should not be an obstacle for entrance or success in the sector. Accordingly, it was proposed that learning institutions and stakeholders should revise programme requirements. This would be done through adapting training to students' background (for instance, no longer assuming that all students pursuing agriculture qualifications necessarily have prior exposure to farm life and work), expanding and/or developing Recognition of Prior Learning (RPL) (for Agri-workers who learned relevant skills on the job but do not have the formal qualification for their skills) and offering bursaries and internships for previously disadvantaged individuals. The intention here is to ensure that previously disadvantaged individuals access opportunities tailored to their needs and realities. In the end, the intended outcome is that previously disadvantaged individuals will be successful in the sector.

9.3.9.3. Assumptions and risks

A number of assumptions were identified on which this TOC rests. These are:

- a) Sufficient resources within educational institutions
- b) Incentives for stakeholders to partner with institutions
- c) Teachers stay up to date with tech

The key risk for implementation are:

- a) Industry staff are stretched
- b) Strategy is highly dependent on partnerships
- c) High turnover rate in education institutions

9.3.10. TOC: Rural Safety and Security

9.3.10.1. Problem tree

During the strategic session of the WCDoA in 2019, the group noted that the WCDoA has a limited mandate for this topic. Nevertheless, they recognised that it is a concern that affects agriculture. They stated that people should not live in fear; and farmers cannot work if they are in fear. A statistic was mentioned that 32% of farmers have experienced crime in recent years. The cost of crime to the economy is billions of Rands. The problem tree as expanded by the workshop participants on 1 October is presented in Figure 41.

The problem tree reflects the concern for rural safety based on the continued acts of violence against the rural community, prevalence of crime/lawless and the state of declining rural safety in the Western Cape. The problem was described as inadequate rural safety and security. The problem was defined firstly as high levels of crime and secondly, the perception of high levels of crime expressed through farmers, farm workers, officials and the broader rural communities feeling unsafe. It is worth noting that there was an acknowledgement by

stakeholders who attended the workshop that there are serious data constraints which has created barriers in fully understanding the causes and scale of the core problem.

The problem tree further unpacks participants' views on the potential causes of the problem. The causes listed and identified by the participants can largely be clustered into four key themes namely socio-economic conditions, immigration and migration patterns, farmer and farm-worker labour relations and inadequate response to crime.

Socio-economic conditions

Starting on the right, the bottom figure in the second column reflects the concern that there are insufficient social development services, which has resulted in the lack of skills and low levels of education, specifically amongst, rural and farm workers. Because of the poor quality of education, there is a largely low-skilled labour population within the rural labour market, exceeding the market demand for low-skilled labour.

This is compounded by technology, which was identified as a threat. Considering the structural nature of unemployment in the country, meaning that unemployed people do not have the skills required by the economy, technological advances therefore widens this gap by shifting the skill set required within the labour market. A combination of these factors leads to high rural unemployment, which directly leads to poverty for the unemployed and their households.

Participants further recognised that being unemployed has negative effects and can contribute to an array of social ills which are identified and displayed further right on the diagram. Linked to poverty and unemployment is also the plague of alcohol abuse which directly contributes to the social ills within the rural community. The effects of alcohol and substance abuse in households has produced dysfunctional and disintegrated families, which tend to manifest in society through social ills and criminal activities. There is also an absence of fathers in households, leading to a lack of role models for young men, and with many mothers carrying the strain of being single parents.

In addition, participants noted that by virtue of the dispersed geographical composition of farms and farmland there is a lack of social institutions and recreational facilities to foster social cohesion, facilitate healthy expressions of community life, and offer positive recreational activities for youth. As a result, there is no deterrence often leading to youth resorting to criminal activities in rural communities. Furthermore, linked to poverty and unemployment is food insecurity, there was recognition that people that are unemployed and facing poverty are unable to meet their basic needs. Poverty and food security are therefore interlinked.

Immigration and migration patterns

The second key cause contributing to inadequate rural safety and security identified by participants was immigration and in-country migration patterns.

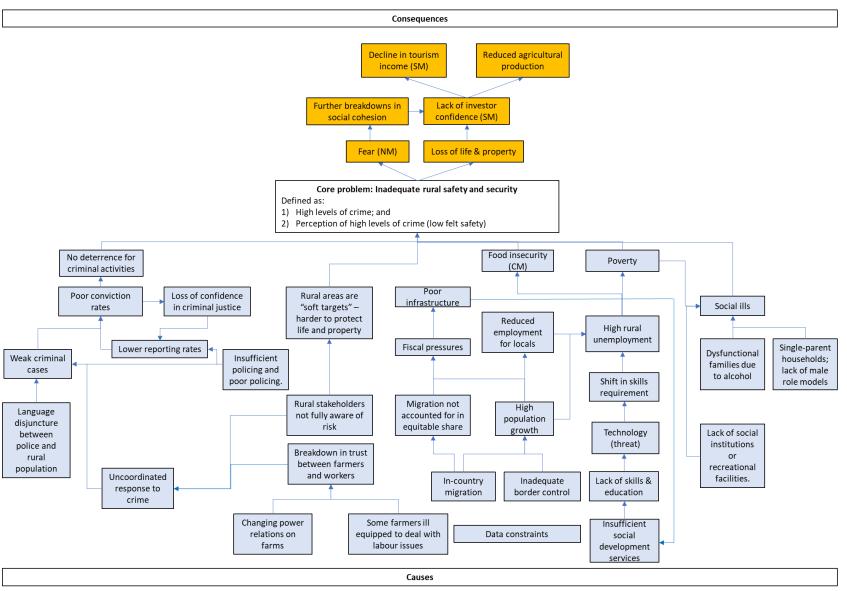


Figure 41 Rural safety and security problem tree

Participants reflected on perceived challenges associated with the influx of foreign nationals immigrating to South Africa because of inadequate border control. This is further compounded by in-country migration patterns, the relative economic strength of the Western Cape means that the province has a variety of pull factors including a perception of available jobs within the agricultural sector and better economic opportunities that influence its attractiveness to migrants. As a result, there is a high population growth concentrated within the province resulting in reduced employment for locals. Stakeholders stated a belief that this is because some farmers employ foreign nationals due to the preference for cheaper unskilled labour contributing to high rural unemployment, which feeds into the poverty causal chain. Stakeholders cautioned against inflating the weight of this particular cause, it was acknowledged that there is insufficient data to draw conclusive statements on the number of immigrants being employed instead of local residents, thereby again highlighting that the understanding of the problem is affected by data constraints.

The fiscal pressure placed on the provincial budget has implications on infrastructure and service delivery in various sectors. One stakeholder provided an example of the implications on education reflecting that the Western Cape previously had the lowest learner/teacher ratio. However, this has increased due to interprovincial migration that has not been accompanied by commensurate state budget increases to reflect the increase in population. The national census is only conducted once every ten years and the Local and Provincial Government Equitable Share formula is based on census data. Therefore, if the population grows faster than estimated, the equitable share does not reflect the reality of inter-provincial migration and population dynamics, creating fiscal pressures for the provincial allocated budget. The poor infrastructure and resourcing feeds back into the insufficient social development services that people receive (such as schools, social work services, community development and healthcare).

Farmer and farm-worker labour relations

Stakeholders further reflected on the changing power relations on farms between farmers and farm workers as the third causal theme. The agricultural sector is noted for its inherent unique workplace structure, farming is the only sector where the farm serves as both the employees and employers' workplace and residential location. Stakeholders acknowledged that this presents a different dynamic from other sectors making it difficult to manage conflict because in cases where there is a work-related conflict, the disgruntled farm worker lives on the farm. Aside from this dynamic, some workplace conflict is inevitable in any industry. Participants were of the view that some farmers are ill equipped to deal with labour issues.

A combination of the changing power dynamics and sometimes-inadequate labour conflict resolution skills results in a breakdown in trust between farmers and agriworkers. This tension manifests in a lack of trust between farmers and their employees. Whereas previously the workshop participants felt that there was often a sense of shared welfare between farmers and farm workers, they now perceive more farmers and farm workers to look out for their own interests. The breakdown has implications on coordination and information sharing between farmers and agriworkers around safety and potential safety risks, thereby leading to an uncoordinated response to crime within farms. Two participants however cautioned against inflating and placing emphasis on this factor as a direct cause to the core problem noting that in some instances, the false perception that farmers do not look after farm workers is widely spread in the media and social media thereby inciting conflict in cases where it was unfounded.

In addition, there was a sense from participants that rural stakeholders are not fully aware of the risk of crime within rural and farming communities. One stakeholder notes that the "penny has not yet dropped" that rural community members are unsafe, community members are not taking the necessary precautions against crime and there is no sense of deliberateness in creating awareness against crime or sharing and coordinating information about criminal activities because it is not seen and acknowledged by stakeholders as a threat hence the uncoordinated responses to crime. Furthermore, because of the dispersed geographical make up of farms and a lack of security infrastructure in place it is harder to protect the property and people residing on the property thereby making rural areas "soft targets" for crime.

Inadequate response to crime

The lack of adequate response to crime and criminal activity was the fourth identified contributing factor to the prevalence of acts of violence and other forms of criminal activity within the rural community. The data constraints alluded to earlier directly contribute to uncoordinated responses to crime. Within the farms, this has had two implications. Firstly, there is an uncoordinated response to crime among the different stakeholders living on farms. Agriworkers are often not included in farm safety plans and not recognised as active stakeholders that have a stake and role to play in farm safety and security. Secondly, across farms there is a lack of communication and information sharing. Participants highlighted that there are insufficient farm watches and in cases where these exist, they are not always being leveraged as effective information sharing platforms. With insufficient information sharing and coordination, rural stakeholders do not collect all the information needed as evidence to build strong criminal cases.

Insufficient policing and poor policing due to inadequate capacity and poor motivation and professionalism of police officers has led to low reporting rates. As a result, this has coupled with weaknesses in the criminal justice system leading to poor conviction rates, which has contributed, to the public's loss of confidence in the criminal justice system. This loss of confidence then feeds into lower reporting rates resulting in a self-enforcing cycle.

Poor conviction rates are further caused by weak criminal cases which are caused by both poor policing and uncoordinated responses to crime. Participants further identified language barriers between the police officials and the rural population as a contributing factor to weak criminal cases. Police officials therefore cannot accurately capture written statements in cases where a crime has occurred thereby hampering the effectiveness of the statement as a piece of evidence. The failure and inadequacies of the criminal system therefore creates no deterrence for criminal activities and contributes to the high levels of crime in rural communities.

Consequences

In addition to identifying the causes of the core problem, participants further identified the consequences and effects of the issue presented above the core problem. Part of this exercise included stakeholders identifying areas where the WCDoA has a shared mandate (SM), core mandate (CM), no mandate (NM) and limited mandate (LM), and some consequences were classified in this way in the problem tree diagram.

Inadequate rural safety and security leads to loss of life and property and creates a state of fear. Perceptions and fear of crime create tension leading to breakdowns in social cohesion. The loss of life and property affects investor confidence in agriculture, which is considered a shared mandate, and lower investment in agriculture leads to reduced agricultural

production. This in addition to breakdowns in social cohesion increases the risk of investing in the province and the agricultural sector as a whole. Reduced investment in the province as well as perceptions of crime risk affect tourism, which is a shared mandate.

9.3.10.2. Theory of change

The diagram in Figure 42 depicts the TOC developed by stakeholders at the 1 October workshop, and subsequently refined and organised by PDG. The diagram depicts some catalysing actions where the WCDoA would lead or contribute, while other actions are not in the control of the workshop participants. These serve as assumptions of actions, which should be undertaken by external stakeholders.

Starting from the top left of the figure is the need for the WCDoA to promote coordination amongst farmers and security companies. This in addition to the promotion of farm watches, is intended to increase patrols and visible policing and security around farms. It is important to note that there are currently farm watches that exist, the discussion was therefore centred around not only promoting the establishment of more farm watches but to move beyond this to the accreditation of these farm watches with the Department of Community Safety (DOCS), as this then grants farm watches access to DOCS support and information sharing. DOCS facilitates farm watch support and information sharing both vertically (via DOCS) and horizontally (across the different farm watches). Stronger farm watches and the increase in visible policing and security would potentially deter crime thereby reducing crime and improving stakeholders' perceptions of safety.

District municipalities are also expected to play a safety coordination role. WCDoA should promote coordination at municipal level, for instance by connecting the relevant contacts in district municipalities for the development of District Rural Safety Plans with agricultural stakeholders, and giving input to district municipalities on the content of these plans from an agricultural sector perspective. In this way, the broader universe of stakeholders in each district municipality are likely communicate and share information more effectively relating to safety and security.

As part of supporting security measures, municipalities need to develop guidelines for minimum specifications for safety technology to facilitate the process of applying to install safety technology, for example security cameras. It is important to note that this has been identified as a catalyst action that is not within the control of the stakeholders that were represented at the TOC workshop. The outputs and outcomes emerging from this result chain following from this therefore rest on the assumption that the relevant stakeholders required in the development of these guidelines will buy-in and commit to this task. Insofar as the assumption holds, farmers will be incentivised to invest in safety technology thereby increasing the chances of improved detection contributing to improved investigation and conviction rates leading to reduced crime rates.

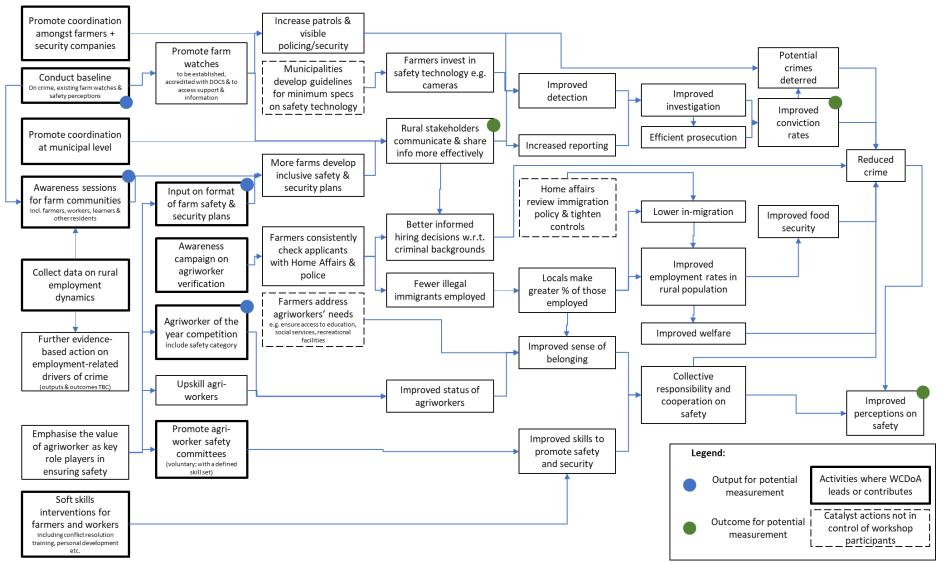


Figure 42 Rural safety and security Theory of Change

Given the data constraints noted earlier, it was suggested that the WCDoA should conduct a baseline on the incidence of crime, functioning of farm watches and safety perceptions. This will provide the WCDoA and other relevant stakeholders with an overview of the extent of the crime within rural communities and what is currently in place. Information and data emerging from the baseline should inform the scale and scope of the work that goes into promoting farm watches. These farm watches can be used as platforms for rural stakeholders to communicate and share information more effectively resulting in increased reporting, contributing to improved investigation and efficient prosecution effectively improving conviction rates and reducing crime.

The information from the baseline will feed into the awareness sessions for farm communities (including the broader rural community such as farmers, workers, learners and other residents). The WCDoA will lead or contribute to the establishment of these awareness sessions; this also serves as a potential output for measurement. Awareness sessions around safety are intended to result in more farms developing inclusive safety and security plans. This in combination with the promotion of farm watches is intended to lead to effective communication and sharing of information amongst rural stakeholders, specifically the need to change the current farm safety plan guidelines to include the representation of farm workers. This should contribute to reduced crime as per the logic of the results described above.

The awareness sessions should also be informed by data collection on rural employment dynamics (another WCDoA led or contributed activity). This data may be collected through inclusion of an additional section in the agri-worker survey and farmer survey. The purpose of this data collection is to gain a clearer understanding (as far as possible from the available data) of how inter-province and international migration affect the supply of labour; social relations among local residents and more recent arrivals from other provinces and countries. Furthermore, employers' perceptions, preferences and recruitment trends and the skills and other attributes that rural residents have versus what is required needs to be understood. This is anticipated also to lead to further evidence-based action on employment related drivers of crime, which are undetermined pending the diagnostic.

Next, is the strategy to emphasise of the value of the agriworker as a key role player in ensuring safety. This strategy is intended to inform, guide and produce four key interventions. Firstly, WCDoA will provide input on the format of farm safety and security plans. There are already guidelines for the development of farm safety and security plans, but these do not yet emphasise the role of farm workers. WCDoA will engage with Agri Western Cape and submit inputs on how these guidelines may be amended or expanded to emphasise the role of farm workers. This is intended to foster a holistic approach to farm safety and security plans, thereby planning inclusive of all the relevant stakeholders and reflecting the representation of farm workers. As a result, more farms will develop inclusive safety and security plans, thereby contributing to effective communication and sharing of information across rural stakeholders.

Participants also noted that agriworkers are sometimes employed without checking their criminal backgrounds or ignoring their status as illegal immigrants. Therefore, they proposed an awareness campaigns on agriworker verification. Awareness on agriworker verification is intended to encourage farmers to consistently check applicants with Home Affairs and police. In addition, through better information sharing among rural stakeholders, farmers will obtain broader background information about potential recruits from the community and previous employers. These mechanisms combined will allow farmers to make better-informed

hiring decisions about criminal backgrounds and fewer illegal immigrants being employed. The fewer illegal immigrants employed creates an opportunity for locals to make a greater percentage of those employed on farms as a result improving employment rates of the rural population and contributing to improving food security. Home Affairs is also identified as playing a key role in reviewing immigration policy and tightening controls to manage incountry migration levels.

Secondly, WCDoA will leverage the existing farm worker of the year competition as a platform to acknowledge and celebrate the value of farm workers as key role players, by including a safety category. This, together with upskilling agri-workers as a response to the recognition that there is a lack of skills and low levels of education among farm and rural workers is anticipated to improve the status of farm and rural workers creating an improved sense of belonging. Part of the psychosocial benefits deriving from this include a collective responsibility and cooperation on safety, which fosters improved perceptions on safety. Lastly, is the promotion of farm worker safety committees. These would be voluntary with a defined skill set. These committees, with skilled farm workers as members, would directly contribute to improved skills to promote safety and security.

In addition, the TOC recognises the need to address farm workers' needs (to ensure that they have access to education, social services and recreational activities) as an additional layer to improving their sense of belonging. This however sits outside of the control of the workshop participants and therefore serves as a key assumption.

From the left bottom of the figure is the provision of soft skills to farmers and workers through various interventions. This partly responds to the problem of farmers being ill equipped to deal with labour issues and conflict with their employees. These interventions may also include personal development opportunities for farmers as well as farm workers, to increase their interpersonal skills and ability to address potential sources of conflict. As shown in the TOC diagram, the WCDoA will either lead or contribute to ensuring that such an intervention is provided and implemented. This will then result in improved skills to promote safety and security within rural communities. Improved skills to promoting safety and security will create a sense of collective responsibility and cooperation on safety. This in combination with improved welfare results in reduced crime within rural communities, which will result in improved perceptions on safety.

9.3.11. Project Khulisa: Agri-processing evaluation.

Over the past five years, the WCDoA has completed 22 external evaluations. These evaluations have covered all programmes in the Department and it was closely linked to the model of logic employed during the previous planning period. For the purpose of the current planning period, the results from some will be used to provide the framework for interventions. However, as the Strategic Plan of the Department is a living document, the results from current evaluations will be used to shape the actions supporting certain sub-outcomes. In other instances, planned evaluations will only provide results in the next year or so.

Sub-outcome 1.2 will enhance the agri-processing value add of the Province (see **Error! R** eference source not found.). In the previous strategic period, the purpose of the Project Khulisa ("khulisa" means "first growth" in Xhosa) was to grow the economy. One of the three key growth sectors of this project was agri-processing and the three strategic intents of Project Khulisa: agri-processing was to:

a) Increase the Western Cape share of the global Halal market from <1% to 2% by 2025.

- b) Double the value of SA wine exports to China and Angola by 2025.
- c) Increase the value added in the Western Cape agri-processing sector by R7 billion by 2020.

For each of these strategic intents clear action plans were developed with deadlines, responsible organisations and resource requirements.

During the 4th quarter of 2014 (when Project Khulisa: Agri-processing was initiated), there were 132 147 primary agriculture, 108 921 agri-processing and 92 184 agri-processing support workers (e.g. security guards, cleaners, cooks, lawyers, etc.) in the Province; a total of 320 736 jobs after correcting for double counting (Calculated from StatsSA, 2015). By the 4th quarter of 2016 there were 253 293 jobs in the primary Agricultural Sector of the Western Cape (27,1% of South Africa's agri-workers) and a further 135 942 agri-processing workers in the Province. If the 95 398 support workers were added and double counting is corrected, we find that about 448 233 people of the Western Cape Province were working in the agri-processing and related sectors of the provincial economy (Calculated from StatsSA, 2017), Indeed, this is 18,6% of the 2,41 million people employed in the Province. Even more important, it means that 127 497 jobs were added to the Western Cape economy over the period 2014 to 2016; an increase of 40%. This was substantially more than the 100 000 jobs targeted by Project Khulisa: Agri-processing.

Project Khulisa: Agri-processing has also contributed to the achievement of another important growth target. Following the Wine Promotion activities in Angola, the sale of South African wine in targeted stores are now double the value of wine from other regions of the world (whereas it was equal at the start of the campaign). At the same time the volume of South African wine exported to China increased by 9,5 million litres from 8,7 million litres in 2014 to 18,2 million litres in 2017 (SAWIS, 2018). This is a growth of 109% in exports of South African wine over the period of the Project Khulisa: Agri-processing intervention.

It follows that Project Khulisa: Agri-processing achieved two of its main targets:

- a) Create 100 000 jobs in the agriculture and agri-processing sector of the Western Cape economy: 127 497 jobs were created by the 4th Quarter of 2016.
- b) Double exports of wine to China and Angola: Exports of wine to China has increased by 109% over the period 2014 to 2017.

Although it could be argued that this project reached its objectives, its strategic nature required it to be submitted to an external evaluation. The purpose of this evaluation was to evaluate the implementation, design, strategy and the institutional arrangements of Project Khulisa Agri-processing in order to determine whether the plans were resulting in their intended outcomes. The evaluation called for a deep analysis of the implementation process to establish causality, relevance, efficiency, effectiveness, value for money and sustainability of Project Khulisa Agri-processing.). The main findings from this report (WCDoA, 2018) were:

- a) Khulisa agri-processing was developed as a response to clearly defined challenges of inadequate economic growth and rapidly increasing levels of unemployment in the Western Cape Province.
- b) It was found that the sector was demonstrated to hold considerable potential for economic growth and job creation.
- c) The selection of the three strategic intents was based on a novel cross-sectoral stakeholder engagement and consultative process and a clearly documented deepdive analysis.
- d) For the wine and brandy strategic intent, Khulisa has contributed to extensive promotional activities for wine in China and Angola. While the exact contribution of

Khulisa to observed export volume increases is difficult to directly quantify, export volumes have increased significantly in China and the Khulisa project has meaningfully supported the promotional activities.

In the evaluation, a number of important recommendations were made. These recommendations included:

- a) The Western Cape Government should continue to utilise the Khulisa approach towards strategy development (a combination between research and consultation).
- b) In the case of the wine and brandy strategic intent:
 - a. Export promotion support should continue to be offered to the Wine Industry.
 - b. The merits of supporting various promotion agencies should be carefully reviewed and consideration given to the potential inefficiencies and conflict embedded in using more than one agency.
 - c. The brandy strategy entails a very limited component of the strategic intent. Efforts to support the process of establishing a Geographical Indication should be limited to addressing clear constraints expressed and that are within the mandate of Department.
- c) There are a number of transversal initiatives (e.g. skills development) which are lacking clarity.
- d) As support to the Wine Industry covers more than one department, it is imperative that there is sufficient inter departmental alignment regarding roles and responsibilities to ensure that the sector is supported seamlessly and duplication is avoided.

It happens too often that a report ends up somewhere on a dusty shelf. For this reason the WCDoA beliefs that for any evaluation report a Management Improvement Plan (MIP) should be developed and that the implementation of agreed upon activities should be audited after a few years. In the case of Khulisa: agri-processing three improvement objectives have been identified and for each a number of outputs were agreed upon. These are:

Improvement objective 1: Strengthen the broader agri-processing Sector (Cross cutting support to the agri-processing Sector in the Province).

- a) Simplified access to information regarding the regulatory environment of agriprocessing.
- b) More effective data collection around agri-processing. (Halal and Wine)
- c) Effective research, analysis, planning and M&E of opportunities and constraints
- d) Key infrastructure opportunities, constraints identified, and advocacy undertaken to promote exports
- e) Export processes and requirements for trade (Vet export system).
- f) Business development services provided to prospective agri-processing entrepreneurs.
- g) Agri-processing related skills developed in support agencies and entrepreneurs.
- h) Opportunities for agri-processing entrepreneurs promoted locally and externally. Advocacy with relevant governance institutions
- i) Technical advice and support on specific sectors provided
- j) Access to funding supported.
- k) Certification and surveillance of food products functioning effectively in the Western Cape.
- I) Appropriate institutional arrangements /governance structure created with the right stakeholders at Provincial level to coordinate agri-processing.

Improvement objective 2: Grow the Western Cape Halal Industry and capture a larger share of the global Halal market.

- a) Effective Halal platforms supported (e.g. Halal certification body).
- b) Opportunities for Halal entrepreneurs promoted locally and externally.
- c) Skills for undertaking particular Halal practices and cultural sensitivity developed. Slaughtering and production value chain.
- d) Legislation reviewed in line with religious claims.

Improvement objective 3: Strengthen support of exports of wine to China and Africa

- a) Opportunities for wine entrepreneurs promoted locally and externally
- b) Consensus amongst wine exporters on key issues on which government needs decisions.
- c) Effective research analysis and planning of M&E of wine export opportunities and constraints

For each of these outputs specific activities, deliverables, responsible persons, deadlines and budget allocations were identified and agreed upon. The full report is available on request (WCDoA, 2019)

9.3.12. Rural development evaluations

Since the WCDoA has embarked on a structured and rolling evaluation plan, two external evaluations were completed with a specific focus on rural development. The first was completed in 2014 and was an implementation evaluation of the Comprehensive rural Development Programme (CRDP) in Dysselsdorp, Oudtshoorn (WCDoA, 2014). The second was an implementation, impact and design evaluation of the CRDP programme and was completed in 2016 (WCDoA, 2016). It is evident that the outcomes from these evaluations would provide the logic underpinning the actions during the achievement of sub-outcome 4.1: Increased access to agricultural and related economic opportunities in rural communities.

The CRPD was launched in 2009 by the National Government with the objective to develop rural areas throughout South Africa. The evaluation reports, focussing on the experience in the Western Cape Province, revealed many positive emerging outcomes: improved community organisational life, a sense of a community voice, infrastructural changes (roadside paving, household water tanks, oxidation ponds and small reservoirs), economic opportunities (new emerging farmers, community initiated small-scale projects) social upliftment (free scholar transport, career guidance initiatives, access to the internet, drug addiction counselling etc.). It was also found that Rural Development (RD) nodes have many projects still in process that require stewardship by the Councils of Stakeholders (COS). It was recommended that these successes should be recognised as collaborative projects complementing existing municipal services. The research found that the model has a number of strengths and coordination challenges. These relate to the complexity in effectively engaging multiple partners in a multiplicity rural development projects and include the extent to which individual departments prioritise rural development and dedicate time, money and resources to its implementation.

The evaluation suggested that national, provincial and local government should first develop a set of feasible projects for which funding is pre-approved (much like a set menu based on a notional overall budget) for the ward for a specified period. Then, the next stage of a revised model of rural development should be based on a community choice approach (CCA), whereby communities select a few projects from a predetermined list of preapproved projects rather than draw up a wish list. Project categories should include social upliftment, infrastructure and economic development. The uniqueness of the bottom-up input will still be reflected in the combination of projects communities select to bring to the Interdepartmental Steering Committee (ISC). Any special requests have to be negotiated. The CCA requires structured community participation and workshopping of options so that the COS and community are fully aware of the benefits attached to each choice that will be made for a four or five year planning cycle. The ISC and the COS should play a key role in facilitating the CCA process.

The government supported COS should ensure that communities remain informed about new projects, government gets feedback and that these projects are delivered in an equitable way to serve the broader community. The main purpose of ISC should be to coordinate a few strategic projects selected through the CCA process (and listed on the Integrated Development Programme of municipalities). The ISC should include parties and work groups necessary to execute a discrete set of CCA priority projects. Time frames need to be put in place and lead departments held to account. The municipal presence in ISC should be boosted since they are fundamental players in the process of rural development. It is recommended that together with WCDoA, a senior municipal official co-chairs the ISC meeting and provides logistical and infrastructural support to COS.

Based on the 24 recommendations in the design evaluation and the 35 recommendations of the Dysselsdorp CRDP evaluations, a list of nine different improvement objectives was identified. These are:

- a) Improvement Objective 1: Creation of an enhanced funding model for selected projects through transparent and inclusive processes.
- b) Improvement Objective 2: Enhance performance through use of APPs as tools for performance measurement and accountability.
- c) Improvement Objective 3: To promote integration across all the spheres of government and civil society.
- d) Improvement Objective 4: Promote effective human resource development through transparent recruitment and selection process, and to enhance effective and efficient rural development.
- e) Improvement Objective 5: Capacity building of CoS and creation of a favourable environment for them to lead and, hence promoting ownership of projects by communities.
- f) Improvement Objective 6: To promote information sharing, inclusivity, open channel communication and recognition of the CoS.
- g) Improvement Objective 7: Promotion of effective, smoother and more accountable rural development structure.
- h) Improvement Objective 8: Improve the institutionalisation and coordination amongst government departments regarding social and economic development.
- i) Improvement Objective 9: Improve the role and function of the COS

For each of these outputs specific activities, deliverables, responsible persons, deadlines and budget allocations were identified and agreed upon. The full report is available on request (WCDoA, 2018b)

9.3.13. Current evaluations

The WCDoA is currently busy with a diagnostic, implementation and design evaluation of the Western Cape Agricultural Sector Climate Change Framework and Implementation Plan

(popularly known as the SmartAgri Plan). This plan was collectively developed between the WCDoA and the Western Cape Department of Environmental Affairs and Development Planning (DEA&DP). The main objective was to develop a plan, which could serve as a roadmap to ensure a low carbon, climate resilient agricultural sector in the Western Cape. It was further envisaged that the Framework and Implementation Plan would guide and support the creation of greater resilience to climate change for farmers and agri-businesses across the province. The following were the key objectives of the SmartAgri Plan:

- a) Build on the Western Cape Climate Change Response Strategy (2014);
- b) Highlight the climate projections that will impact on the agricultural sector in the Western Cape;
- c) Identify the effect of climate change on agriculture in the Western Cape as one of the major determinants of the sustainability of the natural resource base, the agricultural sector and the competitiveness of its farmers;
- d) Compile a roadmap and implementation plan for the agricultural sector to become climate change resilient (WCDoA, 2019b).

The outcome of the external evaluation of the SmartAgri Plan will provide the logic underpinning sub-outcome 1.5: Enhanced Climate Change resilience of the Sector.

A second evaluation the WCDoA is busy with is an external evaluation of the impact of abattoir inspections on Meat Safety and prospects of increasing regulatory compliance of meat safety in the Western Cape Province. The importance of safe food products from animal origin, and how dangerous zoonotic diseases can be for human health as well as economic prosperity, has recently been demonstrated by the listeriosis crisis in South Africa a couple of years ago. The current outbreak of the corona virus, purportedly transferred from animals bought for consumption at a Chinese market, indicates how vulnerable society really is. This evaluation must answer the following questions:

- is. This evaluation must answer the following questions:
- a) How effective have compliance monitoring inspections been in improving the level of meat safety and Hygiene Assessment System (HAS) ratings of individual abattoirs?
- b) What is the type and extent of the direct and indirect quantifiable health benefits, which individuals and society reaps from the meat safety inspection service?
- c) What quantifiable socio-economic benefits resulted from this service?
- d) What changes, within the power of the Province, could be made to the current system (including independent meat inspection and ante-mortem inspections) to ensure safer meat in a more cost-efficient way?
- e) What attitudes are there regarding regulation of animal slaughter and meat processing in these environments? (WCDoA, 2019b)

The outcome of the Meat Safety evaluation will provide the framework for actions, which will lead to sub-outcome 2.3: Animal products are safe for human consumption.

9.3.14. Planned evaluations

The WCDoA has completed its Departmental Evaluation Plan for 2020/21 (WCDoA, 2020) and a range of evaluations has been absorbed in it. One of these evaluations is a diagnostic and design evaluation of the impact of government service delivery to agri-workers in the Western Cape. Although the WCDoA is, due to the focus of its activities, often the first call of engagement with agri-workers, the services required by our clients cover a whole range of organs of state. The experience over the past few years has shown that matters often had to be referred to:

- a) Department of Rural Development and Land Reform (DRDLR);
- b) Department of Labour (DoL);
- c) Department of Social Development (DSD) Inclusive of SASSA;

- d) Department of Health (DoH);
- e) Different district and local Municipalities (Local Government);
- f) Department of Human Settlements (DHS);
- g) Department of Education (WCED);
- h) Department of Culture and Sport (DCAS);
- i) Department of Transport and Public Works (DTPW);
- j) Department of Economic Development and Tourism(DEDAT);
- k) Department of Home Affairs; Department of Community Safety

The purpose of this evaluation is to analyse the policy environment in the Western Cape relating to the plight of agri-worker households in terms of their well-being, access to services; e.g. housing, tenure, labour related matters, health, education, social services, career development and economic opportunities. This relates to various responses as mandated by the Constitution of South Africa, which are transversal and do not only within the responsibility of the WCDoA. The aim is to:

- a) Ensure, maintain and or improve service delivery to agri-worker households in the Western Cape;
- b) Improve government responsiveness to challenges/ needs of agri-worker households;
- c) Provide a roadmap/ implementation plan for all relevant stakeholders to provide services to agri-worker households; and
- d) Establish a Framework for collaboration of partners within government and other agencies to provide the required services to agri-workers.

The recommendations of this evaluation will provide guidance to the interventions that will ensure the achievement of sub-outcome 4.2: An enabling environment for job creation in the agricultural sector is created.

9.3.15. Mandate regarding women, children and people with disabilities.

The department will continue in terms of the DPSA prescripts, to strive for the achievement of at least 50% women in senior management, the employment of 2% people with disabilities, 30% youth, and interns that make up 5% equivalent of the staff establishment.

The transformation efforts will ensure a pipeline of skills through various human capital development programmes such as bursaries, internships, the Young Professional Person's and Agricultural Professional Fellow's Programmes, Agricultural Partnership for Youth Development, and the Austrian Student Exchange.

Selection criteria for all programmes will adhere to the inclusion of all designated groups and the departmental human capital committee will perform the oversight role to ensure compliance.

The NDP emphasises that South Africa's youthful population presents an opportunity to boost economic growth, increase employment and reduce poverty. The programme Farmer Support and Development had already adjusted its selection criteria for support to the extent that women, youth and people with disabilities are prioritised when projects are approved for support.

The graduate placement programme is a deliberate effort to reduce high levels of youth unemployment and the focus during this planning period would be to ensure 50% of women are recruited for skills development.

As part of its annual human capital plan, the programme RTD includes people with disabilities in its preferred employee groups. However, due to the nature of many of the positions in the programme, involving physical work and the need for mobility for on-farm actions, a limited number of positions can be earmarked for people with disabilities.

The Department of Agriculture Land Reform and Rural Development (DALRRD) has put together Norms and Standards for the inclusion of Vulnerable Groups. The Western Cape being an open society for all has inclusion of all in its approach of delivering services to the people. In addition, agri-processing as a sub-outcome is vital to address transformation in the agricultural sector as it employs a majority of women. The sector also appeals to youth and has diverse needs that offer opportunities for youth careers and employment.

The programme SAET is hoping to build partnerships with Mathematics and Science service providers to address the readiness of students to engage at post-matric level with those topics. Our targets for inclusion of women, youth and people living with disabilities have all been increased to ensure that training opportunities are inclusive of the diversity and gender dynamics of our society.

The Rural Development Programme has set a target of at least 50% participation in training and development initiatives by women and youth.

9.3.16. Provincial priorities

The various departmental human capital development programmes offered, translate directly to the empowering of people especially of the youth, women and people with disabilities. Skills development remains an important vehicle to promote transformation and inclusivity, and the availability of needed skills in the sector especially considering the average age of current producers. It further supports the translation of the ministerial key priorities of structured education and training, into action.

Optimising resource efficiency through innovation and improving on existing energy infrastructure, and implemented measures to reduce usage, while researching innovative energy storage opportunities.

Over the last 10 years there has been at least one agricultural disaster per year. In the last 5 years, however, the disaster incidents have increased to at least 3 per year. The disaster incidents are consistent with climate change predictions that states that there will be an increase of extreme climatic events, e.g. floods, droughts, fires, hail. The number, frequency and intensity of disasters require expertise and interventions to build resilience in the agricultural sector to address the impact of these disasters. The recent increase in natural disasters experienced in the province resulted in the establishment of the Disaster Risk Management (DRM) sub-programme. The intensity and the frequency of natural disasters place significant pressure on the limited staff complement of the unit. In the previous financial year additional capacity in the form of graduate interns have been employed

The frequency and intensity of the natural disasters impact on the programme: SRM in that officials from other line functions are requested to assist the unit to support the implementation of disaster relief initiatives, which has a negative impact on their capacity to deliver in their own functions. The redirection of capacity has an impact on much needed proactive initiatives being neglected. Moreover, there is a mismatch with the skills required

in DRM and the skills of officials who are requested to assist the unit. The programme is currently doing a design and implementation evaluation to ensure that the priorities, focus and skills sets are aligned to effective and efficient service delivery.

To stabilise the water courses and prevent further losses of agricultural land, river protection works are key priorities to manage our water resources. A major challenge is that floods have significantly impacted water courses and has washed away highly productive agricultural land. River stabilisation designs form part of a relatively new field of engineering, namely Green Engineering, which is a highly specialised field. Currently the department is augmenting its limited capacity by appointing engineers assigned to the Universities of Stellenbosch and Pretoria to assist with these designs. The priority to recruit registered technical staff in accordance with the OSD requirements persist. To address the shortage of skills, candidate technical staff are being appointed to support them in obtaining their professional registration. Despite these efforts, there still remains a gap in the workplace for professionally experienced, qualified and registered technical staff. Furthermore, the operational and legislative environments are changing, which require a different combination of skills which are not yet reflected in the organogram of the programme.

The LandCare sub-programme promotes the sustainable use and management of natural agricultural resources by engaging in community based initiatives that support sustainability (social, economic and environmental), leading to greater productivity, food security and job creation. This sub-programmes also requires technical skills to effectively render these services to farmers. With the implementation of OSD in the Public Service, Engineers and Engineering Technicians must be registered with SAICE in order to be appointed, even at an entry level. The same requirement does not exist in the private sector, thus placing enormous pressure on the program on attracting these skills.

With regards land use, the cultivation of crops is only possible on about 2 million hectares (15.45%) of the total area of the Western Cape. For this reason, the evaluation of and commenting on an increasing number of applications for subdivision and/or rezoning of agricultural land is designed to conserve unique and high potential agricultural land and to ensure the optimal and integrated management and use of land, including the utilisation of land and natural resources for production purposes, taking into consideration conservation imperatives and preventing the fragmentation of land.

In this regard some 900 applications for land use changes were dealt with in the previous year, and the implementation of SPLUMA will impact on the process as well as the required interventions. In view of the increase in demand as well as from a legal requirement perspective, a work study has been requested for the programme: SRM with the intention to establish a multi-disciplinary team to deal with applications for sub-division and /or rezoning of agricultural land, evaluations of and commenting on Environmental Impact Assessments (EIA) and disaster risk management.

Given recent court decisions regarding the implementation of SPLUMA, decision-making powers are transferred from the Department of Local Government (DLG) and the Department of Environment Affairs and Development Planning (DEADP) (as custodian of spatial planning) to local authorities (municipalities). The imminent change in the process to protect agricultural land, makes it difficult to anticipate the number of applications the department may receive. With this new era, every local authority may make decisions according to their own legislative frameworks (Spatial Development Frameworks, by-laws, etc.) which may differ from municipality to municipality. This creates the potential for municipalities to override concerns or objections by other government departments, without the other government departments having any remedy. This places an enormous importance to align the processes and goals of the other departments with those of the municipalities.

Farmer Support had been identified as one of the main priorities for this planning period. The programme Farmer Support and Development will ensure the delivery of market oriented extension and advisory services to farmers with a view to deepen the commercialisation of land reform farmers. In addition, the programme will also implement the Smallholder Horticulture Empowerment and Promotion (SHEP) Approach to strengthen farmers' access to markets. The SHEP's main objective is to encourage producers to move away from 'growing and selling' their produce to 'grow to sell'. The SHEP Approach is geared towards assisting smallholder producers to increase their income by means of capacitating them to better manage group dynamics and improving production through various techniques, such as knowing the market requirement before they start to produce. The SHEP project embodies the concepts of farming as a business which is key for the commercialisation programme.

Agriculture is one of the most important and one of the largest knowledge-based sectors in South Africa, and science and technology with research as key cornerstone is important to underpin agrarian economic growth and to ultimately address food security and rural development. Comprehensive and client-focussed research programmes and projects in animal and plant sciences will be executed by the programme: Research and Technology Development (RTD) with due consideration of the needs and challenges of commodities and other stakeholders. Technical advice and rendering of diagnostic services to a range of internal and external clients will be expanded in a drive to lower input cost and increase production levels with the ultimate aim to increase agricultural production in a sustainable way.

In aligning to the provincial priorities, especially creating an enabling economy and a job in every household, and innovation and culture, a fine balance between available natural resources, especially soil and water, and choice of farming operation, is of utmost importance. In this regard the research effort and spatial intelligence tools of programme RTD have and will assist in identifying resource limitations or opportunities, whilst the spatial analysis support (maps and other tools) have proven to be invaluable to extension officers and farmers, to name but a few. Furthermore, the sustainability of the agricultural sector is also based on climate smart production technologies, and in this regard research efforts are focussing on yield-increasing and/or cost-decreasing technologies in plant and animal production. The analytical services will continue to provide pivotal information on water, soil and plant analyses which assist in judicial fertiliser usage and optimising production methods.

The research, advisory and research services will include decision-making support with relation to the choice of farming activity, the optimal use of natural resources (water and land), the promotion of conservation agricultural practises and the generation of appropriate and sustainable technologies and information. As part of climate smart technologies and as one of the priority projects of the SmartAgri plan, the conservation agriculture programmes (small grain, rooibos, potatoes and planted pastures) and sustainable farming practises, also on the research farms, will be expanded. The SmartAgri plan will be evaluated in 2019/2020 and the recommendations emanating from this evaluation will refine the plan and its expected outcomes.

New and adapted technology generated from cutting-edge research efforts has and will ensure that producers are sustainable and competitive with limited natural resources (especially water) and the changing environment (with relation to water availability, disasters, and other effects of climate change). Furthermore, the department will assist in creating an enabling environment for green economy initiatives to be launched and embraced within the sector.

The department's research portfolio in animal and plant sciences support the product base for agri-processing, ranging from wheat and canola production to increase in milk production and better skin quality of ostriches for leather production. The challenges of climate change will also bring new opportunities to the sector. For example, second and third grade fruit damaged due to hail could offer new and innovative product opportunities. Furthermore, agri-waste could be transformed to agri-wealth with novel processing ideas. Upscaling of current agri-processing plants could further enhance job creation and economic development in this regard. Small scale agri-processing facilities in rural areas will also open up new opportunities for economic enhancement in these areas and could also bolster agri-tourism initiatives. New and novel agri-processing facilities will also bring about a need for skills development in this field which is directly linked to the human capital development drive in the Western Cape and department, in particular.

The Western Cape Agricultural Research Forum (WCARF) will continue to serve as a conduit for engagement with the commodity organisations and research institutions in the Western Cape to ensure that the departmental research portfolio are problem focussed and client-centric and optimises available resources at all levels.

In embracing the 4th IR and in alignment with the outcome of innovation, researchers in the programme RTD will fast track new technology development within their respective research portfolios, but will also pursue new technology to add value to the research effort and optimising of data to the benefit of the sector. Cape Farm Mapper (CFM), a web-based tool through which a range of spatially referenced data sets are made available to clients of the department, and own staff to optimise their planning abilities, will be updated with new functionalities. CAMIS (Cape Agricultural Mobile Information System), the smart phone version of CFM, which is a mini, location-based version of the existing CFM desktop web application, will follow the upgrading and expansion. Drone technology used in small grain research data accumulated for inclusion in the GIS platform will be expanded, whilst 3-D printing of components necessary for making monitoring tools/sensors for research purposes will continue and the latest developments in the field of 3-D printing incorporated in the research and technology development efforts.

Furthermore, as part of our 4th IR drive, our visionary and futuristic approach to "big data" and its applications will undoubtedly bring new dimensions of spatial planning and spatial transformation, which will now be more than ever based on evidence in a spatial context.

The contribution Agriculture makes to the economy of the Province is reliant on the ability of the sector to export and earn foreign income. Based on the realisation of income, jobs get created or maintained. It is therefore important for the Department to ensure that the sector is supported to maintain its export performance. Market access will therefore be the key focus for the Department in the next 5 years. The implication is that specific actions and services to the farmers of the Province need to be provided. Below are some of the key strategic drivers:

- a) Maintain and sustain existing established exports markets
- b) Develop new potential export markets
- c) Develop and grow local market
- d) Protect the local market and uphold the image of local products

Under these strategic drivers there a number of key actions and or services that must be delivered and amongst the list are the following:

- a) Through ensuring the application of Animal Disease Act, 1984 (Act 35 of 1984) and Meat Safety Act, 2000 (Act 40 of 2000), the Department will ensure healthy animals, healthy food of animal origin and healthy consumers and through implementation of zoo-sanitary and phyto-sanitary standards and export certification, the facilitation of export of animals and animal products will be ensured. Without any of these measures no export of products of animal origin can take place.
- b) Through collaboration with commodity associations support critical research that is aimed at maintaining existing markets while also preparing to access new markets e.g. pest risk analysis, chemical registration, residue testing and monitoring including crop and product quality improvements. Considerable attention is given to alternative crops, which also offer other benefits such as less water consuming crops, adding to the export basket and mix, new value chain avenues for agri-processing and to a greater extent job creation.
- c) Develop quantitative and qualitative agricultural economic benchmarks at micro and macro level which can be used to provide financial advice to all role-players. Informed decisions ensure that farming remains a profitable business which, in turn is paramount to attract direct investment in the agricultural sector and support export initiatives by both commercial and emerging farmers.
- d) Provide marketing and agribusiness support services and intelligence to enhance competiveness of the agricultural and agribusiness and agri-processing. Greater attention will be given to market development initiatives, product promotion at local and international markets, compliance to standards etc. The theory of change process followed during strategic planning posits that "export culture" can be boosted through events where potential agricultural exporters are exposed to the opportunities, requirements and trends in terms of exports, and interact with both government and other private sector role players. This is therefore indicative of the fact that collaboration with private sector is key if tangible outcomes are to be achieved.

To unlock economic growth and accelerate transformation in the agricultural sector, private sector investment is vital. However, for this to be realised, the theory of change highlights the importance of clear and relevant information, support interventions to new enterprises, and access to capital for viable projects to be amongst the key factors to stimulate private sector investment. It is also a known fact that there are also those factors such as policy uncertainty, complex regulatory environment, perceptions of crime/safety concerns in rural areas that supress the appetite for investment. Hence, investment promotion and facilitation is also one of the priority areas for the department and the province at large. The partnership with Wesgro on the agribusiness Investment Unit will therefore play a crucial role in this regard.

Farming products are very seldom consumed in its pure form. For instance, wheat need to be turned into flour and then bread, barley into beer, grapes into wine and livestock into meat. Even fruit need to be sorted and packed before it finds its way into a consumer's shopping basket. It follows that a healthy Agricultural Sector cannot by created by focussing on primary production alone, but the capacity of the whole value chain, from inputs,

production and, finally, to consumption, needs to be enhanced. As various actions and processes need to take place, this capacity needs to be both on-farm and off-farm.

In the same vein it is clear that a whole range of support services need to be in place for this agri-processing capacity to be expanded. More specifically:

- a) Compliance including regulatory support (advisory, testing, product improvement, labelling)
- b) Research and development of new products, technologies, processes, etc.
- b) Infrastructure development, product designs and flows etc.
- d) Enterprise development (Direct financial support to individual enterprises, analysis of the economics of various processes, the competitiveness of value chains and the enhancement of scope of agri-processing by adding dimensions (tourism, etc.); market research
- e Development of the necessary skills and human capacity to enhance the competitiveness of agri-processing chains (On-site capacity development/Training/demonstration)
- f) Veterinary support to ensure compliance and health standards for animal products such as meat processing.

The programme: Structured Agricultural Education and Training contributes in a very significant way to the promotion of human capital and skills development in the agricultural sector and will continue to facilitate and provide formal and non-formal training, on NQF levels 1-7 with focus on youth, all farming groups, i.e. small-holder, subsistence and commercial farmers and agri-workers in the agricultural sector, in order to promote, transform, and support a knowledgeable, prosperous and competitive sector. A total of 2 000 agricultural beneficiaries will benefit from skills training and 45 learners allowed to register for the Learnership Programme. In addition, 20 of these students will be allowed the opportunity to articulate into higher education and training.

The programme will continue to offer formal training programmes on HET level, namely, the Bachelor of Agriculture and a newly accredited 3-year Diploma in Agriculture. It is anticipated that at least 90 students will graduate from these programmes, adding to the number of well-qualified agriculturalists to grow the sector. It aims to promote diversity and equity with a target of 45% designated group of students for the total annual intake.

The programme ensures equal treatment of bursary applicants and supports the approval of available bursaries to qualifying previously disadvantaged students to ensure equal opportunities are offered. Bursaries will be awarded to at least 20 financially constrained students primarily from the designated group.

The Programme will continue to strengthen and expand on existing, and establishing new, partnerships through formal agreements between SAET, programmes within the Department and the Industry. Collaboration with the University of Stellenbosch will be maintained through participation on the various committees that include the Academic Planning Committee, Staff Development Committee, Student Recruitment and Registration Committee, Teaching and Learning Committee and the Faculty Board.

Rural Safety was identified by the Western Cape Government as one of the key priorities and therefore the Rural Development Programme was mandated to coordinate this priority on behalf of the Ministry. The current lack of safety not only affects the people; but also the economy, all of which compromises the ability of the sector to create jobs, enable food security and grow the economy. The programme Farmer Support and Development will continue to implement the commodity approach as a strategy for smallholder development targeting high growth potential commodities in line with the Agriculture Policy Action Plan (APAP). The commodity approach allows for the participation of commercial agriculture in the development of smallholder farmers through the provision of mentorship support and access to markets, thus creating an ecosystem for successful land reform. The department has thus signed 11 Memoranda of Agreements with industry towards providing an effective support to land reform farmers in the province.

Furthermore, the commercialisation of smallholder producers will be prioritised through the implementation of the Comprehensive Producer Development Support (CPDS) policy. The policy is aimed at providing a framework to harmonise, guide and regulate the development and provision of support to various categories of producers to ensure a sustainable and competitive agricultural sector.

As a contribution to the realisation of Sustainable Development Goal 2 (Zero hunger) the programme Farmer Support and Development will continue to provide support to vulnerable communities and households with the means to produce own food.

10. Key Risks

Outcome	Key Risk	Risk Mitigation
		Promote the sustainable use of the natural resources by delivering effective LandCare
Increased agricultural	Severe loss of productive agricultura land	 Improve farm management with fencing. Promote sustainable farming methodologies and techniques. Awareness raising and capacity building initiatives. Drone technology used to monitor soil erosion and invasive plant growth conditions.
production in a sustainable manner.	Inability to respond appropriately to the impact of all disasters	 Dissemination of early warning advisory information. Bi-annual disaster assessments.
	Growing and increased pressure or the finite and limited available water resources (quantity and quality) for agricultural use and production.	and information dissemination (e.g.

Outcome	Key Risk	Risk Mitigation
	Climate change and its concomitant challenges (drought, floods, diseases etc.)	Encourage climate smart agriculture with improved varieties from research.
		Continue engaging the national department and treasury to appreciate the agricultural context on the province.
	be wiped out or delayed due to external phenomena, impacting	Preventative measures, biosecurity plans, standard operating procedures, resource conservation methodologies, and water
	may indirectly affects the clients. The research portfolio could be	
	commodity needs versus current research outputs, resulting in a change of research priorities. This could have a negative impact on	The research portfolio is continuously tested against commodity needs, active participation in commodity working groups, collaboration with extension officers and formal extension and study groups, and active and focussed engagements with key
	capacity, information suitability and the loss of expertise status. The inability to maintain and/ or expand on the research portfolio due to limited research support resources and human capacity (qualifications	Continuously lobbying for additional funding and new and novel ways of seeking external support will address this risk. Furthermore, capacity building programmes at the
	professional registration) could impact negatively on service delivery and	Department is utilised to its fullest, whilst the Human Capacity Development Plan for the Programme is the roadmap to recruitment and selection, transformation and succession planning for the next 5 years.
	Poor information dissemination between researchers and extension officers, farmers and other stakeholders, could result in research	Active participation in information dissemination actions, from extension officer block sessions to industry specific meetings and study groups, as well as a portfolio of information dissemination vehicles, such as walk and talks, farmer's days, short courses, popular articles, radio talks, information packs, etc. is applied to ensure an effective dissemination model.
	Research support could collapse with depleted research infrastructure, equipment and support structures (dams, pipelines, available staff housing, etc.) due to a lack of funding to maintain and upgrade on- farm infrastructure causing service delivery (internal and external) being adversely affected.	
	Agri-processing is hindered by lack of capacity, misaligned policies, programmes and budgets resulting	 Organisational development intervention in progress to streamline internal processes and to look at required

Outcome	Key Risk	Risk Mitigation
	into inability to achieve agri- processing objectives.	 capacity Invest in skills through the Agrifutura and YPP programmes Participate in the National Agri- processing Forum Forging partnership internally and with various stakeholders externally Provincial coordination continuation as recommended by the evaluation Joint project implementation.
	national government for funding and	 Participate on DAFF Forums (ATF, roundtables) Support industries on DAFF competencie (e.g. support industry market access research) Conduct marketing research on global uncertainty issues Implement market development initiatives to support various industries in collaboration with various players Capacitate producers through various means and align with FSD on other kinds of support especially funding.
		Institutionalising and strengthening accountability amongst government stakeholders to respond to rural development priorities
	employment and loss of production	Initiate and implement various agri- worker/farmer interventions, e.g. agri-work
	Dereliction and under-utilisation of government-owned infrastructure and property.	Close cooperation and liaison with the Department of Transport and Public Works (DTPW) to ensure that maintenance service are rendered.
	Unavailability of adequate office space especially in remote rural areas.	Annually consult with all internal stakeholders, and coordinate accommodation and infrastructure needs into the departmental UAMP.
	Access to communal land for subsistence farming purposes	Engage and involve local government wh requests for support are received
mproved food security and safety.		The programme will with recognised civic structures in the planning and implementation of projects.
	Disease occurrence is a key risk and has serious effect on production.	Tailor made awareness is with delivery and frequency thereof enhanced. Disease and Food Safety Surveillance

Outcome	Key Risk	Risk Mitigation
	Occurrence of Zoonotic and Food Borne disease	Western Cape Anti- and Microbial resistance and microbial Food Surveillance
	Prevention of cheese export.	Western Cape Residue Surveillance
	Limited budgets for farmer support	Partnerships with private sector to create an ecosystem of support to make land reform work.
	Slow pace of land reform (land acquisition)	Work with the private sector to create a blended approach to land reform.
	The lack of access to education and training opportunities.	Marketing of training offerings to diverse layers of society.
	The lack of work integrated courses as part of the learning opportunities.	Provision of industry-related learning opportunities.
	Limited hostel accommodation	Extra housing
Transformed and	Insufficient financial support to bursary applicants	Review of financial support policies around education
inclusive Agricultural Sector.	Lack of suitably qualified human resources, e.g. lecturers	Adequate financial resources to appoint qualified personnel at appropriate levels.
	interested scholars, interns or potential bursary students from the	Extensive and targeted advocacy through career exhibitions, Thusong centres and academic institutions with invitations to schools in the adjacent areas where the career exhibitions are held. Ensuring that selection criteria and policies explicitly incorporates the emphasis on all the designated.
	institutions of higher learning.	More partnerships with farmers and industry partners to give young people exposure to the sector.
	livestock production and efficiencies.	Awareness and relevant control programme Increased Surveillance Improved Biosecurity
Innovative and resilient rural economies.	Inability of the Department to	Ensure that the Business Continuity Plan is developed, communicated and annually reviewed.

Outcome	Key Risk	Risk Mitigation
	Inability resource efficiency especially at time of disaster.	Electronic Monitoring of usage and costs.
	Lack of market access	Innovation for on-site storing of solar energy. Partnership arrangements with private sector for improved market access.
	Lack of educational and training opportunities.	Provision of appropriate industry-related learning opportunities
	Challenges with coordination of rural development in rural areas	Institutionalising and strengthening accountability amongst government stakeholders to respond to rural development priorities
	Possible agri-workers' strike which can result in financial losses, loss of employment and loss of production	Initiate and implement various agri- worker/farmer interventions, e.g. Agri-worker projects, awareness sessions, information sessions, dialogues and development of publications (publications available in all 3 languages of the WC)

11. Public Entities

Name of Public Entity	Mandate	Outcomes	Current Annual Budget (R thousand)
Casidra SOC Ltd	Agricultural and economic development within a rural and land reform context	Improved food security and safety. Transformed and inclusive Agricultural Sector. Increased agricultural production in a sustainable manner.	-
		Innovative and resilient rural economies.	

Part D: Technical Indicator Description (TID)

Indicator Number	0.1
Indicator Title	The Provincial Agricultural Sector increase its export by at least 5% over the next 5 years.
Definition	Measuring the export of agricultural and related products from the Western Cape Province.
Source of data	Quantec database; Data Set: TRD11—RSA Regional Trade HST 6-digit
Method of Calculation / Assessment	Summation of exports of HS codes 1 – 24; 33; 41; 50 – 53.
Assumptions	The Quantec database will be updated and the Province will continue to have access to the database.
Disaggregation of Beneficiaries (where applicable)	Not applicable
Spatial Transformation (where applicable)	Exports will be from the whole province
Reporting Cycle	Annual
Desired performance	Increased performance
Indicator Responsibility	Director: Business Planning and Strategy

Indicator Number	O.2
Indicator Title	Enhanced agri-processing capacity at both primary and secondary level.
Definition	Measuring the Gross value added by agri-processing in the Western Cape Province.
Source of data	Quantec database
Method of Calculation / Assessment	Summation of Food (QISC 301 – 306) and Beverages and Tobacco (QSIC 301 – 312). Measured in 2010 prices
Assumptions	The Quantec database will be updated and the Province will continue to have access to the database.
Disaggregation of Beneficiaries (where applicable)	Not applicable
Spatial Transformation (where applicable)	GVA will be from the whole province
Reporting Cycle	Annual
Desired performance	Increased performance
Indicator Responsibility	Director: Business Planning and Strategy

Indicator Number	0.3	
Indicator Title	Increased Gross Value Added (GVA) through sustainable agricultural production in the Western Cape	
Definition	Measuring the Gross value added by primary agricultural production in the Western Cape Province.	
Source of data	StatsSA: GDP 4 th quarter: Statistical release P0441	
Method of Calculation / Assessment	Data extraction	
Assumptions	StatsSA will continue to publish GDP data at provincial level.	
Disaggregation of Beneficiaries (where applicable)	Not applicable	
Spatial Transformation	Agricultural production will be from the whole province	

(where applicable)	
Reporting Cycle	Annual
Desired performance	Increased performance
Indicator Responsibility	Director: Business Planning and Strategy

Indicator Number	0.4	
Indicator Title	Success of supported land reform projects.	
Definition	Measuring the success rate of land reform projects supported by the Western Cape Department of Agriculture.	
Source of data	Independent external evaluation	
Method of Calculation / Assessment	Success is measured at the hand of 39 criteria covering the triple bottom line of economic, social and natural sustainability.	
Assumptions	Funding will be available to contract an external evaluator. An external evaluator with the necessary skills will be available.	
Disaggregation of Beneficiaries (where applicable)	Not applicable	
Spatial Transformation (where applicable)	The whole province will be covered.	
Reporting Cycle	Every 5 years.	
Desired performance	Increased performance	
Indicator Responsibility	Chief Director: Farmer Support and Development supported by the Director: Business Planning and Strategy	

Indicator Number	0.5
Indicator Title	Development of an enabling environment to increase agricultural and related jobs.
Definition	Measuring the number of agricultural and related jobs in the Western Cape Province.
Source of data	StatsSA: Quarterly Labour Force Survey: Statistical release P0211
Method of Calculation / Assessment	Data extraction
Assumptions	StatsSA will continue to publish employment data at provincial level.
Disaggregation of Beneficiaries (where applicable)	Not applicable
Spatial Transformation (where applicable)	Agricultural employment will be from the whole province
Reporting Cycle	Annual
Desired performance	Increased performance
Indicator Responsibility	Director: Business Planning and Strategy

Annexure A: District Development Model

The Western Cape Government is applying the Joint District and Metro Approach (JDMA) as its response to the District Development Model.

It is important for organs of state to recognise that direct service delivery to the citizens of our country takes place at local government level. To this end the WCDoA, complementing its other consultation mechanisms, annually participates in strategic engagements with the thirty local governments of the Province. During this consultation process, a number of strategic priorities were identified for each district and seven common themes of relevance to the WCDoA were identified. These themes, as well as the distribution per district and the rationale behind it, were summarised in Table 7. The same table is replicated in Table 27.

	District						
THEME	Garden Route	Central Karoo	Overberg	Cape Winelands	West Coast		
Economic growth	Х	Х					
Innovation/tech/4 th IR	Х	Х					
Waste	Х	Х	Х	Х	Х		
Migration/Urbanisation				Х	Х		
Climate Change		Х	Х	Х	Х		
Water		Х	Х		Х		
Inclusion.	Х	Х	Х	Х	Х		

 Table 27:
 Link between SIME engagements and common agricultural themes.

Based on this demand by the various local governments, and based on the macro TOC of the Department (see Section 8.2.8), the WCDoA has developed particular projects in order to respond to the need. For instance, it is argued that economic growth can only take place if there is an increase in the export of agricultural products. However, if exports are to increase, then the production of agricultural products (at both primary and secondary level) also need to grow. In other instances (e.g. waste) the contribution which the WCDoA can make is limited to support at a holistic level.

During this process sixteen different projects have been developed. These projects, their linkages to the various themes, as well as the number of indicators per project, is provided in Table 28

THEME		PROJECT		NUMBER OF INDICATORS		
NR	TITLE	NR	PROJECTS	SEC TOR	PROV.	TOTAL
1	Economic growth	1.1	Support export of agricultural products.	2	6	8
		1.2	Enhance agri-processing value add in the Province.	1	1	2
		1.3	Increase sustainable agricultural production.	5	20	25
2	Innovation / Technology / 4th IR	2.1	Agricultural research	2	2	4
		2.2	Economic / institutional research	1	2	3

Table 28:Projects for the implementation of agricultural themes and indictors for
measurement of progress.

THEME		PRO.	PROJECT		NUMBER OF INDICATORS		
NR	TITLE	NR	PROJECTS	SEC TOR	PROV.	TOTAL	
3	Waste	3.1	Holistic planning and monitoring	0	2	2	
4	Migration / urbanisation	4.1	Increase access to community / household produced food.	1	3	4	
		4.2	Ensure affordability of food	1	1	2	
		4.3	Improve safety and security in rural areas	1	3	4	
		4.4	Ensure that animal products are safe for consumption.	3	3	6	
5	Climate Change	5.1	Enhance the Climate Change resilience of the Agricultural Sector.	3	2	5	
6	Water	6.1	Optimise the sustainable utilisation of water and land resources	0	6	6	
7	Inclusion	7.1	Improve the success of agricultural activity among black farmers	2	7	9	
		7.2	Increase skills witin the agricultural sector	2	4	6	
		7.3	Improve the participation of youth, women and people with disabilities in the agricultural economy	0	8	8	
		7.4	Inrease access to agricultural and related economic opportunities for rural communities.	1	5	6	
TOTAL			25	75	100		

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