

SECTOR ANALYSIS

AGRICULTURE

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by



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SECTION 1: THE AGRICULTURAL LANDSCAPE

“South Africa’s agricultural sector is characterised by dualism: a modern commercial farming sector using hired farm workers alongside small-scale farmers, mostly in the former homeland areas. In addition, land reform is creating thousands of new farming opportunities for emerging black farmers throughout the country and across the scale from large commercial to smallholder production.”¹

“The agro-processing sector comprises a highly diverse group of sub-sectors and industries. The major sub-sectors include:

- Food processing
- Beverages
- Aquaculture
- Horticulture
- Medicinal, aromatics and flavourants

The agro-processing sector has particularly strong linkages both up- and down-stream. **Up-stream, the sector links to agriculture across a wide variety of farming models and products.** Down-stream, the sector’s products are marketed across both wholesale and retail chains, as well as through a diverse array of restaurants, pubs, shebeens and fastfood franchises. Moreover, the food processing sector is now the largest manufacturing sector in employment terms with some 160,000 employees, **this increases to more than a million jobs once the upstream (primary agriculture) is included.**²

1.1 Size and shape of the Agricultural sector

Overview

The South African agricultural sector is a diverse sector comprising several branches, namely: field crop husbandry; horticulture; animal production); dairy farming, fish farming, game farming and agro-processing. Within these broad branches are 39 sub-sectors that are classified according to agricultural and economic focus as follows. The sector encompasses both primary (resource production) and secondary (primary processing) activities.

Table 1: Activities within the agricultural sector by international SIC code

Sub-sector	Code	Description
Coffee/Tea	30493	Processing and marketing of coffee and tea including coconuts, cocoa, nuts, olives, dates, etc.
Fibre	30118	Grading, ginning and packing of wool and cotton raw material
Fruit	30132	Fruit packed in cartons, fruit juice concentrate drummed and fruit juice in container ready for consumption
Fruit	30133	Fruit exporters and importers
Grain	30300	Manufacture of grain mill products and starches
	30313	Handling and storage of grain
	61502	Wholesale & retail trade in Agricultural machinery
	62111	Sale and distribution of Agricultural raw materials and other farming inputs
Milling	30311	Manufacture of flour and grain mill products, including rice and vegetable milling, grain mill

¹ SETA re-establishment and demarcation – A synthesis of the AgriSETA landscape, AgriSETA June 2010

² 2011/12-2012/13 Industrial Policy Action Plan, DTI, February 2010. Emphasis added.

Sub-sector	Code	Description
		residues
	30330	Manufacture of prepared animal feeds
	30331	Manufacture of pet foods
	30332	Manufacture of starches and starch products
Pest control	99003	Pest Control
Poultry	30114	Poultry and egg production including the slaughtering, dressing and packing of poultry
Primary	11110	Growing of Cereals and other crops (not elsewhere classified)
	11120	Growing of Vegetables, Horticultural specialties and nursery products
	11121	Growing of Vegetables, Horticultural specialties (Including Ornamental Horticulture) and nursery products.
	11122	Sugar plantation including sugar cane and sugar beet etc.
	11130	Growing of fruit, nuts, beverage, and spice crops.
	11210	Farming of cattle, sheep, goats, horses, asses, mules, and hinnies; Dairy farming.
	11220	Other animal farming, production of animal products (not elsewhere classified)
	11221	Ostrich farming
	11222	Game farming
	11300	Growing of crops combined with farming of animals (Mixed farming)
	11301	Growing of coffee and tea including coconuts, cocoa, nuts, olives, dates, etc.
	11400	Agricultural and animal husbandry services, except veterinary activities
	11402	Other animal farming (not elsewhere classified)
	12109	Growing of trees as second crop by farmers
13000	Fishing, operation of fish hatcheries and fish farm	
Red Meat	11141	Production and animal products (not elsewhere classified)
	30111	Slaughtering, dressing and packing of livestock, including poultry and small game for meat.
	30115	Production, sale & marketing of Agricultural by products (e.g. bones, hides)
	30117	Slaughtering, dressing and packing of livestock, including small game for meat and processing of ostrich products
	61210	Wholesale trade in Agricultural raw materials and livestock
	74136	Transport of livestock as supporting activity
	87120	Agricultural and livestock research
Seed	11140	Seed production and marketing
Sugar	30420	Manufacture of sugar including golden syrup and castor sugar
Tobacco	62208	Processing and dispatching of tobacco

Source: AgriSETA

The contribution of primary agriculture to the gross domestic product (GDP) is about 2.5% and its contribution to formal employment is about 5%³. However, agriculture has strong backward and forward linkages into the economy.

- The agro-industrial sector has a higher contribution of about 12% to GDP⁴.
- Primary agriculture contributed 2.3% to the GDP in 2009⁵.

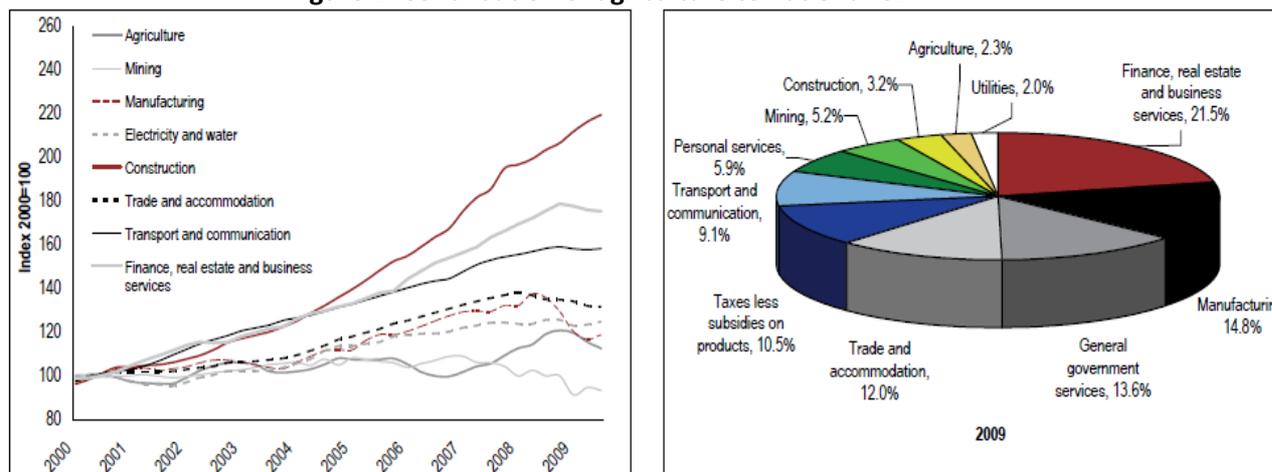
The figure below shows the relatively small proportion of GDP contribution from primary agriculture. It needs to be noted however that processing is not included in the 2.3% as it is included in manufacturing, and other farming activities. For example, farms linked to leisure facilities, are located under Trade and Accommodation.

³ National Treasury, 2010

⁴ GCIS, 2010

⁵ National Treasury, 2010

Figure 1: Contribution of agriculture to national GDP



Source: National Treasury, Budget Review 2010

South Africa is one of the top global exporters of some agricultural produce, where it is ranked first in three products.

Table 2: South Africa's world ranking in selected products

Export Item	South Africa's world ranking
Avocados	1st
Clementines	1st
Ostrich products	1st
Grapefruit	2nd
Table grapes	3rd
Plums	3rd
Pears	5th

Source: DTI, February 2010

Distribution of agricultural production

South Africa has 2.76 million hectares of cultivated land, of which nearly 10.45 million hectares (82%) is used for commercial purposes. A total of 0.79 million hectares (only 6.19%) is permanently under cultivation, and more than 10.83 million hectares (85%) is rain-fed. More than 0.7 million hectares of land are degraded and left bare by sheet and gully erosion. About 4.61 million hectares of natural vegetation are degraded, mainly in indigenous forests, woodlands, and grasslands; a further 0.19 million hectares are degraded by mine tailings, waste rock dumps and surface-based mining. Land use in urban areas comprises mainly formal residential suburbs and townships (1 million ha) and informal settlements (0.23 million ha). Savannas (woodlands and bush lands) and grasslands cover 25.70% and 19.92% of South Africa, respectively (Department of Environmental Affairs).

Although 80% of South African land is used for agriculture and subsistence farming, only 12% is arable, and the rest is used for grazing. The main agricultural activities are crop production, mixed farming, cattle ranching and sheep farming, dairy farming, game ranching, aquaculture, beekeeping, and winemaking (GCIS, 2010). South Africa is the largest producer of maize, the

staple food in the Southern African Development Community (SADC) as well as the main ingredient for animal feed. The table below gives an indication of the geographic location of production of specific agricultural produce as well as the annual volume produced.

Table 3: Volume of agricultural production by product and location

Agricultural product	Dominant production locations	Average annual volume produced
Maize	North West; Free State; Mpumalanga	13, 2 metric ton
Wheat	Western Cape; Free State	2.1 metric ton
Barley	Western Cape	192 000 ton
Groundnuts	Free State; North West; Northern Cape	88 800 ton
Sunflower seeds	Free State; North West; Mpumalanga; Limpopo	872 000 ton
Soya beans	Free State; Mpumalanga; KwaZulu Natal	-
Sorghum	Free State; Mpumalanga; Limpopo; North West	255 000 ton
Canola	Western Cape; North West; Limpopo	30 800 ton
Dry beans	Mpumalanga; Free State; Gauteng; North West; KZN; Limpopo; Western Cape; Northern Cape	60 000 ton
Sugar	Eastern Cape; Mpumalanga; KwaZulu Natal	20 metric ton
Deciduous fruit	Western Cape; Eastern Cape; Free State; Mpumalanga; Gauteng	-
Wine	Western Cape	403.3 million litres exported in 2009
Citrus and subtropical fruit	Limpopo; Mpumalanga; Eastern Cape; KwaZulu Natal; Western Cape; Northern Cape	46 896 ton subtropical fruit
Potatoes	North West; Northern Cape; KwaZulu Natal; Limpopo; Free State; Mpumalanga; Eastern Cape; Western Cape	1 853 000 ton
Tomatoes	Limpopo; Mpumalanga; KwaZulu Natal; Eastern Cape; Western Cape	459 217 ton
Onions	Mpumalanga; Western Cape; Free State	417 579 ton
Cabbages	Mpumalanga; KwaZulu Natal	138 161 ton
Cotton	Mpumalanga; Limpopo; Northern Cape; KwaZulu Natal; North West	-
Tobacco	Mpumalanga; Limpopo; North West	10 200 ton
Tea	Western Cape; Eastern Cape	-
Flowers	Western Cape	-
Livestock	All provinces	Largest agricultural sector
Dairy	Free State; North West; KwaZulu Natal; Eastern Cape; Western Cape; Mpumalanga	3 129 metric litres
Beef Cattle	Eastern Cape; Free State; KwaZulu Natal; Limpopo; North West; Mpumalanga; Northern Cape	-
Sheep and goats	Eastern Cape; Northern Cape; Free State; Western Cape; Mpumalanga	-
Poultry and pigs	All provinces	930 000 ton broilers 2.6 million pigs slaughtered from August 2007 to August 2008
Fish	Western Cape; Eastern Cape	-
Game	Limpopo; Northern Cape; Eastern Cape; Western Cape	-
Beekeeping	Western Cape; KwaZulu Natal	2 000 ton

Source: GCIS, SA Yearbook 2009/10

Agriculture plays an important part in provincial development and for most provinces provides a source of employment as well as being a potential focus for increased employment and sustainable livelihoods. Agriculture therefore features as a key focus for economic development

and growth in the all provinces. Agricultural contribution to provincial GDP varies, with the Free State's agricultural sector contributing the most, as reflected below.

Table 4: Agriculture - Contribution to Provincial GDP

Province	Percentage contribution to GDP
Free State	9.2
Limpopo	3
KwaZulu Natal	5.5 (2004)
Western Cape	4.5 (2003)
Mpumalanga	6.1

Source: Provincial Growth Development Strategies

The provinces all have different focuses in their development strategies for agriculture although the underlying principle is the improvement of the lives of the people through employment creation in agriculture and provision of food security through investment in agricultural processes and technologies that enhance efficiency.

Free State's focus on agriculture development is agriculture diversification and agribusiness. Diversification involves identifying crops with a defined market in line with new and innovative agricultural practices. Agribusiness extracts value from primary agriculture through processing of raw materials and provision of services to add value to produce⁶.

The objectives of the Limpopo province with regards to agricultural development are tripling the size of agriculture by 2015, increasing the value of agriculture through enterprise diversification, investing in water saving technologies and adding value within the agro-value chain⁷.

In the Eastern Cape, two thirds of the population live in rural areas and the development of agriculture is a key factor in the development of the people's socio-economic livelihood. Development of agriculture will provide employment and an income to many families. The focus of the growth and development strategy is to promote household food security through expanded smallholder production, development of commercial agriculture through optimal use of agricultural land in the homelands, focus on land redistribution and tenure, and integration of homelands agriculture into mainstream provincial agricultural activity⁸.

KwaZulu Natal's focus on agriculture in the Growth Development Strategy is poverty alleviation, as most areas of poverty in the province are rural. The plan is to link up rural subsistence agricultural activity with commercial agriculture so as to develop subsistence agricultural projects into commercial ones. The other focus is to link land reform projects to key provincial agrarian revolution programmes so as to make land transfer an economic growth opportunity. The agrarian revolution strategy involves enabling access to markets, farmer development through the set up of agri-businesses, improve road infrastructure to improve access to markets, and expediting the land reform process⁹.

⁶ Free State Growth Development Strategy, 2004 – 2014

⁷ Limpopo Growth Development Strategy, 2004 – 2014

⁸ Eastern Cape Growth Development Plan, 2004 - 2014

⁹ KZN Growth Development Strategy, 2006

Northern Cape's focus is the development of agro-processing (Northern Cape Growth and Development Strategy). The North West is focusing on enabling access to markets and assisting financially in infrastructure development and machinery acquisition as well as investing in agro-processing technology and skills, as well as promoting efficient land use¹⁰.

Agriculture holds employment growth potential in Mpumalanga province. It accounts for 18.1% of provincial employment, with forestry being the main agricultural activity in the province. About 38.3% of the province's land is used for forestry. Agriculture is identified as a key focus area to achieve the strategic growth development strategy of providing a better life for all in the province through economic development. Growth potential is through agricultural investment, production and beneficiation so as to increase agriculture GDP contribution from 6.1% to 10% by the end of the 2008/2009 financial year. Other strategic objectives are to increase sustainable employment in the agricultural sector from 18% to 20% by the end of 2015, improve food security by 50% by 2014, improve sustainability in agri-business enterprises by 20%, and increase participation of historically disadvantaged in agriculture to meet national Agri BEE targets (Mpumalanga Growth and Development Strategy, 2004 - 2014).

The structure of the agriculture sector in South Africa

The South African Agriculture Sector, primarily based in rural and peri-urban areas, is characterised by a dual agricultural economy comprising well developed commercial farming, with an established supply chain, and small (subsistence) based production. The General Household Survey of 2009 (Statistics South Africa) and the Census for commercial farms, 2007 (Statistics South Africa) provide an insight into the size of the subsistence and commercial sectors. Precise details in relation to non-commercial and semi-commercial farming are not available.

In 2009, 20.7% of South African households were engaged in some form of agricultural production. Table 1 reflects household agricultural production patterns in the provinces and shows that the largest proportions of households engaged in agriculture are in Limpopo, Eastern Cape, Free State and KwaZulu Natal.

Table 5: South African households involved in agricultural activities by province (1,000s)

Activity	Province									Total
	WC	EC	NC	FS	KZN	NW	GP	MP	LP	
Involved in agricultural production	39	643	35	274	697	108	248	205	580	2 832
	2.7%	37.3%	11.4%	31.9%	26.8%	11.4%	7.1%	21.1%	43.4%	20.7%
Livestock production	*	312	22	26	230	34	27	21	99	778
	17.5%	48.5%	62.1%	9.6%	33.0%	31.0%	10.7%	10.4%	17.1%	27.5%
Poultry production	*	349	11	35	256	23	22	11	146	853
	1.8%	54.3%	31.0%	12.9%	36.7%	21.1%	9.0%	5.1%	25.1%	30.1%
Grains and food crops	*	389	*	21	316	34	31	128	465	1 390
	2.7%	60.5%	12.2%	7.8%	45.4%	31.5%	12.5%	62.5%	80.1%	49.1%
Industrial crops	0	*	0	*	*	0	*	0	*	*
	0.0%	0.2%	0.0%	0.1%	0.6%	0.0%	0.5%	0.0%	0.1%	0.3%
Fruit & vegetable crops	30	220	*	232	330	40	175	141	173	1 350
	75.9%	34.2%	25.2%	84.7%	47.3%	36.8%	70.5%	68.8%	29.8%	47.7%

¹⁰ North West Growth and Development Strategy

Activity	Province									Total
	WC	EC	NC	FS	KZN	NW	GP	MP	LP	
Fodder grazing / pasture grass – animals	*	*	*	*	14	*	11	*	*	53
	11.2%	0.5%	3.8%	3.5%	2.0%	2.0%	4.3%	2.0%	0.7%	1.9%
Forestry	*	*	*	*	*	0	*	*	*	10
	1.2%	0.1%	0.5%	2.1%	0.1%	0.0%	0.4%	0.4%	0.2%	0.4%
Fish farming / Aquaculture	*	*	0	0	0	0	0	0	0	*
	1.5%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Game farming	*	*	*	0	*	0	0	0	*	*
	2.2%	0.2%	1.3%	0.0%	0.1%	0.0%	0.0%	0.0%	0.2%	0.1%
Other	0	*	0	*	*	*	*	0	0	*
	0.0%	0.2%	0.0%	0.3%	0.4%	0.3%	0.3%	0.0%	0.0%	0.2%

* Numbers smaller than 10 000 are too small for reliable estimates

A particular household can be involved in more than one activity and percentages therefore do not add up to 100%

Source: Statistics South Africa - General Household Survey, 2009 (p.318)

In 2007, there were 39 982 commercial farms¹¹ in South Africa as opposed to the 45 818 registered in 2002. There has been a clear downward trend in the number of commercial farming enterprises which underscores the needs to grow the commercial agriculture sector to maintain South Africa's food sustainability potential and support interventions to develop skills across the agricultural sector, especially for transformation and development of the small and emerging agricultural sector.

Table 6: Commercial farming enterprises by province - 2002 and 2007

Province	2002	2007	Growth / Decline
Eastern Cape	4 376	3 896	- 10.97
Free State	8 531	7 515	- 11.91
Gauteng	2 206	2 378	7.80
KwaZulu-Natal	4 038	3 560	- 11.84
Limpopo	2 915	2 657	- 8.85
Mpumalanga	5 104	3 376	- 33.86
North West	5 349	4 692	- 12.28
Northern Cape	6 114	5 226	- 14.52
Western Cape	7 187	6 682	- 7.03
Total	45 818	39 982	- 12.74

Source: Statistics South Africa, 2008

Whilst the largest proportions of households involved in agriculture are in Limpopo, Free State, Eastern Cape and KZN (Table 1), it is in the Free State, Western Cape, Northern Cape and North-West provinces where the largest number of commercial farms are located (Table 2). No direct

¹¹ Commercial farms are farming enterprises that are registered with SARS for Value Added Tax (VAT) and income tax.

relationship can thus be drawn between the numbers of households engaged in agriculture in a province and the numbers of commercial agricultural enterprises. AgriSETA WSP data analysis reveals no direct relationship between the number of employers in a province and the number of formally employed persons.

Categories of farming enterprises

“Dualism” (Mhone, 2000), is a useful way of describing the agricultural sector, both in terms of understanding the economics of the sector and planning skills development interventions. This term describes a formal sector that is well established and an informal or emergent sector, with the two sectors reliant on each other, and on interventions by the state for integration. However these two broad categories have their limitations. Within the commercial sector there are large established farming businesses and smaller ones that struggle to survive, and within the less formal sector there are emergent farmers striving to achieve commercial success. It is necessary, therefore, to understand the agricultural sector as comprising a number of different economic entities all operating within the same dualistic economic framework. The following typology for the agricultural sector reflects the complexity of the agricultural sector:

Table 7: Typology of the agricultural sector

Production Unit	Turnover	Ownership & Management	Number	Binding constraint	Support required
Large commercial on private property	>R2 million	Family owned but incorporated multiple farms. Rent in land – professional management	±5 400	Market size Equity capital	Export market access Financial market innovation
Medium commercial on private property	R300 000 to R2 million	Family owned, could be incorporated. Some renting in of land – family management	17,000	Land capital management	Mortgage capital for land access Management training
Small commercial on private property	<R300 000	Family owned, generally part time. Some lifestyle farming (game ranches, weekend farms)	24 000	Management time	
Commercial in communal areas	>R300 000	Communal ownership Development projects Private ownership	-	Capital management infrastructure	Grants for land access Property rights Comprehensive farmer support Credit Physical infrastructure
“Emerging” commercial in communal areas	<R300 000	>20 hectares Communal ownership Small farmers in development projects Private ownership	35 000	Land (property rights) Capital labour management Employment opportunities	Grants for land access Property rights Comprehensive farmer support Physical infrastructure Institutional infrastructure
Subsistence farmer in communal areas Allotments Market gardens		<20 hectares Communal ownership Private ownership Little formal market participation	1.256m	Employment opportunities	Social welfare transfers

Source: Vink and van Rooyen, 2009

This confirms the dualism evident from Stats SA data. It includes an estimate for emergent farms and provides insight into the different types of farming enterprises. Being small and part time can mean subsistence farming, but it can also mean running a game farm on a part-time basis. There is considerable scope for farming enterprise to move from being commercial to subsistence and vice versa. There is some evidence that there is currently an increase in volatility, with quite

significant changes occurring, mainly due to the global economic down turn and the small margins that many agricultural enterprises operate within.

It is particularly important to have an understanding of the category of “emerging” farmers: those who may be striving to move from subsistence farming to a more commercial model; those who have benefited from land reform processes and want to establish an agricultural enterprise on the land that has been allocated to them; those who have made use of BEE funding to acquire a stake in a farm and are trying to achieve profitability. The emerging farmer sector is neither established commercial farming nor subsistence in nature and is the focus of many of the government’s efforts to achieve transformation within the sector as a whole.

Employment trends

Employee numbers is a more important measure of “size” for the purpose of the SETA and skills planning, even though turnover may be more important in terms of economic impact or contribution to GDP. The cause of this discrepancy between turnover or GDP contribution on the one hand and formal employment numbers on the other is discussed extensively by Mhone (2000) and others such as Webster (2004). Labour absorption levels in an enclave (second) economy are not optimal. One conclusion that can be drawn from this is that skills development will need to be linked to other changes within the sector if it is to contribute meaningfully to job creation. Mechanisms need to be found that link growth to jobs and this is not strictly something that the SETA can address. However it is important to link skills planning to other processes, and opportunities for these will be examined as part of the environmental scan later in this section. The past few years have seen huge depreciation in employment levels and a very high unemployment rate – currently estimated at 31.1%. The agricultural sector has also witnessed a decline in sector employment largely linked to contraction of the sector. The sector is characterised by the need for highly skilled and qualified farm managers and technical staff on the one hand and large numbers of unskilled and semi-skilled workers on the other. Many managers of emerging farms are mainly untrained and unqualified.

Agriculture relies more on semi skilled labour than other services as reflected in the table below. The sector also relies on migrant, casual and seasonal labour.

Table 8: Percentage unskilled to semi-skilled labour by DTI industry (economic sector) classification

Sector	1995	2008	Growth / decline in skilled labour
Agriculture	99.0	94.1	4.9%
Mining	92.0	87.9	4.5%
Manufacturing	87.0	82.1	5.6%
Utilities	80.0	68.8	14.0%
Construction	90.0	88.3	1.9%
Trade	84.0	84.2	- 0.2%
Transport and Communication	73.0	76.8	- 5.2%
Finance	62.0	59.5	4.0%
Community and personal services	54.0	49.8	7.8%
Total	78.2	73.8	5.6%

Source: National Treasury, 2010

Employment in the sector is based on those who work in administration in DAFF and those who work in production and processing at farms and in factories. In March 2009, DAFF had 3 285 posts, with 2 735 of these filled. The table below shows the employment profile at DAFF by occupation, race, gender and disability as at 31 March 2009. The department employed 57% male employees and 43% female employees. There were more African employees, constituting 69% of the entire department workforce. Very little progress has been made regarding the employment of people with disabilities, who constitute only 0.4% of the workforce. This is in line with other department across government where similarly little progress has been made.

Table 9: Employee profile - Department of Agriculture, Forestry and Fisheries

Occupational Category (SASCO)	African		Coloured		Indian		White		Totals			
	M	F	M	F	M	F	M	F	M	F	Total	%
Legislators, senior officials, managers	15	14	2	2			8	3	25	19	44	1.6
Professionals	239	241	11	12	4	14	70	64	324	331	655	24.0
Technicians, associate prof.	190	153	38	19	9	4	86	57	323	233	556	20.4
Clerks	93	204	22	42	0	7	13	171	128	424	552	3.0
Service and sales workers	38	19	4	2	1		17	1	60	22	82	3.0
Craft and related trades workers	42		3				13		58	0	58	2.1
Plant, machine operators and assemblers	53	1	8				1		62	1	63	2.3
Elementary occupations	484	96	94	28	1		6	5	585	129	714	26.2
Totals	1 154	728	182	105	15	25	214	301	1 565	1 159	2 724	
Percentage	42.4	26.7	6.7	3.9	0.6	0.9	7.9	11.0	57.5	42.5	100	
People with disabilities	1	1			1		2	6	4	7	11	0.4
Race	1 882		287		40		515					
Percentage	69.1%		10.5%		1.5%		18.9%					

Source: Dept of Agriculture, Forestry and Fisheries (2010)

In respect of occupations and skills profiles, the majority of the Department's employees are Professionals and Technicians / Associate Professionals (44.4%), followed by people employed in elementary occupations (26.2%).

Employment across the agricultural sector is subject to growth and decline variations related to a wide range of conditions and circumstances – produce prices, climate and environmental changes, mechanisation, technology, and the like. Since 2002 the trend has been downwards. There are a number of reasons for this including mechanisation and casualisation of labour on larger farms, the economic downturn impacting on some sub-sectors, and the global trade situation, including changes in the foreign exchange rates and the failure of successive DOHA development talks to address inequalities in access to global agricultural markets¹².

¹² The **Doha Development Round** is the trade-negotiation of the World Trade Organization (WTO). Its objective is to lower trade barriers globally. Talks have stalled over a divide on major issues, such as agriculture, industrial tariffs and non-tariff barriers, services, and trade remedies. The most significant differences are between developed nations led

It is anticipated that growth of the agricultural sector to meet local consumer demand, government initiatives to expand agricultural niche export markets and the development of an aquaculture sub-sector to counter depletion of natural resources, is likely to lead to creation of employment in the sector.

Table 10: Workforce changes in the Agricultural sector - 2001 to 2010

Year	Workers	Year on year difference	Variation
2001	969 000		
2002	1 153 000	+ 184 000	16.0%
2003	808 000	- 345 000	- 42.7%
2004	828 000	+ 20 000	2.4%
2005	778 000	- 50 000	- 6.4%
2006	886 000	+ 108 000	12.2%
2007	703 000	- 183 000	- 26.0%
2008	764 000	+ 61 000	8.0%
2009	615 000	- 149 000	- 24.2%
2010*	650 000	+ 35 000	5.4%

* Quarter 1

Source: Statistics South Africa Survey (pp. 210-211)

Employment categories and remuneration

It is difficult to get detailed and accurate yearly statistics on employment by type (full-time, casual and seasonal employees) or on remuneration in the agricultural sector. The latest available statistics on commercial agriculture are found in the 2007 Stats SA Census of Commercial Agriculture. The following tables reflect survey data on the number of permanent, casual and seasonal agricultural sector employees by province as well as total remuneration per province.

Table 11: Number of paid full-time agricultural workers and total remuneration by province

Province	2002		2007		Growth / Decline	
	Number	Remuneration R'000s	Number	Remuneration R'000s	Number	Remuneration
Eastern Cape	33 718	329 351	34 253	510 404	1.6%	55.0%
Free State	57 607	580 888	53 944	737 796	-6.4%	27.0%
Gauteng	20 815	344 629	22 979	534 083	10.4%	55.0%
KwaZulu-Natal	75 799	763 439	66 685	968 455	-12.0%	26.9%
Limpopo	62 635	525 390	35 728	625 436	-43.0%	19.0%
Mpumalanga	61 603	599 617	46 520	853 396	-24.5%	42.3%
North West	39 914	409 526	53 741	574 596	34.6%	40.3%
Northern Cape	31 077	320 598	26 871	339 948	-13.5%	6.0%
Western Cape	98 207	1 378 816	90 943	2 029 275	-7.4%	47.2%
Totals	481 375	5252251	431 664	7 173 389	-10.3%	36.6%

Source: Statistics South Africa, Report 12.02.01 (p.1101)

by EU, USA, and Japan and the major developing countries led and represented by India, Brazil, China, and South Africa. Considerable contestation exists over the maintenance of agricultural subsidies, operating as trade barriers.

Table 12: Number of paid casual & seasonal agricultural workers & total remuneration by province

Province	2002		2007		Variance	
	Number	Remuneration R'000s	Number	Remuneration R'000s	Number	Remuneration
Eastern Cape	30 936	59 680	30 565	106 497	-1.2%	78.4%
Free State	57 871	69 595	45 150	98 996	-22.0%	42.2%
Gauteng	8 722	20 975	11 957	93 461	37.1%	345.6%
KwaZulu-Natal	37 602	103 946	34 383	154 286	-8.6%	48.4%
Limpopo	38 614	107 223	31 833	124 159	-17.6%	15.8%
Mpumalanga	46 480	86 242	32 826	176 363	-29.4%	104.5%
North West	46 078	62 653	32 008	75 250	-30.5%	20.1%
Northern Cape	68 174	121 613	47 874	123 723	-29.8%	1.7%
Western Cape	124 968	331 406	98 546	485 108	-21.1%	46.4%
Totals	459 445	963 331	365 142	1 437 843	-20.5%	49.3%

Source: Statistics South Africa, Report 12.02.01 (p.1101)

The tables above reflect that the Western Cape was the biggest employer of labour on commercial farms in 2007, with a majority of the employees being casual and seasonal. The Eastern Cape employed the least number of commercial farm employees. The comparator figures for 2002 and 2007 would appear to show a continuous country wide reduction in employment both in permanent employees and casual and seasonal workers. The exception is the North West that has experienced an increase in full time employees.

The current minimum wage for farm workers (February 2010) is R1 316.69 per month¹³. Monthly salaries differ across sub-sectors with highest paid workers in primary production in the fisheries and dairy sub-sectors.

Table 13: Approximate monthly wage rates in Agriculture for selected sub-sectors

Subsector	Primary Production	Processing/Pack house
Meat	R 2000	
Dairy	-	R 2650
Wines	R 1100	R 1400
Flowers	R 800	R 1200
Fisheries	R 5000 (crewman)	R 1892

Source: DTI, 2010¹⁴

Vink & van Rooyen (2009) indicate that before the introduction of minimum wage in 2003, the real cash remuneration for employees had been increasing. However over time the unit cost of labour (the ratio of the total cost of labour to the total value of output) has been in decline, including a steep drop during and after the introduction of minimum wages.

¹³ Department of Labour, 2010

¹⁴ Source: DTI: (Data sourced from SAMIC, Dairy Industry JAG, WOSA, SAFEC, SA Pelagic Fish Industry Association)

In 1970, for every R1 of output, 16 cents was spent on labour. By 1980 this has dropped to 13 cents for R1 of output. By 1994 the figure had increased to 19 cents, declining to 17 cents in 1998 and to 11.7 cents in 2001. By 2007 it had reduced to 10.8 cents. Further research will be needed to establish the current situation, but there is reason to believe that the decline has continued, with wages being very low both in terms of unit costs and in relation to other groups of workers in the economy.

Strictly speaking it is not the role of the SETA to engage in the complex regulatory framework for the agricultural labour market. It is for the Department of Labour and NEDLAC, with their employer and organised labour stakeholders to find ways of balancing the need for protection of vulnerable workers with the need to create a framework that encourages the creation of jobs and improved job security. The reason that more research is needed in this area, and in particular detailed discussions with industry and labour representatives, is to establish

- The extent to which skills development interventions can improve the prospects for job creation and improved job security, and
- The mechanisms that can be established to enable uninterrupted skills training, in the context of casualisation and use of contract and seasonal labour.

Stakeholders in the Agricultural sector

National government departments

There are a number of national government Departments and spheres involved in the challenges of the agricultural sector. The following table sets out the broad contribution that each department is intended to make.

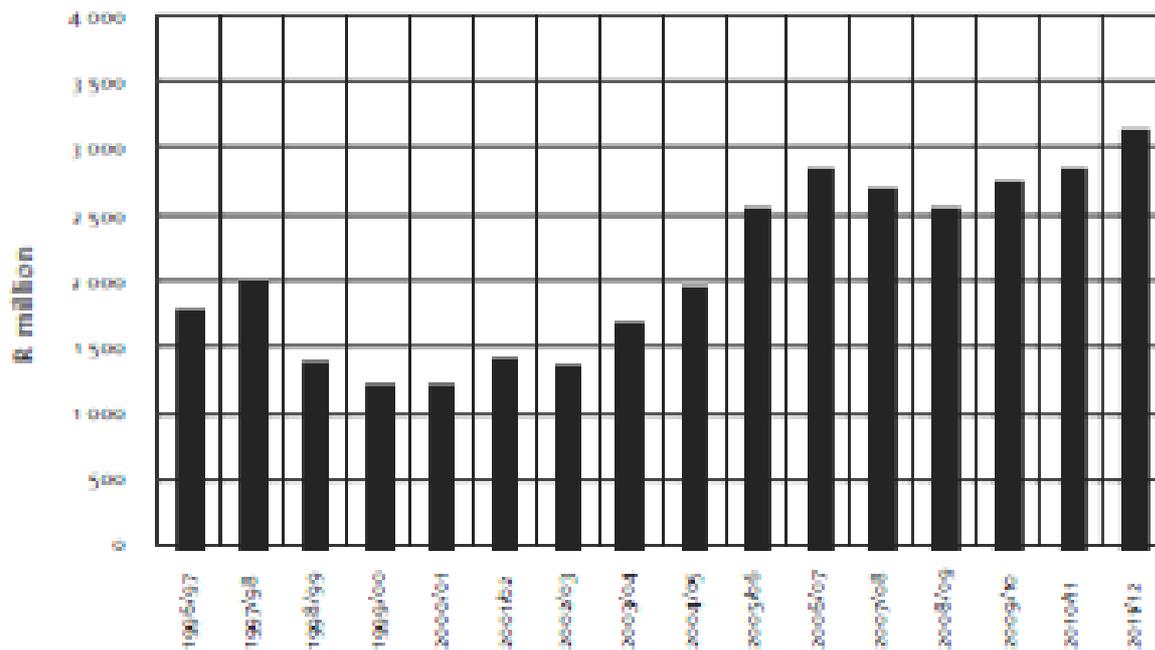
Table 14: Government department roles in relation to Agriculture

Department	Role
Department of Agriculture, Forestry and Fisheries	Agricultural policy and support
Department of Rural Development and Land Reform	Land Reform and land claims settlements
Department of Economic Development	Economic planning
National Treasury	Macro economic policy
Department of Trade and Industry	Industrial strategy (IPAP 2)
Department of Water Affairs	The management of water supply
Department of Labour	Labour market policy
Department of Higher Education and Training	HRD and skills planning and SETAs

In relation to public spending on agriculture the agricultural national budget constitutes about 0.5% of the national budget. The figure below reflects trends in national budgeting for the agricultural sector between 1996/7 and 2011/12.

Some analysts¹⁵ have argued that state expenditure on agriculture shows lack of prioritisation of the sector, especially considering that the budget remains lower than it was in the late 1980s, when it now caters for a greater number of farmers than it did during apartheid segregation.

¹⁵ Greenberg, 2010, p. 2

Figure 2: National budgets for Agriculture, 1996-2011 (adjusted for inflation)

Source: Greenberg, 2010

The Department of Agriculture, Forestry and Fisheries (DAFF) is responsible for the agricultural sector. The department works with various organisations to promote the interests of the sector:

- It registers all South African Pest Control Association (SAPCA) qualified inspectors.
- It works with the Agricultural Research Council for research to optimise the control of migratory pests.
- The Directorate on Marketing works with the National Agricultural Marketing Council (NAMC) on issues related to equitable access to markets including policy formulation, issuing of permits, and coordinating inter-departmental relations to enhance marketing.
- Historically the Department has employed a large number of extension officers located in farming communities who have supported and advised farmers. This service has been in decline in recent years, but remains an important aspect of state support to the sector.

The above roles will be subject to some review in the context of IPAP 2 and also the debates around the role of the state in the economy. The issue is not only levels of spending, but also clarifying the role of government in relation to the business of the sector.

Sector representatives

There are three major umbrella organisations representing the interests of farmers, AgriSA, TLUSA and the National African Farmers Union of South Africa (NAFU).

AgriSA and TLUSA represents both commercial farmers and cooperatives' interests through its engagement at national and international level. AgriSA is a member of the Southern African Confederation of Agricultural Unions (SACAU), a regional farmers' union for farmers in Southern Africa. AgriSA has structures in all the provinces, *except Limpopo*.

NAFU is a union for predominantly previously historically disadvantaged smallholder farmers with a membership base including farmers, agribusinesses, farmers' organisations, corporations and individuals who support their goals. NAFU is represented by different unions in all the provinces.

There are other employer organisations who are not affiliated to AgriSA and NAFU including:

- Agricultural Industrial and Medium Employers Organisation
- Agricultural, Mining and Industrial Chemical Manufacturers' Association
- Agrilabor Employers' Organisation
- Algoa Meat Traders Association
- East Coast Poultry Producers Employers' Association
- East London and District Meat Traders Association
- Fertiliser Industry Employers' Organisation
- Landbou Werkgewersorganisasie (Workinfo.com)
- Red Meat Producers' Association

The Agricultural Research Council is an autonomous statutory body that provides research to DAFF and the provincial departments of agriculture. Figures available for South Africa's investment in agriculture research and development show that South Africa was above international norms of investment in R&D, which are 0.53% of agricultural GDP for developing countries and 2.36% for developed countries. In South Africa, in 2000, agricultural R&D investment in relation to agricultural GDP was 3.04%¹⁶.

There are six major sources of credit for farmers: banks (50%), agricultural cooperatives and agribusiness (12%), the Land Bank (21%), private creditors (8%), other creditors and financial institutions (9%) and government (1%) (GCIS, 2010)

1.2 Factors impacting development in the Agriculture sector

Several international and local factors impact on the productivity of the agricultural sector and its growth. Key amongst these are:

- Growth of the South African economy and rising consumer demand
- International trade and trade agreements
- The global recession and rise in food prices
- The land reform programme
- Reliance on imports
- Water availability
- Changing consumer patterns and demands (e.g. organic food stuffs)
- Technological changes and mechanisms
- Quality standards
- Farm safety and security
- Broad-based black economic empowerment
- Legislation
- Skills demand and supply
- HIV/AIDS

¹⁶ Vink & van Rooyen, 2009

These key factors are clustered and discussed below:

Future sector economic growth and development

South African sector growth plans (IPAP2)

The 2010/2011 – 2012/2013 Industrial Policy Action Plan (IPAP) identifies five structural challenges that existed in the South African economy before the global economic downturn and which have been exacerbated by the recent economic crisis. These challenges were evident even during the time South Africa was experiencing relatively high growth rates between 2005 and 2007 and have continued during the recession. These challenges are:

1. Structural imbalances in the growth path including growth that is lagging behind other medium and low income countries.
2. Uneven performance of the manufacturing sector with some divisions like the automotive sector experiencing exponential growth while other sectors have stagnated.
3. Employment growth being sustained by credit extension and consumption rather than by productive sectors, leading to a large current account deficit.
4. Low profitability of manufacturing.
5. Low savings and investment from financial sector growth. Only 5.2% of private credit was extended to fixed investment in 2008.

Key sectors have been identified for IPAP's focus, including agro-processing, which has a diverse group of industries and sub-sectors including food processing, beverages, aquaculture, horticulture, medicinal, aromatic and flavourants. Key action plans for the agro-processing sector are identified in IPAP2 as:

- Development of a National Food Control Agency to consolidate the sector;
- Development of aquaculture to supplement dwindling wild fish stocks;
- Designating specific areas for utilisation of aquaculture;
- Development of the organic food sector;
- Development of the small milling industry;
- Enhancing competitiveness in fruit and vegetable canning;
- Improving beneficiation of Rooibos and Honeybush products (IPAP2, 2010).

International Trade

South Africa is a major exporter of Agricultural produce. In particular South African fruit and fruit-derived products such as wine and fruit juice are competitive in the global market. However in many sub-sectors where export potential exists – grain and meat – serious problems face the industry. A key challenge is the uneven playing field experienced by South African exporters. Major global competitors include the United States and the countries of the European Union, where government subsidies in various forms are in place. No such subsidies are in place in South Africa making it difficult, if not impossible for South African agricultural produces to enter developed country markets due to the prices that they have to ask for products. I

In addition, the value of the Rand has fluctuated from levels of around R10 to the US dollar to as little as R7 to the dollar. When the Rand is strong export becomes difficult because it costs more, in the case of the move from R10 to R7 a 30% cost increase for the importer. It is impossible to

predict whether the World Trade Organisation negotiations, known as the DOHA Round, will achieve progress in the coming years. Historical evidence is that during periods of global recession developed economies become more protective not less, and so the current outlook is not good. Nor is it possible to predict the value of the Rand, though current thinking in government is to move toward a weaker Rand to encourage exports. These are two key variables that will need to be factored into the different sector growth scenarios for the future.

Global recession and rise in food prices

Economic growth slowed down significantly in sub Saharan Africa and in South Africa in 2009 but there appear to be signs of recovery. GDP growth in the region declined from about 6% in 2004 – 2008 to about 1.8% in 2009/10. GDP growth in South Africa was 1.6% in 2009¹⁷ and rose to 4.6% in the first quarter of 2010¹⁸, though much of this is related to the income derived from the 2010 FIFA World Cup and may not be sustained. Projections are generally for a slow revival with a set back after the slight rise resulting from the World Cup. A return to the 6% levels of the 2007/8 could take some years.

The global recession reduced the demand for African exports and reduced capital flows to the region but it is anticipated that the demand for mineral resources by Asian and Western powers will result in both the expansion of exports and expanded foreign direct investment. The competition between India and China for African markets is also expected to boost trade to the benefit of African suppliers. South Africa is expected to particularly benefit from direct foreign investment from China and India. China has already become South Africa's largest market for exports and supplier of imports¹⁹.

Rising food prices have forced governments around the world to control prices of maize, bread, rice and dairy products. In South Africa, "food price inflation between December 2005 and December 2006 averaged 7.88 %" ²⁰. Although efforts are being made to reduce barriers to poorer families in relation to basic food, there has been no move to subsidise food generally. This may change, though the space for significant levels of support is restricted because of reduced revenue from income taxes resulting from the recession. The global credit crunch and recession have meant a reduction in public expenditure and funding, which has affected the agricultural sector²¹.

Land reform

In South Africa specifically, land reform has a significant bearing on food security and agriculture's contribution to GDP. The objective of the land reform programme is to transfer 30% of agricultural land to black ownership by 2014 (deferred to 2025) to ensure more equitable access to land by historically disadvantaged people and to increase their participation in agricultural activities²². Land reform has been informed by four processes²³

¹⁷ Department of Agriculture, Forestry and Fisheries, 2010

¹⁸ Stats SA, 2010

¹⁹ Department of Agriculture, Forestry and Fisheries, 2010

²⁰ Department of Agriculture, Forestry and Fisheries, 2010 -2011 Strategic Plan

²¹ Economic Commission for Africa, 2009

²² Xingwana, 2008

²³ CDE, 2008

- Land restitution, involving returning land or providing financial compensation to those whose land was dispossessed during apartheid;
- Land redistribution, transferring more land to the historically disadvantaged;
- Tenure reform, modernising land tenure rules and access to land ownership; and
- Providing financial support for the development of emerging farmers.

In relation to progress with land reform, by September 2009, only 6.9% of agricultural land (about 5.67 million hectares) had been transferred, and a majority of the beneficiaries have not yet occupied the land due to lack of infrastructure, input or technical support. The following table gives an indication of the progress of land reform since the inception of the first democratic government.

Table 14: Land transfers and beneficiaries - 1994 to 2009

Province	Redistribution and tenure			Restitution			Total	
	#	Hectares	Beneficiaries	Claims	Hectares	Beneficiaries	Hectares	Beneficiaries
Eastern Cape	675	353 357	25 633	16 201	94 834	215 201	448 191	240 834
Free State	799	350 291	7 721	2 662	47 615	40 893	397 906	48 614
Gauteng	286	34 513	7 328	13 159	9 476	70 179	43 989	77 507
KwaZulu Natal	690	547 414	67 761	14 752	642 447	433 168	1 189 861	500 929
Limpopo	291	91 235	7 403	3 382	513 024	220 227	604 259	227 630
Mpumalanga	444	322 839	13 950	2 694	399 876	225 877	722 715	239 827
Northern Cape	271	952 744	2 773	3 682	539 620	100 554	1 492 364	103 327
North West	300	268 566	40 539	3 709	373 642	172 963	642 208	213 502
Western Cape	223	122 304	12 750	15 546	3 769	118 165	126 073	130 915
Total	3 979	3 043 264	185 858	75 787	2 624 303	1 597 227	5 667 567	1 783 085

Source: Greenberg, 2010

Achievement of the 30% land reform target is being made difficult by land prices. Under the willing buyer willing seller scheme, the government will need R74 billion to be able to purchase enough land. While resources may be available, there are suggestions of lack of capacity. The Department of Rural Development and Land Reform (DRDLR) was able to spend only 31% of its land reform 2009/10 budget in the first six months of the financial year. Going forward, this Department needs to identify what the real challenges are with the pace of land reform delivery so that they can be mitigated to meet the 2025 target. A priority is the retention of skills, skills transfer and skills development during the transfer of land, as well as retention of national food production to avoid loss of production.

Support for new beneficiaries of land to ensure sustained productivity is derived from two main sources of funding – the Broadening Access to Agriculture Thrust (BADAT) and the Comprehensive Agricultural Support Programme (CASP). CASP is a conditional grant from the Department of Agriculture, Forestry and Fisheries to provincial departments to support emerging farmer development. Provincial farming budgets dedicated for farmer support in Mpumalanga, the Free State, Northern Cape and the Western Cape have risen significantly and those in KwaZulu Natal and Gauteng have witnessed a slight increase. Eastern Cape and Limpopo agricultural budgets have been steady. The North West is the only province where there has been a sharp decline in the share of the budget dedicated to farmer support²⁴.

²⁴ Greenberg, 2010

Reliance on imports

Overall the Agriculture sector contributes positively to the balance of payments.

“South Africa remains food secure. The value of our exports increased by 46.4 % from R33 656 million in 2007/08 to R49 278 million in 2008/09. During the same period the estimated value of imports rose by 12 %, from R34 009 million to R38 401 million, resulting in a positive trade balance”²⁵

South Africa depends largely on world markets for seed production and agrochemicals. Regarding seed production, there are only three community seed production schemes in Limpopo and Mpumalanga being piloted with state funding. Ten top large companies, including two South African companies and multinationals, have rights to over two thirds of registered seed varieties in South Africa. Despite the dominance of genetically modified and hybrid seed in some sub-sectors like maize, sunflower and sorghum, open-pollinated varieties have been resilient in South Africa, enabling the possibility of alternative seed sources not dependent on technological processes²⁶.

In relation to agrochemicals, deregulation and liberalisation in the fertiliser sector led to the shutdown of local production capacity, and South Africa became an importer of fertiliser for the first time in 2000. There are three large players in the fertiliser sector, Sasol Nitro, Yara and Omnia. South Africa imports an estimated 70% of fertilisers and pesticides. Fertiliser prices rose by over 200% between 2006 and 2008, but dropped somewhat after that. However, this hike signified the volatility of the agrochemicals industry and South Africa’s dependency on imports, and the potential risk for emerging farmers and food production of this dependence on imports, as the country cannot control the prices, making inputs both difficult to budget for and in many cases unaffordable. The price of agrochemicals is also particularly influenced by the prices of oil and the exchange rate.

The general understanding in relation to job creation is that a weaker Rand will improve exports and therefore enable job creation. Of course the down side of this strategy is that imports become more expensive. So what may be an advantage for those sub-sectors who are expanding their export volumes, those relying on imported agro chemicals will be under increased pressure.

Water

Water is both an essential and scarce resource for the agriculture sector and is being threatened by climate changes. Crop production relies heavily on water and yet access to water is not being addressed in a systematic way in the land reform processes. Greenberg suggests that the relationship between land reform, agricultural support and water resource provision is inadequate, and a way to address this could be established by linking water provision to land transfer or investing in irrigation for both commercial and resource-poor farmers. However, investing in irrigation in the context of water scarcity and climate change may not be the best option. What could be needed is finding ways to maximise efficiency of the 60% of South African

²⁵ Department of Agriculture, Forestry and Fisheries, Strategic Plan 2010/11

²⁶ Greenberg, 2010

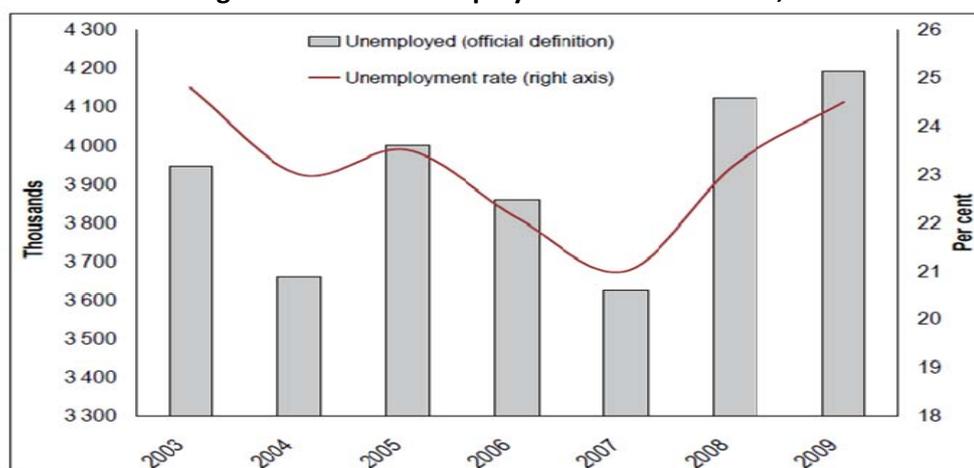
water used for irrigation, by, for example, using methods such as drip or micro-irrigation, which are expensive to set up but which reduce water wastage by 5-10%²⁷.

The Department of Water Affairs is responsible for managing water supply and has to give authorisation for agricultural projects and other developments. The department needs to be seen as an important stakeholder in the agricultural sector.

The labour market

South Africa recorded an unemployment rate of 24.3% in 2009 (narrow definition). If people who are no longer actively seeking work are considered, the broad unemployment rate rose from 26.7% to 31.3%, illustrated in the figure below. As a direct consequence of the global economic downturn in 2008, 870 000 formal jobs were lost in 2009²⁸. Others have quoted a figure of over 1 million.

Figure 3: Official unemployment in South Africa, 2003 -2009



Source: National Treasury, 2010

Annual employment loss followed sector growth patterns, with agriculture, mining, manufacturing and trade facing the highest job losses as their sector growth contracted. Unemployment is especially a major problem among lower skilled workers and younger people. Youth employment in the 15 -24 year age group has fallen by 219 000 (13.6%), and 48.3% of people in this age group are unemployed. Employment of semi-skilled and unskilled workers has contracted by 527 000, and male employment has gone down by 550 000 (7.1%) while that of women has decreased by 320 000 (5.2%). The number of discouraged workers, i.e. those no longer actively seeking work, has increased from 518 000 to 1.7 million²⁹.

Clearly the existence of a very large pool of largely unskilled unemployed workers has an impact on the farming sector. It drives wages down and creates opportunities for casualisation and the expansion of labour contract agencies and brokers. In addition there are significant numbers of foreign nationals, mainly from Zimbabwe and Mozambique, who are seeking work and often finding it on farms and in primary processing and packaging plants. There are benefits to the

²⁷ Greenberg, 2010

²⁸ National Treasury, 2010

²⁹ National Treasury, 2010

sector with skilled and semi-skilled workers coming into the labour market and being absorbed into the workforce and helping raise productivity levels. However at the lower skilled end of the market the existence of this pool brings further casualisation and downward pressure on wages. Tensions are likely to increase, and further protests either in the form of xenophobic outbreaks or actions against farmers may well increase.

A view often expressed by farm employers is that current labour legislation makes dismissing workers difficult and so the availability of labour without entering into contracts of employment is an attractive way of avoiding the legislation and its obligations. Organised Labour is seeking to restrict these opportunities through either regulating or eliminating labour brokers, and efforts are being made to regulate the use of foreign labour. However for the foreseeable future the trend is for formally employed people to be reduced in number.

In relation to the emergent sector there will also be a reluctance to enter employment contracts with workers. The fact that many households are engaged in some form of largely unpaid agricultural work means that there is significant casual work dating back many years. Helping change this situation into one where casual or unpaid jobs are transformed into formal jobs with regular wages will take time. It is also likely that as some emergent farms become established they will act similarly to established farms and institute a form of casual labour rather than expanding a workforce for which they would have to take a level of responsibility.

From an AgriSETA perspective these labour market trends mean that whilst levy income can be directed at a relatively small labour pool, one that is manageable in terms of planning and implementation, the size of the informal, casual and unemployed labour force in the sector - for whom no levy is paid and who have no employer to plan for their skills needs – is very large and its needs almost unlimited. Clearly the relationship with the National Skills Fund (NSF) becomes critical in respect of the entire non-levy income sector. Again the level of support available from non-levy income sources will be an important variable in looking at future sector skills development scenarios.

Consumer trends

South Africa currently produces enough food to meet the needs of its population. However, consumption of three main staples, maize, wheat and vegetables has been volatile since 1985 and remains below 1990 levels. Consumption of maize and vegetables by South Africans is 17% and 32% less respectively than in 1985³⁰.

The main reasons for this lie in the growing levels of poverty and the difficulties that families have in purchasing nutritious food. Whilst government has increased the levels of social grants and increased the number of people receiving grants to around 13 million, the incomes of poor families have been badly hit by a range of factors, including job losses and rises in food prices. The approximately 1 million people who lost their jobs in 2008/9 meant a loss of income for many millions of dependents. Rises in food prices have also had a disproportionate impact on the poor. Whilst food is available it is often not accessible to families on the income levels that they have to manage within. The result is that less, and less nutritious, food is purchased, which in turn impacts on the ability of farmers to sell their products locally.

³⁰ Greenberg, 2010

Whilst there is no evidence that government will reduce its efforts in relation to poverty relief and social benefits, including such programmes as school feeding schemes and food parcels during periods of drought, the state of public finances may not enable to support the poverty that grips many rural areas. If real income levels for the poor were to rise it could have a significant impact on the economy of the agricultural sector. Equally an improvement in the rural economy with increased agricultural production and jobs, would dramatically impact on the capacity of people to buy nutritious food. Achieving a positive growth path in rural areas is a huge challenge for government, and one that is key to government's Medium Term Strategic Framework and Industrial Policy Action Plans.

HIV/AIDS

South Africa has a high prevalence of HIV and AIDS. The HIV prevalence among people aged two and above was estimated at 10.9% in 2008.

Table 15: Estimated HIV percentage prevalence by age group (2002 – 2008)

Age	2002	2005	2008	Change
Children (2-14 years)	5.6	3.3	2.5	-3.1
Youth (15-24 years)	9.3	10.3	8.7	-0.6
Adults (25 and older)	15.5	15.6	16.8	1.3
15-49 year olds	15.6	16.92	16.9	1.3
Total (ages 2 to 49)	11.4	10.8	10.9	-0.5

Source: Avert, 2009

The table above shows that HIV prevalence is highest amongst those aged 25 years and older. Given youth labour market analyses which point to people from previously disadvantaged backgrounds, mainly African males, accessing formal employment for the first time at age 25 -27, this population can be held to represent people in employment. Research³¹ has estimated that by 2020, the pandemic will have claimed at least 20% of employees in the agricultural sector in Southern Africa.

HIV and AIDS have significant ramifications in the agricultural sector for both commercial farming and subsistence farming. The implications include:

- Decrease in cultivated land
- Focus on less labour intensive crop and animal production
- Decrease in women's agricultural productivity as they take on a more care giving role
- Loss of skills
- Increase in absenteeism from work
- Decrease in daily work output/productivity because workers are weaker from infections

There are suggestions that the impact of the pandemic in South Africa demands sectoral intervention, although this may be difficult in the agricultural commercial sector as:

- Seasonal workers, who seem to be more vulnerable to infection because of their low socio-economic status, are not in one place long enough for care programs. Further,

³¹ Ingelozzi Management Solutions, 2008

farmers and employers may not feel responsible for seasonal workers in the same way they would invest in their permanent employees.

- There may be uncertainty around land reform which may put HIV intervention on farms on the back burner.
- There are no policies that enforce HIV education and care on farms in the same way that legislation like BEE does for ownership. As a result, HIV intervention may be left to goodwill and employers may feel it is more important to comply with issues that are monitored.

Farm safety and security

South Africa has been plagued by unacceptably high levels of violent crime and murder for many years now. Farms have experienced this and those living on farms feel and are extremely vulnerable. The South African Chamber of Commerce and Industry (SACCI) has argued that

"Using the nominal GDP figure for 2009 of R2.4 trillion, a 3.22 percent contribution of agriculture to GDP and an estimate of 39,982 farms (as at 2007) in South Africa, the cost of a murder/attack on a farm, to the economy, was R1,932,869 per annum."

SACCI acknowledges that this estimate is flawed as it does not take into consideration the fact that farming units contribute differently to GDP, and that not every attack or murder contributes to farm shut down or loss of productivity. However, if not addressed, these attacks could lead to loss of farming sectors as farmers migrate to 'safer' regions. This will affect employment and GDP contribution of the sector. The need for safety and security on farms may also shift farmers' focus in skills development to include personnel who have skills in safety and security.

Broad-based Black Economic Empowerment

The aim of the AgriBEE Charter (gazetted in 2008) is to increase the involvement of black business in agriculture through ownership and control as executives and senior managers of new and existing agricultural businesses. The extent to which AgriBEE is transforming the sector is not known, as it is too early to tell, but a recent survey conducted by ABC and the IDC showed that among the ABC respondents, in 2007 46% of enterprises were busy constructing a BEE strategy, and 46% claimed to be implementing a BEE strategy.

A survey of the dairy industry in the Western and Eastern Cape in 2008 showed that only 6% of firms had a BEE strategy in place. It also seems from survey data that companies are focusing on the skills development and socio-economic aspects of BEE rather than on ownership³². It would appear that although there have been some significant BEE purchases of viable farms, and some employee empowerment projects, including some quite high profile ones in the Cape Winelands, the extent of ownership change had been limited. One of the factors is the very high level of single person or family ownership in the agricultural sector. BEE is more straight forward in the corporate world where shares can be exchanged. For a family business it is a matter of selling off part or all of the land, and the tendency is to sell off those areas of the farm that are expendable from a business sustainability perspective.

³² Greenberg, 2010

Whilst there is discussion in government about the ending of the “willing buyer, willing seller” concept the Constitution itself provides for property rights, and so although some pressure may be exerted through legislation and regulation the extent and speed of change may not be fast. The mechanisms for encouraging the transfer of significant levels of ownership have not yet been created. The focus of the SETA is therefore likely to be more the beneficiaries of land reform, and emergent farmers, though projects of a BEE nature can be targeted as they arise.

Conclusions and scenarios

It is useful when looking at possible scenarios to examine the key variables or uncertainties and to project how variations one way or the other will have an impact on the development and growth of the sector. From the sector analysis and factors that are contributing to change in the sector there are some key factors that seem to emerge.

First appears to be the economy and related issues of the labour market and the challenges of labour absorption in an enclave economy. These factors determine on the one hand whether there will be growth and development, and on the other whether such improvements will result in improved employment opportunities and the creation of a virtuous cycle of development.

Second is the role of the state and the various government departments whose plans and work impact on the agricultural sector. Related to this is land reform that is inevitably driven by the state and not the owners of land or the landless. The view expressed by many engaged in agrarian reform is that the state must play a significant role. It becomes clear that a successful agricultural enterprise requires a number of factors to be in place to be successful. These include access to land (Department of Rural Development and Land Reform), agricultural support within a supportive agricultural framework (Department of Agriculture, Forestry and Fisheries), access to consistent water supply (Department of Water Affairs), access to finance (Department of Trade and Industry, various state agencies), conducive labour market regulation (Department of Labour), sound industrial policy (Department of Trade and Industry), economic planning and macro policy (Department of Economic Development, National Treasury), and appropriate education, training and skills development (Department of Higher Education and Training, the Human Resources Development Council, NSA and the SETA). There are other government departments as well as provincial and municipal structures that also play a role.

The following analyses show how the four variables

- economic growth and development;
- role of the government;
- labour market changes; and
- land reform)

impact positively or negatively on the growth of the sector and the demand for skills.

HIGH GROWTH SCENARIO	
The economics of the sector	Role of government
The economy in SA and globally continues to revive, albeit slowly for the next few years	Roles and integration of national government departments are clarified. Specific functions are agreed, processes put in place and personnel appointed with the required skills
International trade agreements are still weighted in favour of US and EU but progress is being made and specific blockages are addressed in bilateral talks	The roles of Departments (DWA, DAFF, DRDLR, DoL, DTI, DED, DHET) are clarified with appropriate joint plans and coordinating structures
The rural economy gradually improves with the buying power of the poor increasing and more stable markets created for local produce	For each of the functions agreed in each of the related departments appropriate structures and systems are put in place and staff trained
Exports increase in key areas identified in IPAP 2, and the Rand exchange rate stabilises at a level not too much different than it is today	Specific capacity is put in place at local level to support implementation of land reform and rural development
Labour market reform	Trajectory of land reform
There is a growing understanding of the concept of dualism and the need to intervene with labour absorption and development mechanisms	Land claims are all finally settled and ownership and tenure is resolved. There is a serious drive to establish effective agricultural enterprises
An understanding is reached on the role of agencies and labour brokers and abuse is curbed	The "willing buyer willing seller" approach is resolved and enables viable land to become black owned
Some relaxation of labour market regulations are agreed that maintain some minimum standard of employment but assist absorption	Land transfer to black and emergent farmers is done in a manner that integrates then into the supply chains of the sector
Mechanisms are found to address skills needs in the context of casual and seasonal work patterns	Financing of land reform and transfer is done on the basis of agreed development plans, including skills.
Labour market reform	Trajectory of land reform
LOW GROWTH SCENARIO	
The economics of the sector	Role of government departments
The economy in SA and globally stagnates at current levels and the economy struggles to pick up after the temporary 2010 World Cup boost	A lack of purpose at government level means limited progress for another five years. Land reform remains a commitment without a plan
International trade agreements are still weighted in favour of US and EU and protectionism increases as a result of the global recession	The roles of Departments (DWA, DAFF, DRDLR, DoL, DTI, DED, DHET) are unclear and there is no proper co-ordination
SA's Gini coefficient continues to worsen, with rural poverty increasing and local economies declining	There is a lack of effective structures, systems and processes to implement policy across departments
Rand volatility causes problems for importers and exporters. Well established markets are maintained but exports decrease	At local level the decline in the agricultural extension officer functions continues and limited practical support is available
Understanding of the rural economy is so diverse that stakeholders cannot agree the problem, let alone the solution to low absorption levels	Land claims take too long and land reform processes leave potentially productive land poorly developed and managed
Casual labour and labour brokers remains an issue of dispute. Confrontation results in bitterness and resentment	The impasse caused by a rigid interpretations of property clauses in the Constitution continues to stall achievement of the 30% black ownership target
Labour market regulation continues to be a contributing factor to reducing levels of employment	Black owned farms find it difficult to become part of supply chains and are unable to perform adequately
Unstable employment patterns in the sector make skills interventions difficult to manage and largely ineffective	Financing of land reform and land transfer continues to be wasted as it is not tied to the building of appropriate capacity
Labour market reform	Trajectory of land reform

These analyses can be translated into four potential growth and development scenarios for the agricultural sector which are based on the requirements for a strong, development state:

Scenario 3: Weak government support and sound economy	Economic factors globally, nationally and locally	Scenario 1: Integrated government support and sound economy
<p>The economic upturn triggered by the World Cup continues and globally things improve enabling an expansion of exports. The government, because of a lack of integrated policy planning and implementation, provides limited support for sector development. The gains go to the well established enterprise owners, with few gains for emerging farmers and local communities.</p>		<p>Government departments coordinate their efforts to achieve maximum impact. There are favourable economic conditions that create opportunities for advance. Within this positive environment the role of the AgriSETA becomes a central component of a comprehensive strategy for growth and skills interventions are targeted to achieve maximum effect. Results in growth in sustainable enterprises and expanded employment opportunities.</p>
Government policy and support		Government policy and support
<p>Combination of disjointed government policy, planning and a weak and increasingly marginalised rural economy. Economic conditions result in unsustainable farming conditions and employment declines along with productivity. Food shortages and the lack of development in rural areas leading to increasing social tensions. A vicious cycle develops with the sector going into long term decline.</p>		<p>Government departments coordinate their efforts to achieve maximum impact. However economic conditions hamper progress. Efforts by the AgriSETA are undermined by poor labour absorption and job insecurity. Some significant successes are recorded including some NSF funded projects that result in sustainable enterprises. A platform is laid for future improvements when the economic conditions improve.</p>
Scenario 4: Weak state and economy		Scenario 2: Strong state but weak economy

SECTION 2: DEMAND FOR SKILLS

AgriSETA registered employers and employee coverage

In 2009, 17 234 employers were registered with the AgriSETA, comprising

- 15 394 small employers (less than 50 employees)
- 1 202 medium sized employers (50 - 149 employees) and
- 638 large employers (more than 150 employees).

Considering that there are around 40,000 commercial farms³³, the 17 234 employers represent around 43% of commercial farms. Notwithstanding changes in the sector as a result of land reform and sector shrinkage, this is a sizable proportion and is held to be sufficiently representative for the purpose of skills development planning.

However this paints an incomplete picture. It *understates* the representative nature of large enterprise registered with the SETA and *overstates* the representative nature of small registered enterprises. 4 175 (24.2%) of the enterprises are levy paying members. Further, only 1 673 (11%) workplace skills plans (WSPs) were submitted..

Table 16: Registered employers by size and sub-sector

Sub-sector	Description	Employers		
		Small	Medium	Large
<i>Coffee/Tea</i>	Processing and marketing of coffee and tea including coconuts, cocoa, nuts, olives, dates, etc.	33	4	3
<i>Fibre</i>	Grading, ginning, packing of wool and cotton raw material	1 676	16	18
<i>Fruit</i>	Fruit packed in cartons, fruit juice concentrate drummed and fruit juice in container ready for consumption	271	36	57
	Fruit exporters and importers	6	0	1
<i>Grain</i>	Manufacture of grain mill products and starches	119	5	7
	Handling and storage of grain	67	7	23
	Wholesale & retail trade in Agricultural machinery	213	9	4
	Sale and distribution of Agricultural raw materials and other farming inputs	182	9	3
<i>Milling</i>	Manufacture of flour and grain mill products, including rice and vegetable milling, grain mill residues	120	15	11
	Manufacture of prepared animal feeds	110	19	0
	Manufacture of pet foods	42	9	0
	Manufacture of starches and starch products	7	1	1
<i>Pest control</i>	Pest Control	209	4	0
<i>Poultry</i>	Poultry and egg production including the slaughtering, dressing and packing of poultry	305	49	37
<i>Primary</i>	Growing of Cereals and other crops (<i>not elsewhere classified</i>)	902	160	34
	Growing of Vegetables, Horticultural specialties, nursery products	943	120	72
	Growing of Vegetables, Horticultural specialties (Including Ornamental Horticulture) and nursery products.	11	5	0
	Sugar plantation including sugar cane and sugar beet etc.	9	4	2

³³ SARS statistics, 2007

Sub-	Description	Employers		
	Growing of fruit, nuts, beverage, and spice crops.	1795	255	143
	Farming of cattle, sheep, goats, horses, asses, mules, and hinnies; Dairy farming.	2 252	59	18
	Other animal farming, production of animal products (<i>NEC</i>)	433	25	12
	Ostrich farming	5	0	0
	Game farming	16	0	0
	Growing of crops combined with farming of animals (Mixed farming)	2 920	256	109
	Growing of coffee and tea including coconuts, cocoa, nuts, olives, dates, etc.	2	0	0
	Agricultural and animal husbandry services, except veterinary activities	438	22	9
	Other animal farming (<i>not elsewhere classified</i>)	11	1	1
	Growing of trees as second crop by farmers	126	18	4
	Fishing, operation of fish hatcheries and fish farm	913	10	6
<i>Red meat</i>	Production and animal products (<i>not elsewhere classified</i>)	6	0	0
	Slaughtering, dressing and packing of livestock, including poultry and small game for meat.	317	40	17
	Production, sale & marketing of Agricultural by products (<i>e.g. bones, hides</i>)	61	2	0
	Slaughtering, dressing and packing of livestock, including small game for meat and processing of ostrich products	2	1	0
	Wholesale trade in Agricultural raw materials and livestock	193	7	10
	Transport of livestock as supporting activity	224	0	0
	Agricultural and livestock research	215	9	3
<i>Seed</i>	Seed production and marketing	149	12	6
<i>Sugar</i>	Manufacture of sugar including golden syrup and castor sugar	45	5	21
<i>Tobacco</i>	Processing and dispatching of tobacco	46	8	6
	TOTALS	15 394	1 202	638

Source: AgriSETA, WSP data

The largest number of registered small and medium enterprises are found in the mixed farming sub-sector, while most large enterprises are in the growing of fruit, nuts, beverage and spice crops sub-sector.

Employee coverage in the AgriSETA

Collectively, the 17 234 employers registered with AgriSETA employed a total of 239 076 employees. This represents 39% of the agricultural labour force in 2009.

The 1 673 employers who submitted WSPs in 2009 employed 97 898 employees, representing 41% of the total number of people employed by registered employers. While the number of registered employers submitting WSPs is small (11%), they employ a sizeable number of employees and the percentage of employees provides a statistically significant sample. The data for larger enterprises is statistically much more representative than that for small enterprises.

Table 17: Number of employees of registered employers by sub-sector

Sub-sector	Sub-sector description	Employees
<i>Coffee/Tea</i>	Processing and marketing of coffee and tea including coconuts, cocoa, nuts, olives, dates, etc.	483
<i>Fibre</i>	Grading, ginning and packing of wool and cotton raw material	6 539
<i>Fruit</i>	Fruit packed in cartons, fruit juice concentrate drummed and fruit juice in container ready for consumption	27 661
	Fruit exporters and importers	212
<i>Grain</i>	Manufacture of grain mill products and starches	133
	Handling and storage of grain	18 303
	Wholesale & retail trade in Agricultural machinery	795
	Sale and distribution of Agricultural raw materials and other farming inputs	2 898
<i>Milling</i>	Manufacture of flour and grain mill products, including rice and vegetable milling, grain mill residues	3 634
	Manufacture of prepared animal feeds	731
	Manufacture of pet foods	160
	Manufacture of starches and starch products	105
<i>Pest control</i>	Pest Control	119
<i>Poultry</i>	Poultry and egg production including the slaughtering, dressing and packing of poultry	19 187
<i>Primary</i>	Growing of Cereals and other crops (<i>not elsewhere classified</i>)	10 104
	Growing of Vegetables, Horticultural specialties and nursery products	37 799
	Growing of Vegetables, Horticultural specialties (Including Ornamental Horticulture) and nursery products.	195
	Sugar plantation including sugar cane and sugar beet etc.	220
	Growing of fruit, nuts, beverage, and spice crops.	47 043
	Farming of cattle, sheep, goats, horses, asses, mules, hinnies; Dairy farming.	3 382
	Other animal farming, production of animal products (<i>NEC</i>)	4 203
	Ostrich farming	0
	Game farming	0
	Growing of crops combined with farming of animals (<i>Mixed farming</i>)	28 722
	Growing of coffee & tea including coconuts, cocoa, nuts, olives, dates, etc.	0
	Agricultural and animal husbandry services, except veterinary activities	970
	Other animal farming (<i>not elsewhere classified</i>)	513
Growing of trees as second crop by farmers	1 294	
Fishing, operation of fish hatcheries and fish farm	1 589	
<i>Red meat</i>	Production and animal products (<i>not elsewhere classified</i>)	0
	Slaughtering, dressing and packing of livestock, including poultry and small game for meat.	5 128
	Production, sale & marketing of Agricultural by products (<i>e.g. bones, hides</i>)	116
	Slaughtering, dressing and packing of livestock, including small game for meat and processing of ostrich products	0
	Wholesale trade in Agricultural raw materials and livestock	1 697
	Transport of livestock as supporting activity	0
	Agricultural and livestock research	534
<i>Seed</i>	Seed production and marketing	2 127
<i>Sugar</i>	Manufacture of sugar including golden syrup and castor sugar	10 478
<i>Tobacco</i>	Processing and dispatching of tobacco	2 002
	Total	239 076

Source: AgriSETA, WSP data

According to the WSP analysis, the sub-sector for the growing of fruit, nuts, beverage and spice crops employed the largest number of people. In six sub-sectors, there are employers who do not employ workers. These are probably family based organisations where family members help in the business without drawing a salary. These are in transport and livestock research; slaughtering, dressing and packing of livestock, including poultry and small game for meat; growing of coffee and tea including coconuts, cocoa, nuts, olives, dates etc; ostrich farming and game farming.

Table 18: Employee distribution by province

Province	Employees	Percentage
Eastern Cape	18 844	19.2%
Free State	1 946	2.0%
Gauteng	2 788	2.8%
KwaZulu-Natal	5 416	5.5%
Mpumalanga	8 062	8.2%
North West	3 290	3.4%
Northern Cape	5 436	5.6%
Limpopo	1 730	1.8%
Western Cape	50 386	51.5%
Grand Total	97 898	

Source: AgriSETA, WSP data

Of those submitting WSPs, registered employers in the Western Cape employed the largest number of people while employers in Limpopo employed the least number of employees. Free State has a small number of employees covered by WSPs submitted to the SETA, whereas Eastern Cape, with a relatively small number of registered farms has a very large number of employees on farms submitting WSPs. Given this variance between provinces, the use of WSP data for extrapolation purposes must be viewed cautiously.

2009 WSP equity information was only provided for about a quarter of employees (25 637 or 26%)³⁴. No information was available from the WSPs on non-South Africans working on commercial farms.

Table 19: Equity profile from 2009 WSP data

African			Coloured			Indian			White			Totals
M	F	D	M	F	D	M	F	D	M	F	D	
8 040	5 785	38	5 097	5 228	24	22	25	0	811	556	11	
58.0%	41.7%	0.3%	49.3%	50.5%	0.2%	46.8%	53.2%	0.0%	58.9%	40.3%	0.8%	
13 863			10 349			47			1 378			25 637
54.1%			40.4%			0.2%			5.4%			100%
Total Equity												
Total Male				Total Female				Total Disability				
13 970				11 594				73				
54.5%				45.2%				0.3%				

Source: AgriSETA, WSP data

Using currently available data it is not possible to provide disaggregated employment data by sub-sector. This will require a small change in the way that gender, race and disability data is

³⁴ Some employers did not complete race and gender information when giving their employment profiles.

codified during WSP data-capturing, including allocation by sub-sector. What can be stated is that employment of males is more dominant than that of women, and more Africans are employed in the sector than other groups. Employment of people with disabilities is below 1%.

2.1 Skills demand

The National Education and Training Strategy for Agriculture (AET Strategy)

The AET Strategy developed by the Department of Agriculture, Fisheries and Forestry (in consultation with various key stakeholders in the agricultural sector) highlights priority skills needs and constraints within the sector and categorises needs within the following 5 broad areas:

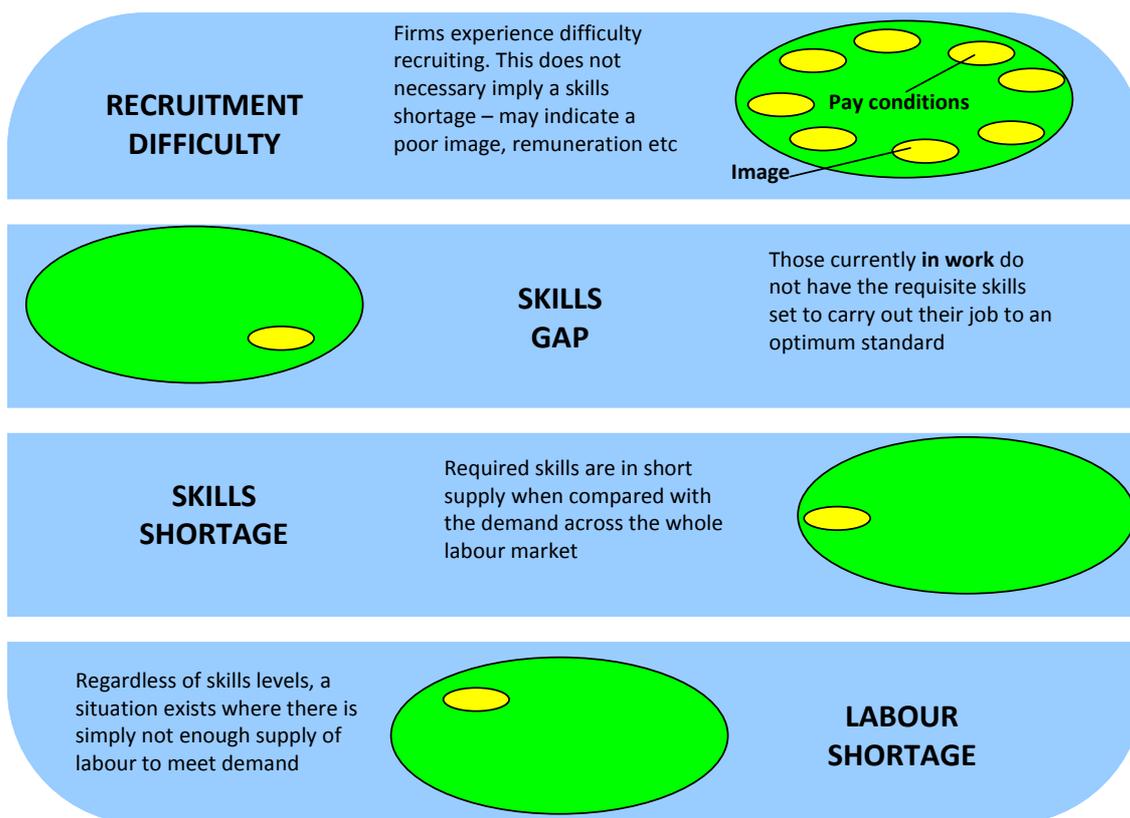
1. **Agricultural production** – requesting that the past focus on a narrow band of commodities (relevant mainly to the commercial sector) and related research be expanded to address the needs of small-scale and subsistence farmers (e.g. more focus on mixed farming and rural livelihood sustainability skills)
2. **Agricultural engineering** – with specific focus to be placed on technologies suitable for small-scale farmers (e.g. relevant and post-harvesting techniques related to processing and storage of produce) – to address this need the scarcity of agricultural engineers requires attention.
3. **Agricultural economics** – a critical need was identified for general agricultural economic skills (ranging spectrum of farm planning, farm management, enterprise management, marketing, finance, etc.) – with the need to training both farmers and extension officers in such fields
4. **Agricultural development** – a specific need was identified to develop agricultural extensionists in supporting especially emerging and small-scale farmers over the full spectrum (a need exists for both new curriculum in the training of new extensionists and the re-training and upgrading of existing officers)
5. **Veterinarians** – the need to develop state veterinarians in order for the state to perform its role and function (particularly in its preventative, monitoring and regulatory role and function)

AGRISETA sector skills planning demand data (2008-2009)

The following section reflects initial research on skills demand in the Agricultural sector arising from the sector analysis (section 1), previous AGRISSETA skills demand research for Sector Skills Planning during 2005-2009 and analysis of WSP data from 2009.

With the introduction of the Organising Framework of Occupations and agreement on definitions for scarce and critical skills in 2005/06, the AGRISSETA undertook an extensive research and consultation processes to determine skills development priorities for the sector.

The research methodology employed was based on the a four dimensional topology for establishing and evaluating skills needs, illustrated in the figure below:

Figure 4: Topology for identifying skills development priorities

Source: AGRISSETA SSP Annual Update, August 2009

The identification and prioritisation of skills needs was also undertaken from a key stakeholder and beneficiary perspective. Consideration was given to needs of the following groups:

- The *unemployed* – helping them gain and/or regain entry to the labour market.
- The *economically inactive* – helping them to become economically active.
- *School leavers* – helping them gain access to further education and training opportunities and thus facilitating their entry to the job market.
- *Entrants to the job market* – facilitating employment and integration into the work culture and work ethic (improving the employability of an individual).
- Those *currently employed* in the sector – increasing their competency and opportunities for advancement, creating a career path and offering continued job security, enhancement of value adding to the sector, improving their prospects for better employment opportunities.
- *Organisations and enterprises* within the sector – making sure that skills development and knowledge creation occurs in such a way as to improve the sector's viability and allowing companies/enterprises to become more sustainable and profitable along the way, improving productivity, competitiveness and innovation within organisations.

In organising and reporting the identified priority skills development needs (2008/09), the following structuring approach was followed:

- Tier 1: The four categories of needs as per the Topology presented above were used for the identification, evaluation and grouping of needs.

- Tier 2: Within each of the first tier groupings, needs were further broken down and organised per target group. At this second level needs were grouped by:
 - General skills development needs (cross-cutting over different target groups)
 - Needs experienced by small scale farmers (this group included subsistence farmers, new emerging land reform beneficiaries and small-scale AgriBEE farmers)
 - Needs within the commercial agricultural sector (per sub-sector groupings where specific needs for such were identified – both on-farm needs and within the secondary sub-sector or related agri-businesses)
 - Needs of the Department of Agriculture, Fisheries and Forestry (DAFF)

To further guide and direct the identification and selection of scarce and critical skills, the following factors or criteria that could reflect the importance (impact and effect) of a skills shortages were developed as an identification framework:

1. **Basic Skills Development**
Promoting basic literacy and numeracy and raising the base level of education for the sector, improving the work and livelihood of existing workers.
2. **Employability:**
Making the employee more employable by improving the fit between their skills and the sector needs.
3. **Enterprise Viability:**
Improving the capability and feasibility of the enterprise by increasing its effectiveness of or possibilities for profit generation, etc.
4. **Enterprise Sustainability:**
Allow enterprises to survive and grow over an extended period of time without compromising the value of renewable resources, thereby creating long-term meaningful employment for larger numbers of people.
5. **Sector Growth:**
Enabling the sector to develop or pursue new opportunities or improve the effectiveness of current operations.
6. **Sector Competitiveness:**
Enabling the sector to compete more effectively in the international arena, improving market intelligence and interpretation, productivity, cost efficiency, etc.
7. **Human Resource Development Capacity:**
Improving the access to quality provision of training to the agri sector.

Based on this research and consultation framework the following skills development needs and priorities were identified:

GENERAL NEEDS	SMALL-SCALE FARMER NEEDS	COMMERCIAL SECTOR NEEDS	DAFF NEEDS
RECRUITMENT RELATED SKILLS NEEDS			
<p>Primary agriculture is the entry point into the world of work for large numbers of people in rural areas. However, the sector has negative connotations amongst sections of the youth and in parts of the country and is viewed as a last resort for some in the search for employment). The effect is that despite an unemployment rate of approximately 26% (now over 30%), farmers find it difficult to recruit workers to meet seasonal demands. This has resulted in the government approving the contracting of foreign labour to meet such temporary needs (workers are recruited mainly from Zimbabwe and Mozambique).</p>	<p>Labour in this farming sector is provided primarily by family members and no real recruitment constraints can be identified</p>	<p>The agricultural sector still manages to attract technical and management skills as it is perceived to include a better lifestyle and there is a strong tradition of agriculture in SA. Increasing crime related security risks associated with farming may have a negative impact.</p>	<p>The Department has identified a number of occupations in which they are experiencing long-term vacancies. Some of these result from a general shortage of such skills in SA, while others arise from the inability of the public sector to compete with the private sector (less favourable employment image, working conditions and equity considerations). Priority vacancies include</p> <ul style="list-style-type: none"> ▪ Veterinarians ▪ Agricultural Engineers* ▪ Plant Health Specialists* ▪ Agricultural Statisticians ▪ Plant Health Pest Risk Analysts * ▪ ICT Specialists ▪ Agricultural Economists ▪ Agricultural Food and Quarantine Technicians * ▪ Agro-meteorologists* ▪ Pasture Scientists * ▪ Plant Production Specialists * ▪ Specialised Food Analysts
SKILLS GAPS RELATED NEEDS			
<ul style="list-style-type: none"> • Low literacy and numeracy levels – both amongst workers within the sector at large and at owner/manager level in many of the small-scale farming. • Farm management 	<p>Farm Management (Mainly owners / managers)</p> <ul style="list-style-type: none"> • Farm management & entrepreneurship • Resource management and record keeping • Financial planning 	<p>A critical constraint is the poor educational levels of a large proportion of the labour force in the sector demanding a considerable effort and investment in ABET and other life skills</p>	<p>A particularly big need exists for skills upgrading amongst Extension Officers – particularly with regard to redress the historical neglect of small-scale farmers and resource strapped farmers.</p>

GENERAL NEEDS	SMALL-SCALE FARMER NEEDS	COMMERCIAL SECTOR NEEDS	DAFF NEEDS
<p>skills (and general management skills in other agricultural businesses) coupled with a business orientation and entrepreneurship skills.</p> <ul style="list-style-type: none"> • A general need to increase compliance with environmental, occupational health and safety, animal welfare, produce safety and hygiene standards, regulations and requirements (local and international standards) 	<p>and management</p> <ul style="list-style-type: none"> • Project management • Business plan development <p>Marketing and processing</p> <ul style="list-style-type: none"> • Processing and packaging • Transport management • Marketing produce, including branding • Planning for marketing • Knowledge of markets <p>Technical knowledge and skills</p> <ul style="list-style-type: none"> • Production management (related to specific enterprise) • Demonstration of production techniques • Natural resources management <p>Mechanical knowledge</p> <ul style="list-style-type: none"> • Farm maintenance • Repairs of machinery and equipment • Electrical maintenance and installation 	<p>programmes.</p> <p>Need for improved management skills and relevant technological knowledge for increasing productivity levels and improved production methods.</p> <p>Rising importance for environmentally responsible production and processing management systems.</p> <p>Rising competitive and international markets increases need for business and marketing abilities among owners and managers.</p> <p>Increasing requirements for compliance with environmental, health and safety, and international trade standards..</p> <p>Information technology although not a priority, is increasing in importance.</p> <p>Business management ability is becoming increasingly important as more farmers are making decisions about restructuring their businesses, diversification and developing supplementary sources of income.</p>	<p>Critically, improved farm management and business skills within an agricultural context to support the majority of BEE and emerging farmers.</p> <p>Skills upgrading requirements for existing Extension Officers include:</p> <ul style="list-style-type: none"> • Agricultural economics • Agricultural management • Business and financial management • Technical and production related skills including: <ul style="list-style-type: none"> ○ Animal husbandry ○ Poultry ○ Crop production ○ Horticulture
SKILLS SHORTAGES			
<p>Generally, SA has a shortage of entrepreneurs and people who have the business acumen, drive, motivation and</p>	<p>The profile of these farmers reflects a large contingent of older and less educated people who are generally less flexible, tend to stick to</p>	<p>The commercial agri sector will increasingly have to compete in the global market and the ever increasing need to increase productivity to</p>	<p>DAFF us experiencing problems are especially sourcing people in specialised science related fields (learning fields experiencing few</p>

GENERAL NEEDS	SMALL-SCALE FARMER NEEDS	COMMERCIAL SECTOR NEEDS	DAFF NEEDS
<p>perseverance to become a successful farmer. Given the high risks involved in the agricultural sector (natural elements outside one's control), the agri sector does not compete successfully for this "scarce resource". Moreover, as with other professional and skilled occupations there is a tendency for younger qualified people to move to urban areas.</p>	<p>known practices and are less likely to experiment with new technology. Within this target group, candidates with good entrepreneurial ability are scarce. There is a perceived <i>shortage</i> of Agricultural Extensionists and advisors to assist this target group. However, a large pool of young unemployed graduates exists who could assist such emerging farmers if they were mobilised and made accessible to farmers. Similarly the potential pool of retired commercial farmers who could serve as mentors to this target group.</p>	<p>remain profitable and viable, it can be stated that many of the existing farmers and managers / owners lack business management and entrepreneurial orientation. Equity policy and the need to become BEE compliant requires that commercial enterprises appoint and develop black owners / directors / managers. Changing local and global consumer preferences require farmers to change traditional farming methods and practices. Skills and knowledge requirements include:</p> <ul style="list-style-type: none"> • Global food and international quality standards • Product traceability requirements • Organic produce and products <p>Specific occupations identified as being in short supply are:</p> <ul style="list-style-type: none"> • Production Managers (food processing) • Product specialisation to international specifications (research skills) • Forklift drivers, heavy vehicle/truck drivers and mobile plant operators • Experienced and competent artisans (millwrights, electricians, fitters) 	<p>enrolments and/or pass rates at HET institutions with the result that too few qualified persons come onto the labour market). Examples of such skills shortages identified by the Department include: Agricultural Engineers</p> <ul style="list-style-type: none"> • Plant Health Specialists (Nematology, Entomology, Plant Pathology) • Statisticians (specialised agricultural knowledge) • Plant Health Pest Risk Analysts • Agricultural Economists (production and resource economists) • Agricultural Food and Quarantine Technicians • Agro-meteorologists / Early warning Specialists • Pasture Scientists • Plant Production Specialists (e.g. ornamental crops, hydroponics) • Specialised Food Analysts (pesticide residue analysts, processed food and dairy analysts, wine and spirit analysts)

GENERAL NEEDS	SMALL-SCALE FARMER NEEDS	COMMERCIAL SECTOR NEEDS	DAFF NEEDS
		and turners, • Agricultural Equipment Technicians • Pest and weed controllers • Horticultural specialists	
LABOUR SHORTAGES AND RELATED SKILLS NEEDS			
<p>Given an employment rate of some 26% (2009, currently estimated at over 30%, expanded definition), per definition there cannot be a labour shortage.. It is however, difficult for people who have never worked before to integrate into the agricultural sector workforce . Coupled with an aging workforce (30-60% being over 40) means that most agri enterprises will, within the next 5-10 years, be looking at replacing a large proportion of their workforce. There could be an insufficient pool of people willing and able to participate. The impact of HIV/AIDS is also not always factored in to understanding the diminishing pool of resources available.</p> <p>Labour shortages have been reported within selected geographical areas and in particular occupations. Examples include cane cutters in the sugar industry, chicken catchers in the poultry industry, pickers in the fruit industry and animal handlers in feedlots, as well as dairy parlour workers. It is however believed that these shortages may reflect a recruitment problem as a result of the very harsh working conditions and the relatively poor remuneration (which makes these occupations unpopular). At present such “shortages” are addressed through contracting labour from neighbouring countries.</p>			

AgriSETA WSP analyses

Skills demand in the commercial agricultural sector

Information for demand for skills from WSP data is available for 1 673 employers who submitted their WSPs for the 2009/10 period. The table below shows data on sub-sector WSP submission relative to size of the sub-sector, as well as subsector data from all registered organisations and those who submitted WSPs. Data for registered employers shows that there were 239 076 employees employed by the 17 234 registered organisations. As previously stated, 97 898 employees were employed by the organisations submitting WSPs. This constitutes 41% of employees employed by registered organisations.

Table 20: Employment and sub-sector data drawn from WSP analyses

Sub-sector	All Registered Employers	Small employers (0-49)	Medium and large employers (50+)	Total WSPs received	Total WSPs received as % of all registered employers	WSP received medium and large orgs	WSPs received as % of medium & large employers	WSPs received small employers	WSPs received as % of small enterprises	Employees Per Profile
Coffee/Tea	40	33	7	9	23	5	71	4	12	483
Fibre	1 710	1 676	34	34	2	22	65	12	0.7	6 539

Sub-sector	All Registered Employers	Small employers (0-49)	Medium and large employers (50+)	Total WSPs received	Total WSPs received as % of all registered employers	WSP received medium and large orgs	WSPs received as % of medium & large employers	WSPs received small employers	WSPs received as % of small enterprises	Employees Per Profile
Fruit	371	277	94	162	44	76	81	86	31	27 873
Grain	648	581	67	77	12	48	72	29	5	22 129
Milling	335	279	56	61	18	35	63	26	9	4 630
Pest Control	213	209	4	8	4	2	50	6	3	119
Poultry	391	305	86	66	17	46	53	20	7	19 187
Primary	12 121	10 776	1 345	1144	9	513	38	631	6	136 034
Red meat	1107	1 018	89	70	6	45	51	25	2	7 475
Seed	167	149	18	24	14	13	72	11	7	2 127
Sugar	71	45	26	13	18	10	38	3	7	10 478
Tobacco	60	46	14	5	8	3	21	2	4	2 002
Totals	17 234	15 394	1 840	1 673	10	818	44	855	16	239 076

Source 1: AgriSETA, WSP 2009 data

Only 10% of all registered employers submitted WSPs for the 2009/10 period. Of these 49% were medium and large sized employers and 51% small. However, only 16% small employers submitted their WSPs relative to the number of registered small employers and 44% medium and large employers submitted WSPs relative to the number of registered medium and large employers. As such, skills demand statistics provides more representative data on the requirements of medium and large employers.

Data for skills demand in the commercial agricultural sector is based on data for permanent employees as well as casual and seasonal employees.

Skills demand forecasting by AgriSETA

Forecasting for skills demand, the AgriSETA has estimated that the demand for skilled employees at different levels in the next few years is 510 686. This is based on WSP data analyses over the last 5 years and projected demand for the formal, commercial agricultural sector and factoring in the demand that, at maximum, would result from completion of the land restitution programme in South Africa.

The table below reflects the skills that are on demand as well as the estimates for demand over the next five years by major occupational category³⁵.

³⁵ AgriSETA, 2010

Table 21: Demand for skills by occupational category

Major Occupation (OFO)		Estimated Demand
Group	Title	
1	Managers (commercial and small, emerging farmers)	264 370
2	Professionals	4 141
3	Technicians and Trade workers	8 925
5	Clerical and administrative workers	800
6	Sales workers	400
7	Machinery operators and drivers	5 800
8	Elementary workers	226 250
Total		510 686

Source: AgriSETA, WSP data and SSP demand forecasts

Research needs going forward

As has been set out in the sector analysis and the scenarios derived from that analysis, the sector is faced by both significant and profound change and also great uncertainty. It therefore follows that the task of focussing limited resources (basically levy income in the formal sector and NSF funds for the emergent farming sector) is difficult. Whilst the general thrust of training remains broadly as described in the 2006-10 SSP Updates, some considerable work is required to achieve targeted effective interventions during the 2011-2016 period.

The following research questions will need to be addressed in preparing the next SSP:

- In relation to the managers and owner-managers of commercial farms and enterprises, what skills are needed to enable them to help bring about the more optimistic scenario and manage the risks associated with the less optimistic ones?
- In terms of professional and technical competencies, do the current education and training institutions, coupled with the learning programmes available through the AgriSETA (learnerships, skills programmes and the like) meet the needs of the sector?
- In the emerging agricultural sector do the current programmes funded by sources external to the AgriSETA (e.g. NSF) meet all the identified needs? What gaps are there and how should they be addressed?
- In relation to government's growth strategy and industrial action plans, what skills are required for developing the aquaculture sub-sector? What programmes are available? How can the SETA support the skills needs for this sub-sector?
- Given the increasing levels of casual and contract labour, how can skills be developed to meet the needs of the formal commercial sector and the emerging enterprise sector?
- How can the demand in each of the priority areas be quantified and agreement be reached on numbers of people to be trained?

SECTION 3: Skills Gaps and scarce skills

Scarce skills at the DAFF

The level of scarce skills at DAFF can be determined by the vacancy rate. While the average vacancy rate in the department as at 31 March 2009 was 17%, there were some posts that had very high vacancy rates as reflected in the table below. Indicating the possibility that the Department is experiencing difficulties in finding suitable candidates in the South African labour market to fill these posts.

Table 22: Scarce skill occupations and vacancy rates (DAFF, March 2009)

Critical occupations	Number of posts	Posts filled	Vacancy rate (%)
Agricultural animal, oceanography, forestry and other sciences	167	119	28.7
Engineering sciences related	2	1	50
Engineers and related professions	13	6	53.8
Farming forestry advisors and farm managers	11	4	63.6
Finance and economics related	73	53	27.4
Horticulturists, foresters, agricultural and forestry technicians	350	221	36.9
Legal related	6	4	33.3
Mechanical engineering technicians	3	2	33.3
Risk management and security services	6	4	33.3
Social sciences related	1	0	100
Veterinarians	34	24	29.4

Source: DAFF Annual Report, 2008/2009

Skills are also scarce at senior management level. The department also reports on difficulties it has filling senior management services vacancies, with some of them staying vacant for up to twelve months because no suitable candidates can be found. The department would then resort to re-advertisement and head hunting. This was the case with 22% of 18 SMS posts in March 2009.

Scarce skills in the commercial sector

The following occupations have previously been projected as scarce (extremely hard to fill vacancies) by AgriSETA in the commercial agricultural sector over the next five years.

Table 23: Scarce and critical skills in the commercial agricultural sector

Occupation Code	Group	Occupation	Critical Skills	Intervention	Comments
139903	Managers	Laboratory Manager	Technology, AI, nutrition	HET	
221101	Professionals	Accountant (General)	General	HET	
221102	Professionals	Management Accountant	Farm financial management	HET	Focus on support, advice to farmers, new enterprises
222101	Professionals	Commodities Trader	Export administration, supply chain	FET, Learnership, Skills	

Occupation Code	Group	Occupation	Critical Skills	Intervention	Comments
			management	Programme	
224301	Professionals	Economist	Agricultural	HET	Mainly for Department of Agriculture and para statals, commodity organisations
233101	Professionals	Chemical Engineer	Chemical processes in food production	HET	Industries such as sugar processing
233301	Professionals	Electrical Engineer	Installation and maintenance	HET	Processing industry
233401	Professionals	Electronics Engineer	Computerised production processes	HET	Processing industry
233501	Professionals	Industrial Engineer	Productivity and efficiency	HET	Processing industry
233904	Professionals	Instrument Engineer (Defence Force)	Installation and maintenance	HET	Not for defence - sugar industry
233502	Professionals	Mechanical Engineer		FET/HET	Equity reasons
233902	Professionals	Agricultural Engineer	Farm layout and infrastructure	HET	Mainly in Government
311101	Technicians and trades workers	Agricultural Technician	Installation and maintenance	FET/HET	
234102	Professionals	Agricultural Scientist	Agri research	HET/FET	Especially in horticulture
234201	Professionals	Chemist		HET	Processing industry
234202	Professionals	Food Technologist	Food safety, HACCP	FET/HET	Across sector
234701	Professionals	Veterinarian		HET	Mainly in Government
311101	Technicians and trades workers	Agricultural Technician	Farm infrastructure	FET	Mainly needed in government
311401	Technicians and trades workers	Chemistry Technician		FET/HET	EE reasons
312907	Technicians and trades workers	Chemical Engineering Technician		FET Learnership	Mainly EE reasons
312402	Technicians and trades workers	Electronic Engineering Technician	Weak stream, production infra	FET/HET	Mainly tobacco industry
233904	Professionals	Instrument Engineer (Defence Force)	Instrument technician	FET	Occupation needed: Instrument Technician (not defence force). Mainly sugar processing sector
321202	Technicians and trades workers	Diesel Motor Mechanic		FET Learnership	To include tractor mechanic
321204	Technicians and trades workers	Small Engine Mechanic	Agricultural equipment	FET Learnership	Throughout sector

Occupation Code	Group	Occupation	Critical Skills	Intervention	Comments
322301	Technicians and trades workers	Metal Fabricator	Artisan	FET Learnership	
322303	Technicians and trades workers	Welder / Welder (First Class)	Artisan	FET Learnership	
323203	Technicians and trades workers	Fitter-Welder	Artisan	FET Learnership	Mainly sugar – multi-skilled
323202	Technicians and trades workers	Fitter And Turner	Artisan	FET Learnership	Tobacco and sugar
323501	Technicians and trades workers	Millwright	Artisan	FET Learnership	Wide-spread need
341101	Technicians and trades workers	Electrician (General)	Artisan	FET Learnership	Wide-spread need
342101	Technicians and trades workers	Air-Conditioning And Refrigeration Mechanic	Artisan	FET Learnership	Sugar, pack houses, cold chain

Source: AgriSETA Sector Skills Plans

Supply of skills

South Africa's agriculture skills are produced in high schools, agricultural colleges, FET colleges, and Higher Education institutions. In high school, a large cohort of learners take Agricultural Science as a subject. In 2003, there were 42 Agricultural High Schools offering Agricultural Science as a subject. These students and those in high schools taking the subject could progress to taking agriculture as a focus area for further education. In 2004, there were 10 FET colleges offering vocationally directed agricultural programmes. These FET colleges offered complete qualifications and short courses. Eleven Colleges of Agriculture can offer qualifications up to degree level and 19 universities offer qualifications in Agriculture ranging from agricultural economics, animal and plant sciences, and horticulture among others, at under and post graduate levels (Department of Agriculture, 2006).

While long term planning of skilling of new entrants in the sector can be done through close consultation between the sector, agricultural schools and colleges, FET colleges and HET institutions so that they teach relevant skills, there are other avenues for training for those who are already employed in the sector, for example skills programmes and learnerships. There are 15 registered qualifications for the primary agriculture sub sectors. Currently, AgriSETA has 94 registered learnerships that can address the skills needs of the identified scarce skills. These are captured in Appendix 2.

AgriSETA has approved / accredited a number of training providers across the country to deliver the theoretical and practical components of these learnerships. These include agricultural colleges, FET colleges, and private providers. Currently, the AgriSETA has 246 registered and approved providers distributed nationally as follows:

Table 29: AgriSETA approved training providers (2010)

Province	Number of providers
Gauteng	72 (29%)
KwaZulu Natal	20 (8%)
Limpopo	35 (14%)
North West	30 (12%)
Northern Cape	3 (1%)
Free State	15 (6%)
Mpumalanga	14 (6%)
Western Cape	26 (11%)
Eastern Cape	31 (13%)
Total	246

The providers are small to large organisations. In primary agriculture small providers appear to offer the most training in rural areas and community projects (AgriSETA, 2010). Most of the operating providers will be in FET colleges and agricultural colleges.

The AgriSETA is unable to meet the total demands for skills across the duality of their sector. There seems to be fairness in the approval of training for both permanent and casual and seasonal workers. In 2008/09, the AgriSETA approved 559 learnerships as follows:

Table 30: AgriSETA learnerships approved for grant purposes (2008-2009)

Sponsored Companies	Qualification	Employed Learners (18.1)	Unemployed Learners (18.2)	Total Learners	Amount
1	Agri Machinery [Level 3]	2	0	2	R 28 500.00
1	Agri Sales	0	20	20	R 498 000.00
2	Animal Production [Level 1 & 4]	0	120	120	R 1 469 700.00
3	Business Management [Level 4]	5	1	6	R 96 150.00
2	Grain Processes [Level 1-5]	30	46	76	R 1 572 900.00
14	Horticulture [Level 1]	117	12	129	R 1 598 490.00
1	Meat Processing [Level 3]	3	0	3	R 37 500.00
2	Mixed Farming [Level 1-2]	50	0	50	R 525 000.00
16	Plant Production [Level 1-4]	121	30	151	R 1 993 770.00
1	Wine Processing	2	0	2	R 28 500.00
43	Totals	330	229	559	R 7 848 510.00

Source: AgriSETA, learnership data analysis

Provision of skills programmes in the same year attracted grants for 2 706 employees.

Table 31: Participation by learners in skills programmes in the AgriSETA (2008/09)

Learner Status	Number of Learners	Amount
Employed	1485	R 1 892 197.50
Unemployed	1221	R 2 467 597.50
Totals	2706	R 4 359 795.00
Total Companies / Projects	66	
Total Unit Standards	106	

Source: AgriSETA, Skills programmes data analysis

APPENDIX 1: Skills demand in the Department of Agriculture, Forestry & Fisheries (2008/09)

Occupational categories	Gender	No. of employees as at 1 April 2008	Training needs identified at start of reporting period			
			Leaverships	Skills programmes and other short courses	Other forms of training	Total
Legislators, senior officials and managers	Female	16	–	125	–	125
	Male	26	–	70	–	70
Professionals	Female	290	–	344	–	344
	Male	307	–	424	–	424
Technicians and associate professionals	Female	203	–	100	–	100
	Male	299	–	119	–	119
Clerks	Female	419	6	457	–	463
	Male	138	–	180	–	180
Service and sales workers	Female	17	–	5	–	5
	Male	51	–	158	–	158
Craft and related trades workers	Female	–	–	100	–	100
	Male	62	–	119	–	119
Plant and machine operators and assemblers	Female	1	–	11	–	11
	Male	68	–	59	–	59
Elementary occupations	Female	125	16	63	–	79
	Male	616	7	213	290	510
Gender subtotals	Female	1 071	22	1 235	–	1 257
	Male	1 567	7	1 360	290	1 657
Total		2 638*	29	2 547	290	2 866

* No. of employees, excluding Minister and Deputy Minister

Source: DAFF Annual Report, 2008-2009

Appendix 2: AgriSETA registered learnerships

Registered Learnership	NQF Level	SAQA Registration No
Learnership in Agri Sales and Service	4	22 Q 220001 20 178 4
Learnership: Agricultural Machinery Technician	2	22 Q 220007 20 160 2
Learnership in Specialist Agricultural Machinery Technician	5	22 Q 220009 21 258 5
Agri Trade Processes	2	22 Q 220013 30 125 2
FETC: Meat Examination: Applying Basic Business Principles	4	30 Q 3000 2823 164 4
Further Education and Training Certificate: Seed Marketing: Execute Seed Trials	4	22 Q 220025 21 126 4
Further Education and Training Certificate: Seed Research and Development: Certify as Seed Unit	4	22 Q 220027 21 121 4
FETC: Seed Research and Development: Conduct a Field Inspection of a Seed Unit	4	22 Q 220028 20 120 4
Seed Research and Development Operations: Operate in a Team	3	22 Q 220020 22 121 3
Seed Research and Development Operations: Apply Basic Business Principles	3	22 Q 220021 22 121 3
National Certificate: Seed Processing and Packaging: Operate in a Team	3	22 Q 220026 21 123 3
Sugar Industry Technical Maintenance worker	2	22 Q 220011 39 128 2
National Certificate: Sugar Manufacturing and Refining Technical Maintenance	3	30 Q300003 23 146 3
Further Education and Training Certificate: Manufacturing Technical Maintenance: Produce Components by Performing Engineering Turning Operations	4	30 Q 3000 1321 173 4
FETC: Manufacturing Technical Maintenance: Produce Components by Performing Milling Operations	4	30 Q 3000 1521 173 4
FETC: Manufacturing Technical Maintenance: Develop and Fabricate from Complex Drawing	4	30 Q 3000 1420 173 4
National Certificate in Sugar Technology	5	22 Q 220036 22 140 5
Further Education and Training Certificate: Sugar Processing	4	22 Q 220035 31 144 4
National Certificate in Sugar Technology Processing: Sugar Refining	2	22 Q 220037 28 124 2
National Certificate in Sugar Technology Processing: Juice Preparation	2	22 Q 220038 28 124 2
National Certificate in Sugar Technology Processing: Crystallisation	2	22 Q 220039 27 122 2
National Certificate in Sugar Technology Processing: Laboratory Practice	2	22 Q 220040 25 124 2
National Certificate in Sugar Technology Processing: Extraction	2	22 Q 220041 28 122 2
NC: Rooibos Production: Applying Basic Business Principles	2	30 Q 3000 2427 130 2
NC: Rooibos Processing: Applying Basic Business Principles	2	30 Q 3000 2224 123 2
National Certificate: Cigarette Production	3	22 Q 220046 23 121 3

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