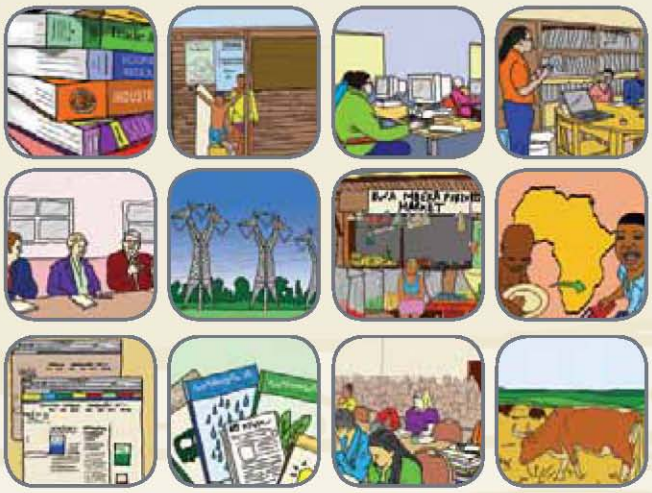
TRADE & INDUSTRIAL POLICY STRATEGIES



Presidency Fifteen Year Review Project

Review of Agricultural Policies and Support Instruments in South Africa 1994-2009

Norma Tregurtha, Nick Vink and Johann Kirsten

November 2009

Released June 2010

indigenous **growth**

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Review of agricultural policies and support instruments in South Africa
1994-2009

Final Report

Norma Tregurtha

ComMark Trust

Nick Vink

Department of Agricultural Economics

University of Stellenbosch

Johann Kirsten

Department of Agricultural Economics, Extension & Rural Development

University of Pretoria

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Section 1

1 Introduction

1.1 Overview

Agriculture is an important part of the South African economy: it contributes less than 3% to the country's Gross Domestic Product (GDP), yet it accounts for almost 10% of the country's formal sector employment, while more than 8% of the country's merchandised exports are primary agricultural products. As a result the sector has, by all measures, relatively large linkage effects with the rest of the economy and is a net earner of foreign exchange.

South Africa's agricultural economy is dualistic in structure, and it is possible to differentiate between two distinct sectors: a commercial sector and an emerging sector. The large-scale, commercial sector, made up of 45,818 farming units, covers a production area of approximately 82 million hectares and is responsible for well over 95% of South Africa's marketed agricultural output (StatsSA 2004; StatsSA and NDA 2002; StatsSA 2002). An emerging or small-scale sector, by contrast, consists of 1.3 million farming households and has an estimated 14 million hectares of agricultural land concentrated principally in the former homeland areas of the country (NDA 2006). These emerging or small-scale farmers, typically, have low levels of production efficiency, and engage in agricultural production mostly to supplement their households' food requirements.

Over the past 15 years, far-reaching agricultural policy reforms and support instruments have been introduced into the sector, with the intention of improving the efficiency of the commercial sector, and addressing the structural inequality characterising South African agriculture. These policies have affected the structure and performance of the sector. Widespread domestic and international market liberalisation, introduced in the early 1990s, has had a strong, catalytic effect on commercial agricultural production. Attempts to deracialise the sector, via land and labour market reforms, have been less successful, and the sector continues to wrestle with entrenched inequalities and rising unemployment.

This review has three objectives. The first is to document the performance of the agricultural sector over the past 15 years, with special emphasis on the period 2004-2007. The second is to identify the main agricultural policies and support instruments introduced since 1994, and to assess their impact on the structure and performance of the sector. The third objective is to provide a series of recommendations for future sectoral policy direction, as well as to provide indications of how existing policies may be more effectively implemented in order for them to deliver their intended outcomes.

1.2 Agricultural policy framework since 1994

The performance of the agricultural sector and the policy changes introduced post-1994 should be seen within the context of the broader policy framework which government has set for the sector. Since 1994, the strategic direction of the agricultural sector has been shaped by three main policy documents: the *Agricultural White Paper*; the *Agricultural Policy in South Africa* discussion document; and the *Strategic Plan for South African Agriculture*. More recently, the *Accelerated and Shared Growth Initiative for South Africa (ASGISA*) identified a critical role for the agricultural sector in stimulating employment and building the second economy - the influence of this document is also discussed below.

The *Agricultural White Paper* (*White Paper* hereafter), released in 1995, was, by its own admission, not a traditional policy document but rather a statement of the broad principles guiding policy development in the sector. Its principles were derived from the Reconstruction and Development Programme (RDP), and influenced the vision set for the sector, namely to become:

A highly efficient and economically viable market-directed farming sector, characterised by a wide range of farm sizes, which will be regarded as the economic and social pivot of rural South Africa and which will influence the rest of the economy and society (NDA 1995:2).

The 1995 *White Paper* also contained a list of specific agricultural policy goals which included:

i. Developing a new order of economically viable, market-directed commercial farmers, with the family farm as the basis of that economic activity.

ii. Broadening access to agriculture *via* land reform, with enhancement from adequate agricultural policy instruments, and supported by means of the provision of appropriate services.

iii. Providing financial systems which focus on the resource-poor and beginner farmers, and which enable them to purchase land and agricultural inputs.

iv. Supporting trade in, and the marketing of, agricultural products which reflect market tendencies.

v. Undertaking agricultural production based on sustainable use of natural agricultural and water resources.

vi. Developing and enhancing agriculture's important role in the regional development of Southern Africa and other countries.

After the release of the *White Paper*, the National Department of Agriculture embarked on a process of producing a clear, coherent agricultural policy framework. There were two objectives behind that decision. Firstly, the Department wished to outline the potential contribution of the agricultural sector to the realisation of the RDP objectives (and which would later become the Growth, Employment and Redistribution (GEAR) macroeconomic strategy). Secondly, the Department wanted to specify the roles and responsibilities of government (both provincial and national) and the private sector in realising the sector's vision.

At the end of that process, the National Department of Agriculture published a discussion document entitled *Agricultural Policy in South Africa (NDA, 1998:1)*. There were three major goals for policy reform highlighted in that document:

i. Building an efficient and internationally competitive agricultural sector.

ii. Supporting the emergence of a more diverse structure of production with a large increase in the numbers of successful smallholder farming enterprises.

iii. Conserving agricultural natural resources and implementing policies and institutions for sustainable resource use.

A change of leadership within the Ministry of Agriculture delayed the formal adoption of that discussion document, yet it was still to become a major input into the *Strategic Plan for South African Agriculture* released by the Presidential Working Committee on Agriculture in 2001. The establishment of the Working Committee was an attempt to foster closer collaboration between government, the Commercial Farmers' Union, Agri South Africa (Agri SA), and the emerging black farmers' union, the National African Farmers' Union (NAFU). The *Strategic Plan* which flowed from that collaboration provided "a common agricultural perspective to which government and industry could commit their efforts and resources in its implementation."

The Strategic Plan stated that a "united and prosperous agricultural sector" was the vision for South African agriculture, and that the strategic objective was to "generate equitable access and participation in a globally competitive, profitable and sustainable agricultural sector contributing to a better life for all" (NDA 2001).Three core strategies were adopted in support of:

i. Enhancing equitable access and participation in the agricultural sector.

ii. Improving global competitiveness and profitability.

iii. Ensuring sustainable resource management.

The tangible outcomes that the *Strategic Plan* was expected to deliver were:

- Increased wealth creation in agriculture and rural areas.
- Increased sustainable employment in agriculture.
- Increased incomes and increased foreign exchange earnings.
- Reduced poverty and inequalities in land and enterprise ownership.
- Improved farming efficiency.
- Improved national and household food security.

- Stable and safe rural communities, reduced levels of crime and violence, and sustained rural development.
- Improved investor confidence and greater domestic and foreign investment in agricultural activities and rural areas.
- Pride and dignity in agriculture as an occupation and sector.

Recently, an evaluation of the implementation of the *Strategic Plan for South African Agriculture* – which assessed the extent to which the intended objectives and outcomes had been realised over the past five years – was conducted. The accompanying performance scorecard suggested that good progress had been made in some areas, such as sustainable resource management, while other areas, such as equitable access and participation, still required urgent attention (Kirsten, 2008). This review draws on that evaluation document, especially with respect to assessing the impact of specific agricultural policies and support instruments on the sector.

In contrast to the formal policy documents on agricultural policy that have progressively stressed the need for greater equity in the sector, the ASGISA strategy launched in 2006 explicitly identified a number of agricultural projects and programme areas aimed at realising more balanced agricultural growth (Swart, 2006). These include:

- A 50% increase in land under irrigation.
- Improved livestock productivity including goat and goat products.
- Accelerated land reform.
- Bio-fuels.

Within the context of these initiatives, special emphasis was placed on smallholder agricultural development and, as such, ASGISA signalled a policy shift towards greater support for the country's 1,3 million small-scale, resource-poor farmers.

1.3 Changes in the global food market: an overview

While the national agricultural policy framework has shaped the structure and performance of South Africa's agricultural sector over the past fifteen years, far-reaching changes in the international market for agricultural products have also had an impact. These changes relate not only to the supply of and demand for food, but also to the institutional nature of food production and marketing systems.

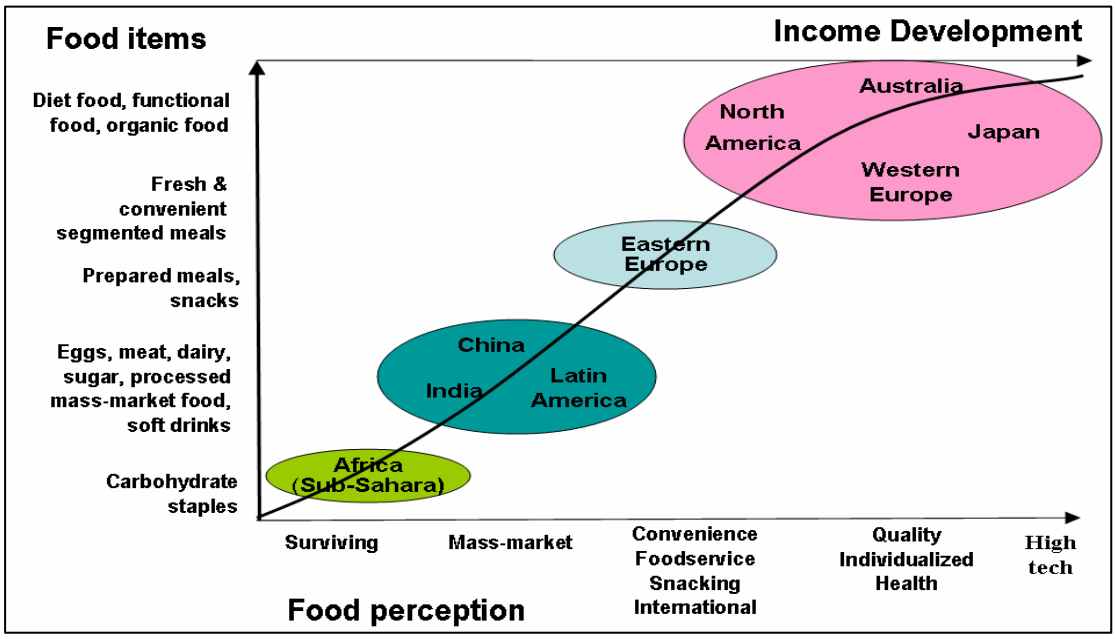
A summary of the main shifts that have taken place in the world market for food and agricultural products is presented below and their impact is more fully explored in subsequent sections of this report.

- Global increase in the supply of food: From 1990-2006 global agricultural production increased by 32% while world population growth was less than 24% over the same period. This increase in per capita supply was primarily driven by technological advances and, as a result, the global production of food outstripped demand. One consequence of this oversupply has been a stagnation in agricultural commodity prices. From 1990-2004, real agricultural commodity prices rose by less than 1% (FAO 2007). However, over the past two years, the prices of cereals and oilseeds have increased sharply, driven by the rising demand for biofuels and by weather-related production shortfalls. Increased food demand from India and China has also contributed to the surge in commodity prices (Defra 2008).
- There is some debate as to whether the recent increases in food prices represent a spike or signal a long-term structural shift. Some of the drivers, such as weather conditions, are of a short-run nature, while the demand for biofuel production and income growth in China and India are likely to be more enduring. The current high prices will no doubt stimulate a supply response from farmers – however, it will take a number of years to rebuild stock levels and, in the medium term, prices are likely to remain high.
- Increase in the trade of agricultural products: In nominal terms, the value of agricultural exports doubled between 1990 and 2006. This shift has been driven by the increased productivity of the

sector and by the significant reduction in agricultural protectionism that occurred over the same period. Furthermore, while cereal foodstuffs once made up the bulk of agricultural imports, the share of cereals in total agricultural imports has fallen below 50% for developing economies and 33% for developed economies. Greater quantities of high-value and processed foods – specifically edible oils, livestock products and fruit and vegetables – are increasingly being traded (FAO 2007).

- Climate change and increased production risk: Although agricultural production has increased over the past fifteen years, the sector has also become increasingly exposed to environment risks as a result of climate change. Agriculture is a major contributor to climate change[1] and, at the same time, is the sector that bears the brunt of the impact. Changes in seasonal cropping patterns, pest distribution, rainfall and the availability of water for irrigation and livestock are early consequences and are likely to become more pronounced with time. Producers have responded by increasing their adoption of technologies and production practices such as integrated pest management and precision farming. Consumer pressure in developed countries is also forcing the sector to consider its overall carbon footprint, not only in relation to production but also in terms of the distribution and retailing of agribusiness products.
- Changing nature of consumer demand: Consumer demand for food products is related to changes in income. At low levels of income the demand is principally for low-value carbohydrate staples, but as income grows, so does the demand for high-value, high-tech food products such as convenience and functional foods. Figure 1, shows the evolution of food demand and current international demand patterns. This change in demand has placed increased pressure on the sector in terms of product development, supply chain innovation and food safety investments.

Figure 1: Evolution of the International Demand for Food



***Source**: Esterhuizen (2006)*

- Rise of supermarkets: One of the biggest changes to have taken place in the food market over the past fifteen years is the rise of supermarket chains, particularly in developing countries. In the developed world, supermarkets have been a feature since the 1930s. However, their role as the primary marketing channel for food products – and fresh produce in particular – was established in the 1990s. Currently, 80% of the food sold in developed countries is marketed via large,

[1] In 2000, it was estimated that agriculture, as a sector, was responsible for 14% of global greenhouse gases and the bulk of these agricultural emissions (75%) were produced by developing countries (Stern Review, 2007).

multinational supermarket chains. This trend is rapidly being diffused to developing countries and this has had a fundamental impact on global food provenance. Firstly, the procurement catchment area of these chains has shifted from local or national suppliers to international suppliers. Secondly, rather than relying on a general wholesaler to supply them with product, supermarkets have switched to using specialised wholesalers and this has reduced the number of market entry points for agricultural producers. Furthermore, to guarantee product volumes and quality, these specialised wholesalers have moved from spot market transactions with producers to implicit long-term contracts. Such long-term contracts are seen as necessary to enforce the large number of private standards supermarkets are demanding from their suppliers. (Reardon and Gulati 2008).

In aggregate, these changes have played a pivotal role in increasing the level of concentration and consolidation in the food sector, both in terms of market share and the number of firms. Moreover they have prompted what is referred to as chain reversal – a shift in the balance of power away from producers towards consumers. As a result, food markets have become increasingly competitive and increasingly biased in favour of larger producers.

1.4 Report structure

In addition to this introductory section that serves to frame the broader analysis, this review report contains three sections. Section Two documents the performance of the South Africa agricultural sector over the past 15 years, with special emphasis on the period 2004-2007. It examines the absolute and relative performance of the South African agricultural sector with respect to output, sub-sector composition, balance of trade, investment and employment. The position and performance of the emerging farmers are focused on in some detail at the end of Section Two. Section Three outlines the main agricultural policies and support instruments introduced since 1994. The discussion of those policies is divided into two main parts. The first focuses on policies and instruments aimed at stimulation of output markets, namely trade liberalisation, and market deregulation. The second focuses on policies and instruments aimed at strengthening the performance of factor markets, such as land, labour and capital. Section Four provides a series of recommendations for enhancing the existing agricultural policy framework, and for strengthening its implementation. This recommendations in this report are based on the preceding sections as well as on the evaluation report on the first five years of implementation of the *Strategic Plan for South African Agriculture*.

Section 2

2 The performance of the South African agricultural sector 1994-2007

The performance of the South African agricultural sector over the past fifteen years should be seen within a historical context. White commercial agriculture was a key constituency of the apartheid state and, as a result during the 1950s and 1960s, the government invested heavily in research and development, infrastructure, extension services and the settlement of farmers. In response to this investment, commercial sector agricultural output gradually started to grow, assisted by guaranteed markets and guaranteed prices for most farm commodities.

The seventies were also a period of rapid growth in the South African economy as a whole, supported by high gold prices and high agricultural growth. However, the oil crisis in the middle of the decade negatively affected economic growth during the late seventies and the early eighties. Direct government transfers to farmers, plus highly supported farm prices, assisted agricultural growth in the late eighties and pushed it back to the level of the early seventies.

Under apartheid, the majority of the country's black population was confined to the impoverished, rural homeland areas of the country. From the seventies onward, the development of the agricultural sector was prioritised in these areas and the South African government established a number of homeland development corporations and funded the creation of large, smallholder irrigation schemes. This approach did not yield positive results – the irrigation scheme projects, for example, proved to be too socially and economically complex and costly to maintain and created high levels of dependency among farmers. The increase in social unrest and political conflict in the 1980s further eroded their sustainability and reduced smallholder production levels (Van Averbeke and Mohamed 2006).

This section of the report describes how the agricultural sector has performed following the democratisation of South Africa in 1994. The first part of the analysis looks at the aggregate performance of sector while the second part considers distributional issues in greater detail.

2.1 Output and GDP contribution

The current structure of the South African economy differs somewhat from that of other middle-income developing countries. Table 1 (below) compares the major structural features of the economies of middle income countries as a whole with those for the South African economy. Evident from these data is the fact that the South African agricultural sector is considerably smaller, relative to the rest of the economy, than other middle-income developing countries. South Africa's manufacturing sector, however, is of the same order of magnitude as other middle income countries. This is largely because of the size of the mining sector. The primary sectors (agriculture, forestry, fishing, mining and quarrying) added together contributed 14.4% to South Africa's GDP in 1990, and 10.1% in 2004, figures that are in line with the contributions in middle income countries.

Table 1: GDP contribution, 1990 and 2004 (%)

	Agriculture		Manufacturing	
	1990	2004	1990	2004
Middle income countries	16	10	25	18
South Africa: agriculture	5	3	24	20

Source: *World Bank (2006)*

Relative to the rest of the economy, the GDP share of agriculture, forestry and fisheries declined steadily from 1965 to its current level of less than three per cent, as is shown in Table 2. The mining and manufacturing sectors also experienced declines in their relative shares of GDP. Services, however, have accounted for a steadily increasing share of GDP as the South African economy has matured since 1965.

Table 2: Sector contributions to GDP since 1965

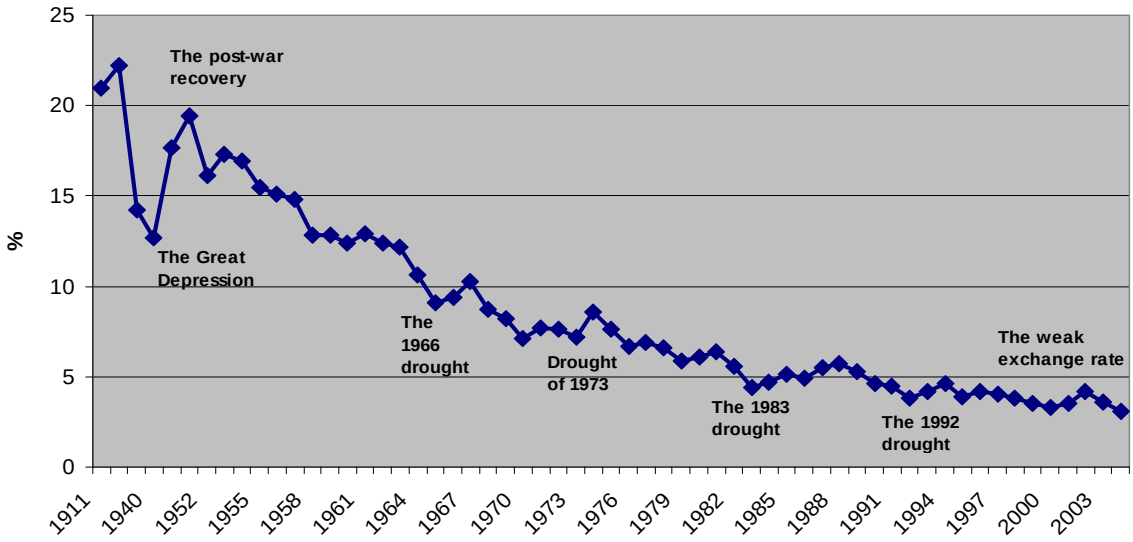
Period	Agriculture, forestry, hunting and fishing	Mining and quarrying	Primary sectors	Manufacturing	Wholesale and retail trade; catering and accommodation	Other	Value added at basic prices
1965-69	9.14	9.84	18.98	22.18	14.38	44.46	100
1990-94	4.34	8.00	12.34	21.94	14.20	51.52	100
1995-99	3.88	6.86	10.74	19.84	13.90	55.52	100
2000-04	3.54	7.82	11.36	19.24	13.98	55.42	100
2005-07	2.93	8.03	10.97	18.40	13.80	56.83	100

Sources: *Adapted from NDA (2006) and StatsSA (2008)*

While the long-term relative decline of the South African agricultural sector can be explained by economic development theory, short-term changes experienced by the sector relate to weather conditions and exchange rate movements.

Weather phenomena and events significantly affect the performance of the South African agricultural sector. The underlying natural resource base of the sector is weak and South Africa continuously experiences droughts. These droughts are often localised and their effects do not show up in the aggregate data. Since the 1960s there has been a severe country-wide drought in at least one year of each decade, with the severest having occurred in 1966, in 1982 to 1984, and in 1992/93. Figure 2 shows how the period under review has been unusual in terms of the frequency of droughts. The impact of the drought of the 1980s can be seen in Figure 2, and reveals that agriculture's GDP contribution was actually higher in 1985-89 than for the five preceding years.

Figure 2: The contribution of agriculture to GDP since 1911 (agriculture as % of GDP)



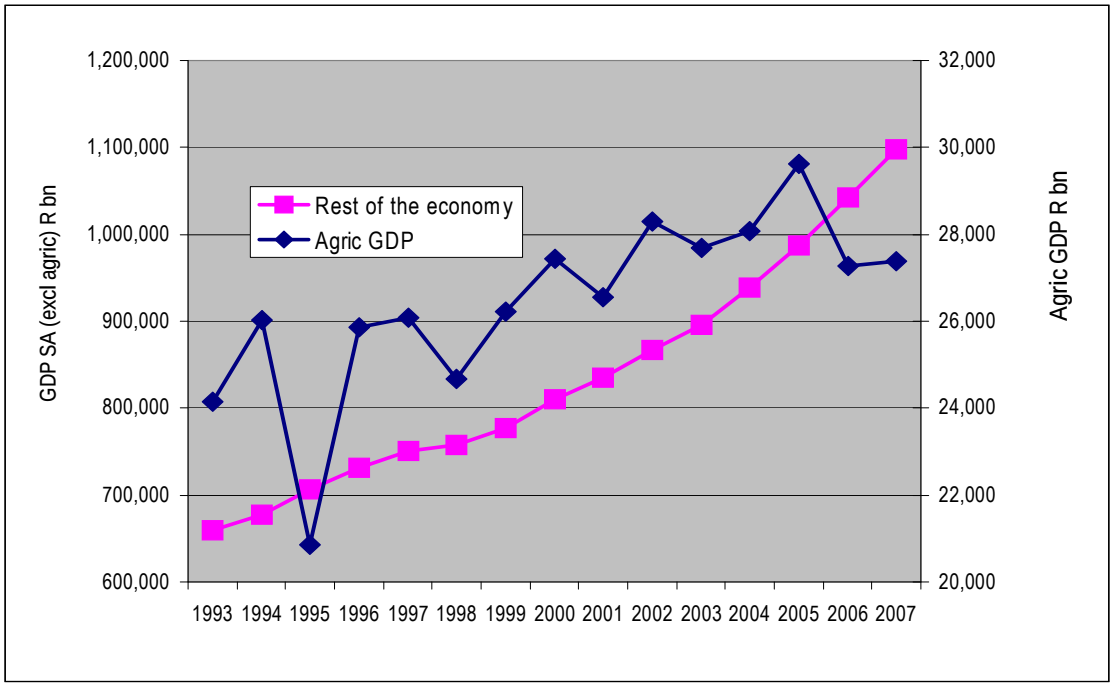
Source: *Adapted from NDA (2007a)*

Nevertheless, as will be shown later, the sector is also significantly exposed to global markets. Hence, the peak in the value of output in 2002, when the Rand was at its weakest against the major international currencies, is evident.

While agriculture's relative share of the economy has declined from 4.2% to 2.3% over the past fifteen years, in absolute terms the sector has expanded. From 1993 to 2007, the average annual growth in agricultural GDP was 1% per annum. However, as can be seen from Figure 3 (below) this growth has not been linear especially since 2000. As indicated previously, the growth of the sector from 2001 to 2002 was as a result of Rand weakness. The relatively strong performance of the maize sector from 2002 helped off-set the negative effect that the subsequent strengthening of the Rand had on agriculture output and this, together with good production conditions and strong local food demand, supported growth for the period 2002-2005. However, as can be seen from the data, in terms of output,

this growth cycle has come to an end and currently the real value of agricultural sector output is as for 2000 levels.

Figure 3: Changes in South African real GDP versus changes in Agriculture real GDP 1993-2007 (base 2000)

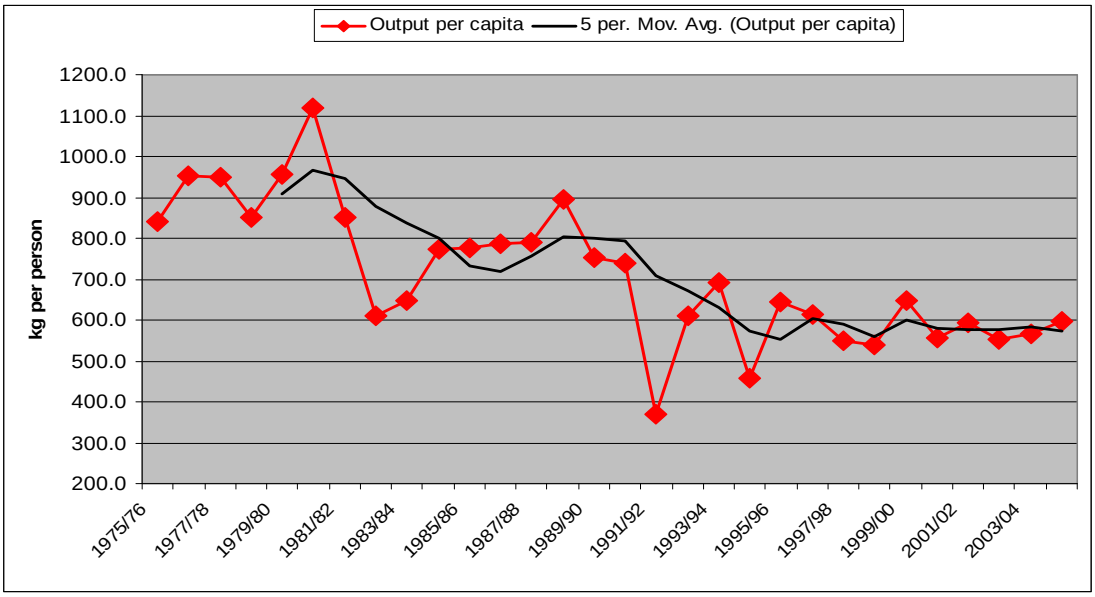


Source: *StatsSA (2008)*

The turnover of the sector as measured in terms of gross farm income, has increased from around R25 billion (with the year 2000 as the base year) in 1970 to almost R50 billion in 2007 (or R72 billion in nominal terms). This growth took place during a period when the South African population increased from around 20 million (1970) to some 47 million people. Figure 4 (below) shows that the growth in physical production was not sufficient to keep pace with population growth up until the middle of the 1990s, and further, there was a declining physical production per capita until that time and a flattening out subsequently. This coincides with the democratisation process in the country, and with trade liberalisation and internal market deregulation in agriculture. Physical output increased from around 18 million metric tons in 1975 to 28 million tons in 2006.

This absolute increase in the volume of agricultural production has played a role in the development of the country's manufacturing sector. Focusing only on the declining, direct GDP contribution of agriculture, negates the important, indirect role agriculture continues to play in the South African economy. Purchases of goods such as fertilisers, chemicals and implements create important upstream linkages with the manufacturing sector, while downstream linkages are formed through the supply of raw materials to industry. Approximately 70% of agricultural output is used as intermediate products by the food, beverage and textile sectors.

Figure 4: Output per capita since 1975/76



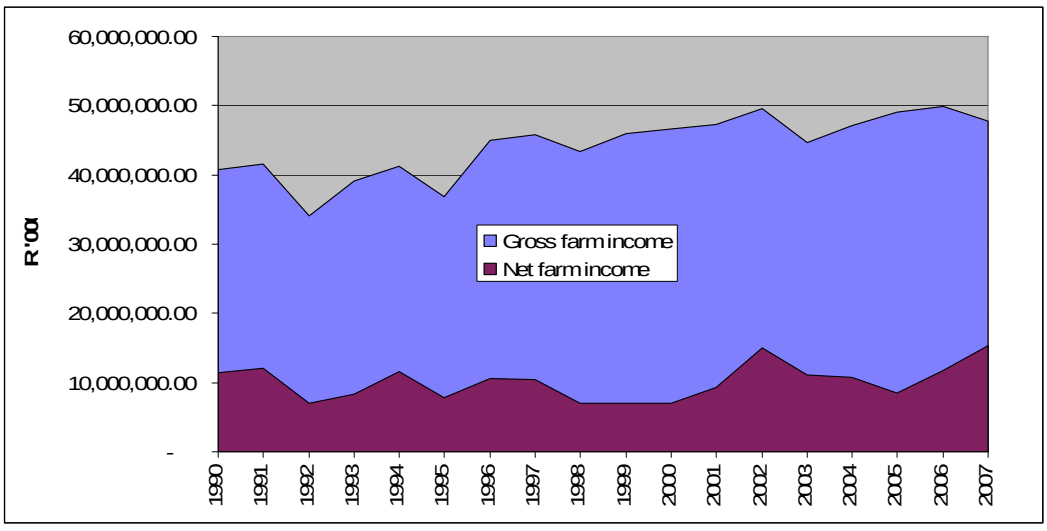
Source: *Adapted from NDA (2007a)*

2.2 Profitability of the agricultural sector

Net farm income is a measure of the profitability of farming enterprises. It is calculated as follows: Gross farm income (turnover) minus all production expenditures, excluding expenditure on fixed assets and capital goods. Figure 5 (below) shows the trends in real gross and net farm income at prices in 2000. As can be seen from the data, with respect to real gross farm income, three discernable periods can be distinguished. The period from 1990 to 1995 was characterised by stagnating gross farm income, 1996 to 2002 was a period of relatively high gross income growth that subsequently flattened out from 2003.

Changes in real net farm income track gross farm income until 1997. The later part of the 1990s saw the cost of intermediate inputs rise sharply before stabilising for the period 2000-2004. The stabilisation in input costs, together with the rapid increase in the Producer Price Index for food products from 2000-2007, helped increase real net farm income. As a result, net farm income recovered to above R10 billion in the new millennium and is currently at a peak of R15,3 billion.

Figure 5: Real gross and net farm income 1990-2007



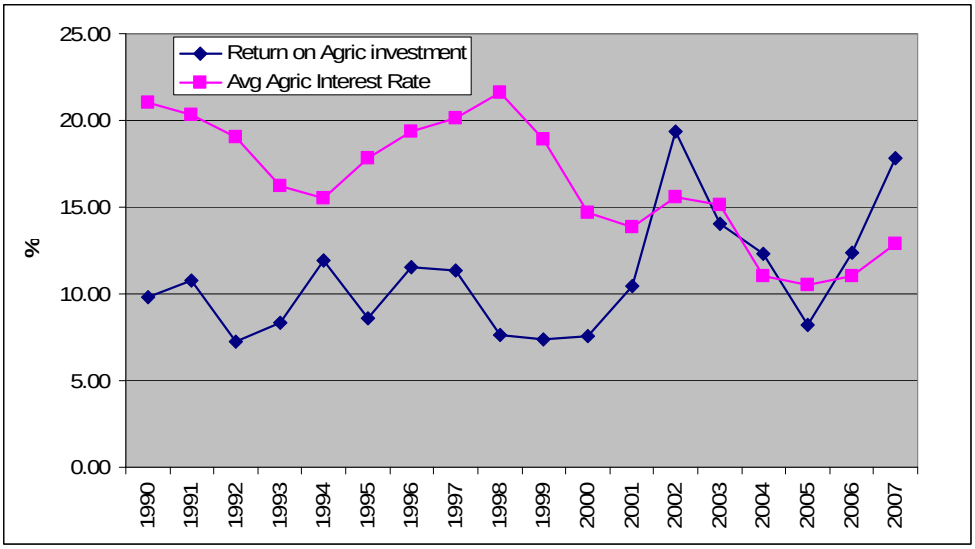
Source: *NDA (2007b)*

Net farm income should be viewed in relation to the level of investment required to generate the return.

Figure 6, below shows net farm income as a percentage of total capital investment in agriculture from 1990-2007. These data show that, over the whole period, the average return on investment generated by the agricultural sector was 11%, and ranged from a low of 7% in 1992 to a high of 19.5% in 2002.

Also shown in Figure 6 is the average cost of capital to the agricultural sector (i.e the average agricultural interest rate). Theoretically this represents the opportunity cost of the capital invested. From 1990-2002, the return generated from farming activities was well below the opportunity cost of the investment. Subsequently it has managed to exceed the sector interest rate in most years. Agriculture as a sector has thus become more profitable.

Figure 6: Average Return on Agricultural Investment 1990-2007



Source: *Adapted from NDA (2007b) and NDA (2008)*

2.3 Sub-sector composition

Given that most of South Africa is unsuited to cultivation, it is unsurprising that the largest component of agricultural production comes from livestock, and that field crop production was substantially larger than that for horticulture in the mid-1960s, but only slightly less so in 2005/07. This is evident in Table 3 (below) where the data reflect the increasing importance of horticultural exports as a share of total agricultural output. Yet these aggregate data mask a number of important changes within each of these sectors, and these changes will be discussed in some detail below.

Table 3: Sector shares in output since 1966

Periods	**Field crops**	**Horticulture**	**Animal production**
1965-69	**42.46**	**16.21**	**41.33**
1970-74	**44.88**	**16.40**	**38.72**
1975-79	**47.11**	**16.41**	**36.49**
1980-84	**42.02**	**16.40**	**41.59**
1985-89	**37.69**	**19.09**	**43.23**
1990-94	**32.62**	**22.91**	**44.47**
1995-99	**32.98**	**25.09**	**41.90**
2000-2004	**31.55**	**26.94**	**41.50**
2005-2007	**28.41**	**24.45**	**47.14**

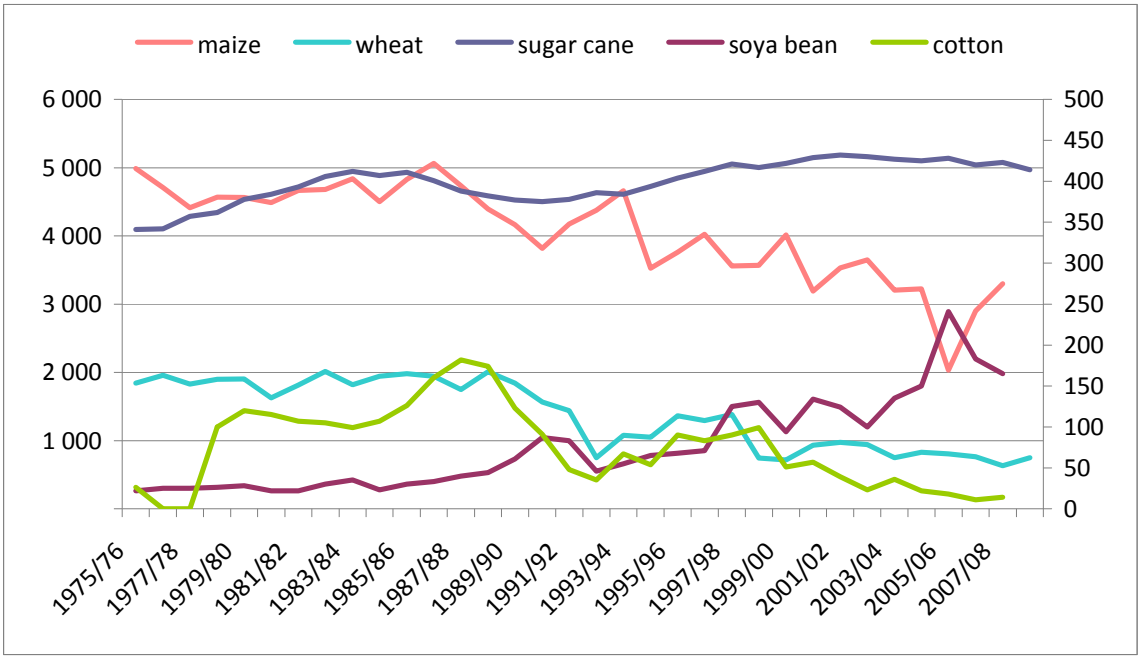
Source: *NDA (2006)*

2.3.1 Field crops

The main changes in field crop production have been in the area planted and in industry average yields.

Figure 7 (below), shows the changes in area planted for the principal field crops (maize, wheat, soybeans, sugar cane and cotton) over the period 1975/76-2008/09.

Figure 7: Area planted with the principal field crops



Note: Maize and wheat are measured on the left axis, and sugar cane, soya beans and cotton on the right axis.

Source: *Adapted from NDA (2007).*

The area of maize planting, which has traditionally fluctuated considerably because production is based in mostly rain-fed areas, declined after the drought in the mid-1990s. It has continued to decline since then. Despite the increase in planting since 2005/06, is doubtful that it will fully recover. The area of maize planting has, therefore, declined by at least 40% (from 5 million hectares in 1980 to some 3 million hectares currently) over the past three decades.

The area planted with wheat experienced a structural decline in the mid-1990s, from above 2 million hectares to around 1 million hectares or less since 1998/99. This represents a decline of around 50% in the area planted over the past three decades.

By contrast, the area planted with sugarcane has increased by some 25%, from 4 million hectares to 5 million hectares. This increase is largely the result of two trends, namely: the establishment of new production areas in Mpumalanga; and the establishment of a large number of small- and medium-scale black farmers in the industry.

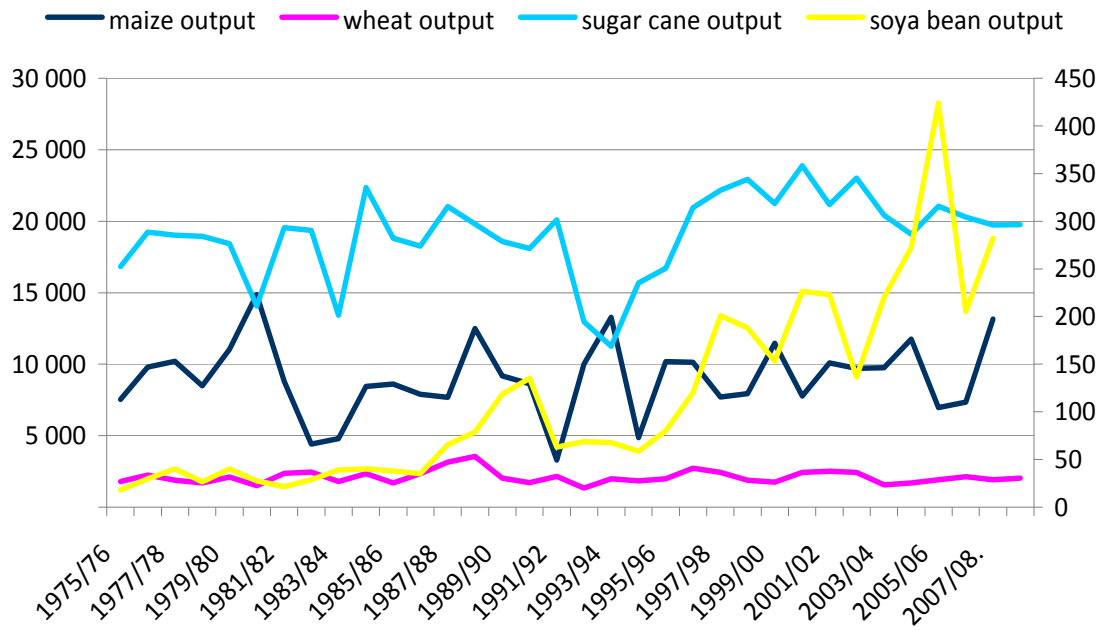
The area planted with soybeans has increased even more substantially over the past 30 years, albeit from a much smaller base. The increase, from some 22,000 hectares in 1975/76 to almost 250,000 hectares in the 2005/06, is six-fold. Despite the decline in 2007/08, the area is expected to continue increasing as the soya bean/maize price ratio widens in favour of the former. The increase has, however, not been sufficiently large to make up for the declines in area planted with maize and wheat.

Cotton is also an interesting case. The area planted has declined from its peak of 180,000 hectares in the late 1980s to around one tenth of that (18,000 hectares) recently. This has been accompanied by an increase in cotton production in other Southern African Development Community (SADC) countries, especially Zambia, as the industry attempts to meet the demand for high quality, hand-picked cotton to counteract the cost advantages of the Asian textiles industries. In the same way, there is anecdotal evidence of an increase in cotton production among small farmers in South Africa.

Despite this decline in the area planted with maize and wheat, gross output of these commodities has generally increased, and this is shown in Figure 8 (below). The reason for output increases can be

found in Figure 9 (below) which shows that yields are generally increasing – a reflection of increased efficiency.

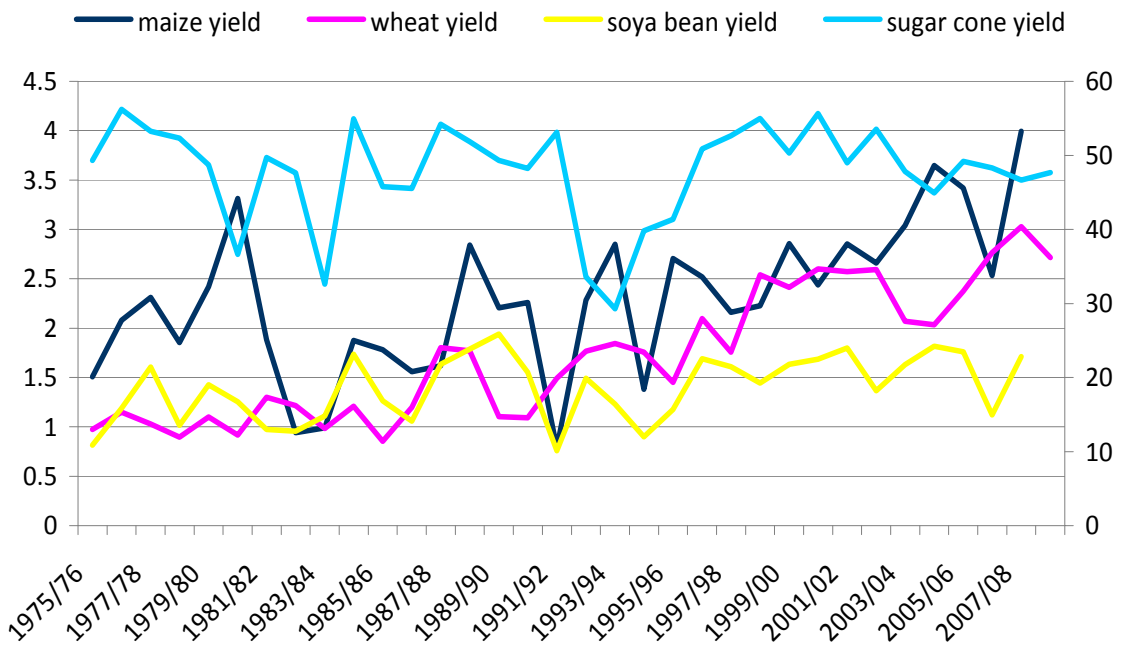
Figure 8: Total output of the principal field crops



Note: Maize, wheat and sugar cane are measured on the left axis, and soybeans on the right axis

Source: Adapted from NDA (2007)

Figure 9: Yields of the principle field crops



Note: Sugar cane is measured on the right axis.

***Source**: Adapted from NDA (2007)*

2.3.2 Horticulture

The biggest change in the horticulture sector has been the dramatic increase in exports since the early 1990s, and that has been built on increased production. Those production increases are summarised in

Table 4 (below), while the exports are shown in Table 5 (below), and the export shares tabulated in Table 6 (below).

Table 4: Fruit production since 1980 (tons)

Periods	Apples	Pears	Avocados	Pineapples	Oranges	Grapefruit	Lemons	Naartjies
1980-84	420125	148521	23464	217297	529496	64348	48091	26094
1985-89	464936	183573	40970	231491	567685	83033	62645	29473
1990-94	540869	223468	43462	145516	780314	104931	65976	41237
1995-99	577754	276344	61259	142501	952497	169866	90984	46131
2000-2004	709838	315705	70375	166283	1230569	310961	172434	38701
2005-2007	694000	338350	72831	157051	1334758	368720	197685	44146

***Source**: Adapted from NDA (2007)*

Oranges make up the largest volume of production - double that of apples - while the export of oranges, at almost 761,000 tons, is far higher than that for apples. Almost 60% of the orange harvest is exported, compared with just over a third of the apple harvest. Tables 4, 5, and 6 also show the rapid increase in production, and the even more rapid increase in exports, of soft citrus (naartjies). For grapefruit, though, production has increased substantially, but exports have increased at a relatively slower rate. Exports of table grapes (not shown here) have also increased rapidly, while South Africa does not engage in any significant foreign trade in fresh vegetables.

Table 5: Fruit exports since 1980 (tons)

Periods	Apples	Pears	Avocados	Pineapples	Oranges	Grapefruit	Lemons	Naartjies
1980-84	193271	47631	11202	3180	331275	48270	29230	54
1985-89	214549	70149	25140	2235	303921	46457	28854	1412
1990-94	225713	99701	26352	2872	358875	54823	29580	4914
1995-99	195842	108578	34567	4459	491216	114283	42634	
2000-2004	281599	128429	41153	4274	717440	159771	85778	
2005-2007	298098	150179	44440	3733	816932	199585	110189	

***Source**: Adapted from NDA (2007)*

Table 6: Fruit export shares since 1980 (%)

Periods	Apples	Pears	Avocados	Pineapples	Oranges	Grapefruit	Lemons	Naartjies
1980-84	46.00	32.07	47.74	1.46	62.56	75.01	60.78	0.21
1985-89	46.15	38.21	61.36	0.97	53.54	55.95	46.06	4.79
1990-94	41.73	44.61	60.63	1.97	45.99	52.25	44.84	11.92
1995-99	33.90	39.29	56.43	3.13	51.57	67.28	46.86	
2000-2004	39.67	40.68	58.48	2.57	58.30	51.38	49.75	
2005-2007	42.95	44.39	61.02	2.38	61.20	54.13	55.74	

***Source:** Adapted from NDA (2007)*

Table 7 (below) summarises the key points in this discussion in terms of the relative shift in horticultural output over the past three decades. Citrus is the only one of the major categories that has increased its relative share, while vegetables and deciduous fruit have lost ground relative to the total.

Table 7: The composition of horticultural output

Periods	Deciduous fruit	Berries	Summer fruit	Subtropical	Citrus	Vegetables
1976-81	33.54	0.09	1.29	7.36	14.35	43.38
1982-87	34.13	0.08	1.23	7.69	11.11	45.76
1988-93	33.31	0.10	1.24	8.07	12.16	45.12
1992-97	31.52	0.08	1.32	6.08	14.39	46.61
1997-2002	31.08	0.07	1.11	7.29	16.70	43.75
2003-2005	32.16	0.06	0.98	7.48	19.30	40.02

Source: *Adapted from NDA (2007)*

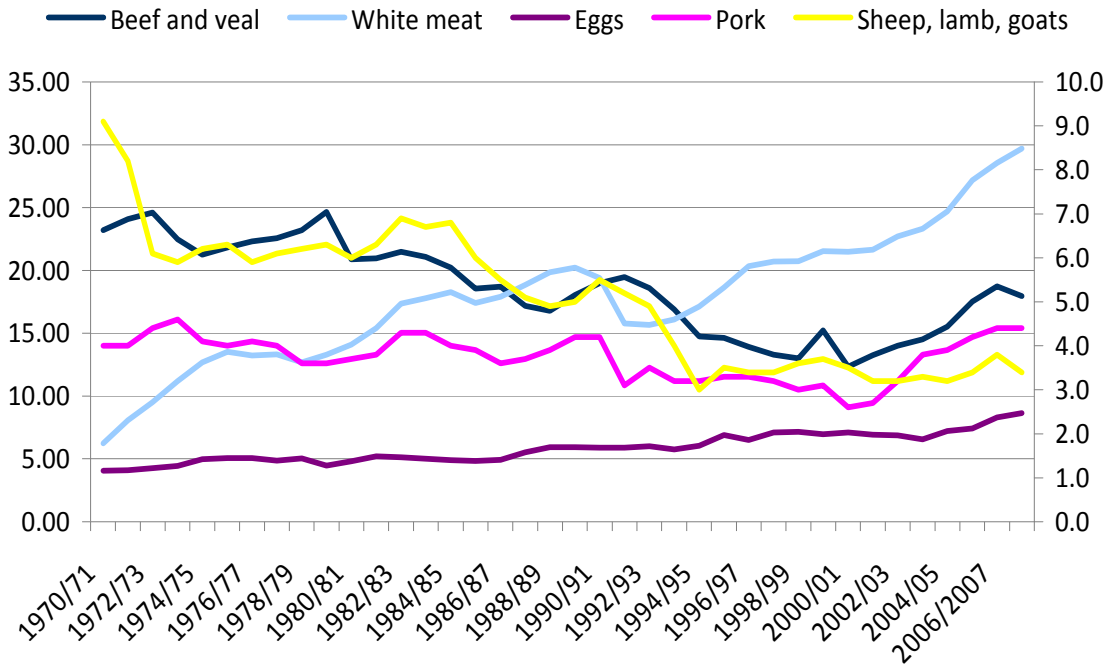
The wine industry has also undergone radical structural changes since 1994. Exports, for example, increased more than threefold in the 1990s, and from less than 10% of the total harvest to more than a third, driven by investment to replace current production capacity and to create new capacity. In the wine industry this implies a smaller total crop, as high-yielding grape varieties were replaced by low-yielding 'noble' cultivars. The area under vines grew slowly, as most of the investment was targeted at replanting.

2.3.4 Livestock

A relatively large proportion (up to 80% of formal sector sales) of South Africa's red meat production comes from feedlots, mostly as a final finishing phase, ostensibly because of the lack of winter grazing in the summer rainfall areas. It is not clear whether this practice has increased, although there is little evidence to suggest that it has decreased. For this reason, red meat prices have remained particularly sensitive to changes in the cost of animal feeds.

However, the biggest change in livestock products has been the shift in consumption away from red meat, and that is shown in Figure 10 (below). Consumption data for red meat are notoriously inaccurate because of the prevalence of sales into the 'informal' market, and also due to the movement of abattoirs back to the rural areas (and even back on to farms) since deregulation. Nevertheless, the data show the expected trend towards white (poultry) meat, and away from beef and veal; sheep, lamb and goat meat; and pork.

Figure 10: Per capita consumption of livestock products



Note: Sheep, lamb and goat meat, and pork are measured on the right hand axis.

Source: *Adapted from NDA (2006)*

2.4 Balance of trade

Table 8 (below) shows the trends in South Africa's agricultural trade from 1990-2005. A number of important shifts can be identified from these data:

- Agriculture's share of total exports has remained at between 7% and 10% since the start of the 1980s. (Prior to this date, gold bullion exports were not included in total export data). In the second half of the 1990s, the proportion increased from below 8% to above 9%, showing that during this period agriculture played a catalytic role in export-led growth for the country as a whole. Subsequently it has declined to 7% as exports from other sectors of the economy have increased.
- Table 8 also shows the share of exports in total agricultural production. The share declined from around a third, between 1965 and 1979, to just above a fifth, between 1980 and 1994, and then returned to the higher level of the earlier period. This clearly reflects the effect of sanctions in the middle period. It also partly explains the relative lack of competitiveness of agriculture (to be discussed below): during the latter part of the 1990s, the sector achieved little more than a re-entry into markets lost during the 1970s and 1980s.
- Exports of processed agricultural products[2] increased faster than exports of unprocessed agricultural products. The share of processed agricultural exports has increased from around 40% to 60% since 1965, with the sharpest increase occurring since 1990.
- Agricultural imports have grown faster than agricultural exports, and agriculture's share of total imports has remained relatively stable since 1970. However, the greater import propensity of the rest of the economy meant that agriculture's share of total imports declined from 6.6% to 4.42% after 1999.
- During this period, however, imports increased from 4.55% of total agricultural output to more than a fifth of total agricultural output.
- As a result, import cover (which is the ratio of agricultural exports to agricultural imports, and is a measure of the ability of the agricultural sector to pay for its own imports) declined drastically from 7.64:1 to 1.27:1 throughout the period from 1965.
- In the final line of Table 8, total exports plus total imports are given as a proportion of total agricultural production, representing a measure of the 'openness' of the sector to trade. There has been a significant increase in this measure over the period under consideration.

There were, in addition, four further structural shifts in South Africa's agricultural trade portfolio starting during the 1990s, and these need to be noted here:

- While the European Union (EU) remained the largest destination for agricultural exports, there was a rapid increase in exports to the rest of Africa. The increase was to the extent that they constituted 25% of total agricultural exports by 2000;
- The 25 most important agricultural and food exports from South Africa were responsible for 92% of total export earnings after 2000, with the horticultural industry responsible for 45.1% of all export earnings.
- Argentina emerged as the main origin of food and agricultural imports into South Africa (largely animal feed, a consequence of the rapid increase in poultry consumption), followed by the United States, the UK, Australia and Zimbabwe. By 2000, South Africa had a positive trade balance in agricultural and food products, and that amounted to R2.5 billion with the non-Southern African Customs Union (SACU) member countries of SADC. Only three SADC countries, Zimbabwe, Zambia and Malawi, featured in the top 25 import sources.
- South Africa's trade balance in the manufactured goods category of food and beverages was positive for most of the second half of the 1990s. Yet by 2005, imports were equal to exports, and there was a neutral trade balance.

[2] These are higher value agricultural exports, as opposed to manufactured agricultural goods, i.e. food and beverages.

Table 8: South Africa's trade in agricultural goods since 1965

	1965-1969	1970-1974	1975-1979	1980-1984	1985-1989	1990-1994	1995-1999	2000-2004	2005-2007
Exports									
Total exports (Rm)	1222	2092	7305	20746	45718	72534	133623	268443	394470
Total agricultural exports (Rm)	430	689	1412	1946	3613	5520	12132	21523	27929
Gross value of output (Rm)	1237	2100	4234	8458	16088	25581	42349	67529	68502
Agricultural exports as a % of total exports	35.21	32.92	19.33	9.38	7.90	7.61	9.08	8.02	7.08
Agricultural exports as a % of output	34.79	32.80	33.35	23.01	22.46	21.58	28.65	31.87	40.77
Processed agricultural exports (Rm)	182	341	724	942	2010	2865	6650	13047	16574
Unprocessed agricultural exports (Rm)	249	347	688	1004	1604	2654	5482	8476	11355
Processed agricultural exports/total agricultural exports	42.18	49.56	51.25	48.42	55.62	51.91	54.81	60.62	59.34
Imports									
Total imports (Rm)	1862	3243	6536	17940	32499	55122	125364	247785	433072
Total agricultural imports (Rm)	56	174	290	870	1689	3476	8317	13167	22060
Agricultural imports as a % of total imports	3.02	5.38	4.43	4.88	5.20	6.31	6.63	5.31	5.09
Agricultural imports as a % of output	4.55	8.30	6.84	1.29	10.50	13.59	19.64	19.50	32.20
Import cover	7.64	3.95	4.88	2.24	2.14	1.59	1.46	1.63	1.27
Openness	0.39	0.41	0.40	0.33	0.33	0.35	0.48	0.51	0.73

Source: *Adapted from NDA (2008)*

2.5 Investment

Investment in the agricultural sector is a function of the expectations of the people within the sector, as well as prospective investors, both foreign and domestic. Table 9 (below) shows real gross capital formation in agriculture for the past three decades.

Table 9: Real gross capital formation in agriculture since 1970 – 2000 base Rbn

Period	Fixed capital	Working capital	Total capital
1970-74	1529	2293	3790
1975-79	1746	3111	5166
1980-84	1607	3447	4732
1985-89	1381	2437	4469
1990-94	1481	2020	3249
1995-99	1791	2509	4453
2000-2005	1929	2494	4449

Source: *Adapted from NDA (2007)*

Table 9's data show that participants in the sector had started to invest in fixed capital ahead of the political and economic policy changes of the first half of the 1990s. Fixed Capital Formation, which had declined from R 1 746 billion annually in the late 1970s to R 1 381 billion a decade later, had increased to almost R 2 billion by 2005. Working capital investment, on the other hand, declined from almost R 3.5 billion annually in the first half of the 1980s to just above R 2 billion in 1990-94 and increased to R 2.5 billion subsequently. There were several reasons for this: it was largely due to the changes in management practices in the field crop sector; the switch to minimum intervention farming (principally for maize, and to a lesser extent at the time, for wheat); and the increasing average age of the nation's tractor fleet as farmers, who had lost their preferential tax regime on capital purchases, kept their tractors for longer periods of time.

Table 10 shows Foreign Direct Investment (FDI) in the agricultural sector from 1994-2006. In nominal terms, the size of FDI has grown by 180% over the period. However, when this investment is adjusted by the effective exchange rate, the growth in FDI from 1994-2006 was 40%. Nevertheless, FDI levels in agriculture were extremely low in 2005: the value of total capital invested in agriculture was R 143,348 million of which R 734 million, or 0.5%, was Foreign Direct Investment.

Table 10: FDI in the Agricultural Sector 1994-2006

Year	FDI Agric, hunting & fishing R million	FDI Total R million	Ag as a % of Total FDI	Nominal Effective Exchange Rate 2000 base	Real Ag FDI (deflated by Effective Exchange rate)
1994	315	36,024	0.87	163.11	514
1996	356	58,708	0.61	156.4	557
1998	387	91,862	0.42	107.72	417
1999	406	318,630	0.13	106.32	432
2001	457	328,859	0.14	60.64	277
2002	653	370,695	0.18	75.33	492
2003	500	303,438	0.16	87.53	438
2004	719	355,088	0.20	97.74	703
2005	734	489,317	0.15	95.76	703
2006	888	611,722	0.15	81.02	719

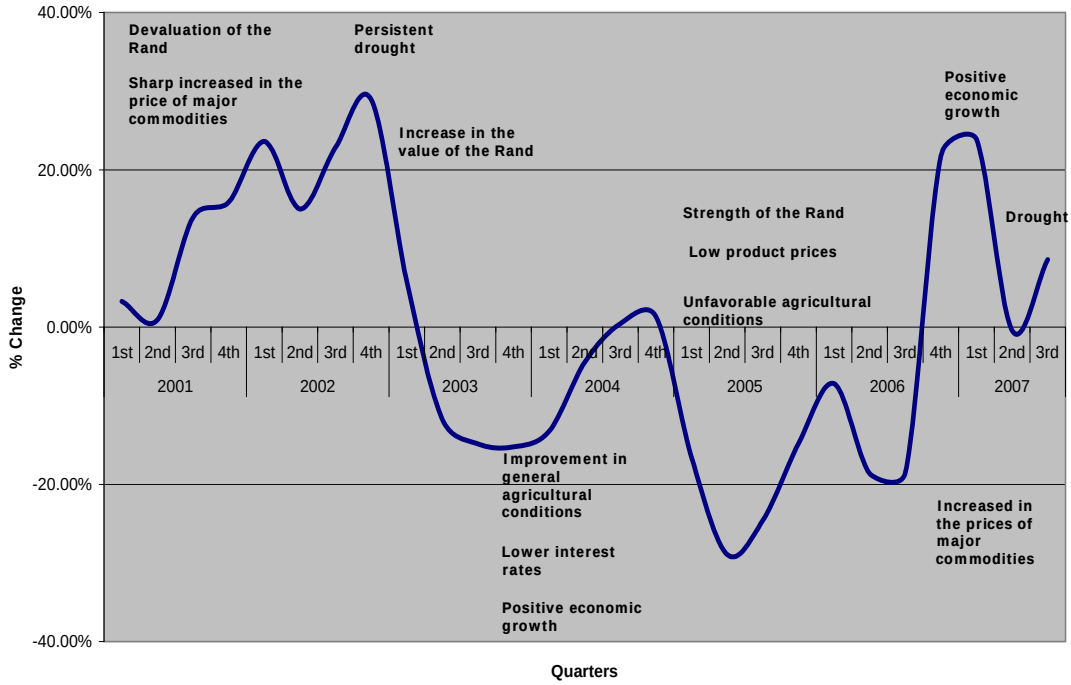
Source*: Adapted from Reserve Bank (2007)*

If investment is driven by investor confidence, the Agricultural Business Confidence Index, developed by the Agricultural Business Chamber (ABC), provides useful insight into the sector. As the evaluation of the *Sector Plan* notes, "this indicator is based on the perceptions of the CEO's [or Chief Executive Officers] of all the major agribusiness firms, and in a way encapsulates all the elements of

competitiveness, i.e. factor conditions, demand conditions, the performance of support services, related industries, safety and security; government attitude and policy, general sentiment and overall economic conditions." (Kirsten, 2008).

As can be seen in Figure 11 (below), from 2001 to 2002, confidence in the agricultural sector rose on the back of high commodity prices, and was stimulated by the devaluation of the Rand.

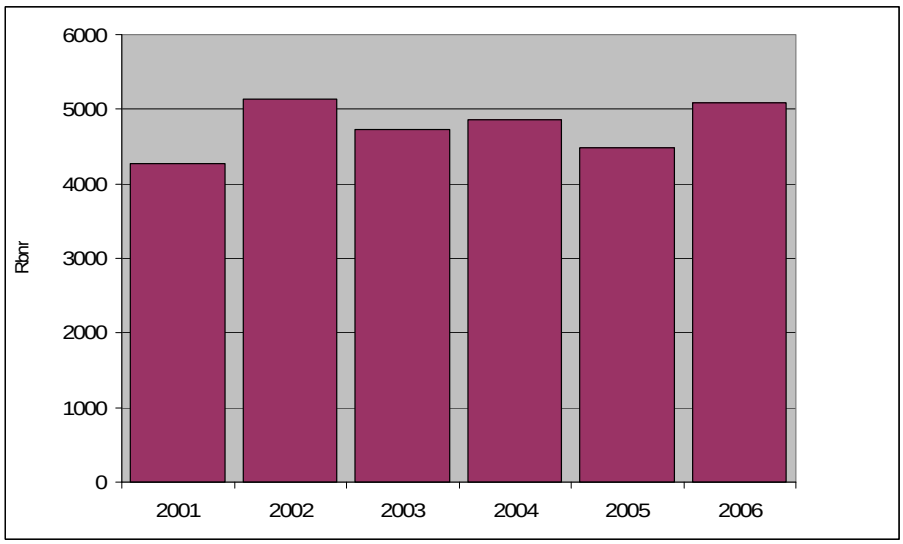
Figure 11: Trends in the confidence of agribusiness in South Africa



Source: Kirsten (2008)

Improved confidence translated into an increase in gross capital formation in 2002, and that is evident in Figure 12.

Figure 12: Real Gross Capital Formation in Agriculture 2001-2006 (Rbn)



Source: *NDA (2007)*

Persistent drought and the strengthening of the Rand in 2003 led to a loss in confidence and a

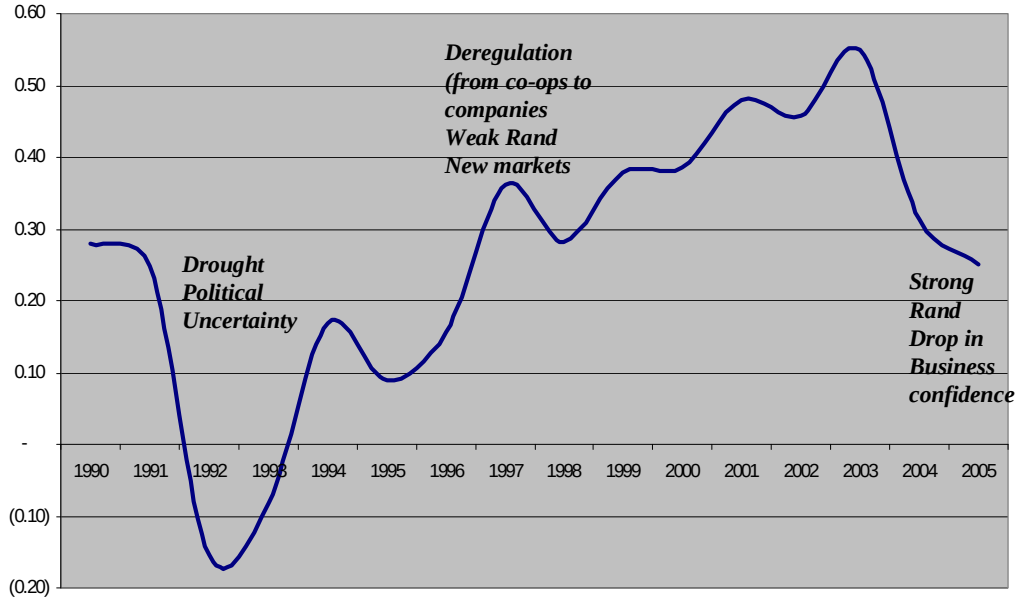
concomitant decline in the growth of agricultural investment for the period. The positive general outlook for the South African economy that prevailed in 2006, together with higher commodity prices, prompted renewed confidence in the sector and investment rose accordingly.

2.6 Competitiveness

Esterhuizen (2006) used the Revealed Trade Advantage Index, an extension of the well-known Revealed Comparative Advantage index, to measure the extent of competitiveness of agribusiness supply chains in South Africa. The most important conclusions drawn from that analysis were that:

- South African agriculture as a whole was only marginally competitive in the global market.
- South African agriculture was at its most competitive in the mid-1970s, and at its least competitive in 1985, but the degree of competitiveness had increased since 1993. This is shown in Figure 13 (below).

Figure 13: Competitiveness of South African Agriculture 1990-2005 – The Agribusiness Competitiveness Status Index (ACS)



Source: *Kirsten (2008)*

Esterhuizen also concluded that:

- When compared internationally, South Africa could be classified as a 'rising moderate performer', along with a number of EU member states, such as Belgium, Germany, Italy, the UK, as well as Canada. This was in contrast to 'winner' states such as Argentina, Brazil Chile, Australia and New Zealand, which are all strong competitors in South Africa's import and export markets.
- In South Africa, primary production was generally more competitive than the value-adding downstream industries during the 1990s, but the competitiveness of both increased over time. Competitive sub-sectors which showed increasing competitiveness included maize, apples, pineapples, grapefruit and mohair, while there were no sub-sectors which were uncompetitive or which showed decreasing competitiveness during the period 1993-2002. Those trends are shown in Table 11 (below).

Table 11: Competitiveness trends in agricultural supply chains

	Competitiveness of the primary product		
Competitiveness trend in the value chain	**Competitive**	**Marginal**	**Not competitive**
Increasing	Maize, Apples, Pineapples, Grapefruit, Mohair	Wheat, Tobacco, Chicken meat, Pork	Cotton, Barley
Decreasing	Sugar, Groundnuts, Oranges, Grapes, Wool, Plums, Hen eggs, Hides and skins	Potatoes, Sunflower, Tomatoes, Milk, Soybeans, Mushrooms, Olives, Beef	

Source: *Esterhuizen (2006)*

2.7 Employment

Comparative data from the *1993* and *2002 Agricultural Census* reported an exodus of commercial farmers from the sector, such that the number of farmers declined by a fifth over the decade. Employment declined by less: in this case by 15% to below 1 million in 2002. Furthermore, from 2002-2006, labour shedding from the agricultural sector accelerated, and levels declined to less than 628,200 workers by 2006. Those changes are presented in Table 12 (below).

Table 12: Trends in Agricultural Employment (1993-2006)

	No of farm employees Commercial Agriculture '000	**Employment in the agricultural sector (Labour Force Survey estimates)**			
		Total Agric '000	**Formal Agriculture '000**	**Informal Agriculture '000**	**Unspecified '000**
1993	1093.3				
1994	921.7				
1995	891.0				
1996	919.5				
2001		1,17	766	383	28
2002	940.8	1,420	857	551	12
2003		1,212	833	366	14
2004		1,063	631	426	6
2005		925	579	338	7
2006	628.2	1,088	606	473	9

Source*: NDA, (2006) StatsSA (2007)*

Data from the *Labour Force Survey* (2001-2006) reveal that this constituted some 8.5% of the total labour force of the country, compared to 10.5% in 2001, and up from 7.5% in 2005. These data also indicate that one in three new jobs, created in the economy as a whole in the year to September 2006, was in agriculture. However, most of these additional jobs (134,000 out of 161,000) were created in subsistence agriculture, and that raises legitimate concerns around the manner in which these were enumerated.

Thus, while agriculture has historically been a major employer, that role has diminished. Total employment on farms declined from 1,184,000 in 1990, to approximately 628,200 in 2006. The introduction of labour regulation "has been unable to stem the decline in employment", nor has it halted the casualisation of the remaining labour force. Both trends have undermined the social role played by agriculture. Forty percent of farm workers lost their jobs between 1993 and 2006. Job losses among unskilled general workers have been the norm, and that occurred alongside an increase in the employment of skilled workers and a decline in the overall number of employed workers. In addition, the sector saw a shift to non-permanent or seasonal labour (the so-called casualisation of labour). Poor living and working conditions on many commercial farms meant that, by many socio-economic indicators, farm workers were among the poorest of poor South Africans.

Labour shedding from the agricultural sector has clearly exacerbated South Africa's unemployment problem. Using the broad definition of unemployment, Table 13 (below) shows that 23.6% of the economically active segment of the population was unemployed in 2006. Of those unemployed 39.1% had previously been employed and of that group, 17.8% had previously been employed in the

agricultural sector. Given that agriculture employs 8.5%-10% of the country's workers, it would be expected that the percentage shed from the sector would be of the same magnitude. That was the case from 2002-2004, but from 2005-2007, the ratio shifted dramatically.

Table 13: Labour Shedding in the Agricultural Sector 2002-2007

	2002 %	2003 %	2004 %	2005 %	2006 %	2007 %
Not economically active	35.7	37.2	38.1	39.4	38.9	39.1
Employed	38.6	36.6	36.6	35.6	37.2	37
Unemployed	25.7	26.1	25.2	25	23.9	23.6
Percentage of unemployed ever worked %	41.7	38.6	36.7	38.9	35.5	39.1
Previously worked in agric sector %	8.2	9.9	10.8	17.5	15.9	17.8

Source: *Labour Force Survey, 2001-2007*

The socio-economic consequences of the sectoral employment decline have been significant, and particularly given that farm workers typically live on-farm, in tied housing, and face eviction when their employment contracts are terminated. Although hard data do not exist, anecdotal evidence from all provinces suggests that evictions from farms substantially contributed to the growth of dense rural informal settlements, as well as to the growth of peri-urban informal settlements in both urban centres and in the *platteland.* Farmers' interests in evicting those no longer employed were, according to Agri SA, compounded by the very legislation designed to stem evictions. However, the rise in the rate of farm evictions was also an indirect effect of long-term changes in the agricultural economy, as evictions followed job losses. Survey data now suggest that the loss of livelihoods resulting from disemployment and evictions from farms during the 1990s outweighed the creation of new livelihoods in agriculture through land reform (Wegerif *et al.,* 2005).

2.8 Changing structure of the South African agricultural sector and the relative performance of the small-scale sector

Much of the preceding analysis has focused on the performance of the South African agricultural sector as a whole, with little reference being made to the extent to which the changes and benefits have been captured by different categories of producers, and more specifically, by small-scale and emerging farmers. It is to that latter category of producer which this report now turns its attention.

Firstly, within the commercial agricultural sector, there has been a significant increase in the concentration of farm holdings. In 1996, there were 60,000 farming units but, by 2002, this had declined to 45,000 units (or by 25%). Over roughly the same period of 1994/95 to 2002/03, the area farmed declined by 10%. That suggested a consolidation of landholding into larger units of ownership and production. Smaller and less efficient commercial farmers, unable to take advantage of scale-economies, have been forced out of the sector, and their farms were acquired and integrated into neighbouring units. Large agribusinesses have contributed to this concentration by buying up a number of farms within an area (Hall, 2007).

With respect to the difference between commercial and small-scale agriculture, there has always been an expectation that the transformation of South African agriculture would result in a wider range of farm sizes; a diminution in the stark differences between commercial and 'traditional' agriculture; and a less marked border between the commercial and communal farming areas. The remainder of this section of the report considers the extent to which South Africa's agricultural dualism has been transformed over the past number of years, and includes a discussion of the change which has occurred within the small-scale agricultural sector.

It is important to note that data on the small-scale farming sector are not readily available. The last survey that directly focused on this group of farmers was a once-off survey conducted by the Department of Agriculture and StatsSA in 1999. Information extracted from the annual *General Household Survey* does shed some light on the general direction of change with respect to small-scale farmer participation. The information presented here draws on that survey data, and is supplemented by a number of industry case-studies.

2.8.1 An overview of small-scale farmers

Of the estimated eight million households living in the non-metro areas of South Africa, 17%, or 1.3 million households, have access to land for farming purposes. The majority of those households engage in some farming activity (97%). This is clear from Table 14 (below) which provides data on relatively small-plots of land on which agricultural activity occurs. Geographically, these households are clustered in the former-homeland areas of the country, with 64% of them located in 10 districts. Six of those districts have been declared presidential poverty nodes.

Table 14: South African households' access to agricultural land

Area	Number (Weighted)	Percentage
<0.5 ha	831,871	64.5
0.5ha-1ha	235,454	18.3
1ha-5ha	138,196	10.7
5 ha-10ha	38,146	3.0
10-20ha	11,940	0.9
20+ha	34,546	2.7
Unknown	17,556	-
Total	1,307,710	100%

***Source**: General Household Survey 2006*

Small-scale farming households rely on multiple livelihood strategies, of which farming production makes an important, although small, contribution. The most important source of income for the majority of these farmers is from Old Age Pensions and grants. A total of 96% of household heads are black, and 56.5% are women. A total of 64.1% of these farming households spend less than R800 per month, while 20.8% fall in the R800 - R1,200 band.

Table 15: Small-scale households residing in non-metro areas with access to land – main source of income

	Households Weighted[3]	Percentage
Salaries and/or wages	292,229	22.9
Remittances	237,189	18.6
Pensions and grants	642,520	50.4
Sales of farm products	47,787	3.7
Other non-farm income	39,680	3.1
No income	12,188	1.0
Unspecified	3,781	0.3
Total	1,275,374	100

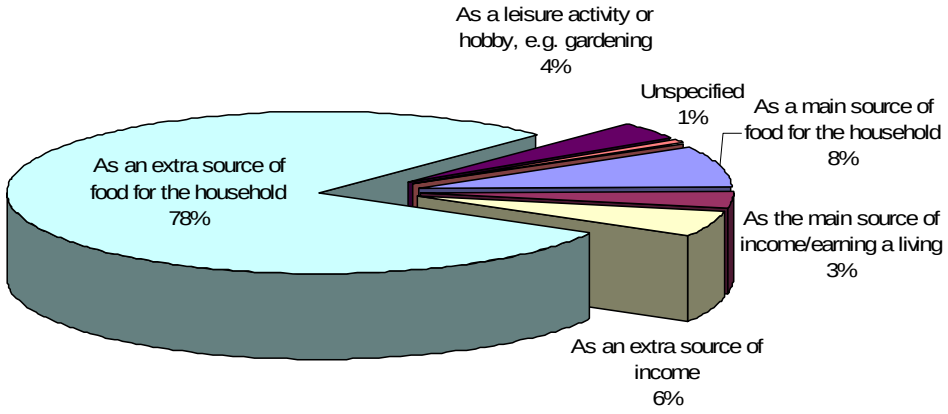
***Source**: General Household Survey 2006*

Typically, these households undertake farming to supplement household food requirements, as is evident in Figure 14 (below). Estimates of the contribution of subsistence agriculture to household incomes (in cash and kind) range from 6 to12% for rural dryland settlements and between 24 to 30% for irrigated land (Van Averbeke and Mohamed, 2008).

Despite this relatively small contribution, land represents an important livelihood asset for the rural poor. Based on survey data from the Dzindi area in Limpopo Province, Van Averbeke and Mohamed (2008) concluded that subsistence farmers typically adopt a transitional type of livelihood portfolio and undertake farming when other sources of income fall away. Life histories of rural households with access to land showed that at some stage in the past, the majority of these households had been forced to rely on farming their plots for income, in response to a livelihood shock.

[3] The General Household Survey is an annual survey conducted by StatsSa. In 2006, 28,000 households participated in the survey. "Weighted" indicates that the survey results have been used as weights to provide an indication of the absolute numbers for the country's population as a whole.

Figure 14: Principal reason South African farmers engage in agricultural production



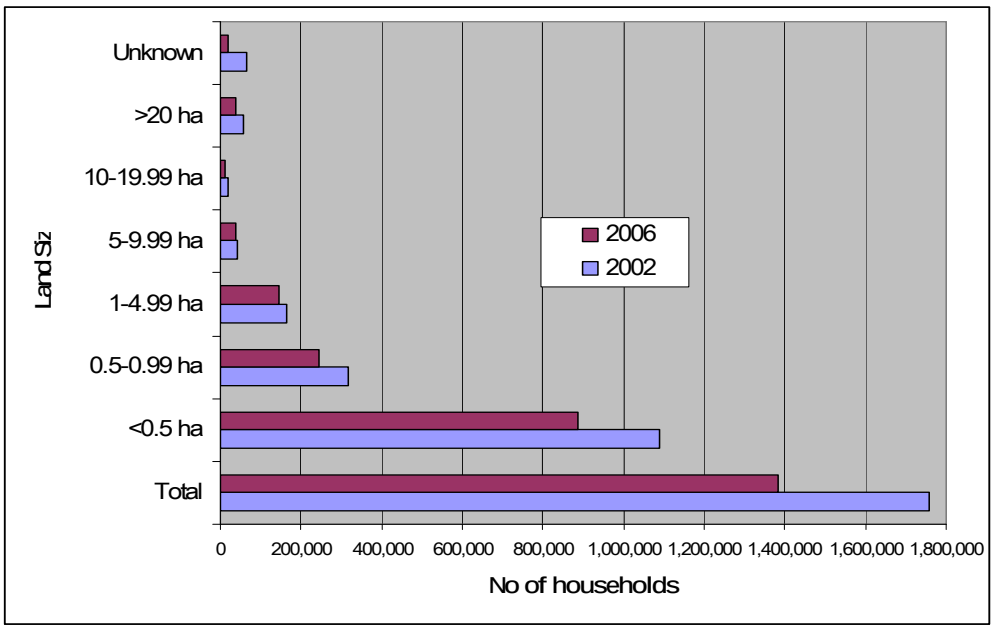
***Source**: Labour Force Survey*

While changes in the contribution of agriculture to household incomes over time is unclear, changes in access to land suggest its role as an asset is decreasing.

By comparing data for the period 2002 and 2006, as is shown in Figure 15 (below), the following trends can be observed:

- In absolute terms, the number of South African households with access to land for farming purposes declined from 1.8 million in 2002 to 1.4 million in 2006 (or a decline of 21%).
- The relative decline in land access was even greater. In 2002, 15.33% of all South African households indicated they had access to land, but by 2006 this had decreased to 10.65%.
- The largest relative loss in access was experienced by those with access to very small land parcels (i.e. marginal subsistence farmers with less than one hectare).

Figure 15: Changes in land access 2002 -2006



***Source**: General Household Survey (2002) and (2006)*

Field crop production (particularly maize) is the main activity undertaken by small-scale farmers, followed by animal production and horticulture. The following three industry case-studies – from the maize, sugar and cotton sectors – illustrate the changes underway in small-scale agricultural production and productivity in greater detail.

2.8.2 Small-scale maize production

The South African Crop Estimate Committee defines a subsistence farmer as a person who produces crops primarily for his/her own consumption. While the absolute number of South African households which grow maize to supplement household food requirements is unknown, information on the area under subsistence maize production, as well as subsistence output levels, are shown in Table 16 (below). These data reveal how the area under subsistence maize production has declined by more than 50% for the period 1998/99 to 2006/07, while subsistence maize production has declined even further. Average yields achieved by subsistence farmers have remained relatively unchanged.

Table 16: Maize production: commercial vs subsistence

	Production Area (Ha)			Production Tons		
	Commercial	**Subsistence**	**Total**	**Commercial**	**Subsistence**	**Total**
1998/99	2904700	662683	3567383	6,715,500	454615	7170115
1999/00	3230440	583403	3813843	10,140,940	421861	10562801
2000/01	2707905	515310	3223215	7,225,140	258124	7483264
2001/02	3016880	516579	3533459	9,731,830	317134	10048964
2002/03	3184950	465944	3650894	9391450	286055	9677505
2003/04	2843300	360810	3204110	9482000	228070	9710070
2004/05	2810000	413440	3223440	11450000	265948	11715948
2005/06	1600200	432246	2032446	6618000	317056	6935056
2006/07	2551800	345266	2897066	4127400	213738	4341138

Source: *CEC (various years)*

Direct yield per hectare comparisons between commercial and subsistence maize producers, which are shown in Table 17 (below), are not strictly accurate for two reasons. Firstly, the former category of producer uses a high-input/high-output production system, while the latter typically follows a low-input/low-output model. This is illustrated by the fact that production costs per hectare (at a June 2005 price structure) for commercial farmers in the Eastern Cape was found to be R 5,041 while for subsistence or traditional farmers in the same area, this averaged R 1,615 per hectare (Manona, 2005). Secondly, while the production system followed by small-scale maize farmers tends to be viewed as inefficient, there is a school of thought that argues that the yield differentials, as shown in Table 17, are grossly over-estimated, and further, that subsistence farmers are as productive as their commercial counterparts. Some of the flaws associated with conventional yield measurement surveys of subsistence production include the irregular shape of arable lands; the system of intercropping; and the consumption of part of the crops before harvest. The combination of these factors make the task of accurate estimation of actual yields very difficult (Manona, 2005).

According to Manona: “In a subsistence system, households tend to stagger the planting of the annual maize crop from early October through to beginning of January, due to a number of factors including availability of labour, availability of financial resources, and availability of rainfall…This results in a situation where a single household may plant its fields in two, three or even four tranches, which may be spread apart by up to two months. This results in a crop that is at various stages of development, thereby spreading risk. This system supports household food security by providing a constant but staggered supply of green and dry maize for household consumption.” (Manona, 2005:96).

Table 17: Maize yields: commercial vs subsistence

	Yield tons/ha			Area as % of total		Production as % of total		Yields
	Commercial	Subsistence	Total	Commercial	Subsistence	Commercial	Subsistence	Subsistence/ Commercial
1998/99	2.31	0.69	2.01	0.81	0.19	0.94	0.06	0.30
1999/00	3.14	0.72	2.77	0.85	0.06	0.96	0.04	0.23
2000/01	2.67	0.50	2.32	0.84	0.07	0.97	0.03	0.19
2001/02	3.23	0.61	2.84	0.85	0.05	0.97	0.03	0.19
2002/03	2.95	0.61	2.65	0.87	0.05	0.97	0.03	0.21
2003/04	3.33	0.63	3.03	0.89	0.04	0.98	0.02	0.19
2004/05	4.07	0.64	3.63	0.87	0.04	0.98	0.02	0.16
2005/06	4.14	0.73	3.41	0.79	0.21	0.95	0.05	0.18
2006/07	1.62	0.62	1.50	0.88	0.08	0.95	0.05	0.38

Source: *Own calculation based on CEC (various years)*

2.8.3 Small-scale sugar cane production

A large number of small-scale agricultural producers have traditionally been involved in the sugar industry as cane growers. Table 18 (below) shows how this number has declined over the past 10 years with the result that small-growers' share of the industry declined from a high of 18.4% in 1997/98 to the current level of 10%. The average scale of operation of individual growers is small (less than three hectares); farming is undertaken typically on a part-time basis; and use is made of contractors to undertake harvesting and transport.

Table 18: Small-scale cane growers: production statistics 1995-2006

	Number	Deliveries Tons cane	Tons delivered per farmer	Area Under Cane Ha	Area Harvested Ha
1995/96		2,545,210		85,254	55,678
1996/97		3,690,301		93,085	65,930
1997/98		4,073,955		87,520	65,212
1998/99	27,886	3,421,667	123	82,753	67,192
1999/00		3,104,559		82,831	66,239
2000/01		3,565,556		85,033	69,738
2001/02	30,286	3,035,301	100	85,215	69,144
2002/03	28,599	2,900,643	101	83,769	63,941
2003/04	26,711	2,236,071	84	83,027	67,352
2004/05	23,577	2,225,085	94	78,870	65,846
2005/06	23,470	2,349,591	100	78,571	62,402
2006/07	18,954	2,030,443	107	74,226	57,459

Source: *Cane Growers*

Table 19: Small-scale cane growers' relative productivity 1995-2006

	Small sugar growers % of total Production	Yields Small sugar growers Tons/ha	Avg Yield for the total industry Tons/ha	Small growers yields as % of avg industry yields
1995/96	15.3%	45.71	61.03	0.75
1996/97	17.7%	55.97	69.71	0.80
1997/98	18.4%	62.47	74.49	0.84
1998/99	15.0%	50.92	72.23	0.71
1999/00	14.7%	46.87	67.54	0.69
2000/01	15.0%	51.13	73.75	0.69
2001/02	14.4%	43.90	64.77	0.68
2002/03	12.6%	45.36	71.41	0.64
2003/04	11.0%	33.20	62.47	0.53
2004/05	11.7%	33.79	60.08	0.56
2005/06	11.2%	37.65	65.83	0.57
2006/07	10.0%	35.34	66.11	0.53

***Source**: Cane Growers*

The yield of small growers, as a percentage of average industry yields, is also declining. One possible explanation is that the more efficient small-scale growers have been able to take advantage of land reform opportunities and have migrated into the category of commercial farmers. Table 20 (below) shows the sugar industry's impressive increase in PDI participation since 1999.

Table 20: PDI participation in the sugar cane production 1999-2006

	Total number of registered cane growers	Total number of PDI registered cane growers	Total Area Under Cane (AUC) Ha	PDI Area Under Cane	PDI AUC/Total AUC
1999	1724	152	281,770	13,244	4.70
2000	1784	190	290,063	17,497	6.03
2001	1753	224	295,518	20,990	7.10
2002	1756	260	299,424	23,009	7.68
2003	1767	302	299,919	28,605	9.54
2004	1743	327	306,290	32,346	10.56
2005	1729	341	306,425	37,064	12.10
2006	1716	358	310,396	42,397	13.66

***Source**: Cane growers*

2.8.4 Small-Scale Cotton Production

As indicated earlier, cotton production in South Africa has been declining over the past twenty years while other SADC cotton producing countries such as Zambia have increased their production owing to their lower overall production costs when compared to their South African counterparts. Small-scale cotton farmers in South Africa have not been unaffected by this shift – their average hectares under production has declined from 13,000 ha in 1996/97 to 4,000 ha in 2006/007. While their current relative contribution to total South African cotton production is largely unchanged from 1996 levels, within the period there have been considerable changes. The crisis the industry experienced in 2002/2003 prompted the formulation of the Cotton Industry Strategic Plan. One of the core strategies of this plan was the development of small-scale producers and this, to some extent, this effort has helped stem their exit from the industry.

Table 21: Small-scale cotton production 1996-2006

	Number of small scale producers	Ha under production	Production No of 200 kg bales	Avg ha per farmer	Yield kg/ha	Small –scale producers % contribution to total production
96/97	3655	13022	14496	3.56	222.6	12.2
97/98	3062	14496	20472	4.73	282.5	12
98/99	3604	9433	16728	2.62	354.7	7.6
99/00	3486	8094	4045	2.32	100.0	3.5
00/01	3312	4404	7302	1.33	331.6	4.7
01/02	3688	10916	8730	2.96	159.9	9.7
02/03	465	1476	1232	3.17	166.9	1.8
03/04	1935	5348	12380	2.76	463.0	9.3
04/05	1737	3508	7693	2.02	438.6	7.7
05/06	2849	7759	10993	2.72	283.4	15.2
06/07	2305	3945	7495	1.71	380.0	13.8

Source: *Cotton SA*

In 2005, Randela, using survey data from two small-scale cotton growing areas and applying various econometric techniques, identified the most important factors that determine small cotton farmer commercialization levels. Statistically significant variables making a positive contribution included; access to loan finance, an ability to speak English (and thus the ability to enter into contract farming arrangements), age, own transport and access to market information. This provides important clues as to what issues need to be addressed if small farmer production levels are to increase.

In summary, what the three industry cases described here illustrate is that small-holder production has declined over the past ten years. Their productivity lags behind the commercial sector and, moreover, this divide appears to be growing. A number of micro-level surveys of small-holder agriculture (e.g. Manona, 2005; Randela, 2005) have established that small-scale South African farmers face a number of binding constraints that limit production and productivity. These include agronomic factors such as disease and adverse climatic conditions coupled with a lack of adequate information on how to manage these events, institutional factors such as insecure land tenure and access to production credit to purchase inputs as well as declining agricultural support services such as research and the provision of extension services.

2.9 Summary

The massive drought in the early nineties and the instability before and immediately after the 1994 elections all negatively affected growth opportunities in the sector. It was only after confidence in the democratic change was restored, and on the back of a weakening exchange rate and thus higher commodity prices and export earnings, that agricultural growth began to increase. This growth in output was sustained until 2005 whereafter real output declined to pre-2000 levels. The strengthening of the rand and poor production conditions appear to have contributed to this down-turn.

Despite this decline in output, the sector has managed to increase its profitability in recent years. The stabilisation in input costs, together with the rapid increase in the Producer Price Index for food products from 2000-2007, helped raise net farm income. As a result, net farm income measured in constant 2000 prices recovered to above R10 billion in the new millennium and is currently at a peak of R15,3 billion. From 2001-2007 the sector generated an average return on investment of 13.7% per annum compared with an average of less than 10% for the years 1994 to 2000.

Within agriculture, there has over the past 15 years been a shift in the relative shares of livestock, field crop and horticultural production. The livestock sector has maintained an overall share of between 42% and 48% of output, while the relative share enjoyed by horticultural production has increased from 20% to 26%. In contrast, the production share of field crops has declined from 35% to 25%.

Exports of primary agricultural products and agro-food products have also grown rapidly during the period under review – the proportion of the total agricultural crop that is exported having increased by

10%. Agricultural imports have also risen and at a faster rate than other imports or agricultural exports. During this period, imports increased from 13% of total agricultural output to more than a fifth (22.6%). The main reason for the rapid increase in imports is the emergence of animal feeds, especially poultry feed, as South Africa's main agricultural import item. Along with this has been the emergence of Argentina as the single largest source of agricultural imports.

Long-term data show that total farm employment increased until 1975, after which it started a long decline. In 1955, agricultural employment still represented more than 25% of total formal sector employment in the country, but stood at less than 10% at the time of the last census in 2002. From 2002 - 2006 labour shedding in the agricultural sector accelerated and 300,000 formal agricultural jobs were lost over the period, despite a growth in sector output. A percentage of these unemployed workers were absorbed by the informal/subsistence agricultural sector. However, a significant number were evicted from commercial farms and contributed substantially to the growth of dense informal settlements in rural and peri-urban areas.

Concentration and consolidation within the commercial farming sector, and between commercial and subsistence farmers, has increased. More than 15,000 commercial farmers left agriculture between 1996 and 2002, and from 2002 to 2006 the number of South African households with access to land declined by a fifth. Available evidence on the performance of small-scale South African farmers shows that this group has struggled to increase its production and productivity levels. As a result, rather than disappearing, the dualistic agricultural structure the democratic government inherited in 1994 has become more pronounced.

Section 3

3 Agricultural Policy and its Implementation since 1994

Policy interventions can affect the direction and rate of change in the performance of a sector. The previous section of this review referred to a number of key policy shifts that had taken place in the agriculture sector since 1994, this section of the report analyses these in greater detail. These policy interventions are divided into two main categories. The first looks at policies and instruments aimed at stimulating output markets and covers trade liberalisation and market deregulation. The second category focuses on those policies and instruments aimed at strengthening the performance of factor markets – land, labour and capital inputs.

3.1 Output market policies

3.1.1. Trade policy

3.1.1.1 Trade liberalisation

The key feature of post-1994 trade policy in South African agriculture has been the replacement of direct controls over imports and exports, exercised in terms of the Marketing Act of 1968, by tariffs, and the lowering of those tariffs below the bound rates agreed to in the Marrakech Agreement of 1993. Quantitative restrictions, a multitude of tariff lines, a wide dispersion of tariffs, and formula, specific and *ad valorem* duties and surcharges, characterised South Africa's trade regime before 1994. In agriculture, quantitative restrictions, specific duties, and price controls, import and export permits and other regulations were replaced by tariffs after South Africa became a signatory to the Marrakech Agreement. Initial progress in rationalising the tariff regime, and with lowering nominal and effective protection, was fast. Between 1990 and 1999, the number of tariff lines was reduced from 12 500 in 200 tariff bands to 7 743 in 47 tariff bands – or fewer than 2500 in 45 bands if the zero tariffs are ignored. The maximum existing tariff was also reduced from almost 1400% to 55% and the average economy-wide tariff fell from 28 to 7.1%. In agriculture, virtually all tariffs are now below the bound rates of the Marrakech Agreement.

The structure of protection also affects agriculture. In South Africa, the average tariff cascades from a relatively high rate on consumer goods to moderate on intermediate goods and low on capital goods. This pattern, which is typical of protection in many developing countries, implies that less progress has been made in rationalising *effective* protection. It also results in a support to value-added production and exports. While certain manufacturing industries have benefited directly from such support (e.g. the motor vehicle and textile industries), traditional agricultural export sectors such as wine have been able to base their export strategies on growth in a protected domestic market.

In addition, countries in the Southern African region have been granted preferential access through the abolition of quantitative controls over agricultural trade within SACU, a range of bilateral treaties and the free trade agreement with SADC. Finally, South Africa has signed a free trade agreement with the EU. These changes came about in accordance with national trade policy, the main purpose of which was to lower the average level of tariffs, to maintain a typical tariff escalation profile, and to simplify the tariff structure.

The three most important trade relations in the Southern African region include SACU, which exhibits the deepest level of integration, SADC and the South Africa-Zimbabwe bilateral agreement. Of the extra-regional influences, the Lomé (and now Cotonou) preferences, the Africa Growth and Opportunity Act (AGOA) of the USA, and South Africa's separate bilateral Agreement with the EU are most influential.

3.1.1.2 The impact of trade policy reform

The most important implications of these policies for the agricultural sector have been that:

- The prices of field crops generally adjusted downwards to world market levels, and have thereafter

fluctuated with the world market price. Commercial farmers have shifted quite rapidly to minimum and low-tillage production systems and in certain cases even to no-till practices. The result has been a rapid decline in the use of inputs such as fertilisers, insecticides and herbicides, of tractors, combine harvesters and other implements, and of fuel in field crop production This has been accompanied by an on-farm shift in field crop production to better quality soils, and a sectoral shift in production out of more marginal areas such as the western parts of the North West and Free State provinces (mainly maize), and the north-western and south eastern parts of the Western Cape province (wheat). A further effect has been the adoption of crop rotation regimes, for example the introduction of crops such as medics and canola into wheat systems in the Western Cape Province and the gradual introduction of precision farming technologies. These locational and cropping pattern effects have allowed farmers to maintain total output of the major field crops while ploughing less land.

- Commercial farmers have adopted a wide variety of risk management strategies other than lower input use to cope with the greater instability that they face. These diversification strategies have been focused on income diversification (e.g. more part time farming, investment in on-farm agro-tourism facilities), and on asset diversification (large farmers have tended to diversify into different subsectors of agriculture, or into different regions within the same subsector, e.g. a maize farmer will diversify into horticulture, or a table grape farmer will buy additional land in a different production area). The result is a simultaneous consolidation of large commercial (industrial) farms with an increase in the number of smaller commercial farms, and an overall increase in the average farm size.
- The extent to which domestic producers of maize and wheat have reacted to changes in world prices has been attenuated by the application of a formula tariff, which fluctuates with the world price. The recent rapid increase in the world price, along with the devaluation of the domestic currency, created circumstances where the import tariffs should have been lowered immediately in order to cushion the effect on the farm gate prices. However, there has been widespread agreement that this mechanism was not used to good effect as the adjustments in the tariff were delayed by red tape. As a result, the wheat tariff was changed to an *ad valorem* tariff during 2007, but at the low rate of 2%.
- South Africa has, in the process, also increased its imports of animal feeds based on oilseeds, as the evidence shows that commercial farmers in the country are not competitive in the production of these commodities. One of the possible locational effects of these imports has been a shift in the dairy industry to the coastal regions, i.e. to production systems based on natural pasturage.
- The notable exception in the effects of trade reform on field crop production is the sugar industry which still enjoys high levels of tariff protection, partly because of the large investment required in the processing of sugar, partly because the world market in sugar is even more heavily distorted by the protectionism of the OECD countries than other agricultural products, partly because of the large number of small-scale sugar producers, and partly because of the greater lobbying power of the industry. Sugar producers even enjoy protection from producers in other SACU and SADC countries. While the domestic pricing structure has been liberalised to some extent in the past 8 years, the sector has not had to adjust to the same extent as have maize and wheat producers.
- The tariff structure that has resulted from the changes in trade policy in South Africa generally affords greater protection to value-added products as compared to commodities. One result is that farmers generally sell their products into oligopolistic markets, and buy their inputs from oligopsonistic suppliers, which adversely effects their terms of trade. Commercial farmers have been able to counter these effects by increasing multifactor productivity. However, continued increases in productivity are dependent on new technologies, which in turn are at least partly dependent on state funding. This issue will be discussed below.
- South Africa has traditionally been a net importer of red meat, with most imports sourced from Botswana and Namibia. The lowering of trade protection resulted in increased competition from non-traditional suppliers such as Australia (mutton and lamb) and the (subsidised) EU producers (mostly low quality beef cuts). Here, however, the weakening exchange rate seems to have resulted in a decline in these supplies in the past few years.

- The effects of trade policy changes on the horticultural sector are more the result of the new Marketing of Agricultural Products Act (Act 47 of 1996) than of macroeconomic trade policy, and are discussed below.

The net result of these changes can be summarised in two dimensions, namely the policy space available to decision makers after the trade liberalisation; and the measure of support provided to South African farmers.

3.1.1.3 Policy space

South African agriculture lost virtually all state support during this process of trade liberalisation as well as the domestic market deregulation described in the next section. The effects of trade liberalisation were somewhat balanced by the introduction of tariff rate quota (TRQ) regimes for several products and a (now largely ended) system of variable import tariffs. However, South African agriculture is now at something of a crossroads, with a body of opinion arguing that a reversion to protectionism is required – especially so as consideration must now be given to assisting the thousands of black farmers starting their careers after acquiring land in the land reform process.

This raises the question of whether South Africa is actually in a position to increase its border protection for agriculture, an issue addressed in a recent article (Sandrey *et al.*, 2007). Table 22 contains a summary of the policy space available to South African agriculture. In general, it is limited. Some 14.1% of the imports are 'locked' by the WTO bound rates, with an additional 7.5% almost at those bound rates. Another 22.9% is effectively 'locked' with at least fifty percent sourced from the EU/SADC combined with an additional 15.2% 'almost locked' with at least 40% of the imports from these same destinations. This gives a total of 59.7% that is, for all practical purposes, locked into the current tariff policy regime.

Of the remaining imports, another 14.6% constitute animal feed inputs. Any increase in these tariffs will directly pass a cost increase on to South African poultry and meat producers, and ultimately on to consumers. Imports of wheat (6.7% of the total) are also sensitive. While there is policy space to increase the wheat tariff, South Africa is a net importer of this staple food. This leaves a grand total of 19.0% of all imports where at least some policy space is available. Even here, most of these imports are subject to WTO TRQ obligations and thus not totally under the control of South African trade policy authorities.

Table 22: Summary of the policy space available

No policy space, as applied rates are at bounds ($378.2m, 14.1 $ of total imports					
Rice	$230.0m	Other animal prod	$46.5m	Coffee	$37.7m
Limited space, as EU/SADC imports combined > 50% ($611.8m, 22.9% total)					
Spirits etc	$185.8m	Processed food	$129.3m	Cotton	$69.0m
Very limited space, as EU/SADC imports still > 40% ($406.3m, 15.2% total)					
Tobacco	$77.7m	Animal feeds	$67.3m	Fats/oils	$61.4m
Very limited space, as applied rates are close to bounds ($200.8m, 7.5% total)					
Casein	$111.0m	Cocoa/choc	$69.6m	Spices	$20.2m
Policy space, but a major animal feedstuff ($391.4m, 14.6% total)					
Palm oil	$128.6m	Soybean cake	$118.7m	Soybean oil	$110.0m
Policy space but a staple food ($180.6m, 6.7% total)					
Wheat	$180.6m				
Yes, there is clear policy space ($507.5m, 19.0% total)					
Poultry	$147.2m	Sugar products	$69.2m	Pork	$47.3m

Source: *Sandrey et al. (2007)*

3.1.1.4 Support to South African farmers

South African agriculture has been subjected to analyses by the FAO, the OECD, and the World Bank in the past few years (Vink, 2003; OECD, 2006; Kirsten et al 2007) These institutions have used a range of different measures to describe the extent and the nature of state intervention in the agricultural sector. The results are summarised in Table 22.

The high PSE (Producer Support Equivalent)[4] in 1992/3 was the result of a huge once-off increase in direct income support to farmers, from R250m the previous year, to R2.6bn (Rimmer, 1993). This came in the form of a drought relief package, announced by the Government in 1992, which consisted of R2.4bn in debt relief. On average, these estimates of support to agriculture reflect the change in policy from the protection in the 1970s and 1980s to a more liberal market in the 1990s and early 2000s. This is consistent with the abolition of the Control Boards and trade liberalisation under the Marrakech Agreement on Agriculture. Furthermore, they underscore the unequal nature of global agricultural markets.

South Africa, as a member of the Cairns Group, has been fairly vociferous in raising its concerns over the comparatively high levels of domestic support received by farmers in developed countries. The clearest indication of this is South Africa's recent decision to participate as a third party in the dispute between the United States of America and Canada on *Subsidies and other Domestic Support for Corn and other Agricultural Products.* The media statement announcing South Africa's participation in this dispute notes that this decision is "consistent with South Africa's approach in the WTO Doha Development Round of agricultural negotiations that seek to facilitate a substantial and real reduction in trade and production-distorting subsidies. SA believes that trade and production-distorting agricultural subsidies, mainly used by developed countries, negatively impact on the development of its agricultural sector and on the African continent" (Galane, 2007).

Note that South Africa's stance against domestic support does not preclude increasing its current levels of support to farmers. As South Africa is currently classified in the WTO as a developing country, the current proposal on domestic support makes provision for trade distorting support under the *de minimus* rule equal to 5% of the total value of agricultural production. In addition, the proposal also makes provision for the introduction of a new Blue Box support category to accommodate trade distorting support that imposes production limits so that over-production is curbed. The permissible level of support under this box is a further 5% of the value of production (WTO, 2008).

[4] The Producer Support Estimate (PSE) is an indicator of the annual monetary value of gross transfers from consumers and taxpayers to support agricultural producers, measured at farm gate level, arising from policy measures, regardless of their nature, objectives or impacts on farm production or income. The Producer Support Estimate (PSE) is an indicator of the annual monetary value of gross transfers from consumers and taxpayers to support agricultural producers, measured at farm gate level, arising from policy measures, regardless of their nature, objectives or impacts on farm production or income (OECD, 2006).

Table 23: Measures of support to South African agriculture

			1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
South Africa	**Based on OECD 2007 NPC**	**NRA**					10.80	18.95	8.20	13.61	9.23	9.86	5.51	2.21	8.61	5.51	
	Kirsten *et al*, 2000	**PSE**							1.78	10.89	4.18						4
	Helm & van Zyl	**PSE**	11.56	13.69	16.74	31.04	14.50										
	Kirsten *et al*, 2006	**TRA**					8.33	7.45	0.05	5.50	-7.79	-3.58	-3.42	-7.72	-5.33	0.80	
OECD countries	**OECD**	**PSE**	32	35	33	35	34	32	29	29	33	35	33	29	32	31	30

Notes: *PSE = Producer support estimate; TRA = Total rate of assistance. Both measure direct and indirect support to farmers, with the indirect support measured as the difference between world and domestic prices. NPC = Nominal Protection Coefficient*

Sources: *OECD (2006), Kirsten et al (2000) Kirsten et al (2007) Helm and Van Zyl (1994).*

3.1.2. Marketing policy

3.1.2.1 Marketing deregulation

Until early in 1998 the marketing of most agricultural products in South Africa was extensively regulated by statute, based on the original Marketing Act (some 70% of agricultural output by value), the Cooperative Society's Acts (in the case of ostriches and wattle bark) or by industry-specific statutes (such as the Sugar Act and the Wine and Spirit Control Act). Most products were regulated under the 22 marketing schemes introduced from 1931 and especially from the time of the 1937 Marketing Act (consolidated in the revised Marketing Act, Act 59 of 1968).

Beginning two decades ago, the industry faced increasing pressures for deregulation, a process that was accomplished in two phases over this period. The major change in the first phase was the extensive deregulation of state agricultural marketing schemes within the framework of the Marketing Act of 1968. The origins of this change can be found in the shift in monetary policy in the late 1970s and fiscal strategies in the 1980s, which undermined the complex structure of protection, price support and cross-subsidies on which agricultural support was founded. Yet isolation from the world market, accompanied by the increased isolation of the country in social, cultural, political and intellectual spheres during the 1980s, meant that the deregulation steps that did take place were aimed at the domestic market. Foreign trade still largely consisted of managing imports and exports in order to manipulate domestic prices (e.g. maize, wheat), or of monopoly export schemes (e.g. for fruit). The first real steps in opening the agricultural sector to world market influences came with the Marrakech Agreement of the GATT in 1993, when all direct controls over agricultural imports were replaced by tariffs.

The most sweeping change was, however, brought about by the Marketing of Agricultural Products Act, Act 47 of 1996. This new Act represented a radical departure from the marketing regime to which farmers had become accustomed in the period since the 1930s. While far reaching, the deregulation that had taken place since the 1980s was piecemeal, uncoordinated, and accomplished within the framework of the old Marketing Act, with the result that any policy changes could easily be reversed. The new Act changed the way in which agricultural marketing policy would henceforth be managed in South Africa, not least by opening the sector to world market influences in a manner that could hardly have been anticipated a decade earlier. The Marketing of Agricultural Products Act set up the National Agricultural Marketing Council (NMAC), whose immediate task was to dismantle the existing Control Boards, and subsequently to manage and monitor state intervention in the sector.

Act 47 of 1996 sets its objectives as the promotion of efficiency in the agricultural sector, increased market access, the optimisation of export earnings, and the promotion of the viability of the sector. Further, the Act states that intervention is allowed only on condition that at least one of these objectives is substantially furthered without being substantially to the detriment of any of them. In addition, the National Agricultural Marketing Council (NAMC) was set up, with the main function of monitoring any intervention in the market that has been allowed in terms of the Act. This formulation means that the calculus has changed. The main function of the institutions created under the previous Act (the Control Boards and the National Marketing Council) was to implement market interventions. In contrast, the main function of the NAMC is to monitor those few interventions that are permitted to ensure that they do not create market distortions that could adversely affect the welfare of the agricultural sector or the country at large, as measured by the objectives of the Act.

It is evident that the effects of deregulation differed between the field crop, the horticultural and the livestock subsectors of agriculture, partly because of their different modes of production, and partly because the nature of control under the old Act differed between different commodities. Each of these is discussed in turn:

3.1.2.2 The impact of marketing deregulation

Field crops

The discussion above showed the real impact of trade policy reform on the performance of the field crop sector. Yet the process of deregulation of the agricultural marketing system encompassed more than just a change in the trade regime. The most important changes included the abolition of pan-territorial and pan-seasonal pricing mechanisms, the concomitant changes to physical access to the market, and to the food processing sector, and a range of institutional impacts:

- Most of the major field crops were sold under a 'single channel fixed price' marketing regime, characterised by pan-territorial and pan-seasonal pricing. The main consequence of pan-territorial prices was that farmers closer to the market were effectively cross-subsidising those further away who faced higher transport costs. With deregulation, prices started to become regionally differentiated to reflect transport costs and regional variations in demand and supply. Another consequence was that processors moved closer to the market, as they also paid the same price irrespective of the point of delivery. The main result of pan-seasonal pricing was that no grain was stored on-farm, and that the entire crop was sold immediately after harvest. This had a tendency to cause havoc on the money markets, especially when the maize crop was harvested, as farmers were paid in full on delivery to the cooperatives. The result was an over-supply of storage capacity, arguably also incorrectly located.
- Another feature of the regulated market was that the price differentials between different grades and cultivars of grains did not reflect differential demand. This was particularly evident in the wheat industry; for example, wheat produced in the Western Cape was unsuited to the production of bread, while there were few incentives to produce for specific baking qualities, or for the production of pasta, etc.
- With deregulation, the major grain industries (maize, wheat) become more differentiated as the location of production shifted in response to differential prices across space and over time. One of the first manifestations was that an increasing proportion of the maize crop is now milled by small-scale millers, both on- and off-farm (industry estimates suggest that this can be as high as 30% of the crop). This has impacted the rural areas in three ways. Firstly, there are increased opportunities for small and medium scale businesses in processing and distributing maize and maize products. This increased activity in the rural areas has provided a stimulus to rural economies. Secondly, there has been a marked increase in agro-tourism throughout the country. While agro-tourism has long been a feature of the wine industry, there has been a marked increase in farm stores, farm stays, etc. in most parts of the country. Thirdly, small-scale farmers have, in theory at least, better access to the market than before, as the cooperatives that acted as agents under the single channel schemes would take delivery only in bulk. However, the slow pace of land reform (see below) means that few new entrants to agriculture have been able to take advantage of these benefits.
- The abolition of pan-territorial and pan-seasonal pricing has also had interesting consequences for the rural finance sector. Under the control schemes, the Control Boards appointed agents, mostly farmer co-operatives, to carry out the physical functions of receipt of the crop, payment, storage, and onward consignment to the processors. These input supply co-operatives therefore became effective regional monopolies, which enabled them to become preferred suppliers of seasonal credit to farmers. They generally used the Land Bank as their preferred source of funds. With deregulation, however, the commercial banks have been able to expand their share of this market.
- An additional consequence of the abolition of pan-territorial and pan-seasonal pricing has been the advent of a wide range of strategies (increased part-time farming, contract farming, strategic selling throughout the season, price hedging, etc.) and institutions (the agricultural futures market, or SAFEX, grain trading firms, brokerage firms, etc.) that have enabled farmers to participate in the market with greater certainty and lower transaction costs. These institutional changes have generally served to lower the transaction costs of market participation. Price hedging instruments

such as SAFEX are mainly used to hedge or insure against price risk and thus manage farmers' liquidity in a deregulated market. SAFEX price formation for field crops is generally considered efficient (see caveat below) and a true reflection of prices in the domestic market. Thus by using SAFEX instruments effectively, farmers can minimise their price risk which in turn lowers their cost of doing business. The uptake of SAFEX derivates amongst South African farmers has not been scale neutral for two reasons. The first relates to contract size, a 100 ton contract is the only contract size traded on SAFEX and this translates into a farmer threshold entry level of above 50 ha in the case of maize. The second reason relates to the substantial legal and financial knowledge, computer literacy and infrastructure requirements such as electricity and internet access needed to be able to make full use of these market instruments.

- A recent investigation into the performance of SAFEX identified a number of potential weaknesses in the operation of the market that might have contributed to the high food prices and price volatility observed in the era of deregulation. The main recommendation flowing from this investigation was the need to revisit a number of the rules and regulations governing SAFEX with respect to restrictions on the size of the trading position taken as well as limiting the opportunistic behaviour of traders.

Livestock

Control over the livestock industry was exercised in terms of a wide range of marketing control schemes. Red meat and eggs were controlled under 'surplus removal (price support)' schemes, whereby a floor price was set, with the relevant Board responsible for manipulating supply in order to maintain prices above this floor. In the case of red meat, the main consuming areas were designated as 'controlled' areas, and meat could be sold there only under a permit. Meat could also be slaughtered only in approved abattoirs, most of which were in the controlled areas. This created an artificial shortage in the consumer market and an artificial surplus in the producing areas, with the result that the holders of permits gained windfall rents. Wool and milk were controlled under 'single channel pool' schemes.

The major sources of animal feeds were also controlled, with maize under a single channel fixed price scheme, and oilseeds and lucerne under single channel pool schemes. The poultry industry was never subjected to statutory control.

The effects of deregulation on the livestock subsector have received relatively little attention, partly because of the heterogeneity of the sector, and partly because of the lack of reliable data, especially on consumption of red meat. Some effects include:

- An increase in the proportion of red meat sold in the informal sector directly into poor urban and peri-urban communities. Live sheep and cattle are bought on the farm, or even delivered to these townships, and slaughtered at the roadside, where the meat is sold raw or cooked in various forms. While it is known that this trade makes up a substantial proportion of total red meat sales, its exact magnitude has not been estimated. Similarly, there is an active market in pig and poultry by-products such as offal, chicken heads and feet (colloquially known as 'walkie-talkie'), etc.
- Deregulation resulted in a rapid increase in the number of smaller abattoirs in the rural areas, mostly on-farm facilities that are combined with retail outlets or that supply directly to retailers in the formal market. One of the results is that the large metropolitan abattoirs are all running at less than a third of capacity, leading to severe financial problems for the holding company, Abakor.
- A relatively large proportion (up to 80% of formal sector sales) of South Africa's red meat comes from feedlots, mostly as a final finishing phase, ostensibly because of the lack of winter grazing in the summer rainfall areas. It is not clear whether this practice has increased in the post-deregulation era, although there is little evidence that it has decreased. For this reason, red meat prices are particularly sensitive to changes in the cost of animal feeds. The decline in the real price of yellow maize, oilseeds and other components of animal feeds since deregulation has, therefore, resulted in relatively low red meat prices, at least until the recent increase in grain prices.

Horticulture

Most of South Africa's fresh vegetable and subtropical fruit industry escaped controls under the old agricultural marketing regime, while the domestic market for fresh deciduous and citrus fruit was deregulated in the 1970s. Hence, the focus here is on exports of deciduous and citrus fruit. These products were marketed under 'single channel pool' schemes, whereby producers had to channel their produce into a pool operated by a statutory monopoly empowered by the Deciduous Fruit and Citrus Control Boards respectively. The main implications of the deregulation of these industries include the effect on the quality and quantities exported, as well as the destination of exports:

- The main advantage of the single channel export schemes was, obviously, the ability to manage the price of exports and, more specifically, to use the monopoly power to keep prices high. The main disadvantage was that products were pooled (i.e. individual producers had no incentive to deliver a quality higher than the average), that prices were maintained at high levels by restricting output, that there was little incentive to develop new markets, and that there was little incentive to save on marketing costs. As a result, South African production lagged behind that of its competitors, the country became vulnerable to changes in individual clients, given its concentration on the most lucrative short-term markets, the country lagged in innovating new cultivars, and marketing costs were high. Deregulation changed the calculus in each of these dimensions.
- The first effect of deregulation in the fruit export industries was the entry of literally hundreds of marketers, and hence a sharp decline in price and in quality delivered into a global market characterised by a rising demand for new products and a stagnant demand for conventional cultivars. In this regard, the apple industry was hardest hit and experienced a decline in exports in the period immediately after deregulation in the mid to late-1990s. As apples are grown in only a few specialised areas, these areas experienced a negative impact on farmer incomes and employment, while the impact on the wider economy was limited. Nevertheless, total fruit exports increased in volume and value in the post-deregulation era.
- Under the new, deregulated trading regime, producers were more exposed to the shifting demand for new fruit types and varieties. While this had a negative impact on sales in the short term, it has also resulted in a new investment boom as farmers have shifted replanting and new plantings to reflect this change in demand. In the citrus industry, for example, the Western Cape producing area has been favoured over Mpumalanga, Limpopo and Eastern Cape provinces, as the demand has shifted to easy-peelers which are more suited to the climate. As a result , the Western Cape has become the largest source of citrus exports.
- A further result of deregulation is that farmers are now better able to withstand shocks in individual markets. While the bulk of deciduous fruit and citrus exports are still destined for the UK market, the concentration of exports has diminished considerably, with new markets being exploited in Eastern Europe, South and East Asia, the Middle East and Africa. There is also anecdotal evidence that competition between marketers has resulted in a lowering of supply chain costs, although the market for shipping space and harbour facilities is not competitive, and South African exporters face higher costs than those of their competitors.
- Producers' ability to shift a wider variety of products to a wider range of markets has also provided a measure of protection against competition from heavily subsidised producers in northern hemisphere countries. New technologies have resulted in an extension of the production and marketing season for these producers, thereby closing the 'marketing windows' for counter-seasonal southern hemisphere countries. This advantage has been partially offset by new storage and shipping technologies for South African producers, but the reduction in state support for research and development presents a real threat to the deciduous fruit and citrus industries.
- The regions that have benefited most from these changes in market conditions and the new opportunities that have arisen as a result of deregulation include the new table grape production areas along the Orange River in the interior of the country, and the wine producing areas of the Western Cape. Table grape exports from South Africa have grown fastest among the different varieties of deciduous and citrus exports, largely because of the rapid expansion in production

capacity in the Northern Cape province. This expansion has been driven largely by the early harvest, and hence the favourable market conditions, by production technologies such as precision irrigation, and by infrastructural investments aimed at improving air and shipping transport.

- The wine industry has also undergone radical structural changes. Exports have, for example, increased more than threefold over the past decade, and from less than 10% of the total harvest to more than a third. These changes have been driven by investment to replace current production capacity and to create new capacity. In the wine industry, this implies a smaller total crop as high-yielding grape varieties are replaced by low-yielding 'noble' cultivars. This also implies that the area under vines has grown only slowly, as most of the investment is targeted at replanting. Nevertheless, new areas in the Western Cape, including the Malmesbury district on the West Coast, and the Southern Cape have been the focus of a rapid expansion in wine grape production. At the same time, the processing capacity of the industry has also been expanded, with new wineries being set up, mostly in the traditional high-quality producing areas of Stellenbosch and Paarl.

3.1.2.3. Fresh Produce Markets

As indicated earlier, fresh produce was never subject to regulation under the old marketing act. National fresh produce markets (NFPM) form an integral, although diminishing, part of the price-making, distribution and marketing of fresh produce in South Africa. There are 18 commission-drive NFPM in South Africa with the four largest NFPM (Johannesburg, Tshwane, Cape Town and Durban) representing 74% of the turnover and volume throughput of all NFPM. Annually, more than 2,860,000 tons of fresh produce is traded through these markets.

Since the introduction of the new agricultural marketing act in 1996, NFPMs have shown virtually no growth at a time when the production of fresh produce in the country has increased dramatically. In the case of potatoes, for example, in 1996 67% of all potatoes traded in South Africa were sold through NFPMs. By 2006 this had dropped to 42%.

As state owned assets, the declining competitiveness and efficiency of NFPMs (as a marketing channel) is of concern in light of their important role in providing services to producers and consumers of fresh produce, and in particular to low income consumers and the informal sector. In addition, concerns have been raised about the apparent slow pace of transformation of NFPM and market access problems black producers face in trying to supply to NFPMs.

From 2001-2006 the National Agricultural Marketing Council (NAMC) undertook a number of investigations into the current state of NFPM and a number of recommendations have been put forward to the Minister of Agriculture as to how these markets should be restructured to provide better value to producers and consumers.

The recommendations include amongst others:

- The ownership and management of NFPMs should be separated – in the current system local municipalities tend to own and operate NFPMs as a departments and/or corporate entities within their existing structures.
- A national coordinating body should be set up to coordinate matters relating to NFPMs across the country. Such a body should monitor and address the following issues;
    - the transformation of NFPMs,
    - the rationalisation of legislation governing the ownership and operation of NFPMs,
    - infrastructure backlogs at NFPMs,
    - the introduction of food safety and traceability requirements as well as the enforcement of quality standards

3.1.2.4. Food Prices

Price controls for bread, maize meal and dairy products were abolished in 1991 and from that point onwards retail prices were set by market forces. The initial impact of deregulation and trade liberalisation in the 1990s was a decline in producer prices for cereals and, as a result, food price inflation kept pace with overall inflation levels in the economy until 2001. However, the depreciation of the Rand in 2002 and the concomitant sharp rise in major commodity and food prices led the Cabinet to announce the establishment of a Food Price Monitoring Committee in response to this crisis.

The objective of the Food Price Monitoring Committee was to carry out an investigation into the pricing of foodstuffs and the operation of price formation mechanisms within a number of food product value chains in order to allay suspicions that industry role players were unfairly increasing the prices of basic foods. The Committee concluded that the increase in commodity prices (aided by world price movements and the exchange rate) was primarily responsible for the sharp rise in food price inflation. However, they also found that when commodity prices fell back to pre-1991 levels, there was a long lag before this decline was reflected in food price levels. Market structure and information transmission mechanisms in the economy, were cited as the main reasons for the long downward correction of food prices.

The Committee provided a series of recommendations as to what needed to be done in order to ensure fair competition in the South African food and agricultural sector. These recommendations included:

i. the need to institutionalise a food price monitoring system that was able to gather and disseminate food price information on a regular basis;
ii. the need for government to intervene to reduce poverty and improve food security to help households cope with food price increases;
iii. the need to more adequately monitor the agro-food competitive environment.

Following the recommendations of the Food Price Monitoring Committee, the National Agricultural Marketing Council now regularly publishes a Food Cost Review. Furthermore, over the past three years the Competition Commission has investigated and remedied anti-competitive behaviour in a number of food industries (e.g. dairy, grain storage and bread).

The poverty alleviation action has largely been addressed through the Integrated Food Security Strategy (IFSS). In 2002, the South African Cabinet adopted the Integrated Food Security Strategy (IFSS). In part, it was a reaction to the high prices of basic food items at that time. However, it was also prompted by the need to consolidate, harmonise and integrate the different food security programmes being implemented by the various government departments so as to achieve the goal of "universal physical, social and economic access to sufficient, safe and nutritious food by all South Africans at all times to meet their dietary and food preferences for an active and healthy life" (RSA, 2002).

The Department of Agriculture was designated as the lead agency of the IFSS with other members of the cluster including the Departments of Land Affairs, Health, Public Works, Water Affairs and Forestry and Trade and Industry.

The Emergency Food Relief Programme, a sub-programme of the IFSS was launched in 2002 and food parcels were distributed to households in need as an emergency measure. Later, it was realised that this approach was not sustainable. Accordingly, the strategy shifted focus towards the provision of agricultural starter packs to households and communities that had access to land in rural and urban areas in order to stimulate agricultural production.

Over time, the Agriculture Starter Pack Programme (ASP) has evolved into the Household Food Production Programme (HFPP). HFPP is a more comprehensive initiative whereby provinces are encouraged to change their implementation methodology and not only focus on starter pack distribution but also assist in the development and transfer of suitable inputs, technologies, information as well as training and capacity building (Skweyiya, 2006).

As part of this mandate, a number of the provinces launched separate projects/programmes to give

content to this vision. These include:

- Siyazondla and Siyakhula/Massive Food Programme in the Eastern Cape
- Siyavuna in KZN
- Masibuyele Emasimini in Mpumalanga
- Homestead Food Garden Programme in Gauteng

The objective of the HFPP is to ensure sustainable household level food security for vulnerable households and to reduce overall food insecurity by half by 2014. The overall target for the 2006/2007 financial year under the HFPP was 62,000 households, it was reported that this target had been exceeded.

3.2 Policies aimed at strengthening factor markets

3.2.1 Land and Resource Management

3.2.1.1 Land reform

The Department of Land Affairs, successor to the Department of Regional and Land Affairs, completed the process of land reform policy design with its White Paper in 1997, while implementation of the programme had already started in 1994. Land reform policy in South Africa consists of land restitution, tenure reform and redistribution programmes. Briefly, *restitution* deals with historical land rights and the return thereof, *tenure reform* examines forms of land holding, while *redistribution* focuses on the transformation of existing, racially-biased land ownership patterns.

With respect to *redistribution*, from 1995 to 1999 this was implemented by means of a *Settlement/Land Access Grant* (SLAG). SLAG was a small grant (R16,000 later increased to R 20,000) made available to poor households, usually organised in groups, to buy land on the open market. Initially, the Department of Land Affairs spent a lot of time and effort in mobilising communities and assisting them to access SLAG grants to acquire land. However, the Department's own research showed that, in most cases, farms financed with land grants and settled by groups of households, were too small to support all of the beneficiaries as full-time farmers. The Department of Land Affairs anticipated that emerging farmers would use the grant to leverage loan finance for additional land. However, most creditworthy farmers did not qualify for a land grant as the means test applied to potential beneficiaries precluded individuals with a monthly household income greater than R1 500.

Thus, a new approach to land reform was proposed after extensive consultation and planning during the course of 1999 and 2000. The Land Reform for Agricultural Development (LRAD) programme provided for an extended scale of grants dependent on an increasing own contribution, thus aiming to assist in the establishment of a class of commercial black farmers. It was argued at the time that the initiative would also fail unless implementation was well planned and well co-ordinated, unless support services for agriculture, i.e. research, extension, finance, information, infrastructure were in place to provide the conducive environment for a vibrant and successful agricultural sector, and unless the problem of bureaucratic centralisation was addressed.

This support did not initially materialise and as failure rates among land reform projects increased, the need for better coordination between the Departments of Land Affairs and Agriculture around post-settlement support became essential. The Comprehensive Agricultural Support Programme (CASP) launched by the Departments of Agriculture and Land Affairs in 2004, was an attempt to better co-ordinate support services.

In order to ensure that land and agrarian reform moved to a new trajectory that contributed to the higher path of growth, employment and equity by 2014, the DLA in 2006 introduced the Proactive Land Acquisition Strategy (PLAS) by the state for targeted groups in the land market. The PLAS is based on the premise that there is a need or demand for land and that this might be quantified either through IDPs or other state driven processes. Here, the state proactively targets land acquisition and matches this with the demand or need for land.

In February 2008, the Minister of Agriculture and Land Affairs announced the launch of the Settlement and Implementation Support (SIS) strategy for Land and Agrarian Reform. While the specific detail of the strategy is not yet known, the emphasis of SIS is on post-settlement support and on the need to make land reform "Everybody's business". This strategy highlights the need to locate land reform projects within local government structures and ensure that all projects are embedded in the Integrated Development Plans, in the Local Economic Development Plans and in the Provincial Growth Development Strategies.

Despite all efforts to speed up land reform, the net effect of the land programme has been limited. After almost 14 years of state sponsored land reform, slightly more than 4 million ha of the available agricultural land in South Africa has been transferred through the formal programme. Furthermore government recently admitted that the failure rate of new land reform projects could be as high as 50%.

Tables 24 and 25 show the contribution, disaggregated by year and by province, of the various land reform initiatives to the overall performance of land reform,.

Table 24: Redistribution programme: total hectares redistributed per province: 1995-2006/2007

	1995-2001	2002	2003	2004	2005	2006	2007*	Total
Redistribution: SLAG and LRAD	684,363	321,532	181,138	186,799	842,856	122,016	77,359	2,416,067
Redistribution: PLAS				18,673	13,629	85,270	16,319	133,891
State Land Transfers								29,422
Total								2,579,380

Source: *Kirsten (2008)*

Table 25: Restitution Programme: Statistics on settled restitution claims (1995 – 31 March 2007)

Province	Total number of claims	Hectares transferred to claimants*	Number of restitution projects with agricultural activities
Eastern Cape	16 116	72 075	19
Free State	2 582	44 464	8
Gauteng	13 148	7 557	2
KwaZulu-Natal	14 576	435 190	37
Limpopo	2 789	356 042	49
Mpumalanga	2 429	213 360	45
Northern Cape	3 673	305 389	16
North West	3 655	213 659	71
Western Cape	15 499	3 115	4
TOTAL	74 417	1 650 851	251

** Assuming that the majority of hectares would be rural*

Source*: Kirsten (2008)*

3.2.1.2 Post-settlement support and the Comprehensive Agricultural Support Programme (CASP)

While the objective of the land reform programme is to support previously disadvantaged households in acquiring land, the objective of CASP is to ensure they are successful and thus retain land ownership. The primary aim of CASP is to provide agricultural support to targeted beneficiaries of the land reform and agrarian reform programmes within six priority areas, namely:

- Information and technology management,
- Technical and advisory assistance and regulatory services,
- Marketing and business development,
- Training and capacity building,

- On/off farm infrastructure and product inputs,
- Financial support.

The need for CASP flows from the recommendations of the Strauss Commission report which recommended that black farmers, especially the beneficiaries of the land reform programme, should be supported through the provision of farmer support services. CASP was designed to establish fiscal transfer mechanisms to streamline and align service delivery within the three tiers of government.

CASP is targeted to support four different levels of clients within the farming continuum:

- The hungry & vulnerable – Though this group is primarily the responsibility of the Department of Social Development, they are supported with advice and – during food emergencies – with food packs. For those families who are ready, the agriculture starter pack has been introduced.
- Subsistence and household food producers – This group includes the beneficiaries of the Special Programme on Food Security (SPFS) and the Integrated Food and Nutrition Programme (IFSNP) where the provision of the agriculture starter pack is made.
- Farmers - specifically the beneficiaries of the LRAD and other strategic programmes e.g. SLAG, Restitution, Redistribution, Tenure Reform.
- Agricultural macro-system within the consumer environment – this category includes commercial farmers to ensure that the business and regulatory environment is conducive to supporting agricultural development and food safety.

Substantial funds were made available for CASP in its first years of operation (some R750 million in the 2004-2007 period), yet questions regarding its efficacy remain, largely because the small farmers who need the most support (i.e. those in the former homelands) have been designed out of the programme - the bulk of the funds have been channelled to emerging farmer clients for the provision of on-farm infrastructure, training and capacity building, marketing and business development. Table 26 (below) shows the number of projects and CASP beneficiaries, as well as the percentage of the budget spent.

Table 26: Number of projects & farmers benefited from CASP

Year	Budget (R'000)	Expenditure (R'000)	% Spent	# of Projects	# of Beneficiaries
2004/2005	200	109 571	55%	510	46 553
2005/2006	250	210 671	84%	1 069	53 206
2006/2007	341	321 091	94%	572	67 366
2007/2008 (December 07)	415	268 494	64%	845	60 276

***Source**: Kirsten (2008)*

3.2.1.3 The effects of land reform

Thus, despite the well-formulated land reform policy and well-funded land reform programme, comprising programmes for land restitution, land redistribution and tenure reform, progress has been slow, to the extent that less than 5% of commercial farm land has been transferred. Production conditions in the communal farming areas have remained largely unchanged or may even have worsened, and tenure forms have hardly changed in the communal areas, despite attempts to provide greater tenure security.

There is also no evidence that the supposed beneficiaries of land reform are better off as a result of their participation in the programme. Empirical evidence, in fact, shows that private transfers, some funded by mortgages from the Land Bank or the commercial banks, have occurred at a higher rate than have state transfers. Nevertheless, there are some examples of land reform that have had local impacts, and that might possibly serve as examples for future land reform:

- The best-known example of small farmer success in South Africa is the 20,000 small cane growers in the sugar industry (discussed earlier). While the support programme to small-scale cane growers in KwaZulu-Natal predates the land reform programme by a few decades, it has recently been

expanded considerably in Mpumalanga province where new sugar cane plantations have been established.

- During the early 1990s a project was launched to encourage the development of a land rental market on cropland in the communal areas by encouraging the traditional authority to adopt measures that would lower the transaction costs of land rental. As expected, this experiment has had interesting efficiency and equity results.
- A number of farm worker share equity schemes have been set up, mostly in the fruit export industries in the Western Cape, whereby farm workers use the land reform grant to buy shares in an operating farm business, mostly on the farm where they work. While the financial performance of these schemes still needs to be independently assessed, these schemes have attracted significant private sector investment.
- Concerns about the vulnerability of small producers of wool led the National Wool Growers Association and the government to set up a new wool marketing channel by building and equipping shearing sheds in villages throughout the Transkei and Ciskei region. In a first phase, the focus was on the provision of material support (shearing shed, equipment and for some villages, a dipping tank). In the second phase, institutional support was provided to increase access to information on breeding and training for proper shearing and grading, access to and knowledge on the use of inputs, and a market outlet. The NWGA also organises contact with the brokers to market the wool. The NWGA prescribes that candidate villages should have a minimum number of sheep, but more importantly an active farmers' association through which the wool farmers form a local 'Wool Growers' Association'.
- There are a range of empowerment schemes in aquaculture and mariculture (mussels, oysters, seaweed, abalone) that are situated along the west and south coasts of the country that have the potential benefit of undermining the considerable poaching that has taken place in these areas, in addition to providing new opportunities to small-scale producers.
- Similarly, there are a range of agricultural projects aimed at the production of specialty products such as rooibos tea, honeybush tea, indigenous flowers, medicinal plants, essential oils, hydroponics and organic products the purpose of which is to build new markets and to empower new producers.

3.2.1.4 Resource Management Policy

As indicated earlier, South Africa's underlying agricultural resource base is poor. The country has a total surface area of 122 million ha of which only 14 % (17 million ha) is arable land. Of the arable land, only 1.3 million hectares is under irrigation. Rainfall is generally low, erratic, unevenly distributed and unreliable. Approximately 91% of the country can be classified as arid, semi-arid and dry sub-humid and South African soils are generally considered to have low fertility.

Although no formal statistics are available, the agreed perception shared by all stakeholders in the agricultural sector is that South Africa's natural resources are under a severe threat of degradation. For the commercial sector, factors that have contributed to this include; monoculture cereal production, intensive tillage and limited crop rotation. For the communal areas of the country, excessive firewood collection, inappropriate land use, population density and overgrazing are the main factors causing soil degradation. In aggregate, soil degradation is responsible for approximately fifty percent of land degradation, while water-logging and salinity also make a contribution.

The National Department of Agriculture, in accordance with the Conservation of Agricultural Resources Act (1983), exercises control over the use of the country's natural resources. During 2003, the Department drafted the Sustainable Utilisation of Agricultural Resources (SUAR) Bill. This Bill was intended to enhance the Department's ability to manage the country's natural resource base in that it combines the Subdivision of Agricultural Land Act and the Conservation of Agricultural Resources Act, Act 43 of 1983 as well as making provision for LandCare and Prime and Unique agricultural land principles. According to the Strategic Plan of the Department of Agriculture (2003-2006), this Bill should have been gazetted in 2003.

Land Care

The National LandCare Programme was established in 1999 to address the degradation of natural/agricultural resources in the country and improve the socio-economic status of rural communities. LandCare promotes ecologically sustainable resource utilisation and management by communities and individuals and encourages opportunities for the development of business enterprises that focus on sustainable resource management. LandCare themes are grouped into two areas – the first focuses on investment (WaterCare, VeldCare, SoilCare, Eco-Technology, Agritourism Programme and Junior LandCare) while the second is aimed at providing small community grants.

- *WaterCare* targets Limpopo because of water shortages and the importance of water for irrigation in the province. Under the WaterCare project, 28 irrigation schemes have been revitalised.
- *VeldCare* targets the North West and promotes best grazing-systems and erosion-prevention practices. Economic and social development opportunities are realised by improving and maintaining grazing areas throughout rural communities.
- *SoilCare* encourages rural farmers in KwaZulu-Natal, the Eastern Cape and Mpumalanga to build innovative structures to combat soil erosion. Sustainable agricultural production systems are introduced, such as diversification, management of input and conservation tillage.
- The *Eco-Technology* component is aimed at identifying, adapting and promoting promising ecological technologies such as conservation farming and water harvesting.
- The *AgriTourism Programme* aims at identifying agritourism opportunities and implemented agritourism projects within the identified presidential poverty nodes.
- *JuniorCare* aims at empowering previously disadvantaged youth through training in facilitation and leadership skills, including promoting awareness of sustainable agriculture and stimulating the formation of youth clubs and projects that aim to promote other components of LandCare.

During the 2006/2007 financial year, the National Department of Agriculture spent R 45 million on 118 LandCare projects. A total of 72,856 beneficiaries were supported through these projects which created 201,703 part-time jobs.

Genetic resource management strategy

Within the context of the National Environmental Management Act of 1998, the Department of Agriculture launched its genetic resource management strategy. Central to this strategy is the preservation of agricultural biodiversity and promoting the sustainable use of soil and water through the enhancement of crop and livestock productivity in intensified and more sustainable farming systems. The Department has focused extensively on threatened and extinct species as a biodiversity indicator (as identified in the National Biodiversity Strategic and Action Plan of DEAT) through the collection, characterisation and storage of plant genetic resources for food and agriculture from various agro-ecological zones with specific emphasis on landrace material (which is an important source for future crop development). Recently, this *ex situ* conservation (outside the ecosystem) has been complemented by *in situ* projects where plants are allowed to evolve in concert with natural evolutionary pressures.

In terms of animal genetic resources, animal breeders' societies as regulated under the Animal Improvement Act have been the main drivers of conservation of animal breeds. On a provincial level, livestock development centres, are responsible for keeping and maintaining animal genetic resources as pure indigenous/landrace breeds, increasing the population of endangered breeds and supplying stud breeders, commercial farmers and communal farmers with sires. These activities serve as important risk mitigating measures to ensure the maintenance of agro-biodiversity.

The Department has also maintained a plant variety protection system which adequately protects the intellectual property rights of new plant varieties. This system is managed in line with the prescripts of the International Union for the Protection of New Varieties of Plants (UPOV). Over the past few years the number of protected plant varieties from various genera has steadily increased, providing South African farmers access to plant varieties with appropriate traits to improve agricultural production under

local conditions.

Irrigation Development Strategy and Implementation

Irrigation is by far the biggest single user of run-off water in South Africa and has the potential to make a significant socio-economic contribution. South Africa's water resources are managed by the Department of Water Affairs and Forestry (DWAF) and DWAF allocates water to the sector users. The Department of Agriculture and DWAF are working towards integrating their activities with respect to supporting the agricultural water sector.

In 2006 the Department of Agriculture developed its Irrigation Strategy, which aims to enhance the contribution of water, the most limiting natural resources in South Africa, to food production and thus food security. Central to the Irrigation Strategy is ensuring that cooperative governance with other government institutions which are responsible for water resources and water allocation, to enable transformation of state support for agricultural water use in South Africa. The need for this transformation is rooted in four key principles namely; the need for equity, the need for good governance, the need for competitiveness and the need for sustainability.

The implementation of the Irrigation Strategy will increase the contribution of irrigated agriculture to poverty alleviation, creation of jobs and skills development. Given our context, this will also increase equity of access by historically disadvantaged individuals to irrigated agriculture, especially commercial irrigated agriculture, without compromising irrigation water use efficiency in the process. Revitalization of existing schemes and establishment of irrigation development will entail looking at the inherent qualities of the natural resources (e.g. water, climate, soils, topography etc). Successful small-farmer irrigation schemes of the past will be identified and studied in order to model revitalisation or new schemes.

While the National Department of Agriculture has only just begun to implement its Irrigation Strategy, a number of provincial departments of agriculture have had irrigation development programmes in place since the late 1990s. Revitalisation of Smallholder Irrigation Schemes (RESIS) in Limpopo Province is one such example. This programme not only aims at revitalising selected smallholder irrigation schemes in terms of infrastructure, but also in terms of leadership, management and productivity. RESIS has dedicated one-third of its revitalisation budget to build institutional and technical capacity among farmers in order to transfer the management of the irrigation scheme to them.

3.2.2 Agricultural Labour Market Reform and Skills Development

3.2.2.1 Labour Policy

The rate of labour change in the agricultural sector has not been uniform over the past two decades and, when analysing South African trends, 1993 serves as an important reference point. Prior to 1993, South African farm workers were not covered by any labour protection or collective bargaining legislation. Farm life was regulated by paternalism and a set of informal "farm rules" dictated by the relevant farm owner. In 1993, farm workers were included under the provisions of the Unemployment Insurance Act and basic employment rights were extended to them when the Agricultural Labour Act was passed in 1993. In 1993, the provisions of the Basic Conditions of Employment Act (substantially revised in 1997) were also extended to agricultural workers. This Act stipulates minimum labour standards and prescribes, amongst others, the maximum working week, vacation and sick leave allowances and payment for overtime.

The Extension of Security of Tenure Act, ratified in 1997, ensures that occupiers of rural land earning less than R5000 per month have security of tenure. As a result of this act, landowners who wish to evict those living on farms can only terminate these rights under relatively strict conditions. Finally, minimum wages in most sectors are set by industry bargaining councils however, given that the agricultural sector was not significantly unionised and could therefore not establish a bargaining council, the Department of Labour set about establishing a minimum wage which it implemented in 2003. This sectoral determination not only set a floor on wage levels for agricultural workers but also specified what and how much could be deducted as an in-kind payment (Ewert *et al.,* 1998; Conradie, 2004).

The progressive regulation of the agricultural labour market described here has impacted on the flexibility and unit cost of farm employment and has led to a number of structural changes in the labour market and employment patterns. The results of a number of micro-level surveys provide insight into these changes. The first of these surveys was carried out by Sunde and Kleinbooi in 1999. Sunde and Kleinbooi (1999) interviewed 112 farmers/managers and 345 woman farm workers to not only gauge the development status of these women but also to describe their location within the agricultural labour market and their access to socio-economic rights. Du Toit and Ally (2002) studied 77 horticultural farms in a number of Western Cape districts to assess changes taking place in the labour absorptiveness of the Western Cape horticulture sector as well as to explore the implications of this on the livelihoods of farm workers. Finally, in 2003, Conradie (2004) interviewed 79 wine farm businesses in the Robertson and Worcester region to assess the initial employment impacts of the introduction of agricultural minimum wages. This survey also captured information on labour costs, workforce composition and the elasticity of demand for farm labour.

These surveys identified the following structural changes:

- Substitution of permanent labour with temporary/part-time/seasonal labour: Both Du Toit and Ally (2002) and Sunde and Kleinbooi (1999) found a marked shift away from the employment of permanent workers towards the employment of temporary workers. Reasons cited by farmers as factors inducing this shift include the Extension of Security of Tenure (ESTA) legislation, rising labour costs due to compliance with Basic Conditions and minimum wages.
- Increased use of labour contracting: Du Toit and Ally (2002) found that more than 53% of the farmers they interviewed indicated that they make use of an agricultural labour contractor/broker. In such an instance, the employment relationship is no longer directly between the farmer and worker. Rather, a farmer concludes an arrangement with a broker who then supplies the farmer with a team of workers. While this externalisation of labour offers agricultural producers certain advantages such as the ability to control costs and risks, for farm workers this holds serious implications in terms of livelihoods and income. Rather than being "part of the farm" the relationship between workers and farmers is increasingly an indirect one – limited to cash payment for particular tasks completed (Du Toit and Ally, 2002).
- Relative increase in the number of women farm workers employed: Sunde and Kleinbooi (1999) found a significant increase in the number of women farm workers being employed on farms in the Western Cape. The main reasons cited for this are employers' attempts to maximise the utilisation of the existing on-farm labour pool (and thereby control housing costs). The shift towards mixed farming systems has helped flatten the sharp seasonal labour demand peak and enabled farmers to employ women throughout the year.
- Job shedding as a result of minimum wages: Six months after minimum wages had been implemented in agriculture, Conradie (2004) found the net employment effect to be less than 1%. She goes further to note that the most important consequence of the implementation of minimum wages was not wholesale labour shedding, rather it was a slow down in job creation for permanent workers at a time when output was expanding.

While this may have been the case in labour intensive branches of agriculture such as wine, when seen from a national perspective, the increase in job shedding in the agricultural sector as a result of minimum wages and other labour legislation was much more pronounced. As indicated earlier, more than 300,000 jobs were lost in the agricultural sector from 2002-2006.

While labour regulation appears to have negatively impacted on employment levels, there is evidence to suggest it has had a positive impact on the development status of those farm workers who continue to be employed. Using data from the 1996 and 2001 census, Tregurtha (2003) compiled a composite human development indicator and then used this to compare the extent to which the development status of Western Cape agricultural workers had improved over time, and improved relative to other workers in the Western Cape economy. These findings are reported in Table 27 below and show that, while the overall development status of farm workers lags behind other workers in the Western Cape economy, from 1996-2001 farm workers' managed to improve their relative position. It is expected that

this trend has continued.

Table 27: Development Status of Western Cape farm workers 1996-2001

	Fuzzy Score		
	1996	**2001 (base 96)**	**% change**
Agricultural Workers	0.433	0.491	13.42
Workers in other sectors	0.685	0.701	2.38

Improved education levels, access to government services and rising real wage levels were found to have positively impacted on farm worker human development levels. From 1996 to 2002, a period before the introduction of the minimum wage standard, the real cash remuneration of agricultural employees increased by 8%. This confirms the finding in the Sector Determination for Agriculture that real wages in the sector had increased at above average levels for the country as a whole during the period 1970 -1998 (DOL 2001).

The introduction of minimum wages in the agricultural sector in 2002 accelerated the real growth of farm wages. Using data from the *Labour Force Survey*, Hlekiso and Mahlo (2006) were able to demonstrate how real agricultural wages rates increased by 65% from 2001-2005, with the biggest annual increase being at the time of the implementation of minimum wage legislation. This is shown in Tables 28 and 29 (below). When compared to other industries, for the period 2001-2005, the agriculture sector and the wholesale and retail trade sectors experienced the highest relative growth in wage rates. In the case of agriculture, this growth was from a low base and this confirms the low-paying nature of the sector.

Table 28: Monthly median wages by industry 2001-2005 (Rand at constant 2000 prices)

	2001	**2002**	**2003**	**2004**	**2005**
Agriculture, fishing and forestry	379	468	573	606	625
Mining and quarrying	1798	1734	1802	2262	2344
Manufacturing	1798	1734	1802	1616	1875
Electricity, gas and water supply	2839	2601	3276	3231	3125
Construction	1136	1266	1147	1228	1250
Wholesale and retail trade	946	1387	1392	1535	1562
Community, social and personal services	2271	2601	2457	3231	3265
Transport, storage and communication	2839	3034	3276	2827	2344
Financial intermediation, insurance, real-estate and business services	2845	3468	3276	2512	2734
Private Services	379	407	491	646	516

***Source**: Hlekiso and Mahlo (2006)*

Table 29: Real growth in monthly median wages by industry 2001-2005

	2001	2002	2003	2004	2005
Agriculture, Fishing and forestry	100	123	151	160	165
Mining and quarrying	100	96	100	126	130
Manufacturing	100	96	100	90	104
Electricity, gas and water supply	100	92	115	114	110
Construction	100	111	101	108	110
Wholesale and retail trade	100	147	147	162	165
Community, social and personal services	100	115	108	142	144
Transport, storage and communication	100	107	115	100	83
Financial intermediation, insurance, real-estate and business services	100	122	115	88	96
Private Services	100	107	130	170	136

Source: *Adapted from Hlekiso and Mahlo (2006)*

3.2.2.2 Agricultural Education and Training

Overview

The agricultural sector generally requires a variety of skills which require different training programmes and therefore different training providers. These include:

- Adult basic education and training (ABET) programmes - mainly geared to illiterate farm workers.
- Farm worker training programme – technical skills.
- Farmer training – Agricultural Colleges and Universities of Technology.
- Diploma-level training in Agriculture (for technicians, extension workers and farmers) – Agricultural Colleges and Universities of Technology.
- Degree-level training (researchers, subject matter specialists, extension officers, veterinarians, managers) – Universities.

It is however so that Agricultural Education and Training (AET) in South Africa was severely affected by the policies of apartheid entrenching inequalities across the spectrum of skills relevant to the sector. Various initiatives within the agriculture sector were initiated in the post-1994 period to address these challenges as part of the broader transformation agenda.

The AET sector has for many years been plagued by a disagreement between the Department of Agriculture (mostly Provincial Departments of Agriculture) and the Department of Education regarding ownership and control of Agricultural Colleges. The future dispensation for agricultural colleges is still unresolved. This uncertainty negatively affected the academic offerings of many colleges with some even being transformed into Further Education Colleges (FET). As such, this entrenched the problem of poor articulation between the different programmes and institutions and also between the formal and non-formal sub-sectors of the education and training sector.

AET also had no strategic direction that focused its development on determined priorities. The funding of the programmes was skewed and uneven across different sites of provision with former White institutions still better resourced than their historically Black counterparts. Programmes differed markedly in quality, standards, outcomes and curriculum and therefore limited the opportunities for students to change from institution to institution, thus creating further barriers to higher education.

The Department of Agriculture initiated a process in 2002 to develop an AET Strategy in order to address these inequalities of provision. The process of developing the AET Strategy was completed with full involvement of the sector partners. The AET led to the implementation of targeted skills development initiatives, including the external bursary scheme, the Young Professional Development Programme (Internship) and the Master Mentorship Programme. Implementation of these programmes started only in 2004, almost 10 years after the democratic government came to power.

The *external bursary scheme* main area of focus is on identified scarce and critical skills mainly in the field of Veterinary Science, Engineering, Viticulture, Biotechnology, Agric Economics, Food Science and other production skills. It seeks to eliminate skewed participation in the sector. Implementation of the scheme commenced in 2004 after the policy on external bursary was finalised in 2003. In the pursuit of its strategic goals, the Department discourages generalist agricultural degrees such as B.Agric. Instead, specialist degrees such as Veterinary, Agricultural Engineering, BSc Agric are encouraged.

Table 30: External Bursary Scheme of the Department of Agriculture

Year	Level of Investment in R Million	Number of Beneficiaries
2004	2.9	66
2005	6.4	114
2006	8.3	102
2007	10.0	239
2008	12.5	270
Total	**40.1**	**791**

The other programme which is meant to support beneficiaries of the external bursary scheme and other young people is the *Young Professional Development Programme*, previously known as the Experiential and Internship Programme. The purpose of the programme is to hone professional and life skills in the young graduate in an effort to prepare for the corporate world. Just like the external bursary scheme, the programme was introduced in 2004 and the progress to date is outlined below.

Table 31: Young Professional Development Programme of the Department of Agriculture

Year	Level of Investment in R Million	Number of Beneficiaries
2004	1	96
2005	2.8	103
2006	3.6	168
2007	7.0	165
2008	10.5	175
Total	**29.9**	**707**

In an effort to support the beneficiaries of agrarian and land reform a *master mentorship programme* was introduced with effect from 2006. The programme is run in partnership with commodity organisations. On average, 5 individuals from each commodity organisation are trained as master mentors to develop mentors and mentees within their own industry. Over the past two years, more than 200 individuals have been trained as master mentors and are now responsible for leading and guiding mentorship within their respective industries.

In the 2006/07 financial year about 6 500 individuals received mentorship support through the commodity organisations at a cost of R10.2 million to the state. In 2007/08 a further 7 500 individuals are receiving mentorship at a cost R16.8 million. The value of this initiative is illustrated by the fact that land reform and agricultural development projects receiving mentorship support far outperform those that operate without the support.

The Department of Agriculture (DOA) has also instituted an agribusiness diploma in collaboration with the University of Stellenbosch where, annually, 25 sponsored black students follow a theoretical and practical course with on-site placements in agribusinesses. A further R10 million per annum has been allocated by the DoA for targeted training needs emanating from customised commodity plans being

developed in partnership with commodity groups.

AgriSETA

An important aspect of the AET landscape in South Africa is the role of the Sector Education and Training authority for Agriculture (AgriSETA). AgriSETA covers all the economic sub sectors previously demarcated to PAETA (Primary Agriculture) and SETASA (Secondary Agriculture).

The functions of AgriSeta are *inter alia* to:

- develop a sector skills plan within the framework of the national skills development strategy;
- implement its sector skills plan by establishing learnerships, approving workplace skills plans, allocating grants as well as monitoring education training in the sector;
- promote learnerships by identifying workplaces for practical work experience, supporting the development of learning materials, improving the facilitation of learning and assisting in the conclusion of learnership agreements.

To date the effectiveness of AgriSETA has been limited by its inability to generate sufficient revenue under the current skills development funding model that has employers pay 1% of their wage bill into a central training fund.

Specific problems, unique to the agricultural sector and that limit the viability of this funding model include:

- Sector complexity: The agricultural sector is complex in that it consists of a large and fragmented number of stakeholders (e.g. more than 70 commodity groups/organisations; 9 Provincial Departments of Agriculture) and is highly diversified in terms of clientele ranging from commercial farmers to emerging AgriBEE farmers;
- Insufficient revenue base: The sector has an insufficient revenue base as a result of the small number of employers that are paying the skills development levy and who are thus contributing to the revenue pool (as few as 3 500 employers are currently contributing). The problem is further compounded in that more than 70% of those that are contributing are classified as small enterprises (with fewer than 50 employees and thus contributing relatively small amounts when compared to many of the other sectors). In addition the majority of the estimated 650 000 emerging farmers are at present informal or unregistered enterprises who do not pay the skills levy and thus do not contribute to the revenue pool. They are, however, in dire need of skills development and capacity building services.

The net result of these factors is that the demand for skills development in the sector far exceeds the supply and, consequently, AgriSETA has been confined to servicing mainly levy payers with the remainder of the sector being neglected. Despite a narrow service delivery focus (i.e. servicing levy payers only), AgriSETA is still unable to effectively meet the needs of this target group. This is illustrated by the fact that in 2007/2008, only 10% of the learnership applications could be accommodated.

While some additional funding allocations have been secured from National Skills Fund (NSF) in the past, such support has been limited. It is contended that AgriSETA's poor access to the NSF is because the latter primarily evaluates funding applications from an industrial development perspective and supports higher order qualifications (whereas the agricultural sector, given the status of education levels in the sector, more often than not requires learning interventions to commence at the lowest levels of the National Qualifications Framework). In this regard it is believed that the administrators of the NSF lack the necessary insight into the socioeconomic and political importance of the agricultural sector, and do not comprehend the need for a different training approach (e.g. via mentorships for emerging and AgriBEE farmers) in meeting the skills development needs of the sector (AgriSETA, 2007).

3.2.3 Farmer Support and Extension Services

Overview

Developing the skills base of farmers is the primary objective of extension services. In terms of the Constitution, agriculture is a provincial competency, to be carried out within the framework of national policies set by the National Department of Agriculture. One of the main functions of the provincial departments of agriculture is the provision of farmer support services. Typically these field services are offered to farmers through decentralised district offices and bridge the gap between available technology and farmers' practices by providing technical advice, information and training.

The current government extension services resulted from the merging of two services: one that provided services to white farmers and one that served farmers in the previous homeland areas of the country. The former was made up of a relatively small numbers of well-qualified staff, often university graduates. The latter consisted of large numbers of less qualified staff.

The `white' public extension service was considered highly successful until the mid-seventies when commercial farmers found that the more specialised advice they needed could be better provided by the private sector. Furthermore, in the eighties, the public extension service appears to have increasingly focused on administrative tasks such as assisting farmers with subsidies for fencing, soil conservation, irrigation, drought relief, as well as credit through the Agricultural Credit Board (NDA, 1998).

Much of the earlier success of this service was related to the relative homogeneity of the approximately 60 000 commercial clients - extension agents knew who they were trying to serve and what they were trying to achieve. This service was focused, well-resourced and staffed by well-trained officials. In contrast, extension workers in the former homelands were generally not well trained, and were required to serve a large diverse client-base including subsistence, emerging and commercial farmers. As will be shown in the analysis below, this legacy continues to hamper service provision (NDA, 1998).

In 1998, direct government expenditure on extension was estimated at R515 million per annum or roughly 2.4% of agricultural GDP (NDA, 1998). By 2002, Düvel (2002) found that this had more than doubled in absolute terms and increased to R1,205 million (2,7% of agricultural GDP). As can be seen from Table 31 below, the current estimate for the cost of extension services is R 1,084 million which equates to around 2.9% of agricultural GDP. This level of expenditure is relatively high by international standards - the world-wide average is estimated to be 0.9% of agricultural GDP, 1,04 % for the average African country, 1,2 % for Latin America, and less than 0,5 % for Europe and North America (Roseboom, 2004).

Table 32: Cost of extension in the various provinces of South Africa

Provinces	**2002 R'000**	**% of total**	**2006/07 R million**	**% of total**	**Farming households %**	**Number of extension officers 2002**
Eastern Cape	127,076	10.55	148,373	13.69	36.3	679
Free State	18,016	1.50	48,420	4.47	1.2	125
Gauteng	5,386	0.45	n.a.	-	0.8	23
KwaZulu-Natal	258,946	21.49	282,994	26.11	39	576
Limpopo	625,000	51.87	405,827	37.45	13.9	1107
Mpumalanga	57,353	4.76	81,607	7.53	2.8	153
Northern Cape	6,792	0.56	10,822	1.00	2.2	21
North West	95,703	7.94	89,735	8.28	1.7	211
Western Cape	10,710	0.89	15,988	1.48	2	39
Total	**1,204,982**	**100**	**1,083,766**	**100**	**100**	**3034**

***Source**: Düvel (2002), Provincial MTEF Budget Statements*

In South Africa, the scope of work for extension officers has expanded significantly since 1994. Instead of servicing a relatively small number of large-scale commercial farmers, there has been a significant shift in client focus, which requires them to play new roles, including institutional development for small farmers, assisting them to get access finance and other production requirements, to market their

produce; and to access second-economy government support projects (e.g. cooperatives, land reform, food security, land care). They are also expected to assist with the administration, implementation and monitoring and evaluation of such initiatives.

Farmers are in general very critical of the extension capacity of the provincial Departments of Agriculture. In terms of extension and other technical support, other than the infrastructure investments, little else has been provided. In cases where CASP projects are dealing with capital intensive and technically difficult production units, farmers feel that in many instances they have higher skill levels than the extension officers. Farmers also agree that extension personnel lack basic project management skills.

The poor performance of extension officers is not only applicable to the CASP programme but is an aspect criticised by all stakeholders in the agricultural sector who claim that that there has been no real progress in the delivery of extension services.

Direct government expenditure on extension is already relatively high by international standards and the average planned increase across all provinces excluding Gauteng is 10% a year in the Medium Term Expenditure Framework. For the agricultural sector as a whole, the critical issue is about how extension services can improve the quality of outcomes.

Some key challenges for consideration are noted here.

- The scope of work: recognition of the implications of the changed scope of work need to inform the design of the service and the deployment of skills and resources.
- Qualifications: The majority of frontline extension workers have no higher tertiary qualification than an agricultural diploma. This qualifies them as assistants but not as professionals. In addition, there are new knowledge requirements in relation to marketing support, economic and managerial knowledge. Continuous investment in upgrading the skills of extension workers is thus needed.
- Proportion of budget allocated to salaries: Some provinces spend up to 82 % of their extension budgets on salaries, leaving little to pay for transport, training, communications, etc. In the Eastern Cape, for example, agricultural extension staff have to share transport within an office and are severely constrained in being able to get to projects at critical times for supervision and monitoring purposes (Massive Report, 2007).

3.2.4 Capital Markets: Agricultural finance

3.2.4.1 Agricultural Finance: An overview

Internationally it is recognised that the particular nature of agricultural production makes it difficult and costly to finance farmers. Firstly, agriculture is concentrated in rural areas with poor infrastructure and low population densities. This increases the monitoring and client search costs for financial institutions operating in these areas. Secondly, unlike other industries, farmers have to contend not only with market risks but also with environmental factors such as weather. This places agriculture at a disadvantage when competing with other sectors for scarce funds.

Land absorbs a relatively large percentage of farmers' capital requirements and, because it takes so long to generate the returns needed to pay for land, commercial banks are often hesitant to lend to this market. Finally, agriculture is usually practised by small-scale, family-owned businesses. Moreover, in South Africa, as in the rest of the world, there is a skewed distribution of production with 25-30% of farms producing the bulk of the output. A large number of small-scale clients represent a higher risk to commercial financial institutions and explains their reticence to lend to the sector.

For this reason, governments world-wide have adopted a wide range of different measures to try to support farmers' access to financial services. What is interesting about the 'new world' countries such as Australia, Canada, New Zealand, South Africa and the USA, is that this intervention invariably started with an attempt to provide mortgage finance to farmers: generally a Land Bank of some description in the former Dominions, and a vehicle to create a secondary market in farm mortgage loans in the USA (Farmer Mac). In South Africa, the Land and Agricultural Bank (Land Bank) was established in 1912 for

just this purpose: to provide mortgage finance to farmers. The institution was created from similar banks and/or funding agencies that had existed in the four colonies that constituted the Union of South Africa in 1910, so that even in 1912 the problem of access to such long term loans was not new.

However, when the Marketing Act of 1937 was implemented, the Land Bank became a source of funds to make the system work. For example, maize and wheat were controlled under 'single channel fixed price schemes' with pan territorial and pan seasonal pricing. The respective Boards appointed agents to handle the produce on their behalf, i.e. to store it and to dispatch it to millers when required. The Boards invariably appointed local farmer cooperatives as their agents.

Under such a scheme, farmers were paid the same price for their produce regardless of when and where it was delivered. The result was that the entire crop was taken to the agents as soon as it was harvested. As the Boards did not have the funds necessary to finance the crop, someone had to be found to do so: this became the responsibility of the Land Bank. Similarly, storage space had to be created to store the harvest. The Land Bank was charged with the responsibility to provide the funding for this function.

The next innovation at the Land Bank was when it started providing shorter-term funds to the cooperatives in order to enable them to provide production credit to their members. Finally, the Land Bank also entered the retail market in short and medium-term loans to farmers to enable them to purchase moving capital as well as short-term production credit.

Government was also involved in agricultural financing through the Agricultural Credit Board, an agency within the Department of Agriculture, the purpose of which was to provide long- and short-term credit to (white) farmers who did not qualify to borrow from the Land Bank. Effectively, therefore, the Agricultural Credit Board carried the bad loan book of the Land Bank.

By the time that government appointed the Strauss Commission[5], the Land Bank had just taken up the responsibility for creating access to financial services for small farmers, i.e. had begun to accept a development mandate. At this time, the institution was in relatively good financial health, and was able to operate without new subsidies from the state. The Strauss Commission made two recommendations that have a direct bearing on the situation in which the Land Bank now finds itself. First, the Commission recommended that the Agricultural Credit Board be closed. This recommendation was accepted and implemented by government. The assets of the Board were folded into a new programme, Mafisa, the purpose of which was to increase the finances available for small farmer development. Mafisa is now administered by the Land Bank. Second, the Commission recommended that the Land Bank should receive grants from the Treasury in order to enable it to expand its developmental mandate. This recommendation was never implemented.

The Land Bank was able to attract funds from South Africa's capital markets, initially with preferential treatment in terms of the paper they sold on the market, as well as what the Strauss Commission regarded as an implicit state guarantee. In this way farmers had access to funds at below-market rates. Nevertheless, the bulk of funds used by the Land Bank came from the capital markets. The contribution of the private sector to agricultural financing was, however, not limited to this role as the commercial banks have long also been involved in agricultural financing. In 1970, for example, the commercial banks held 21% of all farming debt, just shy of the 22% held by the Land Bank, and more than double the 10% held by the Department of Agriculture (through the Agricultural Credit Board) and the 8% held by the cooperatives. In addition, other financial institutions such as the then discount houses, merchant banks, insurance companies, etc. held a further 20.5%. In 2005, by contrast, the Land Bank held 17% of the total debt, compared to the 55% of the commercial banks and 12.5% of the cooperatives.

The conclusion, therefore, is that the changes in financing policy have had little effect: commercial farmers have had to shift to the commercial banks, which do provide capital, especially mortgage financing, at the terms and conditions that the Land Bank was able to provide in the past, and emerging farmers have not gained any appreciable sustainable access to agricultural financing.

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[5] Formally "the Commission of Inquiry into the Provision of Rural Financial Services".

3.2.4.2. MAFISA

A number of reviews undertaken from 2000-2003 demonstrated that lack of finance was one of the major constraints limiting small-holder productivity. In 2004, government announced the establishment of a new government agency - MAFISA (Micro Agricultural Financial Institutions of South Africa) to help close this funding gap and earmarked R 1 billion for this purpose.

When MAFISA was set-up it was not intended to replace any existing programme but rather to complement and optimise the use of established financial intermediation infrastructure and to increase outreach in order to improve access to financial services by the rural poor.

Briefly, as MAFISA stands, it is a project located within the Department of Agriculture that provides funds to development finance institutions. These, in turn, are tasked with the responsibility for on-lending these funds, at concessionary interest rates, to predefined clients. To be eligible for funding, the MAFISA credit policy states that loans are limited to a maximum of R 100,000 per farmer for a maximum period of two years. Loans above R 25,000 need to be secured, a borrower needs to be a PDI with some access to land, the borrower's annual turnover must be less the R 300,000 and, most importantly, the borrower should have the ability and willingness to repay the loan. Groups are also eligible for MAFISA funding under similar conditions.

The scheme was initially piloted in three provinces, namely Limpopo, Eastern Cape and KwaZulu-Natal. In July 2007 it was announced that it would be rolled-out nationally. At this stage the bulk of MAFISA loans are managed by the Land Bank.

In terms of the performance of MAFISA, most of the evidence relates to the pilot phase that ended in March 2007. At that stage, MAFISA had loaned an amount of R41 million to 5,170 farmers. In terms of outreach, this was significantly higher than the target of 2000 farmers. In terms of the quality of the MAFISA loan book, it is too early to tell what percentage of the loans are likely to be repaid, however, early indications suggest a default rate of 35-40% which is higher than the target of 30%.

One of the biggest setbacks MAFISA experienced during the pilot phase was the uncovering of a fraud situation at one of the Land Bank branches administering MAFISA loans. While the full-extent of the losses involved is unknown, it is thought to involve 27 loan projects amounting to R 17.5 million. The Department of Agriculture commissioned a comprehensive forensic review of the entire MAFISA portfolio in response to this (National Treasury 2007).

The recent problems in the Land Bank (as one of the key delivery agents for MAFISA) are areas of great concern. The Department of Agriculture itself admits that in respect of MAFISA it faced major challenges. Disbursement of MAFISA loans had started late, and there had been a hiatus due to suspension by the Land Bank and expiry of the pilot agreements. Further challenges included capacity, delayed establishment of accreditation committees, prolonged process lead-times, reliance on over-worked extension offices and a need to change the mindset of end users, to address interest rates and address difficulties in accessing financial services. Many farmers are also adamant that the interest rates charged on MAFISA loans to previously disadvantaged farmers were unacceptably high.

3.2.5. Agricultural Research and Technology Development

The estimated international return on investment in agricultural research and development (R&D) is high - averaging 43% due to the significant productivity gains R&D is able to unlock. Yet, agriculture R&D is underfunded around the world. According to the World Bank (2008) there are three main reasons for this. The first relates to the political economy of public expenditure decisions that emphasise short-run returns that are politically visible. Agricultural R&D investments tend to be long term and high risk - this counts against it. Secondly, agricultural trade distortions and national agricultural policy interventions tend to artificially reduce farm gate prices and are a disincentive to both public and private R&D investment. Finally, the benefits of R&D tend to spill over to other countries and regions creating free-rider problems. More than half the benefits of R&D are generated from such spillovers.

Estimates of public R&D investment as a percentage of agricultural GDP average 0.53% for developing countries and 2,36% for developed countries. In South Africa's case, the latest available data is for 2000, and these show that, from 1993 to 2000, agricultural R&D investment as a percentage of

agriculture GDP increased from 2.63% to 3.04% – a level well above international norms. Anecdotal evidence suggests that this level of support has declined in recent years and that funding for agricultural R&D in South Africa is limited. Nevertheless the complexity of the South African national agricultural research system suggests that the available R&D resources may not necessarily be being used efficiently. The South African national agricultural research system (NARS) consists of the following components: agricultural research institutes operating under the ARC, research entities of the provincial departments of agriculture, university faculties of agriculture and veterinary sciences, institutes operating under the Department of Environmental Affairs, the CSIR and some semi-public research agencies supported by the industry.

In order to broaden the strategic focus of agricultural research in South Africa, the Agricultural Research Council (ARC) was established in April 1992. The ARC is comprised of a number of research institutes that were previously part of the Department of Agriculture, the oldest of which dates back to 1902. In 1997, the National System of Innovation, guided by a new Science and Technology Policy, was introduced for all Science, Engineering and Technology Institutions under government control, (note that research at the provincial departments of agriculture falls outside of this policy). This policy superseded all legislation applicable to individual Science Councils. For the ARC this implied that the new directives stemming from this policy replaced all the agreed-on principles for the co-funding of research and partnerships with the private sector, as well as the autonomous status of advisory panels that were destined to play a more significant role under the original ARC vision.

One of the important points of critique leveled at the ARC in the late 1990s was that the research carried out was mainly capital intensive in nature and only benefited commercial farmers. This necessitated the introduction of a number of transformation initiatives by the ARC and its structure and management were also modified. A number of research institutes were merged, and a more entrepreneurial managerial style was adopted. Commercialisation of research outputs was emphasised through cost recovery initiatives for all research and services with a view to improving research relevance and performance. Research output was refocused toward small-scale black farmers and a separate programme—with ring-fenced funding from the ARC parliamentary grant—was created to deal with the issues and needs of poor farmers in "disadvantaged communities".

In the case of the research activities being carried out by the provincial departments of agriculture, funding from these departments for agricultural research began to deviate fundamentally from the formula guidelines in 1996. Provincial R&D capacity dwindled and in some cases ceased. High costs and poor restructuring plans resulted in the disappearance of agricultural research in some provinces, for example in the Eastern Cape. Only two provinces, Western Cape (Elsenburg) and KwaZulu-Natal (Cedara), have retained a fair degree of research competence, but are still severely under-funded in some aspects.

The NARS capacity to deliver research output has also been affected by the large exodus of key research staff since 1993. This trend is shown in Table 33 for certain types of research agency categories for the period 1993 to 2000. The exodus of researchers has occurred mainly in the public research services with national government (ARC) institutes experiencing the largest decline in full-time research staff. Since 2000, the ARC has lost a further 234 research staff through retirement and resignations. According to estimates included in the draft Agricultural R&D strategy in 2006, the number of research staff at the ARC declined to 467 in 2004. This decrease of 40 percent over a period of three years has had serious implications for the ARC's ability to maintain past performance (it was estimated at its establishment that the ARC would require a base capacity of 750 researchers to fulfil its functions) and it can be expected that it has been the most qualified and mobile researchers who have left. The drop of 121 full-time equivalent (fte) researchers at provincial departments of agriculture represent 605 persons, since provincial researchers typically spend about 20 percent of their time on research.

Table 33: Change in Agricultural Research Capacity (full-time equivalents), 1993-2000

Type of Agency	Number of Researchers		Change
	2000	1993	
National Government	675	900	-225
ARC	577	706	-129
Other National	98	194	-96
Provincial Government/ Regions	67	188	-121
Total Government	743	1088	-345
Non-profit	56	66	-10
Higher Education	125	127	-2
Private Enterprises	45	52	-8
Total	**968**	**1333**	**-365**

The ARC and the South African NARS in general, is de-capitalising in terms of researcher capacity at an alarming rate. The fact that this has been a process that started almost 10 years ago and has gathered such strong momentum in recent years is probably not surprising, since no central record of the NARS capacity exists due to the absence of an agricultural research oversight body.

A series of meetings were arranged with provincial departments of agriculture and representative agricultural bodies. Insights gained from this exercise enabled the ARC to place strategic workshops on its research agenda. This resulted in the establishment of a National Agricultural Research Forum (NARF) in 2002 to investigate solutions to the numerous constraints facing the national agricultural research system. This process has after a period of five years led to the drafting and final acceptance of a new National Agricultural Research & Development Strategy in 2007.

In the current agricultural research system, no single public institutional entity has the ability to coordinate the NARS because all concerned are involved as research service providers, thus effectively competing with each other. It is for this reason that the National Agricultural Research &Development Strategy, adopted in 2007, has as its main objectives:

- To guide the Agricultural Research and Innovation System in the formation and operation of national agricultural research and development programmes;
- To mobilise resources and enhance their effective use for sustainable agricultural research and development;
- To guide the generation of knowledge and information in the agricultural sector;
- To provide a framework for developing research capacity and expertise, funding for agricultural research and innovation, focussing national efforts to strategic priorities and areas of comparative advantage; and ensuring effective technology transfer, information sharing and communication to the entire spectrum of the farming community.
- To provide an institutional framework to enhance participation of all stakeholders in agricultural research and development; and
- To engender a culture of learning and innovation through human resource development and management.

In order to achieve these objectives, the National Agricultural R&D Strategy makes provision for a new governance structure which now encompass public, private and civil society organisations in order to promote both horizontal and vertical linkages in the implementation of the agricultural research and development strategy.

3.3 AgriBEE – Making Factor and Output Markets More Equitable

AgriBEE is part of a wider process that is being undertaken in terms of government strategy as spelled out in the Broad-based Black Economic Empowerment Act, Act 53 of 2003, the purpose of which is to achieve broad-based economic empowerment of *black persons*, "a generic term, which means

indigenous Africans, Coloureds and Indians". While the programme encompasses the whole South African economy, the focus is on the priority sectors that the government has identified in its micro-economic reform programme. These priority sectors include agriculture and agro-processing.

The Act makes provision for Codes of Good Practice, which spell out the 'rules of the game' for the generic and industry Scorecards, the establishment of Charter Councils, and the monitoring of progress with BEE in an industry, etc. The Scorecards identify seven elements by which the contribution to BEE of an enterprise will be measured, namely ownership, management control, employment equity, skills development and organisational transformation, preferential procurement, and the 'residual', referring to corporate social investment. In this manner, the measured contribution to BEE is broadened to encompass much more than the transfer of shares in a few large enterprises to a favoured few. A simplified scorecard has been proposed for 'qualifying small enterprises (QSEs)' while the smallest enterprises are 'exempted micro enterprises (EMEs)'. For QSEs the seven elements are each accorded an equal weight of 25%, and the measured enterprise may select any four. The actual scorecards are also simpler, which should reduce the cost of measurement.

The Act also allows sectors to propose their own BEE Charters, and to design industry-specific Scorecards. If these are in accord with Section 9 of the Act, they can become the formal method of scoring participation in BEE by measured enterprises in that industry. To this end, the agricultural sector has drafted its own Charter that has recently achieved Section 9 status after four years of negotiation.

This charter deviates from the generic scorecard in the Codes of Good Practice in that it makes specific provision for scoring bonus points for land reform initiatives, and provides a more detailed scorecard for the rural development element. These adjustments are all accommodated in the QSE scorecard as well. The main strength of the scorecard approach is the manner in which enterprises are 'linked' together through the preferential procurement element. In this manner, while participation in BEE is nominally voluntary, the policy does not share the weaknesses of some contemporary policies aimed at redress, such as the Employment Equity Act and the application of labour legislation in agriculture, where compliance is difficult to enforce because of the structure of the sector. Pressure to participate in BEE will, in other words, come from within the programme.

At the same time, the agricultural sector, and especially primary agriculture, is at a disadvantage, because of the cost of compliance: farms are expected to measure their contribution to BEE in the same manner as large corporations, with far more resources. This is somewhat mitigated by the expected lower cost of measurement for QSEs.

With respect to the implementation of AgriBEE, an AgriBEE Charter Council is in the process of being established and one of its first duties will be to revisit the indicative sector codes which, in terms of Section 9 of the Act, are subject to further consultation and discussion.

Section 4

4 Agricultural Policy and Support Instruments: Strategies to enhance the development of the sector

The 2008 World Development Report focused on the role of agriculture in economic development and posed the question "What can agriculture do for development?" This report concluded that agriculture had a number of features that make it a unique instrument for development; these include its role in stimulating economic activity, supporting livelihoods and providing environmental services. The World Bank also highlighted agriculture's strong record as a development catalyst and the "special powers" of the sector in reducing poverty across all agro-economic systems. Cross-country estimates illustrate that GDP growth originating from the agricultural sector is at least twice as effective in reducing poverty when compared with growth origination from other sectors of the economy (World Bank 2008).

The performance record of the South African agricultural sector over the past fifteen years suggests that the country has not been successful in unlocking the poverty reduction potential of agriculture. From 1994 to 2007, growth in the sector did not increase employment levels or improve livelihoods.

According to the World Bank, making agriculture more effective in supporting growth and reducing poverty not only requires a favourable socio-economic climate, adequate governance and sound macro-economic fundamentals but also the definition of an agenda based on four policy objectives:

- Improved access to markets and the establishment of efficient value chains,
- Enhanced smallholder competitiveness and the facilitation of market entry,
- Improved livelihoods in subsistence farming and low-skill rural occupations,
- Improved employment in agriculture and the broader rural economy and enhanced skills.

All of the policy interventions described in the previous section of the report explicitly or implicitly focused on one of the four policy objectives outlined here. However, in using agriculture for development, it is necessary that the policy package be comprehensive and feasible – politically feasible *and* administratively feasible – within the context of available capacity and financially affordability.

The large number of different policies introduced into the South African agricultural sector over the past fifteen years, while comprehensive in scope, appear to have been implemented in a piecemeal, uncoordinated way and without proper consideration of the administrative feasibility of the intervention. Improved policy coordination should be at the heart of the country's agricultural development strategy going forward. Specific recommendations for enhancing the existing agricultural policy framework, and for strengthening its implementation, are presented below.

4.1 Trade and Marketing Policies

- Continue to work against domestic support and ensure the WTO Doha Development Round of agricultural negotiations achieves a substantial and real reduction in trade and production-distorting subsidies.

- Promote both product and market diversification: Government can encourage product and market diversification through the provision and dissemination of credible and relevant information. The current government provision of agricultural market and product information is highly fragmented and limited. The model currently being followed by Australia through its Rural Industries Research and Development Corporation (RIRDC)[6] should be considered and its applicability to South Africa should be reviewed.
- Improve market access and reduce price risk for small-scale and emerging farmers, noting that this should be implemented in an innovative, non-market distorting manner. For example, government could investigate and test a scheme whereby, in a particular geographical area, it designates an agent (such as a grain handling company) to interact with targeted producers and guarantee to purchase their output at a pre-agreed floor price. At the start of the production season, government could then purchase a put option on SAFEX at the agreed floor price for the volume of production it has guaranteed that it will buy from producers via the agent. A put option gives the buyer (i.e. government in this case) the right, but not the obligation, to sell the underlying asset at a specific price before a specific date. At harvest, should prices be above the floor price (i.e. the price specified in the put option) the agent would pay producers the current price and government would allow its put option to lapse. If, however, the market price has fallen below the agreed floor price, government would exercise its put option and, via the agent, pay producers the floor price.

The cost to government of such a scheme would equal the cost of the put option plus the agent's administration costs. The benefit to producers would be access to a guaranteed marketing channel (i.e. the agent) and the elimination of downside price risk. Such a put option scheme is essentially an insurance policy for producers against unfavourable price movements, with government paying the premium. It introduces a degree of certainty for targeted producers and does not distort the market in any way.

- Development of marketing infrastructure in rural areas with high concentrations of small-scale farmers. The ComMark Trust has been active in the Eastern Cape small-scale agricultural sector for the past five years. First hand experience gathered from the wool and red meat industries has demonstrated how the provision of marketing infrastructure such as sales pens and wool shearing sheds can contribute to improving producers' access to formal markets. The key challenge, especially at local government level, is to ensure that whatever marketing infrastructure is provide is appropriate and optimally situated to be of benefit to producers. In this regard, the National Department of Agriculture has drafted norms and standards for the provision of agricultural marketing infrastructure. The challenge is to ensure these are adopted by all spheres of government.
- Restructuring of National Fresh Produce Markets through ensuring the recommendations made by the National Agricultural Marketing Council are speedily effected.

4.2 Land Policies[7]

- Implementing the area-based approach, to acquire land in bulk to allow for planning, subdivision, settlement and related start-up costs to be co-ordinated, and for economies of scale in planning and infrastructure provision;

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[6] Briefly, the RIRDC is a statutory body formed by the Australian government in 1990. It was set up to work closely with Australian rural industries on the organisation and funding of their R&D needs. The Rural Industries Research and Development Corporation *manages and funds* priority research and translates the results into practical outcomes for industry development. The focus of its activities is on new and emerging industries and markets as a means of assisting to help diversify rural enterprises in Australia. In addition, they also have responsibility for research and development for a range of established rural industries and for key cross-cutting issues confronting the agricultural sector. In 2006-07, the RIRDC funded around 380 projects in 22 diverse areas, totaling around R 170 million.

[7] These recommendations are taken directly from the Second Economy report.

- Target areas of high land demand from poor people, such as in the areas adjacent to the communal areas, in eviction hotspots and in peri-urban settings;
- Use land markets where possible and, in areas where sufficient land cannot be acquired via the open market, place public notices and approach owners with offers of market prices for a limited period, after which government will move to expropriate and offer compensation that is just and equitable, as provided for in the Constitution;
- Prioritise the provision of commonage, both by cancelling its leasing out to commercial farmers and by acquiring additional commonage, specifically for small livestock owners. This implies a much more prominent role for municipalities.
- Remove constraints on the sub-division of agricultural land: focus on issues of land-use rather than land size; sign the repeal of Act 70 of 1970 approved by parliament in 1999.
- Address capacity problems in DLA, the Commission and Agriculture. Progress requires significant strengthening of institutional capacity, through creating more posts, recruiting suitably qualified people, equipping them with effective in-service training and improving management.

4.3 Labour Market Policies

- Wage subsidy for agricultural employment: While politically contentious, government could consider extending a wage subsidy to those agricultural producers that increase their absolute employment levels. This could be made less contentious if the eligibility for such subsidies were made contingent on the provision of evidence that current labour regulations are being upheld and exceeded by the beneficiary of the subsidy.
- Measures to increase the relative productivity of farm workers: Interventions that improve the overall skills levels of farm workers – such as basic adult education programmes – should be prioritised and considered.

4.4 Agricultural Education and Training

- Agricultural Training Colleges: The institutional issues surrounding the ownership and control of agricultural colleges must be resolved and clear direction provided with respect to their role in the education system.
- Development and adoption of a more appropriate skills development funding model that takes into account the special needs of the agricultural sector: This will improve the effective functioning of the AgriSETA and allow it to service a broader client base.

4.5 Farmer Support and Extension Services

- Improve client accountability and leverage off public-private partnerships. In public extension systems worldwide, attempts have been made to make extension officers more responsive to the needs of farmers. This includes payment against the farmer's evaluation of the service. While emerging farmers in South Africa may not be able to afford the full costs of extension services, what mechanisms could be created to develop greater demand-side accountability within the public extension service?

The National Department of Agriculture drafted norms and standards for extension services and planned a feed back mechanism to report sub-standard services and ensure prompt remedial action (Didiza 2005). But while these were announced at the start of 2005/2006 financial year, they have not yet been implemented at provincial level, thus illustrating the nature of the problem.

Another way to increase accountability is to establish delivery partnerships with the private sector. Here additional funding is obtained by the private-sector partner sharing in the cost of services to clients. An example is the small-scale wool industry development programme being implemented by the National Wool Growers' Association (NWGA) in collaboration with the Eastern Cape Department of Agriculture and the ComMark Trust (a regional development agency).

In the three years that this programme has been running, it has assisted more than 7,500 small-scale wool farmers to increase their income from wool sales from R18-million in 2003/04 to R31-million in 2006/07. To re-direct the focus of extension work onto marketing and business development aspects of wool production, the Eastern Cape Department of Agriculture (ECDA) seconded eight of its extension staff to the NWGA for a three year period. The ComMark Trust finances the transport and cellphone allowances (not the salaries) of these extension personnel and the ECDA extension officers are under the professional and technical direction of the NWGA staff.

Partnerships such as these can be established with other commodity groups and private-sector companies. In the National Agricultural Marketing Council's new policy on statutory levies, 20% of levy income is earmarked to benefit black role-players in the sector concerned. In 2006/2006, commodity organisations collected R 149.1 million in levy income. Going forward, R 30 million of this should be available for transformation.

4.6 Strengthening Emerging Farmers' Access to Finance: Policy Directions

Commercial farmers' finance needs are being adequately addressed by the commercial banking sector. Emerging farmers have, however, struggled to improve their access to this market, primarily due to their risk profile. While the MAFISA intervention appears to be making a positive contribution there are, however, two main strategic issues that MAFISA will have to resolve going forward.

The first relates to the institutional structure of MAFISA. As indicated, it is currently a project of the Department of Agriculture and in organisational terms it would be more logical and operationally efficient to locate it directly within the Land Bank. The Land Bank has traditionally been viewed as government's primary link with the agricultural sector; however, the current financial and operational difficulties being experienced by the Land Bank prevent this from being considered a viable option. Only R 41 million of a total R 1 billion earmarked for MAFISA has been disbursed and a broader set of partners and implementation methodology will have to be considered in order to meet this target.

Sustainability is another issue that requires attention. Government, in particular, needs to articulate its long term vision for MAFISA. Is the R 1 billion allocation a once-off commitment, or will a subsidy be available on an annual basis? This has implications for the level of risk that agency partners are willing to assume, as well as for the MAFISA loan pricing structure. With default levels of 35-40%, MAFISA loans will need to be priced well above commercial rates if the fund is to be sustainable without ongoing support (National Treasury 2007).

4.7 Agricultural Research and Technology Development

- Monitor the implementation of the National Agricultural Research and Development Strategy: The National Agricultural Research & Development Strategy, adopted in 2007, addresses all the current weakness of agricultural research and technology development. The challenge is to ensure it is implemented effectively.

Section 5

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