



AGRICULTURE, FORESTRY  
AND FISHERIES

SOUTH AFRICA  
YEARBOOK

2010/11

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The Department of Agriculture, Forestry and Fisheries aims to give real and practical meaning to the developmental state that is geared towards delivering equitable transformation, improving rural livelihoods, providing food security, stimulating inclusive rural economies and providing support to entrepreneurs in the sector.

### Agricultural economy

About 8,5 million people are directly or indirectly dependent on agriculture for their employment and income.

The Department of Agriculture, Forestry and Fisheries is responsible for production and resource management, agricultural support services, trade and economic development, food safety and biosecurity, forestry, and marine aquaculture.

The total contribution of agriculture to the economy increased from R38 billion in 2002 to R66 billion in 2009. South Africa's dual agricultural economy comprises a well-developed commercial sector and a predominantly subsistence-oriented sector in the rural areas.

About 12% of South Africa's surface area can be used for crop production. High-potential arable land comprises only 22% of total arable land. Some 1,3 million hectares (ha) are under irrigation. These comprise about 1,5% of South Africa's agricultural land.

The most important factor limiting agricultural production is the availability of water. Rainfall is distributed unevenly across the country. Almost 50% of South Africa's water is used for agricultural purposes.

The country can be subdivided into a number of farming regions according to climate, natural vegetation, types of soil and the type of farming practised. Agricultural activities range from intensive crop production and mixed farming in winter-rainfall and high summer-rainfall areas, to cattle ranching in the bushveld and sheep farming in the more arid regions. Owing to its geographical location, some parts of South Africa are prone to drought.

Primary commercial agriculture contributes about 3% to South Africa's gross domestic product (GDP) and about 7% to formal employment. However, there are strong backward and forward linkages into the economy, so that the agro-industrial sector is estimated to contribute about 12% to GDP.

Major import products include rice, oil-cake and solid residue, wheat, undermatured alcohol, palm oil and unmanufactured tobacco.

Despite the farming industry's declining share of GDP, it remains vital to the economy and the development and stability of the southern African region.

For the past five years, agricultural exports have contributed on average about 6,5% of total South African exports. Exports increased from 5% (1988) to 46% (2009) of agricultural production; however, South Africa is losing on its net trade balance on processed goods, owing to the growth in imports of processed goods. The estimated value of imports in 2008 came to R38,4 billion, while exports totalled R44,3 billion.

The largest export groups are wine, citrus, maize, grapes, sugar, apples, pears and quinces. Other important export products are undermatured ethyl alcohol, avocados, pineapples, dates, preserved fruit and nuts, as well as hides and skins.

### Sustainable resource management and use

South Africa is generally able to meet its own food requirements. The Agricultural Research Council's (ARC) Institute for Soil, Climate and Water has compiled an inventory of soils, terrain forms and climate (land types). The *National Land Type Survey* assists and informs land-use planning and decision-making at national level. All natural-resource information is integrated into the comprehensive Agricultural Geo-Referenced Information System (AGIS), which is accessible via the Internet.

The AGIS also has information on agricultural potential and land capability.

Although it is generally recognised that soil degradation is a problem, little reliable data has been collected systematically over time. Soil degradation is largely related to the decline in soil organic matter.

Monoculture cereal production, intensive tillage, short-to-no fallow periods and limited crop rotation have contributed to this in the commercial sector.

**i** The National Farm Workers Summit, held in July 2010, was a platform to influence future legislation governing working conditions and the security of tenure of farm workers and those living on farms.



Excessive fuel-wood collection, inappropriate land use, population density and overgrazing are the main causes of soil degradation in communal areas. In addition, it is estimated that about 60% of the cropland area is moderately to severely acidic, and probably at least 15% is affected by subsoil acidity.

The Agricultural Fires Information System that tracks all outbreaks of fire in the Southern African Development Community (SADC) region, has been implemented and can be viewed at [www.agis.agric.za](http://www.agis.agric.za).

## Soil degradation

It is calculated that the area of land with a high to extremely high erosion risk totals 1,5 million ha (around 1% of the land surface). More than 11 million ha (9%) is classified as

having a moderate erosion risk, and 17% as very low to low risk.

It is estimated that 25% of South Africa is covered by soils that are also potentially highly susceptible to wind erosion. These include the sandy soils in the western half of the "maize quadrangle" in the North West and north-western Free State – the areas that produce 75% of the country's maize.

South African soils are extremely prone to serious soil compaction, particularly under intensive mechanised cultivated agriculture, both dryland and irrigated. It is a problem throughout the country and much more widespread and serious than the global norm.

Large areas of South Africa are covered with soils that are extremely prone to serious crusting (surface sealing). The extent of crusting, as well as awareness of it, have increased sharply over the last two decades. Switching to overhead and micro-regulation systems and the widespread problems associated with these systems on crusting-prone soils have contributed to the problem.

Human-induced soil acidification is also a major problem in South Africa. Its impact is serious because it affects scarce, arable land, especially high-potential land. More than five million hectares of cultivated land have already been seriously acidified, mainly owing to injudicious fertiliser practices and inadequate lime applications. In the high-potential areas of Mpumalanga, opencast and strip-coal mining also cause soil acidification.

Soil fertility degradation is a matter of concern. In commercial agriculture, there has been a tendency of "nutrient capital-building" for some nutrients, especially phosphorus and zinc. In some cases, phosphorus has built up to excessive levels, where it starts to reduce crop yields.

Statistics for the last 20 years indicate that trends in P-levels for these key nutrients follow two opposite trends: in a significant proportion of commercial croplands, P-levels are declining from adequate to deficient, whereas in other cases, the levels are increasing from adequate to excessive levels owing to overfertilisation.

## Genetically modified organisms (GMOs)

South Africa does not have ideal conditions for crop production. Serious climatic constraints, such as periodic droughts, limit agricultural production. Genetic modification

Gross value of agricultural production, 2009 (R'000)	
<b>Field crops</b>	
Maize	16 346
Wheat	3 057
Hay	3 198
Grain sorghum	474
Sugar cane	4 769
Groundnuts	715
Tobacco	262
Sunflower seed	2 378
Cotton	80
Other	3 178
<b>Total</b>	<b>34 457</b>
<b>Horticulture</b>	
Viticulture	3 297
Citrus fruit	4 628
Subtropical fruit	2 030
Deciduous and other fruit	8 040
Vegetables	7 843
Potatoes	4 058
Other	1 890
<b>Total</b>	<b>31 786</b>
<b>Animal products</b>	
Wool	1 234
Poultry and poultry products	23 165
Cattle and cattle products	12 808
Sheep and goats slaughtered	3 107
Pigs slaughtered	3 126
Milk	9 138
Other	10 291
<b>Total</b>	<b>62 869</b>
<b>Grand total</b>	<b>129 112</b>

Source: Directorate: Agricultural Statistics, Department of Agriculture, Forestry and Fisheries

(GM) provides a way of meeting the growing demand for food without placing even greater pressure on scarce resources.

A great deal has happened in this field since the proclamation of the GMO Act, 1997 (Act 15 of 1997). The Act has provided a framework to ensure that all activities involving the use of GMOs are carried out in such a way as to limit possible harmful consequences. As such, it is recognised as being both comprehensive and well balanced.

The GMO Act, 1997, which was implemented in December 1999, provides for the regulation of GMO activities in South Africa, and states that biosafety assessments should be conducted for every proposed GMO activity. In terms of the Act, permits are issued for a specific GMO activity, such as trials for commercial release in the country. The permits may also specify conditions under which a particular activity with GMOs should take place.

In terms of the GMO Act, 1997, the Advisory Committee (AC), comprising scientific experts, evaluates risk assessments to determine if a particular GMO is safe for humans, animals and the environment.

The Executive Council (EC) consists of members from six government departments, namely agriculture, forestry and fisheries; health; environmental affairs; science and technology; trade and industry; and labour; and the chairperson of the AC. The EC considers the recommendations of the AC, comments from members of the public or interested parties, and compliance with various policies before taking a decision to permit or exclude an activity.

South Africa has already commercialised three different GM crops, namely maize, cotton and soybeans. The latest approval of GM crops for commercial use was in 2007, for GM maize that is both resistant to certain insect species and herbicide-tolerant; and also for GM cotton that has an improved mechanism to enable herbicide tolerance.

Since the adoption of "biotech" crops in 1996, the areas planted with GM maize, soybeans and cotton in South Africa have increased to about 2,1 million ha. In 2009, white GM maize plantings totalled 1,212 million ha, representing a market share of about 78,9%; yellow maize plantings totalled 666 403 ha, representing 77,1% of the total yellow maize crop; GM soybean plantings increased to 229 500 ha, representing 85% of the total soybean crop; and GM cotton plantings totalled 8 134 ha, representing 98% of the total cotton crop.

## Water use

Irrigated agriculture is by far the biggest single user of run-off water in South Africa and has substantial potential to make a significant socio-economic and social impact on rural society. It contributes more than 30% of the gross value of the country's crop production.

Irrigation is an important factor in the South African economy. The Department of Agriculture, Forestry and Fisheries has embarked on a process to rehabilitate the irrigation schemes that have the potential to increase food production, eradicate poverty, create jobs and contribute to economic growth. About 90% of the country's fruit, vegetables and wine are produced under irrigation. The department has identified the revitalisation of irrigation schemes and irrigation development as a priority area. This goal will be achieved by:

- increasing the water-use efficiency of irrigation systems and future irrigated land
- revitalising underutilised irrigation schemes/areas based on a sustainable and area-wide planning approach
- promoting mini-scale irrigated agriculture for household and community-level food security through efficient irrigation technologies
- identifying and developing new commercial irrigation areas in cooperation with the departments of water and of environmental affairs.

## Production

The total gross value of agricultural production (total production during the production season valued at the average basic prices received by producers) for 2009 was estimated at R129 122 million, compared with R131 272 million the previous year – representing a decrease of 1,6%. The gross value of animal products, field crops and horticultural products contributed 48,7%, 26,7% and 24,6% respectively to the total gross value of agricultural production. The poultry-meat industry made the largest contribution with 17,9%, followed by the red meat industry (14,7%) and maize (12,7%).

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In August 2010, the Female Entrepreneur of the Year 2010 Awards were hosted by the Department of Agriculture, Forestry and Fisheries at Mentors Country Estate in Jeffreys Bay, Eastern Cape. The overall winner was Ms Mavies Mogasie Mathabatha of Limpopo. The aim of the project is to encourage and recognise the participation of women in the agricultural, forestry and fishery sectors.

## Prices

Producer prices of agricultural products increased on average by 2,6% from 2008 to 2009. The weighted average price of field crops dropped by 7,4%. This was mainly the result of lower prices received for winter grains, oilseeds, summer grains, dry beans and cotton, which decreased by 24,3%, 20,7%, 9,5%, 8,4%, and 5,8% respectively. Prices of vegetables, fruit and viticultural products increased by 42,3%, 6,8%, and 1,8% respectively.

The weighted average price of animal products was 6,2% higher in 2009 than in 2008. Prices received for poultry and slaughtered stock increased by 12,9% and 3,7% respectively, while the average price of pastoral products and dairy products decreased by 4,5% and 2,4% respectively.

The demand for meat remained strong and meat prices increased between 8% and 15%. Whereas lamb prices are expected to grow constantly over the 2011 to 2013 period, beef, pork and chicken prices are expected to follow the typical cyclical trend that is largely influenced by feed prices.

The prices of milk and most dairy products decreased in 2009 due to the surplus production of raw milk in 2008 and a slump in international dairy prices. Over the long term, the utilisation of milk is still projected to remain above its production, which implies that South Africa will remain a net importer of dairy products.

## Farm income

The gross income of producers (the value of sales and production for other uses, plus the value of changes in inventories) for the year ended 31 December 2009 amounted to R126 297 million, compared with R129 253 million in 2008 – a decrease of 2,3%.

The gross income from field crops decreased by 21,2%, from R40 306 million in 2008 to R31 768 million in 2009. This was mainly a result of a decrease of income from maize, wheat and sunflower seed by 25,2%, 45,1%, and 38,6% respectively. These decreases were the result of both a drop in production and lower prices received by farmers.

The gross income from horticultural products increased by 4,7% to R31 660 million in 2009. Income from vegetables increased by 19,3% or R1 929 million, from R9 972 million to R11 901 million in 2009.

Income from potatoes, which contributed 34,1% to the gross income from vegetables, rose by 12,1%, from R3 621 million in 2008 to R4 057 million in 2009. Income from deciduous and other summer fruit increased by 9,5%, from R7 342 million to R8 040 million, while income from citrus fruit decreased by 20,7%, from R5 835 million to R4 628 million. Income from subtropical fruit showed a slight decrease of 0,2% or R3 million, and amounted to R2 030 million.

The gross income from animal products was 7,1% higher than in the previous year and amounted to R62 869 million, compared with R58 697 million. Red-meat producers earned R12 808 million from slaughtered cattle and calves – representing an increase of only 1,1% compared with R12 662 million received in 2008. The price that farmers received for beef rose on average by 4,1%, while the number of cattle slaughtered dropped slightly. The income from slaughtered sheep rose by 2,4%, from R2 943 million to R3 014 million. Income from poultry-meat production increased by 16,7%, from R19 855 million to R23 165 million. The income from milk decreased by 5,2%, from R9 639 million in 2008 to R9 138 million in 2009. Income from wool also dropped by 4%, from R1 287 million to R1 235 million.

The net farm income (after the deduction of all production expenditures, excluding expenditure on fixed assets and capital goods) amounted to R38 808 million for the 12 months that ended on 31 December 2009, which is 14,7% less than the R45 482 million of the previous 12 months.

Payments for salaries and wages, which represented 13% of the total farming costs, increased by 4%, from R11 336 million to R11 789 million. Interest paid by farmers to banks and other financiers was about R5 019 million, or 5,6% of the total farming cost, compared to R4 660 million paid in 2008 – showing an increase of 8,4%.

## Field crops and horticulture

The largest area of farmland planted with field crops is maize, followed by wheat and, to a lesser extent, sugar cane and sunflower seed. The grain industry is one of the largest in South Africa and is a very strategic one. According to the *Economic Review of South African Agriculture*, the gross income from field crops decreased by 21,2% to R31 768 million for the year ended 31 December 2009.

## Maize

Maize is the largest locally produced field crop, and the most important source of carbohydrates in the SADC for animal and human consumption. South Africa is the main maize producer in the SADC, with an average production of about 9,7 million tons (Mt) a year over the past 10 years.

It is estimated that more than 8 000 commercial maize producers are responsible for the major part of the South African crop, while the rest is produced by thousands of small-scale producers. Maize is produced mainly in North West, the Free State and Mpumalanga. A total of 12,6 Mt of maize were produced in 2008/09 on 2,9 million ha of land (non-commercial agriculture included).

## Wheat

Wheat is produced mainly in the winter-rainfall areas of the Western Cape and the eastern parts of the Free State. In 2009, 1,96 Mt were produced on 642 500 ha of land.

## Malting barley

Malting barley is produced mainly on the southern coastal plains of the Western Cape. The area of barley planted totalled 74 760 ha in 2009, and production totalled 216 000 t.

## Groundnuts

Groundnuts are grown mainly in the Free State, North West and the Northern Cape. An area of 54 550 ha was planted in 2008/09, producing 99 500 t.

## Sunflower seed

South Africa is the world's 12th-largest producer of sunflower seed, which is produced in the Free State, North West, on the Mpumalanga Highveld and in Limpopo. An area of 636 800 ha was planted in 2008/09, producing 801 000 t.

## Sorghum

Sorghum is cultivated mostly in the drier parts of the summer-rainfall areas such as Mpumalanga, the Free State, Limpopo and North West. In 2008/09, an estimated 85 500 ha were planted, with production totalling 276 500 t.

## Soya beans

Soya beans are produced mainly in Mpumalanga, the Free State and KwaZulu-Natal. Small quantities are produced in Limpopo, Gauteng and North West. For the 2009 production season, soya beans were planted on 238 000 ha, with production totalling 516 000 t.

## Canola

Canola is an oilseed crop that is grown mainly in the Western Cape. However, since the 2001 production season, smaller quantities have also been planted in North West and Limpopo. Canola competes on the local market with other oilseeds such as sunflower seeds and soya beans. For the 2009 production season, the canola crop was estimated at 40 350 t on an area of 35 060 ha.

## Dry beans

Dry beans are produced mainly in Mpumalanga, the Free State, Gauteng and North West. KwaZulu-Natal, Limpopo, the Western Cape and Northern Cape produce small quantities of this crop. Local demand is substantially higher than local production and therefore large quantities of dry beans are imported each year. In 2009, 67 030 t of dry beans were produced.

## Sugar

The South African sugar industry is one of the world's leading cost-competitive producers of high-quality sugar. It is a diverse industry, combining the agricultural activities of sugar-cane cultivation with the industrial factory production of raw and refined sugar, syrups and specialised sugars, and a range of by-products.

The South African sugar industry makes an important contribution to the national

Production of important field crops and horticultural products, 2009 ('000 t)

Maize	12 567
Wheat	1 928
Sugar cane	20 411
Grain sorghum	318
Groundnuts	113
Sunflower seed	833
Deciduous and other soft fruit	1 829
Citrus fruit	2 218
Subtropical fruit	655
Vegetables	2 442
Potatoes	1 819

Source: Directorate: Agricultural Statistics, Department of Agriculture, Forestry and Fisheries



economy, given its agricultural and industrial investments, foreign-exchange earnings, high employment rates and linkages with major suppliers, support industries and customers.

Direct employment within the sugar industry totals about 85 000 jobs, and indirect employment is estimated at 350 000 jobs, including employment in rural areas. The South African Cane Growers' Association and the milling companies undertake development projects and are involved in Black Economic Empowerment (BEE) through a range of initiatives.

There are some 35 300 sugar-cane growers in South Africa, the majority of which are small, medium and micro-enterprises (SMMEs) and which, collectively, farm 391 483 ha of sugar cane. Sugar-cane farms vary in size; subsistence farms average 1,7 ha, while family-owned farms average 186 ha.

### **Deciduous fruit**

Deciduous fruit is grown mainly in the Western Cape and in the Long Kloof Valley of the Eastern Cape. Smaller production areas are found along the Orange River and in the Free State, Mpumalanga and Gauteng. The industry is organised through the umbrella body, Fruit South Africa, and its four shareholders: the Fresh Produce Exporters' Forum (FPEF), the Deciduous Fruit Producers' Trust, the Citrus Growers' Association and the South African Subtropical Growers' Association. The FPEF is a Section 21 company that represents more than 70 out of about 300 fresh-fruit export companies in South Africa. The FPEF plays a significant role in stabilising and unifying the export sector.

### **Wine**

The third crop estimate made by producer cellars and viticulturists in the various regions during February 2010, showed a decrease of more than 62 000 t compared with the January 2010 estimate.

The 2010 crop was estimated to amount to 1 243 449 t – representing a decrease of 6,5% and in effect 86 908 t less than the 2009 crop and 182 164 t less than the 2008 record crop. The 2010 wine crop, including juice and concentrate for non-alcoholic purposes, wine for brandy and distilling wine, was expected to amount to 948,8 million litres (Ml) calculated at an average recovery of 763 liters per ton (lt) of grapes.

### **Citrus and subtropical fruit**

Citrus production is largely limited to irrigation areas and takes place in Limpopo (16 255 ha), Mpumalanga (11 681 ha), the Eastern Cape (12 923 ha), KwaZulu-Natal (4 004 ha), the Western Cape (9 524 ha) and Northern Cape (639 ha). In 2009, income from citrus showed a decrease of 20,7% and amounted to R4 628 million.

Pineapples are grown in the Eastern Cape and in northern KwaZulu-Natal. Other subtropical crops such as avocados, mangoes, bananas, litchis, guavas, papayas, granadillas and macadamia and pecan nuts are produced mainly in Mpumalanga and Limpopo, and in the subtropical coastal areas of KwaZulu-Natal and the Eastern Cape.

In 2009, South Africa produced 655 156 t of subtropical fruit, which represented 73 950 t or 10,1% more than in 2008.

### **Potatoes**

The Northern Cape is one of the six largest seed-potato production areas in South Africa. North West has also started producing seed potatoes. The South African varieties Darius and Eryn constitute a large percentage of the seed grown in this region.

The KwaZulu-Natal Midlands form the centre of the seed-production area in this province. Some seed is also produced in the north, near Louwsburg, a traditionally virus-free area.

About 40% of the country's potato crop is grown in the high-lying areas of the Free State and Mpumalanga, Limpopo, and the Eastern, Western and Northern Cape.

The high-lying areas of KwaZulu-Natal are also important production areas. Nearly two-thirds of the country's total potato crop are produced under irrigation.

Of the total crop, 50% is delivered to fresh-produce markets and a further 19% is processed. The South African potato-processing industry has shown tremendous growth over the past few years. This growth took place primarily in the crisps, chips and French fries sectors. Frozen French fries comprise 41% of total processed potato products in South Africa.

In terms of gross income to the grower, potatoes are by far the most important vegetable crop, contributing 39% to the total income derived from vegetables. This is almost equal to the 40% derived collectively from the next four major crops, namely, tomatoes, onions, green mealies and sweet-corn. During 2009, 1 853 000 t of potatoes were produced.

## Tomatoes

Tomatoes are produced countrywide, but on the largest scale in Limpopo, the Mpumalanga Lowveld and Middleveld, the Pongola area of KwaZulu-Natal, the southern parts of the Eastern Cape, and the Western Cape. In 2009, 532 695 t of tomatoes were produced.

## Onions

Onions are grown in Mpumalanga; in the districts of Caledon, Ceres and Worcester in the Western Cape; and in Venterstad and the adjoining areas in the southern Free State. Onions have an estimated planting of 6 500 ha to 7 000 ha and a retail value of R200 million a year. In 2009, 461 926 t of onions were produced.

## Cabbages

Cabbages are grown countrywide, but are concentrated in Mpumalanga and the Camperdown and Greytown districts of KwaZulu-Natal. In 2009, 136 615 t of cabbages were produced.

## Cotton

Cotton is cultivated in Mpumalanga, Limpopo, the Northern Cape, KwaZulu-Natal and North West. It constitutes 74% of natural fibre and 42% of all fibre processed in South Africa. Cotton is grown under irrigation as well as in dry-land conditions. During 2009/10, 5 981 ha were dedicated to cotton production, with 71% under irrigation. Production was the lowest in the Eastern Cape with 132 bales of cotton lint (each bale weighs 200 kg). About 75% of local production is harvested by hand. In 2009/10, cotton to the value of R78 million was produced.

## Tobacco

Virginia tobacco is produced mainly in Mpumalanga, Limpopo and North West. The production of Oriental tobacco ceased in 2001.

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The mass production of South Africa's indigenous fruit and vegetables can go a long way towards eradicating poverty, according to experts who attended the Indigenous Knowledge System Expo in Durban, during July 2010.

Some 20 types of indigenous fruit have been identified in South Africa, many of which have been found to possess larger amounts of vitamins and minerals than common fruits sold on markets.

A programme introducing high-value crops such as fruit trees and essential oils is active in 52 rural villages with 2 000 participating households in the Eastern Cape and Limpopo.

Flue-cured leaf tobacco contributes more than 80% of total production, with the number of hectares cultivated for flue-cured tobacco about six times the land cultivated for air-cured leaf tobacco.

In 2008/09, 8 500 t of flue-cured tobacco and 2 000 t of air-cured tobacco were produced on 5 000 ha. A total of 10 500 t of tobacco was produced.

## Honeybush and rooibos tea

Honeybush is cultivated by 10 honeybush growers with more than one ha, plus a few growers with smaller plantations. Of these 10, seven are commercial, and three are community-based.

The previously disadvantaged communities in Haarlem, Ericaville and Groendal in the Eastern Cape, make up about 15% of the total area under cultivation. The harvest in 2008 totalled more than 200 t of honeybush tea. Of this, 85% was exported to the United Kingdom (UK), the Netherlands, the United States of America (USA) and Germany.

Rooibos tea is indigenous to the Cederberg area of the Western Cape, which is some 200 km north of Cape Town. Although the main centre for tea production remains in this area, production has expanded to other regions as well. Rooibos tea is not produced anywhere else in the world and efforts to keep it this way are ongoing.

## Floriculture

The South African floriculture industry has the potential to develop into a significant player on the international stage. The total floriculture industry employs some 17 500 people. In terms of products and markets, there is a strong demand for South African floriculture worldwide. In particular, Germany, the UK, Japan and the Netherlands represent the greatest opportunities in the short term.

South Africa's indigenous flowers such as gladioli, nerine, freesias and gerberas, have undergone many years of extensive research in Europe, and have become major crops worldwide.

South Africa is the leading exporter of protea cut-flowers, which account for more than half of the proteas sold on the world market. South African proteas and so-called Cape greens (fynbos) are marketed in Europe and concentrated mainly in the Western Cape.

## Indigenous food crops

The Directorate: Plant Production of the Department of Agriculture, Forestry and



Fisheries developed the Policy on Indigenous Food Crops in 2009. The policy was approved by the Departmental Executive Committee and recommended for consultation with various stakeholders in the same year.

### **Organic agriculture**

Organic farming refers to the type of farming that is done without the use of synthetic chemicals, pesticides, fertilisers and insecticides.

Organic farming respects the environment's own systems for controlling pests and diseases in raising crops, and avoids the use of synthetic pesticides, herbicides and chemical fertilisers. Instead, organic farmers use a range of techniques that help sustain ecosystems and reduce pollution. According to estimates, there are some 250 farms on 45 000 ha of certified land in South Africa.

South African organic farmers grow a large variety of produce. These include various cereals, vegetables, roots and tubers, herbs and spices, fruit, nuts and Rooibos tea. The largest fruit crops, in terms of hectares, are bananas, avocados and mangoes, while the largest vegetable crops are cucurbits, tomatoes, asparagus, brassicas and potatoes. Organic wine and olive oil are also produced and organic dairy farming is in its early stages in some provinces.

### **Livestock**

Nearly 80% of agricultural land in South Africa is suitable for extensive livestock farming. Livestock are also kept in other areas, usually in combination with other farming enterprises. Numbers vary according to weather conditions.

Stockbreeders concentrate on developing breeds that are well adapted to diverse weather and environmental conditions.

The livestock sector contributes up to 49% of agricultural output. South Africa generally produces 85% of its meat requirements, while the remaining 15% is imported from Namibia, Botswana, Swaziland, Australia, New Zealand and Europe. The livestock industry is the largest national agricultural sector.

### **National Livestock Development Strategy (NLDS)**

The NLDS aims to enhance the sustainability of animal agriculture in South Africa across the entire production, processing and supply chain.

Implementation includes establishing sector working groups, mobilising rural stock owners and keepers towards economic production, and supporting systems for the conservation of veld and livestock resources through sustainable use.

### **Dairy farming**

The South African dairy industry compares favourably with the world's top dairy industries in farming methods and the processing of dairy products. The industry comprises a number of different economic activities. These activities involve the production and marketing of raw milk, pasteurised milk and cream, fermented milk, long-life milk and cream, yoghurt, cheese and its by-product whey, milk powder, sweetened and unsweetened concentrated milk, butter and butter oil (ghee).

Commercial dairy farmers are estimated at 3 550 and they own approximately 980 000 dairy cows and employ some 38 000 workers. An additional 40 000 workers are employed in other segments of the value chain such as milk processing and the milling industry.

The South African dairy market is divided into 60% liquid and 40% concentrated products.

The National Recording and Improvement Scheme, managed by the ARC, ensures the efficient and economic sustainability of livestock production. It also provides scientific and technical assistance to participants to assist them in making the right decisions.

The Dairy Recording and Improvement Scheme enables dairy farmers to record the economically important genetic traits of their animals. This information feeds into the Integrated Registration and Genetic Information System (INTER-GIS), South Africa's national farm animals database. Through INTER-GIS, raw data is processed and generates a range of reports that enable dairy farmers to select and identify the productivity of individual animals and farming enterprises.

### **Beef cattle farming**

Cattle ranches are found mainly in the Eastern Cape, parts of the Free State and KwaZulu-Natal, Limpopo, North West, Mpumalanga and the Northern Cape. The Brahman, indigenous Afrikaner and Nguni, and the locally developed Bonsmara, Drakensberger, Simbra and Braford are popular beef breeds.

The locally adapted Angus, Hereford and Sussex; Charolais, Simmentaler, Santa

Gertrudis, Ramagnola and Pinzguer breeds are respectively from Europe and the USA, and are maintained as pure breeds or used in cross-breeding.

### **Small stock (sheep and goat) farming**

Sheep farming is concentrated mainly in the arid and extensive grazing areas of the country. As a result, most of the 25 million sheep in South Africa are found in the Eastern Cape, followed by the Northern Cape, Free State, Western Cape and Mpumalanga. Most sheep (18 million) are woolled or dual-purpose sheep.

The sheep breed with the highest wool production per head in South Africa is the South African Merino, followed by other dual-purpose Merino breeds, of which the Dohne Merino, South African Mutton Merino, the Afrino and Letelle are the most popular. Dual-purpose breeds are bred with the specific aim of maximising wool and mutton income. These breeds have better body conformation than the Merino, but produce slightly less wool per kilogram of body weight.

Average Merino fleece weights vary from 4 kg to 5 kg a year in the semi-arid regions, and up to 8 kg a year from sheep grazing on cultivated pastures.

Mutton sheep are found mostly in the semi-desert areas of the Northern and Western Cape.

The most popular mutton breed is the locally developed Dorper. Limited numbers of indigenous fat-tailed and Karakul sheep are still found.

A large proportion of the goats in South Africa occur in communal grazing areas. The Eastern Cape has the largest number of goats (39%), followed by Limpopo (17%).

The indigenous meat-producing Boer goat accounts for about 40% of all goats in South Africa. Almost all of South Africa's Angora goat (mohair) farmers are located in the Eastern Cape, where they farm with about a million goats. The South African mohair clip of four million kilogram accounts for 60% of the world's mohair production. About 63% of all goats in South Africa are so-called indigenous goats.

### **Poultry and pig farming**

The poultry and pig industries are more intensive than the sheep and cattle industries, and are dominant in almost all the provinces. The predominant pig breeds are the South African Landrace, the Large White, Duroc and the Pietrain. Some

2,4 million pigs were slaughtered between July 2008 and June 2009.

South Africa's annual poultry-meat production is estimated at 930 000 t. Broiler production contributes nearly 80% to total poultry-meat production, with the rest made up of mature chicken slaughter (culls), small-scale and backyard poultry production, ducks, geese, turkeys and other specialised white-meat products.

Commercial producers slaughtered an estimated 1,5 Mt broilers in 2009.

South Africa accounts for 68% of world sales of ostrich products, namely leather, meat and feathers.

### **Aquaculture industry (freshwater and marine)**

Aquaculture is defined as the cultivation of aquatic organisms, including fish, molluscs, crustaceans and plants, either in cages within the shallow waters of the ocean or in dams or structures on land fed by water. The industry has been expanding rapidly across the world. China is the largest contributor to global aquaculture production.

South Africa and China have formed a partnership to build a R45-million fish hatchery at Gariep Dam in the Free State, in a bid to develop rural aquaculture and create employment. The South Africa Agricultural Demonstration Centre will function as a fingerling supply station for rural aquaculture projects within the Free State and beyond.

The hatchery will also be used to advance research, providing a facility for agricultural scientists, technicians and farmers to test new farming methodologies.

The Chinese Government has injected more than R45 million into the project, and will contribute R15 million each year for the next three years.

### **Game ranching**

Game ranching in South Africa is one of the fastest-growing sectors of the agricultural industry.

Since the 1970s, there has been a huge shift from cattle farming to game ranching. Provided they observe approved game-fencing rules, registered game ranches have permission to hunt throughout the year.

Some 49,04% of registered game ranches with an area of 3 325 652 ha are found in Limpopo. The Northern Cape has the second-highest number of game ranches (19,48%), covering 4 852 053 ha.

The Eastern Cape is home to 12,33% of the total game ranches, covering 881 633 ha.

The Western Cape has the fewest game ranches (1,62%, extending over 265 205 ha).

Owing to the expansion of game ranches, the total area covered by these privately owned ranches exceeds that of all national parks and provincial nature reserves put together. Game ranches also have growing numbers of game.

In terms of game ranching, game is considered to be an agricultural product as defined in the Marketing of Agricultural Products Act, 1996 (Act 47 of 1996).

The South African game-farming industry incorporates various subsectors, ranging from extensive wildlife ranching (with minimal human intervention) to intensive wildlife ranching (with supplementary feeding), wildlife breeding and ecotourism.

The Directorate: Animal Production of the Department of Agriculture, Forestry and Fisheries has, as its primary objective, the sustainable management, use and ecological protection of range and forage resources, as used by both livestock- and wildlife (game)-production systems, across provincial boundaries.

The National Game-Farming Policy aims to:

- support the effective management of viable game-farming systems
- ensure the sustainable management of natural resources
- facilitate the development of norms and standards for sustainable game farming
- promote and support equitable access to health management
- establish a national game-farm and animal database
- facilitate promotion and marketing
- deal with relevant food-safety issues
- promote research, training and support services.

The National Game-Farming Working Group consists of all relevant stakeholders in the game-farming industry to ensure that all the parties concerned are represented and participate fully.

## Beekeeping

The honey industry in South Africa has an average annual turnover of R3,2 billion and produces some 2 000 t a year. Government investment in KwaZulu-Natal aims to increase national production to 100 000 t and employ over 100 000 people. In addition to producing honey, beekeepers play a critical role in agriculture, contributing to crop pollination and the development of products worth billions of rands.

## Veterinary services

The State Veterinary Services constantly guards against the introduction of animal diseases from outside South Africa. Existing animal diseases, which may be detrimental to South Africa's economy and to human and animal health, are also monitored, controlled and combated.

Livestock in the high-risk areas are inspected at frequent intervals.

The Directorate: Veterinary Services of the Department of Agriculture, Forestry and Fisheries sets norms and standards for the delivery of veterinary services in South Africa.

Legislation provides the necessary powers to control diseases such as foot-and-mouth disease (FMD), swine fever, rabies and anthrax. South Africa, excluding the Kruger National Park and surrounding game reserves, is recognised as an FMD-free zone by the *Office International des Épizooties* (OIE) (the World Organisation for Animal Health).

The Department of Agriculture, Forestry and Fisheries created a biosafety and biosecurity unit, and a branch to deal with all emerging diseases and improve on biosecurity and food-safety measures.

Animal-disease control is an important factor in ensuring the productivity of the livestock sector and in promoting international trade in agricultural products.

Surveillance systems are in place to ensure that all animal products entering and leaving the country are disease-free, or offer a negligible risk, and therefore pose little risk to the animal-disease status of the country and are also safe for human consumption.

All commercial ports are thoroughly monitored to ensure that imported and exported goods are disease-free.

Particular emphasis is placed on the control of borders with neighbouring countries to prevent the introduction of FMD.

## Onderstepoort Biological Products (OBP)

OBP is a state-owned public company established in terms of the OBP Act, 1999 (Act 10 of 1999), with the capacity and technology to produce veterinary vaccines and related biological products for local and international markets. OBP is the sole or main producer of a number of vaccines against animal tropical diseases with the potential to cause serious economic disasters.

The last few years have seen OBP participating in projects to alleviate poverty



and improve human health by providing millions of doses of vaccines against zoonotic diseases such as Rift Valley fever.

OBP contributes expert advice and vaccines to control other transboundary animal diseases such as contagious bovine pleural pneumonia, lumpy-skin disease, African horse sickness and anthrax, which affect most African countries.

Over the years, OBP has been participating actively in workshops and conferences arranged by organisations such as the Pan-African Vaccine Network, World Organisation for Animal Health, SADC and the Food and Agriculture Organisation (FAO) to share and gain technology in improving its services.

Through collaboration with the FAO and the European Union (EU), OBP has also been involved in projects to provide both technical support and vaccines to countries such as the Democratic Republic of Congo, Zimbabwe, Lesotho and Angola.

OBP interacts with both national and international research and academic institutions to introduce new, improved and affordable products.

### **Animal identification**

The Animal Identification Act (Aida), 2002 (Act 6 of 2002), administered by the Directorate: Veterinary Services in the Department of Agriculture, Forestry and Fisheries, regulates the registration of unique markings for all declared animal species.

Under the Act, the Minister of Agriculture, Forestry and Fisheries declares animals for compulsory identification. The national register is available to the South African Police Service through State Information Technology Agency links to trace the ownership of individual animals to their owners.

However, this can only be implemented successfully if all cattle, goats, pigs and sheep are marked in accordance with the Act.

The directorate is also transferring knowledge to rural communities in consultation with the provincial departments of agriculture on various themes; for example, the Aida, 2002, animal management, preserving fodder, feeding of animals, preventative activities, first aid to injured animals, marketing/harvesting of animals, and their products, hygienic handling of meat, and milk handling.

The Epidemiology Section is responsible for monitoring animal diseases in the country for both disease-control purposes and as an early warning system.

### **Pest control**

The South African Pest Control Association (Sapca) is the official representative of the pest-, termite- and woodborer-control industries. All Sapca-qualified inspectors have to register with the Department of Agriculture, Forestry and Fisheries.

South Africa liaises with other countries and international organisations to ensure the transfer of pest-control technology.

### **Migratory pest control**

In terms of the Agricultural Pests Act, 1983 (Act 36 of 1983), the Department of Agriculture, Forestry and Fisheries is obliged to control the registered national pests, namely, red-billed quelea, locust and black-fly. These are migratory pests and individual farmers cannot be expected to control these to prevent damage in areas away from their own farms.

The ARC provides research support to the department to optimise control procedures in terms of efficacy, cost and environmental considerations.

An international communication network has been established with neighbouring countries concerning migratory pest control. By providing early warning information on cross-border invasions of migratory pests, such as army worm, locust and red-billed quelea, the Information Core for Southern African Migrant Pests enhances the forecasting efficiency of control organisations, thereby assisting national crop-protection agencies to ensure food security.

### **Marketing**

The Directorate: Marketing of the Department of Agriculture, Forestry and Fisheries works closely with the National Agricultural Marketing Council (NAMC) on agricultural marketing matters.

The directorate develops, promotes and facilitates the implementation of programmes and measures aimed at supporting equitable access to competitive and profitable agricultural markets on a sustainable basis. This broad mandate is achieved by:

- administering market-access measures in the form of issuing trade permits (import and export permits)
- facilitating fair, open, efficient and competitive domestic markets
- developing policies and strategies aimed at enhancing market access, and facilitating the implementation of programmes and measures to promote equitable access to mainstream markets

- liaising with other government departments and relevant parties to enhance the efficiency of the agricultural marketing value chains.

## National Agricultural Marketing Council

The NAMC was established in terms of the Marketing of Agricultural Products Act, 1996. The council provides the Minister of Agriculture, Forestry and Fisheries with strategic advice on all agricultural marketing issues to improve market efficiency and access for all participants, optimise export earnings and improve the viability of the agricultural sector.

The council has developed an economic and market research programme that tracks economic trends and provides market information that is aimed at improving South Africa's position in future global agricultural markets.

The NAMC's Food Price Monitoring initiative is a continuation of the Food Price Monitoring Project, which assists government in understanding the impact of high food-price inflation on the poor.

The Consumer Price Index (CPI), released by Statistics South Africa (Stats SA) in May 2010, indicated that food prices increased by 0,9% from April 2009 to April 2010. The annual increase of 0,9% is well below the lower limit of the South African Reserve Bank's target-inflation bracket.

Food-price inflation decreased on a monthly basis by 0,4 percentage points. Headline CPI annual inflation decreased by 0,3 percentage points from March 2010 (5,1%) to April 2010 (4,8%).

South Africa's food inflation and overall inflation are substantially lower than the food inflation and overall inflation reported for some African countries and most of the developing countries reviewed in the CPI report. In April 2010, South Africa's food inflation was at comparable levels and even lower than the levels in some developed countries, such as the USA, which experienced annual food inflation of 0,5%, and the UK, which experienced annual food inflation of 2,9% for the period ending April 2010.

Domestic prices of wheat, white maize and yellow maize continued to decrease, while the price of sunflower seeds and the milk-producer price increased for the period April 2009 to April 2010.

Sugar, sweets, desserts and fruit showed the most significant price increases in urban areas, while coffee and tea showed the most significant price increases in rural areas.

Processed food-product prices increased by 2,2% and unprocessed food-product prices decreased by 1,5% year-on-year from April 2009.

Consumers in rural areas continued to pay higher prices for food than consumers in urban areas. In April 2010, consumers in rural areas paid R17,78 more for the same food basket than consumers in urban areas.

From April 2009 to April 2010, the cost of the basic food basket decreased by about R3,57 (1%) in nominal terms. The cost of the food basket expressed as a share of the average monthly income of the poorest 30% of the population decreased slightly from 33,4% in April 2009 to 33% in April 2010.

## Land settlement

The overall goal of the Directorate: Land Settlement is to provide support to farmers through land-reform programmes, with the intention of developing viable and sustainable agricultural ventures.

The directorate develops and provides guidelines for the implementation of policies and programmes supporting land and agrarian-reform beneficiaries. It also facilitates the implementation of land and agrarian-reform projects and promotes sustainable agriculture for improved livelihoods. Furthermore, the directorate facilitates the effective administration and disposal of state agricultural land.

The directorate ensures farmer support by developing policies such as the Farmer-to-Farmer Mentorship Policy, and implementing programmes such as the Comprehensive Agriculture Support Programme (CASP) and the Land Reform Revitalisation Programme.

A budget of R862,4 million for 2010/11 was allocated to CASP to address support for food production, both for subsistence and for the market. The department is expected to embark on projects in food production, agroprocessing, infrastructure development (water, dams, irrigation systems and fencing), cooperatives and stokvels (social economy), as well as the green economy (agro-ecology).

CASP outputs for the 2010/11 financial year included establishing 1 739 food-security projects, creating 760 jobs, and training and improving the knowledge and skills of 5 089 beneficiaries to ensure that 7 961 on- and off-farm infrastructure targets had been completed and were functioning.

The directorate manages and controls 125 227 ha of state land, called Financial

Assistance Land Administration, which consists of:

- leased land: 57 154 ha
- vacant land: 13 811 ha
- land for restitution: 54 262 ha.

The CASP has been reprioritised to respond timeously to the demands of the Land and Agrarian Reform Project (LARP). The LARP is aimed at accelerating and aligning land and agrarian reform in South Africa.

The LARP focuses on the following objectives:

- redistributing five million ha of white-owned agricultural land to 10 000 new agricultural producers
- increasing black entrepreneurs in the agribusiness industry by 10%
- providing universal access to agricultural support services to the target groups
- increasing agricultural production by 10% to 15% for the target groups, under the Ilima/ Letsema Campaign
- increasing agricultural trade by 10% to 15% for the target groups.

The LARP is a joint project of the Department of Rural Development and Land Reform; the Department of Agriculture, Forestry and Fisheries; provincial departments of agriculture; agricultural state-owned enterprises; and sector partners.

## Ilima/Letsema Campaign

The Department of Agriculture, Forestry and Fisheries encourages household food production through backyard gardens as well as programmes such as the Household Food Security and Ilima/Letsema Campaign, whose main objective is to motivate communities to plough, plant and produce their own food.

The Ilima/Letsema Campaign continues to elevate agricultural activities; realise the LARP; and function as a mechanism of collaboration towards food security and a developmental platform for local and indigenous resources that will assist to continue the fight against high food prices.

The objectives of the campaign are to:

- invest in the improvement of the quality of livestock such as Nguni cattle, goats and chickens in communal areas
- increase family and community production for household food and nutritional security
- develop an agricultural development corridor
- increase the percentage of land that is put to productive use
- activate fallow land in the former homelands

- rehabilitate degraded agricultural land to productive use
- rehabilitate and expand the existing irrigation schemes
- establish new irrigation schemes
- establish contract farming for high-value and feedstock products for biofuels, wine, essential oils, hemp, medicines, leather, juices, canning and dairy.

This campaign also distributes agricultural starter-packs to poor households and supports small-scale farmers.

## Food security

More than 40% of South Africans live in rural areas, 60% of whom live in the former homelands. This is where the highest concentration of poverty resides in South Africa. In 2010, the department planned to establish a national food-security indicator, which will be monitored regularly in collaboration with the departments of trade and industry, of rural development and land reform, of social development and National Treasury.

South Africa has committed itself to achieving eight millennium development goals by 2015, and arguably, the chief determinant among these is food security.

The Integrated Food Security and Nutrition Programme (IFSNP) aims to achieve physical, social and economic access to safe and nutritious food for all South Africans. Its goal is to eradicate hunger, malnutrition and food insecurity by 2015.

The IFSNP recognises the broad regional food-security framework the Regional Indicative Sustainable Development Programme highlighted, and which prompted South Africa to respond to the humanitarian appeal by the United Nations (UN) World Food Programme for emergency food relief in the SADC region.

## Regional issues

South Africa participates in the Regional Advisory Committee (RAC) of the Regional Food Security Training Programme (RFSTP).

The RFSTP was developed over a five-year period as endorsed by the RAC. The activities of the RFSTP focus on three main areas: strengthening the supply of food-security training services, strengthening the effective demand for training and development and sustaining regional markets for food security-related training services.

SADC has instituted the Subcommittee for Plant Protection, which is tasked with harmonising phytosanitary requirements in southern Africa. South Africa is also a



member of the Inter-African Phytosanitary Council, which was established in 1954. Regional plant-protection organisations such as these are able to provide valuable coordination of the activities and objectives of the International Plant Protection Convention (IPPC) at regional level. The Inter-Africa Phytosanitary Council is officially recognised as the Regional Plant Protection Organisation for Africa. The council came into being as the African Union's (AU) phytosanitary coordinating body.

SADC has produced a Memorandum of Understanding (MoU) on the Harmonisation of Seed Regulations in the SADC Region, which is based on three technical documents, namely Regional Variety Release System, Seed Certification and Quality Assurance and Quarantine and Phytosanitary Measures.

The primary objective of harmonisation of the seed regulations is to resolve the problems addressed in the three documents by integrating smaller and isolated national seed markets into a single, larger SADC seed market. This, in turn, will enhance the introduction of new improved varieties into the region and ease the movement of quality seed from countries with surplus to countries in need of seed. Both national and regional seed suppliers will find SADC a more attractive market. Lower costs and simpler administration will further encourage local, small-scale seed producers and suppliers to expand their activities.

During the SADC Ministers' Meeting, held in February 2010, the ministers of three countries signed the MoU. The Harmonised Seed Regulations will come into force when two-thirds of the SADC countries have signed.

## International issues

As a signatory to the Rome Declaration of 2003, South Africa has committed itself to the implementation of the World Food Summit Plan of Action. For this purpose, South Africa reports annually to the World Committee for Food Security. South Africa is also collaborating with the FAO on the implementation of the Special Programme for Food Security, within the context of the Integrated Sustainable Rural Development Programme.

South Africa is an active participant in other international standard-setting bodies that are vital to its global market share, such as the IPPC, OIE and Codex Alimentarius.

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In June 2010, President Jacob Zuma launched the Masibuyele Emasimini Mechanisation Scheme at Marapyane Village in Mpumalanga.

This project will afford previously disadvantaged farmers a realistic chance to improve production, increase yields and gain access to domestic and global markets. The project will also ensure the utilisation of fallow land and will seek to resuscitate collapsed land-reform projects.

By March 2010, a further increase in the productive land as a result of Masibuyele Emasimini indicated a coverage of 36 223 ha of land. In all, 42 430 households are benefiting from this intervention.

## International relations

The Department of Agriculture, Forestry and Fisheries' Directorate: International Relations facilitates and coordinates international activities on both multilateral and bilateral bases.

The department is a member of the FAO; the Consultative Group on International Agricultural Research; the Food, Agriculture and Natural Resources Sector of SADC; the International Seed-Testing Association; the Organisation for Economic Cooperation and Development's Seed Schemes; the Union for the Protection of New Varieties of Plants; the World Organisation for Animal Health; the International Organisation of Vine and Wine (OIV); and the International Cotton Advisory Committee. Contributing to the political, social and economic development of Africa is an international priority for the department.

Agriculture continues to be the mainstay of African economies and is an important driver for socio-economic growth.

South Africa's agricultural engagement in Africa is guided by a clear sense of the huge potential for agricultural trade, training, research and technical cooperation opportunities on the continent.

The directorate developed the International Agricultural Strategy, which sets priorities for international engagement in the medium term. The strategy is guided by South Africa's foreign-policy and economic-development objectives. The priorities are:

- consolidation of the African Agenda
- active participation in the AU
- active participation in and efficient implementation of the programmes of SADC food, agriculture and natural resources; and trade, finance and investment directorates
- sustainable development and poverty alleviation through the New Partnership for Africa's Development (Nepad)

- implementation of the Southern African Customs Union (Sacu) Agreement.

In March 2010, ministers of agriculture of the African continent attended a conference to launch the Agribusiness and Agro-Industries (3ADI) initiative as a follow-up to the FAO Global Agro-Industries Forum, which was held in India in 2008. The high-level conference was also attended by Brazil, as well as food security and agricultural organs of the UN.

It addressed, among other things, the role of 3ADI in promoting food security, employment generation, sustainable economic growth in Africa, the strengthening of market access and market infrastructure to facilitate the growth of trade opportunities in the domestic, regional and international markets.

The 3ADI initiative was launched with the African Union Commission (AUC) and Nepal through the Comprehensive African Agricultural Development Programme (CAADP) partnered with the African Development Bank (AfDB), the FAO, the International Fund for Agricultural Development (IFAD), the United Nations Economic Commission of Africa and the United Nations Industrial Development Organisation.

The conference helped raise awareness in Africa about the pivotal role of 3ADI in the sustainable economic development of the continent, and reinforced the recognition by African governments of the need to prioritise 3ADI development strategies that reach beyond traditional agricultural growth-promotion efforts.

The member states committed themselves to taking measures to foster commercial bank financing for all segments of the agribusiness value chain, and to ensuring that agricultural financing initiatives are enhanced through African institutions and made accessible to rural areas.

## International trade

The Department of Agriculture, Forestry and Fisheries' Directorate: International Trade analyses international trade and related policies, advises on multilateral and bilateral agricultural trade policy, presents the interests of South African agriculture in various trade-negotiating initiatives and promotes trade-development initiatives, aimed at broadening the exporter base. The directorate works closely with the Department of Trade and Industry, and takes responsibility for the agricultural part of trade negotiations

in the World Trade Organisation's (WTO) multilateral negotiations as well as in various bilateral trade-negotiating initiatives.

The directorate continuously conducts strategic market research to inform the positioning of the agricultural export sector in the global trading environment. It investigates and evaluates export opportunities for agricultural products on world markets.

These include strategies to access markets where preferential trade agreements (PTAs) do not exist, such as China, India, Russia and some Middle-Eastern and African countries.

The directorate facilitates national capacity-building and the training of role players in the use of trade tools. This will increase the capacity of all role players to support new agricultural exporters in their endeavours.

The directorate is also responsible for implementing, monitoring and reporting on South Africa's commitments under the WTO Agreement on Agriculture. South Africa works with its alliance partners of the G20, the Cairns Group and the Africa Group.

The department's objectives in the Doha Development Round of the WTO are to:

- ensure policy space to support South Africa's developing agricultural sector
- bring about a substantial reduction in trade and production-distorting subsidies and export subsidies given mainly by developed countries
- improve the access of South African agricultural exports to other markets.

The overall objective is to establish a fair trading system in which South African agriculture can compete on a level playing field.

South Africa maintains bilateral free-trade agreements with the SADC group of countries in Africa, the EU and the European Free Trade Association.

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The Department of Agriculture, Forestry and Fisheries and the Food and Agriculture Organisation (FAO) are implementing telefood projects. Telefood refers to small-scale farming projects designed to provide vulnerable households and communities with the tools necessary to increase the quantity and variety of their production. Project categories range from crop production to fish and animal production, including support to school food-garden initiatives. Some of the telefood projects also generate income, since excess crops can be sold on local markets. Government believes that small-scale farmers can contribute significantly to the reduction of food insecurity and the country's food imports.

South Africa and its four neighbours, Botswana, Lesotho, Namibia and Swaziland, form the Sacu.

The customs union was created in 1910, and is the oldest in the world. It provides for duty-free trade in goods among its member states and has at its base a common external tariff. The directorate contributes towards the implementation of the agricultural aspects of the Sacu Agreement that came into effect in July 2004.

The SADC Trade Protocol was implemented in 2000. This provides for a free-trade area, which was launched in August 2008.

The South Africa-EU Trade, Development and Cooperation Agreement (TDCA), a comprehensive free-trade agreement, was implemented on 1 January 2000. The department has introduced a system for making full use of opportunities created by the agreement. This includes providing information to potential exporters on many tariff lines that have reduced or zero tariffs, as well as the administration of export quotas granted to South Africa under the agreement.

On selected products that were identified as sensitive to the trading partner, such as wine, fruit juice, canned fruit, cut flowers, proteas, cheese and frozen strawberries to be exported to the EU, the department issues export permits at reduced levels of duty. With the enlargement of the EU from 15 to 27 member states, the agreement was extended to include the new members. A review of the TDCA is underway. The review of the trade chapter has been merged with the SADC-EU Economic Partnership Agreement negotiations, which are also underway.

The Fixed Preferences Agreement, which includes 150 agricultural tariff lines, has been concluded between Sacu and Mercosur.

Negotiations between Sacu and India towards a PTA started in October 2007.

The Directorate: International Trade consults widely with the agricultural industry, and endeavours, through its participation in these negotiations, to open market-access opportunities for those products with export potential.

Sacu is pursuing a trade, investment and development cooperation agreement with the USA. This framework enables a series of trade-enhancing agreements. South Africa also benefits from the USA's Africa Growth and Opportunity Act, which offers non-reciprocal tariff preferences in the US market. Fruit juices, citrus fruit and wine

exports are performing particularly well in this market.

## **International agreements and conventions**

South Africa is a signatory to a number of international agreements and conventions, requiring that the matter of sustainable resource-use and management be addressed in a responsible way.

Agenda 21 is an action plan and blueprint for sustainable development, and was one of five documents adopted by more than 178 governments at the UN Conference on Environment and Development in Rio de Janeiro in 1992. Specific to sustainable resource-use is Chapter 14, which addresses the promotion of agriculture and rural development.

International conventions that apply to aspects of sustainable resource-use include the Convention on Biological Diversity, the UN Framework Convention on Climate Change and the Convention to Combat Desertification (CCD). The CCD requires that South Africa draws up a national action programme, which will be integrated into a regional programme for the SADC region. All these activities are receiving attention under the leadership of the Department of Environmental Affairs, involving all stakeholders, including the national and provincial departments of agriculture.

## **Regulatory services**

The Import Export Policy Unit of the Department of Agriculture, Forestry and Fisheries' Directorate: Animal Health aims to formulate and support policies to reduce sanitary (health) risks in the import and export of animals and animal products.

Import requirements vary according to the product and the animal-health situation in individual countries.

South Africa is an active member of the OIE. Disease reports are received from the OIE and through direct contact with veterinary administrations in exporting countries.

Trade in animals and animal products is based on a series of requirements considered appropriate by the importing country to prevent the entry of diseases.

The department is one of the key regulatory state departments with the authority to enforce laws enacted by Parliament to protect the South African consumer, producer and farmer; the environment; and other national interests.



The department's regulatory activities regarding plants and plant products are primarily enforced by the directorates: agricultural products inspection services (APIS) and plant health. Importation of plant and propagating material of varieties that are not included in the national varietal lists is regulated by the Directorate: Plant Production through the issuing of import authorisations.

The purpose is to ensure control over the entering and distribution of non-registered varieties of crops that are regulated in terms of the Plant Improvement Act, 1976 (Act 53 of 1976). To be registered, new varieties have to have an acceptable denomination and conform to the distinctness, uniformity and stability requirements before being included in the varietal list. Quality standards, as prescribed in the Plant Improvement Act, 1976, are applicable on registered varieties. In addition, the South African Revenue Service participates in this effort by detaining imported goods for inspection by APIS.

The Directorate: APIS is involved in inspections and other related activities aimed at ensuring that imported animals and their products are free from diseases, and imported and exported plants and their products are free from quarantine pests and diseases. Inspections take place at pre-border and post-border control levels, and comply with genetic resources and quality-assurance prescriptions and standards.

Border inspections are conducted by the Division: Ports of Entry Point Control at designated ports of entry. To strengthen border inspections, the directorate has introduced the use of detector dogs at the OR Tambo International Airport in Kempton Park. These dogs are trained to detect regulated agricultural products in international arrival halls and cargo terminals.

Pre-border inspections are aimed at exports for compliance with international requirements of trading partners. Post-border inspections are intended for those regulated articles that were given extended detentions at borders or escaped the border-control inspections.

These inspections, together with national control inspections, are conducted by the National Plants and Plant Products Inspection Services, for compliance with plant-health, genetic-resources and food- and quality-assurance legislation. The division also carries out various surveys around the country.

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The *Agribusinesses Benchmarking Survey*, which was conducted in 2010 by Pricewaterhouse-Coopers, showed positive signs of recovery by agribusinesses following the global economic recession. The survey's results were revealed by the National Agri-Industry Group at a summit held at the University of the North West in Potchefstroom in February 2010.

According to the survey, covering a period from March 2008 to September 2009, local agribusinesses closed 2009 on a high note by raising their profitability by 44% compared with the previous year. Agribusinesses principally fulfil a "conduit" function in the agricultural industry, enabling them to make rapid adjustments in response to changed economic circumstances.

The Directorate: Plant Health's core mandates are to manage the risks associated with plant pests and diseases by developing and amending phytosanitary legislation and facilitating safe trade in plants and plant products.

Control measures are published to prevent or combat the spread of pests to other areas in the country. Import control is vital to prevent the introduction of potentially harmful foreign pests. Prospective importers of plants and plant products have to apply for an import permit for those controlled goods mentioned in the Agricultural Pests Act, 1983 (Act 36 of 1983).

The Pest Risk-Analysis (PRA) Division conducts scientific analyses of risks posed, based on scientific data and specific phytosanitary requirements set out according to the phytosanitary risk(s) involved. These are stipulated in the permit issued to the importer. Importers are obliged to present the consignment to the official inspection representative at the port of entry.

The Directorate: Plant Health's Division Plant Quarantine Services manages the risks associated with the importation of plant propagation material. This is achieved by prescribing a compulsory quarantine detention period for specific high-risk categories as determined by the PRA Division.

The core function of Diagnostic Services is to prevent the introduction of harmful exotic plant pests by testing and auditing all imported plant material.

The Early Warning Division ensures sound plant health-risk management-implementation services through surveillance, detection and rapid response.

Early detection of economically important exotic pests prevents the spread of such pests, thereby maintaining pest-free areas in respect of specific pests. Closely linked to early detection is implementing proper pest-awareness programmes to ensure the

agricultural sector and the general public are kept informed. The International Standards Division aims to facilitate effective and efficient official phytosanitary communication between the Directorate: Plant Health and its international, regional and other national plant-health clients.

This is done through the management of national plant-protection contact points and participation in the initiatives of external clients such as the WTO Committee on Sanitary and Phytosanitary Measures, the IPPC and its working groups and committees, the Inter-African Phytosanitary Council, other national plant-protection organisations or governments, research institutes, as well as any member of the international agricultural trade sector.

The Import/Export Protocols Division's core function is to ensure and maintain market access for South African plants and plant products. This includes exchanging plant-health information and expertise in terms of bilateral engagements, and maintaining bilateral export/import programmes in compliance with trading-partner requirements according to established protocols.

## **Food safety and quality assurance**

### **Policy on Animal Feeds**

The Department of Agriculture, Forestry and Fisheries published the South African Policy on Animal Feeds in April 2008. This document is intended to serve as a framework for the regulation and legislation of animal feeds in South Africa.

### **Food-control system**

A task team, made up of representatives from the departments of agriculture, forestry and fisheries; health; and trade and industry; succeeded in appointing a service-provider to compile a country profile, which will inform the strategy to be followed in implementing a comprehensive food-control system.

### **World Wine Trade Group (WWTG)**

The WWTG is an informal grouping of industry and government representatives from wine-producing countries, founded in 1998. The group aims to share information, collaborate on a variety of international issues and create an environment for free trade in wine. The group consists of Argentina, Australia, Canada, Chile, New Zealand, South Africa and the USA.

The Agreement on Mutual Acceptance of Oenological Practices and the Agree-

ment on Requirements for Wine Labelling form the basis of the WWTG. These are enabling agreements to facilitate the trade of wine among signatory parties by recognising each other's wine-making and labelling practices as being in compliance with their own. This significantly improves trade flows among the signatory parties, thereby reducing transaction costs relating to exports.

In a short period of time, the WWTG has proven to be an important force in influencing the regulation of the international wine trade. Beginning with a shared vision and a commitment to open international trade, participating countries have begun to reshape the regulatory environment in which the international wine business operates.

In 2010, South Africa was in the process of ratifying the two WWTG agreements.

## **Progress at the International Wine Office**

South Africa is a member of the OIV. It has 43 member states and its objectives are to:

- inform its members of measures whereby the concerns of producers, consumers and other players in the vine and wine products sector may be taken into consideration
- assist other international organisations, both intergovernmental and non-governmental, especially those which carry out standardisation activities
- contribute to international harmonisation of existing practices and standards and as necessary, to the preparation of new international standards to improve the conditions for producing and marketing vine and wine products, and to help ensure that the interests of consumers are taken into account.

At the eighth General Assembly of the OIV on 25 June 2010, member states reached consensus on 29 new resolutions. These will act as a supplement to the International Code of Oenological Practices, the International Oenological Codex, the International Compendium on Analysis Methods and the International Standard of the OIV for the labelling of wines.

### **National analytical services**

The Department of Agriculture, Forestry and Fisheries' laboratories in Pretoria and Stellenbosch support the units within the department responsible for formulating and updating regulations regarding agricultural foods of plant origin and liquor products.

## **Meat safety**

### **Food safety, quality-risk awareness and education programmes**

The overall functions of the Directorate: Food Safety and Quality Assurance are carried out to create an enabling environment for food-business operators along the value chain to ensure food safety and quality of agricultural products from farm to fork.

The directorate carries out its mandate in terms of the legislation, regulations, requirements, norms and standards for both local and export markets. To ensure industry compliance with food safety and quality standards, and to foster understanding of management decisions by clients, the directorate conducts food safety and quality education and awareness programmes. Through these programmes, the directorate reaches out to clients consisting of industry associations, farmers, exporters, retailers, manufacturers and beneficiaries of the LARP. The awareness programmes are also aimed at consumers and the general public to promote the consumption of safe, nutritious and quality food.

In terms of the Meat Safety Act, 2000 (Act 40 of 2000), no person may sell or provide meat for human or animal consumption unless the animal from which the meat is sourced has been slaughtered at a registered abattoir. The Directorate: Veterinary Services provides for regulations under the Meat Safety Act, 2000 and, in cooperation with the provinces, ensures that the essential national standards for abattoirs and meat safety required by the Act are implemented countrywide.

The directorate is responsible for monitoring standards at export abattoirs and for the safety of imported meat. It provides inspection services at a number of export abattoirs to ensure compliance with EU requirements.

## **Risk management Information, policies and implementation**

By mid-2010, the Agricultural Disaster Risk-Management Plan was ready for gazetting. It was also presented to provinces for technical specifications and functionality. This process is expected to result in the development of the Business Requirement Document before deployment of the system. The Agricultural Flood-Management Plan had been drafted for stakeholder consultation to solicit input and comments.

The Mentorship Programme was introduced in 2010 to capacitate provinces on disaster risk-management issues. The programme was piloted in the Eastern Cape and KwaZulu-Natal.

## **Climate change**

The Department of Agriculture, Forestry and Fisheries is a major role player in climate-change activities within the agricultural sector. The department has several climate change-related policies and programmes. These are in addition to the Disaster Management Act, 2002 (Act 57 of 2002), and the National Disaster Risk-Management Framework, 2005, which address both agricultural risk-management and climate-change.

The department has developed measures that are aimed specifically at facilitating mitigation and adaptation to climate change; minimising the vulnerability of the sector as a whole to the impacts of climate change; and minimising greenhouse gas (GHG) emissions by the sector.

The department's climate-change programmes and policies are aligned with the South African National Climate-Change Response Policy. The Climate Change Sector Plan for Agriculture (Working Paper, April 2008) outlines measures of addressing agricultural-sector challenges, namely creating awareness of climate change and its potentially devastating effects; improving knowledge about climate change; increasing capacity to respond to climate-change impacts; research; and funding of research projects.

The Department of Agriculture, Forestry and Fisheries supports research and development (R&D) initiatives and programmes conducted throughout the world for the purpose of gaining a better understanding of the processes behind climate change and improving long-range prediction.

The department funds a number of projects such as the mitigation and adaptation options for agricultural production aimed at investigating the first-to fourth-order impacts of climate change on agriculture. The main output is the Risk and Vulnerability Atlas on climate change in agriculture, which will inform the development of an adaptation strategy for the sector. Owing to limited resources, the department is collaborating with external donors on projects such as the development of the agricultural GHG inventory and capacity-building for the sector. It is expected that the development of these projects will give an emission profile of GHG

in the sector and as result, inform the development of the Mitigation Strategy, which will contribute to achieving food security in the country.

### **Early warning (risk reduction)**

The Department of Agriculture, Forestry and Fisheries established the early warning system in support of disaster-risk management. The effectiveness of the system depends on four elements, namely, prior-risk knowledge, monitoring and warning service, dissemination and communication, and response capacity. Furthermore, the department established the National Agrometeorological Committee (NAC) to assist with the implementation of the system.

The NAC constitutes the South African Weather Service (SAWS), the ARC, the provincial departments of agriculture, relevant directorates within the department and academic institutions.

This committee meets quarterly to discuss seasonal forecasts and issues advice to the sector on the expected weather and climate conditions with mitigating strategies.

The department assessed the uptake of early warning information in Mpumalanga, Free State, KwaZulu-Natal and Gauteng to evaluate the preparedness to act upon warnings of natural hazards communicated through the early warning system.

By mid-2010, assessments in other provinces were underway.

### **Post-disaster recovery and rehabilitation Disaster assistance**

The primary objectives of disaster-relief schemes are to:

- assist farmers who have been severely affected by natural disasters and cannot cope with the effects of the disaster using their own resources
- assist in the conservation of natural agricultural resources
- promote implementation of disaster risk-reduction measures by farming communities
- promote the integration of relevant units within the Department of Agriculture, Forestry and Fisheries, provincial departments of agriculture, other government departments and the entire agricultural sector, as well as ensure the sustainability of government-funded projects
- promote the responsibility and independence of the farmers.

About 3 709 of 4 000 targeted farmers received assistance from disaster-relief schemes during the 2009/10 financial year.

### **Drought management**

Climate variability has induced drought interspersed with flooding, resulting in lower-than-average agricultural production yields. The Department of Agriculture, Forestry and Fisheries has completed two policy documents: the Agricultural Disaster Risk-Management Plan and the Agricultural Drought-Management Plan.

### **Credit and assistance**

The six major sources of credit for farmers are banks (50%), agricultural cooperatives and agribusinesses (12%), the Land Bank (21%), private creditors (8%), other creditors and financial institutions (9%), and the State (1%).

### **Business and Entrepreneurial Development (BED)**

The Directorate: BED in the Department of Agriculture, Forestry and Fisheries is mandated to ensure that emerging entrepreneurs and established enterprises have some synergy in the development of their agribusiness endeavours. The entire process addresses the strategic objectives of eliminating skewed participation and inequity; optimising growth, remunerative job opportunities and income; and ensuring efficient and effective governance. It further promotes and provides strategic support in the development of viable and empowered businesses, stimulating growth and promoting unity through partnerships and niches.

The Business Development Unit works closely with industries/commodity groups and other state departments and tiers of government, facilitating the establishment of grassroots commodity structures. The outcome is to provide a conduit for farmers to access resource reservoirs, government interventions and other support initiatives to grow their businesses, create jobs and increase their incomes.

It also assists marginalised groups in creating, expanding and rehabilitating business to become profitable and sustainable in the long term, focusing on growth and wealth creation based on mutual gains in the sector. It also encourages and facilitates win-win partnerships for niche enterprises at all levels in the agricultural value chain.

The directorate renders support and guidance to the cotton, grain and fruit industries



in the implementation of their developed strategies.

Through joint internal actions in the department, activities are being mainstreamed to reach more black farmer organisations and entrepreneurs, accelerating their participation in commodity groups through farmer-mobilisation interventions.

The unit supports Operation Gijima, Women in Agriculture and Rural Development, and the National Movement for Rural Women projects, as well as programmes involving people living with disabilities, youth and farm workers.

It collaborates with other tiers of government and sectors in rendering advice, support and guidance to agricultural value-chain projects owned by land-acquisition beneficiaries, designated groups and other departmental grant-funded projects.

The Entrepreneurial Development Unit is responsible for initiating and rolling out SMME support interventions and capacity-building through facilitators and mentors in collaboration with partners within the provinces. These interventions focus on entrepreneurial development, increased agricultural enterprises' performance and job-creation activities, especially in rural development nodes.

The Black Economic Empowerment (BEE) Unit leads in the formulation of BEE policy, norms and standards in the sector in terms of the AgriBEE Charter Gazette and the Broad-Based BEE Act, 2003 (Act 53 of 2003).

Through AgriBEE implementation, the goals of access to existing resources and opportunities, enhanced participation and ownership by designated groups (women, youth, people living with disabilities and labourers) will be targeted.

The unit also provides secretariat support to the AgriBEE Charter Council for its quarterly meetings. Updates on AgriBEE take place through meetings with the nine provincial departments responsible for agriculture.

## LandCare Programme

The LandCare Programme is a community-based and government-supported approach to the sustainable management and use of agricultural natural resources.

The vision of the LandCare Programme is for communities and individuals to adopt an ecologically sustainable approach to the management of South Africa's environmental and natural resources, while improving

their quality of life. It implies that cultivation, livestock grazing and the harvesting of natural resources should be managed in such a manner that no further degradation (such as nutrient loss, soil erosion, loss of components of the vegetation and increased run-off) occurs.

The overall goal of the LandCare Programme is to optimise productivity and sustainability of natural resources, resulting in greater productivity, food security, job creation and better quality of life for all. The LandCare Programme has been expanded into additional subprogrammes. The department has initiated the integrated Soil Protection Strategy (SPS) in support of growth and sustainable development in the agricultural sector.

The project aims to improve agricultural productivity and contribute to economic growth by focusing on erosion, declining soil acidity, soil fertility and organic matter, and veld rehabilitation.

The SPS focuses on high- to moderate-potential agricultural land with high erosion status (about three million hectares) and will initially identify three priority tertiary catchment areas.

LandCare themes are grouped into two areas, namely focused investment (WaterCare, VeldCare, SoilCare, Eco-Technology Programme [ETP], Infield Rainwater Harvesting [IRWH] and Junior LandCare) and small community grants.

LandCare has taken the lead in promoting sustainable land-management practices, reversing land degradation in rural areas and contributing towards job creation and poverty eradication.

In the 2010/11 financial year, the programme was expected to implement 1 516 junior-care management projects, construct 2 405 gabions and 300 conservation structures, erect 1 424 km of fences, create 14 257 jobs on landcare projects and eradicate 8 725 ha of alien invasive plants, as well as improve 3 340 ha of grazing land and manage 400 ha of veld grazing. This was supported by a budget of R54,5 million.

The agricultural extension services, which include farm planning and economic advice to farmers, are expected to be strengthened by the further development of on-farm management tools through a centralised online farm system.

In the 2010/11 financial year, the department recruited 253 extension personnel in support of the extension recovery plan. A total of 2 482 extension officers underwent

extensive training and were equipped with smart pens to enable them to collect and analyse data on site.

All provinces piloted the use of digital pens, which also monitors farm visits by extension officers. To ensure the visibility and accountability of this service, a national extension performance-monitoring tool was finalised.

## **Focused investment WaterCare**

The WaterCare theme targets Limpopo in particular, because of water shortages and the importance of water for irrigation. This theme establishes a framework for managing land and preventing the silting up of dams for irrigation. WaterCare works in partnership with the community to develop action plans for managing and restoring irrigation schemes.

The rehabilitation of irrigation schemes increases water supply and household food security. WaterCare promotes the development of techniques for water-resource management and encourages opportunities for training in this field.

## **VeldCare**

This theme promotes best grazing systems and erosion-prevention practices to improve production. It develops and maintains agricultural activities in accordance with the principles of ecologically sustainable development. Economic- and social-development opportunities are realised by improving grazing areas and maintaining viable grazing areas throughout rural communities.

## **SoilCare**

The SoilCare theme encourages rural farmers in KwaZulu-Natal, the Eastern Cape and Mpumalanga to build innovative structures to combat soil erosion. This includes reducing the depletion of soil fertility and acidity. Through SoilCare, sustainable agricultural production systems such as diversification, management of input and conservation tillage are introduced.

## **Eco-Technology Programme**

The objective of the ETP is to identify, adapt, demonstrate and spread promising and appropriate eco-technologies (such as conservation, farming and water harvesting) locally, which will provide resource-poor farmers with social, economic and environmental benefits. The expected outcomes of this theme are an increased number of promising and appropriate eco-

technologies identified and evaluated on farms; an increasing number of farmers adopting eco-technologies; and improved social, economic and environmental (e.g. employment) benefits.

ETPs will initially be implemented in presidential nodal areas where water is very scarce, such as KwaZulu-Natal (Umkhanyakude and Zululand) and Limpopo (Sekhukhune and Bohlabela).

## **Infield Rainwater Harvesting**

IRWH technology, which improves the efficiency of water use and increases yields with a suitable choice of crop combinations under low and erratic rainfall conditions on low-potential clay soils, has been transferred with great success to numerous communities in the Free State and Eastern Cape.

Using IRWH in croplands, community members have increased their maize and sunflower yields by between 26% and 40% compared with conventional methods. Socio-economic studies on vegetable gardens have shown that IRWH can ensure household food security for nine out of 10 years, compared to three out of 10 years using conventional cropping methods.

Transfer of technology, training and extension are used to implement IRWH, with consequent improvement of household livelihoods in rural communities where the majority of members live below the poverty line.

## **Junior LandCare**

Junior LandCare encourages young people to develop a sense of responsibility towards the land and other natural resources, and to conserve these for future generations.

The objectives of Junior LandCare are to empower previously disadvantaged youth by providing training in facilitation and leadership skills. This includes the promotion of food security at home and in schools, enhancing awareness of sustainable agriculture, and stimulating the formation of youth clubs and projects that promote other components of LandCare. Junior LandCare addresses the needs of young people in an integrated way and involves interdisciplinary approaches. This is done for youth both in and out of school.

## **Land and Agricultural Development Bank of South Africa (Land Bank)**

The Land Bank is a key development finance institution providing access to credit in the agricultural sector.

The Land Bank's performance has improved with:

- a capital injection of R3,5 billion for three years starting in 2009
- enhanced management of financial resources, ensuring liquidity
- new strategies to source funding at reduced cost.

Key components of the Land Bank's turnaround strategy to ensure that it delivers on its mandate include a focus on promoting historically disadvantaged individuals, sustainable development and BEE in the agricultural sector. The bank's support to historically disadvantaged communities should help government with the redistribution of 30% of agricultural land by 2014, as well as other land-reform objectives.

### **Micro-Agricultural Financial Institutions of South Africa (Mafisa)**

By mid-2010, the implementation of Mafisa was on course, with eight accredited institutions operating as intermediaries retailing Mafisa loans. These institutions are distributed throughout the country.

In the 2009/10 financial year, R56 million was disbursed as production loans for, among other things, livestock, grains, vegetables, poultry and sugar-cane production activities. Funded projects include cotton and groundnut farmers in the Taung irrigation scheme in North West; vegetable projects in Nwanedi, Limpopo; sugar-cane farmers in KwaZulu-Natal; and livestock projects in the Northern Cape. Various job opportunities were created.

To fast-track service delivery, a Mafisa call centre was established to assist with information dissemination.

The department is also responsible for agricultural cooperative development. Subsequent to the relocation of the cooperative function from the Department of Agriculture, Forestry and Fisheries to the Department of Trade and Industry, the Cooperative Development Policy and Strategy for South Africa was developed.

These documents serve as the basis for sector departments in the development of their own cooperative policies and strategies.

Guidelines on the establishment of agricultural cooperatives were developed for the purpose of providing farmers with a step-by-step process to be followed to establish agricultural cooperatives. A business-plan framework is also included in the document. The document serves as easy reference

for officials in the province to use when assisting farmers. It is available as a hard copy from the department and also on the departmental website.

To achieve the mandate of the department in terms of providing support for the purpose of mobilising farmers into cooperatives, the Commodity Approach Model was developed as a mobilisation strategy. This model seeks to ensure that farmers are able to maximise their benefits by grouping themselves according to commodities at ward level.

All the mobilised commodity groups are expected to form a secondary agricultural cooperative at municipal level. This is premised on the fact that commodity groups and primary agricultural cooperatives face common challenges, including lack of access to finance, land, business training, marketing and agroprocessing opportunities.

The secondary structure was established to deal with these challenges and promote savings among the members.

The Department of Agriculture, Forestry and Fisheries has initiated a process of ensuring that there is a package of accredited learning material for cooperatives in the sector.

The accreditation of the training material was done in collaboration with the Agri-Sector Education and Training Authority.

To maintain a record of established and existing cooperatives and commodity groups in the sector, the Cooperative Data Analysis System was developed. This is a web-based application designed to store, collate and analyse data on agricultural cooperatives.

The system was introduced to provinces in 2009, and the process of collecting data on all existing cooperatives and commodity groups in the sector is underway.

### **Agri South Africa**

Agri SA was established in 1904 as the South African Agricultural Union. It serves some 70 000 large and small commercial farmers.

Agri SA promotes, on behalf of its members, the sustainable profitability and stability of commercial agricultural producers and agribusinesses through its involvement in and input at national and international levels. Agri SA is structured into three chambers, namely the General Affairs Chamber, which deals with general agricultural policy matters on behalf of nine provincial affiliates; the Commodity Chamber, which deals with subsector policy issues on behalf of 25 commodity organisations; and the Agricultural

Business Chamber (ABC) with 65 agribusinesses as members.

Agri SA's annual congress, representative of its affiliates, is its highest decision-making body and also elects the organisation's president, deputy president and chamber vice presidents.

Agri SA is a member of Business Unity South Africa, the International Chamber of Commerce, the International Federation of Agricultural Producers, the Southern African Federation of Agricultural Unions and the Cairns Group Farm Leaders.

Agri SA participates in the Presidential Commercial Agriculture Working Group that deals with policy matters.

Its policy advocacy includes work on trade negotiations, industrial policy, labour laws, training, taxation, financing, land reform, farmer development, environmental affairs, water rights, farm safety, law and order, infrastructure, technology development and transfer, statistical information and local government matters.

Agri SA publishes a bimonthly magazine and a weekly electronic newsletter, and also runs a regular radio programme in collaboration with the South African Broadcasting Corporation.

### **Agricultural Business Chamber**

The ABC is a sectoral body representing an important component of South Africa's business sector.

ABC members operate more than 2 000 service centres countrywide with more than 100 000 employees. In many rural areas, members of the ABC form the business hub of the community and make a key contribution towards maintaining rural infrastructure. The ABC is an integral part of the Agri SA Group, and is associated with Business South Africa, various international bodies, including the International Agribusiness Management Association. Agribusinesses play a significant role in the economy of South Africa as handlers, processors and marketers of agricultural products, and as suppliers of production input and services.

### **Transvaal Agricultural Union South Africa (TAU SA)**

TAU SA was established in 1897 as the Transvaal Agricultural Union. In 2002, the union reorganised to become a national agricultural union serving commercial farmers. It also renders services to its members in terms of:

- property rights

- economic issues
- safety and security.

TAU SA conducts a variety of projects to enhance the concept of successful agriculture.

### **National African Farmers Union of South Africa (Nafu)**

Nafu is an independent, non-governmental, voluntary organisation representing farmers in South Africa. The organisation was formed in 1991 with the assistance and support of the National African Federated Chamber of Commerce and Industries.

### **Agribusiness as an economic sector**

Agribusiness can be divided into two categories: non-cooperative business ventures and cooperatives or transformed cooperatives.

Non-cooperative business ventures, also known as profit companies, are involved in the production and distribution of agricultural equipment and production requisites, and the marketing of agricultural products.

Cooperatives dominate the distribution of intermediate requisites and the handling, processing and marketing of agricultural products.

Agricultural cooperatives or agribusinesses are regarded as the farmers' own independent business organisations. They supply their members with production input such as seed, fertiliser, fuel and repair services. They also provide credit and extension services, and handle a large percentage of their members' produce.

Central cooperatives in the country aim to supply the primary cooperatives with specific services such as the processing and marketing of agricultural products, insurance services for crops, short-term cover and farming requisites.

The structure of agribusiness has changed since the deregulation of the agricultural sector into a free-market economy in 1994. Many cooperatives have transformed into private companies, consolidations and mergers have occurred, international groups have entered South Africa and agribusinesses have listed on the JSE Limited.

### **Training and research**

The agricultural sector boasts state-of-the-art training and research facilities.

At grassroots level, South Africa has a number of specialised agricultural high schools and regular schools offering a range of agricultural subjects.



Prospective farmers and technicians can be trained at the country's 12 colleges of agriculture.

Universities (including those with and without designated faculties of agriculture) offer advanced degree courses and B Tech degrees. Veterinary surgeons are trained at the University of Pretoria's Faculty of Veterinary Sciences at Onderstepoort.

This training potential is coupled with a productive and robust research capacity in terms of scientists and researchers based at various organisations that are world leaders in their respective fields of agricultural research.

The sector has more than 1 000 publicly funded full-time researchers.

Agricultural research is conducted by the ARC, several universities, various private-sector organisations and by some provincial departments of agriculture, which are responsible for technological development and transfer aimed at improving managerial efficiency on farms.

The ARC, a state-owned entity, set up in terms of the Agricultural Research Act, 1990 (Act 86 of 1990), is the largest agricultural research organisation in Africa.

The Directorate: Research and Technology Development in the Department of Agriculture, Forestry and Fisheries coordinates all agricultural R&D activities, including governance of the ARC in terms of the Governance Model for South Africa's Science and Technology System.

Through the Agricultural Science, Technology and Innovation Activities Coordination Committee, the department engages the Department of Science and Technology on joint issues of national importance within the National System of Innovation.

The research unit is also involved in the development and implementation of national research policies and strategies, such as the National Agricultural R&D Strategy. This encompasses the national priority-setting process, development of guidelines, administration of a national research and technology fund and overall monitoring and evaluation.

By mid-2010, public investment in agricultural R&D was in excess of R1 billion. However, the contribution of agriculture to GDP was 2,8% and expenditure on agricultural R&D versus GDP was 0,065%.

The National Agricultural Research Forum (NARF) provides a platform for stakeholder consultations on R&D matters, within the national agricultural research system. The NARF facilitates consensus and makes

recommendations to government and others on the coordination of R&D and technology transfer to enhance national economic growth, social welfare and environmental sustainability. Annual meetings are held to discuss research needs, priorities and budgeting.

## Forestry

In terms of land use, the area under forestry is about 1,257 million ha or approximately 1% of the total South African land area of 122,3 million ha. The forestry sector (forestry and forest products) contributes about 1% to GDP. In terms of regional GDP, forestry in KwaZulu-Natal contributes 4,7%; in Mpumalanga 5,5%; and about 0,8% in Limpopo. The export of forest products increased from R9,5 billion in 2001 to R12,5 billion in 2009.

The forestry sector employed around 170 000 people in 2009. The forestry subsector provided about 77 000 direct jobs and 30 000 indirect jobs. The pulp and paper subsector provided approximately 13 000 direct and 11 000 indirect employment opportunities. Some 20 000 workers were employed in sawmilling, 6 000 in the timber-board and 2 200 in the mining timber subsectors, while another 11 000 workers were employed in miscellaneous jobs in the forestry sector.

In 2008, the total investment in the forestry industry amounted to R18,8 billion. This investment comprised 56,2% in trees; 24,6% in land; 11,6% in roads; 6,2% in fixed assets; and 1,4% in moveable assets. Regarding the investment in the forest products sector by type of processing plant for 2008, the total book value of investments amounted to R15,8 billion. This investment comprised 84,7% in pulp and board plants; 10,2% in sawmills and veneer plants; 0,7% in pole plants; 0,3% in mining timber; and 4,1% other plants.

The forestry industry is one of the strategic economic sectors in South Africa with a significant contribution towards economic growth and job creation.

In recognising the important role of the forestry sector in the economy of the country, and in line with the provisions of the Forestry Charter, steps have been taken by role players to ensure that there is continued and sustainable use of forestry land for timber production.

The Department of Agriculture, Forestry and Fisheries aims to make a significant contribution to eradicating poverty through the Forestry Livelihoods Programme, by

focusing on basic needs, saving of cash resources and providing a safety net. Firewood, building poles, medicinal plants and edible fruits are all critical to the livelihoods of the rural poor.

The department aims to develop human resources through forestry-sector skills-development initiatives and promote employment through commercial forestry activities such as forestation and downstream activities. The integration of forestry programmes into provincial and municipal development plans will assist the Plant a Million Trees Campaign. Launched in 2007, the campaign is aimed at planting at least a million trees annually with 70% being fruit and 30% ornamental shade trees.

The department aims to pursue the afforestation target of 10 000 ha of net new afforestation per year. The focus will remain on encouraging cooperatives, simplifying and streamlining the regulatory environment, training and extension, supporting the implementation of rural credit and offering incentives for new entrants.

In terms of the economic growth and development that forestry offers, the Department of Agriculture, Forestry and Fisheries is working closely with other government structures in the Eastern Cape and KwaZulu-Natal to fast-track the afforestation licensing process.

These new forestry areas will be singularly important in transforming and growing the forestry sector and, as such, afforestation forms an important part of the Forestry Broad-Based BEE (BBBEE) Charter, which was signed in May 2008. The vision of the charter is that of:

- an inclusive and equitable forestry sector, in which previously disadvantaged women and men participate fully
- a forestry sector that is characterised by the sustainable use of resources, sustainable growth, international competitiveness and profitability for all its participants
- a forestry sector that contributes meaningfully to poverty eradication, job creation, rural development and economic value-adding activities.

Under the charter, government aims to process about 15 000 ha per year for the next 10 years to obtain a net increase in afforested land of about 10 000 ha per year or 100 000 ha over the entire period.

The department has almost halved the original time of nearly 18 months to process a licence application, and has plans in place to further reduce this time frame.

It also plans to use the progressive provisions of the National Forests Act, 1998 (Act 84 of 1998), to provide direct support to communities in this and other forest-enterprise areas. Strategic interventions such as the establishment of the special-purpose vehicle AsgiSA Eastern Cape (Pty) Limited will assist in driving the implementation of the forestry programme in these key areas.

Afforestation will take place in rural areas where there are few other viable opportunities for job creation and economic activity. The development of these additional raw material resources will attract greater processing capacity in the form of sawmills, board mills, chipping plants and treatment plants. All these will lead to broad economic growth. For example, through this afforestation, an additional R500 million per year could be generated from these plantations.

Over the past few years, much work has been done in the forestry sector to improve yields, restructure institutions, provide community access and redefine government's role. The Forestry BBBEE Charter recognises the link between the transformation and growth of the sector.

The forestry programme also encompasses expanded greening and tree-planting projects. The programme prioritises work on fire-fighting programmes (for example, the Working on Fire Programme) and encourages the establishment of fire-protection associations (FPAs).

Indigenous forests are indispensable to the country's heritage, beauty, wildlife and environment, while commercial forests provide jobs and economic opportunities for many people, especially in rural areas. Forestry represents a substantial investment in the country and plays an important role in the Integrated Rural Development Programme.

Plantations cover about 1,3 million ha of South Africa. Over 80% of these are found in Mpumalanga, KwaZulu-Natal and the Eastern Cape. They produced over 20 million m<sup>3</sup> (or 17,5 Mt) of commercial roundwood, worth R6 billion in 2008.

The total industry turnover was about R21,4 billion in 2008, including R11,4 billion worth of wood-pulp.

A pulpwood intake of about 13,8 million m<sup>3</sup>; mining timber of 698 000 m<sup>3</sup>; charcoal of 271 000 m<sup>3</sup>; 4,4 million m<sup>3</sup> of sawlogs; and veneer logs and poles of about 437 000 m<sup>3</sup> were transferred into processing plants in 2008.

About half of the more than 1 700 indigenous tree and shrub species found in South Africa grow along the south and east coasts and on the southern and south-eastern slopes of inland mountains. The other half is spread over the interior plateaux.

## Forestry initiatives

Two different trees of the year are nominated annually: a common variety and a scarcer, possibly endangered, species.

The common tree of the year for 2010 was *Acacia xanthophloea* (fever tree) and the rare tree was the *Rothmania capensis* (Common rothmania).

National Arbour Week is celebrated annually at the beginning of September to encourage the greening of South Africa.

The objective of Arbour Week is to promote awareness of the need for planting and preserving indigenous trees throughout South Africa.

It highlights the opportunities for sustainable economic development, community participation, poverty alleviation and job creation in forestry to create a better life for all. The Arbour Week Campaign aims to:

- promote improved knowledge of trees, particularly indigenous trees, and their importance
- stress the necessity for everyone to contribute to the greening of South Africa by planting and caring for trees
- highlight the vital roles of trees in the natural environment
- contribute to the achievement of green, dignified and healthy environments in all parts of the country
- encourage the youth to participate in tree-planting activities and related environmental-education programmes.

The theme for Arbour Week 2010 was *Every Tree Counts*.

South Africa has a rich heritage of trees. The Champion Tree Project is aimed at identifying and protecting individual trees of national conservation importance under the National Forests Act, 1998 (Act 30 of 1998).

Trees can be nominated on the basis of their size, age, aesthetic value, cultural-historic value or importance for tourism.

Only trees of national importance are protected. In the long run, however, provincial and local authorities will be encouraged to develop their own local Champion Tree lists.

By May 2010, some 44 trees had been declared protected as champion trees, but

another 19 trees and groups of trees had been shortlisted by a panel of experts from a list of proposed trees, and these were published in 2010 for comment in the *Government Gazette* and newspapers.

Among the protected trees are the:

- Tsitsikamma Big Tree along the Garden Route
- Post Office Milkwood tree of Mossel Bay
- Sagole baobab in Limpopo (the largest indigenous tree in South Africa)
- camphor trees planted at Vergelegen Estate in the Western Cape three centuries ago.

At Woodbush State Forest near Tzaneen, the Government employed professional tree climbers to measure and record the tallest trees in Africa – a century-old stand of Saligna gum trees standing up to 79 m tall. By applying the international formula for tree size that combines height, trunk size and crown diameter, the Sagole baobab of Limpopo with its trunk circumference of more than 33 m was found to be the biggest indigenous tree.

The oldest planted tree is a saffron pear, brought from the Netherlands and planted in the Company's Gardens more than three centuries ago.

Historic trees include a poplar tree, which served as a landmark for refugees during the apartheid regime who found a safe haven in the Johannesburg house of Ruth Fischer (daughter of Braam Fischer who was a founder member of the South African Communist Party).

The Champion Tree project of South Africa is the only one of its kind in Africa.

## Contributing to socio-economic reform and growth

Government recognises that BEE will not be effective if it does not have the support of the private sector.

The BBBEE Charter for the Forest Sector will be instrumental in achieving the objectives of the scorecard as suggested by the Department of Trade and Industry.

Forestry enterprise development (FED) relates to the concept of using forests and forest-based resources as a vehicle for economic growth, employment and socio-economic upliftment that takes people from a subsistence livelihood system into a market economy. The concept is also central to the department's pro-poor agenda and a key component of BBBEE in the forestry sector.

The Department of Agriculture, Forestry and Fisheries supports FED. This includes transferring state forests, developing an afforestation strategy for the Eastern Cape and KwaZulu-Natal, and including forestry as a key sector in provincial growth and development plans.

The Directorate: Forestry Development supports the establishment of community projects through regional forestry staff.

Current projects include beekeeping, which is a partnership with the ARC, and establishing medicinal nurseries in partnership with various stakeholders.

Following restructuring, the commercial plantation forests of the South African Forestry Company Limited (Safcol) and the then Department of Water Affairs and Forestry were combined and packaged into five stand-alone special-purpose vehicles, operating as wholly owned subsidiaries of Safcol.

It is estimated that upwards of 50% to 60% of the current afforested area of commercial forestry plantations is subject to land claims. Given the importance of the industry in terms of its contribution to the South African economy and to the uplifting of rural communities, it is essential that these benefits are not undermined through unsustainable land-reform initiatives.

In recognition of this, the industry, through Forestry South Africa, has reached agreement with the Department of Rural Development and Land Reform and the Land Claims Commission on post-settlement support models that will be implemented on afforested land that is restituted to beneficiary communities.

These models represent a win-win situation both for land owners and new beneficiaries. Not only will the affected land continue to be used for forestry on a sustainable basis, ensuring the economic survival of the forest products industry, but it will also enhance the skills base and financial well-being of those communities that are the new owners of the land.

The Commission on the Restitution of Land Rights undertook to fast-track the settlement of all claims on forest land, with a target to settle 90% of the claims within five years of the signing of the charter.

The land includes planted forest areas as well as open areas valued at a total of R38,7 million.

The proposed model for settling claims on forest land provides for the State to purchase the land for the beneficiaries, excluding the trees. The community then

leases the land to the forestry company for an agreed period, which is linked to the rotation of the trees.

A task team comprising representatives from government and Forestry South Africa has been established to deal with the execution of the framework for settling claims on forest land.

Existing agricultural programmes such as the LARP and CASP are expected to be broadened to include support for the forests.

## South African Forestry Company Limited

Cabinet's decision on the role of Safcol and the privatisation of Komatiand Forests (KLF) was finalised in March 2007. The decision was revisited after the department realised that about 60% of the land on which KLF operates is subject to land claims. Due to the land-claim status, the Minister of Public Enterprises extended the disposal of Safcol by five years to 2011/12, to allow for the resolution of the land claims.

Safcol manages and develops state commercial forests. The company's activities include forestry management and timber harvesting and processing, both domestically and in neighbouring countries.

KLF, which came about through the restructuring of the commercial forestry assets of the then Department of Water Affairs and Forestry and Safcol, owns and manages the prime softwood saw-log forestry industry in Mpumalanga, Limpopo and KwaZulu-Natal.

Softwood sawn timber is sold in South Africa, and soft and hardwood sawn timber and pulpwood in Mozambique. KLF has an 80% shareholding in the Mozambican forestry company, Ifloma, while the Mozambican Government holds the remaining 20%.

KLF is actively involved in various environmental and conservation forums with the objective of contributing to the conservation of the country's biodiversity. The public is allowed access to afforested land through ecotourism facilities such as hiking trails and day-visitor sites.

As part of its land stewardship ethics, KLF strives to continuously improve its levels of environmental performance. KLF adheres to the principles and criteria of the Forest Stewardship Council and all KLF plantations are certified.

## Industry and exports

The industry was a net exporter of almost



R2,9 billion worth of goods in 2009, of which more than 99% took the form of converted value-added products.

The forest products industry ranks among the top exporting industries in the country, having contributed 2,42% to total exports and 1,77% to total imports in 2009. Capital investment in the industry amounted to an estimated R40 billion in 2009.

The value of forest product exports has grown by 87% over the past decade, from R6,7 billion in 1999 to R12,5 billion in 2009. In real terms (taking inflation into account), this growth was, however, a mere 4% per year over that period. The net trade balance in foreign trade in forest products decreased from 1999 by minus 15% in nominal terms (minus 53% in real terms) to R2,9 billion in 2009.

In 2009, paper products were the most important exports (R5 251 billion or 42% of the total), followed by pulp (R4 289 billion or 34%), solid wood products (R2 573 billion or 21%) and other products (R330 million or 3%). Woodchip exports, which are exported mainly to Japan, accounted for 61% (R1 578 billion) of total solid-wood product exports.

As with other export-based industries, the global economic crisis combined with the strength of the Rand (it appreciated by 27% against the USA Dollar during 2009) had a negative effect on the Rand-value of forest product exports, with the total value of exports in 2009 being R1,3 billion less than in the previous year.

Stringent environmental codes of practice are implemented in all plantation and processing activities. The Chief Directorate: Forestry of the Department of Agriculture, Forestry and Fisheries promotes optimal development of forestry and arboriculture in South Africa. The National Forests Advisory Council (NFAC) was established in terms of the National Forests Act, 1998. It advises the Minister of Agriculture, Forestry and Fisheries on all aspects of forestry in the country.

The NFAC is actively involved in developing local criteria, indicators and standards

for sustainable forest management (SFM), and makes recommendations on how public access to state-owned forests can be improved.

## Achieving sustainable forest management

Apart from ecological considerations in determining where it is appropriate to grow trees, there are other ecological, social and economic considerations that must be addressed when growing trees.

These criteria, indicators and standards form the basis for monitoring the sustainability of forestry operations in commercial and natural forests. Managers and owners are required to report against these criteria, which also form useful guidelines for new entrants to the sector.

The commercial forestry industry in South Africa is committed to practising SFM and is a world leader in forest certification. Over one million hectares, or over 80% of the entire planted area of commercial forestry plantations in South Africa, is certified by the Forest Stewardship Council (FSC) and the ISO 14001 certification schemes as being sustainably managed. By the end of 2009, 1 572 568 ha of plantation forestry land (planted and conservation areas combined) in South Africa was certified by the FSC, the second-largest area in the southern hemisphere after Brazil.

Although large forestry companies do not own all the certified forests, having their own specialist environmental departments has helped the rapid expansion of certification, as they ensure that land is managed according to their own stringent environmental codes of practice. To promote transparency, members of the public are invited to join company staff when regular audits are carried out.

There has also been a large increase in the number of non-corporate growers who have become certified. This can be attributed to factors such as the FSC's acceptance of group-certification schemes and the availability of local FSC auditors, both of which have reduced the cost of certification considerably. The introduction of small, low-intensity managed forest audits enables small and community forestry schemes to be FSC-certified.

As part of its commitment to the practice of SFM, the forestry industry is also involved in the NFAC's Committee for SFM, which develops criteria, indicators and standards for SFM, tailored to meet South Africa's spe-

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In March 2010, global pulp and paper group, Sappi, announced a Black Economic Empowerment deal that saw about 4,5% of the company, worth about R814 million, being transferred to employees, black managers, a community foundation and strategic partner companies. The second part of the deal entails the issuing of some 4,3 million ordinary, listed shares to Lereko Investments (which will hold 0,37% of issued shares), Malibongwe Women Development Trust (0,08%), and AMB Capital (0,12%).

cific conditions. The industry, in conjunction with the Department of Agriculture, Forestry and Fisheries, is also involved in an FSC national initiative, the result of which will be the acceptance and use by FSC auditors of criteria, indicators and standards for SFM, which take into account South African conditions. These were field-tested and finalised during 2009.

The indigenous forests of the southern Cape received FSC-certification – a first on the continent for high forests. This represents a major step towards the sustainable management of the country's natural forests.

## Legislation

The National Forests Act, 1998 reflects the vision for the future of forestry in South Africa. This vision emphasises SFM, and explains how people and communities can use forests without destroying them. The Act sets out rules for protecting indigenous forests, and ensures that the public has reasonable access to state-forest land for recreational, cultural, spiritual and educational purposes.

South Africa is richly endowed with more than 1 700 tree species. Some are threatened, and a total of 47 species are now protected under the Act.

Protected trees may not be cut, damaged or sold without a licence. The listing of protected trees is not primarily aimed at preventing the use of such trees, but rather at ensuring sustainable use through licensing-control measures.

The National Veld and Forest Fire Act, 1998 (Act 101 of 1998), bans open-air fires when the risk of veld blazes in an area is high. It also introduces the concept of voluntary FPAs formed by landowners. It further obliges the Minister of Agriculture, Forestry and Fisheries to operate a national fire-rating system in consultation with the SAWS and fire associations. The Act also allows the minister to impose minimum fire-fighting requirements on landowners.

Protection of life and property is a basic human right and the department has been moving ahead in implementing the National Veld and Forest Fire Act, 1998. Owing to the high incidences of fires during extreme weather conditions, it is a priority for the department to ensure registration of FPAs. The department advises and assists FPAs in compiling business plans, including the principles of risk assessment. The department plans to review FPAs' performance

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In 2010, a massive gum tree, measuring more than 38 m from side to side, became the latest edition to South Africa's list of champion trees.

The tree's massive crown shades part of the Gavin Relly Green on the Witwatersrand University campus grounds and is supported by a 7,5-m wide trunk. Gum trees in South Africa reach exceptional sizes, exceeding the sizes of other gum trees planted in all other countries except in their native Australia.

In the Goudveld Forest in Knysna, one of the champion trees was renamed the Dalene Matthee Big Tree, in honour of the author who wrote a best-seller series of historic novels about these forests and the woodcutters of the 19th century.

A giant baobab tree, the King of Ga-Ratjeko, which towers over the Shangane village in Limpopo after which it was named, was added to the list in September 2010. It replaces the Glencoe baobab near Hoedspruit – the second-largest baobab in the country, after it partially collapsed and was consequently delisted.

regularly. There is also ongoing awareness-raising and information-provision on policy matters. The department's *Veldfire Bulletin* is produced quarterly. Special bulletins are also produced from time to time.

The National Fire Danger Rating System is an early warning system for veldfires. The SAWS operates the system and issues daily veldfire warnings as it does with other weather information.

Warnings are communicated to FPAs, the departmental fire advisers, Disaster Management, the Department of Cooperative Governance and other role players. By June 2008, 20 FPAs had been established.

## Indigenous forests

There are around 530 000 ha of indigenous or natural forests in the country, which occur mainly along the southern and eastern escarpment, the coastal belt and in sheltered kloofs or ravines.

Natural forest cover is slow, which has led to the development of the commercial forest sector in South Africa over the last 100 years. Nonetheless, natural forests have continued to play a major role in the livelihoods and well-being of many rural communities.

There has been an increase in the use of natural forests as sources of medicine, building material, fuel wood and food. An estimated 80% of South Africa's population still uses medicinal plants, most of which are sourced from natural forests. South Africa now has a detailed inventory of all its natural forests, which is used to monitor changes in forest areas.

The then Department of Water Affairs and Forestry also completed a forest-type classification for natural forests, which are

represented by 24 broad forest types. The Natural Forests Protected Areas System, completed for all forests in 2004, guides the setting aside and demarcation of natural forests as protected areas.

Systematic timber harvesting occurs in areas of the production-management class. Harvesting is concentrated on overmature trees, with logs being sold by tender and/or on public auction. On average, 3 750 m<sup>3</sup> of round logs are harvested annually (150 m<sup>3</sup> of stinkwood, 750 m<sup>3</sup> of yellowwood, 2 500 m<sup>3</sup> of Australian blackwood and 350 m<sup>3</sup> of other species). Another valuable product of the indigenous forests of South Africa is the seven-week fern (*Rumohra adiantiformis*), which is harvested in the Knysna and Tsitsikamma forests.

The South African market for this fern is considerable and reaches its peak in September, when sales exceed 420 000 bunches.

## Woodlands

Woodlands can be defined as vegetation formation dominated by trees, but not to the extent that the canopies are continuous and overlapping. Woodlands cover 29 million ha, constituting 21% of land cover.

This vegetation covers extensive areas in the low-lying, drier areas of Limpopo, KwaZulu-Natal and Mpumalanga. Woodlands comprise thousands of species (5 900 plants, 175 mammals and 540 birds), of which the majority are used for one purpose or another.

Woodlands are the most extensive vegetation type in southern Africa and dominate Africa as a whole. Globally, woodlands cover between an eighth and a sixth of the Earth's land surface.

The woodlands are, however, a valuable source of fuel, building material, craft-timber and a variety of non-timber products. These include fruit, fodder, medicinal compounds, honey, meat and mushrooms, and form the backbone of the livelihoods of millions of people. The annual Marula-fruit (*Sclerocarya birrea*) harvest is worth some R1,1 million a year to rural communities.

## Commercial forests

During the 1930s, government began establishing extensive plantations to make South Africa self-sufficient in its timber requirements, and to provide more job opportunities in a diversified economy during the Depression. Commercial plantations of exotic species proved to be a sound investment and

the private sector established large plantations of pine, eucalyptus and wattle trees.

By mid-2008, the private sector owned 1 041 501 ha (or 83%) of the total plantation area of 1 257 341 ha, and virtually all the processing plants in the country.

The remaining 17% (215 840 ha) was under public ownership, although this figure includes KLF, the remaining Safcol package. The extent of public ownership has decreased significantly in recent years because of restructuring.

In 2008, capital investment in these plantations stood at R18,8 billion, 56% of which was attributable to investment in trees. A further 24% was tied up in land, 12% in roads, 6% in fixed assets and 2% in machinery and equipment.

## Plantation yields

Of the 1 257 341 ha of plantations in 2008, 53% were softwood species and 47% hardwood species. Some 36% of the plantation area was managed mainly for sawlog production, 55% for pulpwood and 5% for mining timber, while the balance of 4% was grown for the production of poles, matchwood (poplar) and other minor products.

Plantation yields vary from an average of 16 m<sup>3</sup> per ha per year for softwood, to 21 m<sup>3</sup> per ha per year for eucalyptus and 10 m<sup>3</sup> per ha per year for wattle (timber and bark).

Likewise, the rotation ages vary from a maximum of 30 years in the case of pine sawlogs, to six to 10 years in the case of eucalyptus pulp and mining timber. Production from plantations amounted to 20 million m<sup>3</sup> (or 17,5 Mt) in 2008.

## Primary wood-processing

South Africa has 183 primary wood-processing plants, 180 of which are owned by the private sector and three of which are owned by local and state authorities. Of these, 102 are sawmills; 13 are mining-timber sawmills; 44 pole-treating plants; 19 pulp, paper and board mills; one match factory; and four charcoal plants.

The total roundwood intake into these processing plants in 2008 was 19,6 million m<sup>3</sup>, valued at R6 billion.

The value of sales of timber products produced by these primary processing plants totalled R21,4 billion. Some R15,8 billion was invested in primary roundwood-processing plants (at book value). At market value, this increased to an estimated R40 billion.

The pulp industry in South Africa is dominated by two main pulp-and-paper manufacturing companies, Sappi and Mondi. They rank among the largest in the southern hemisphere.

The sawmilling industry produces sawn timber, which is used in producing solid-wood products, such as lumber for roof trusses and flooring, and consumer products, such as furniture. The furniture industry consumes about 321 000 m<sup>3</sup> of mainly industrial timber.

A large number of companies operate in this sector, with the five biggest companies contributing 51% of total production. Some 49% of total sawn timber is produced in Mpumalanga.

## Research and training

South Africa has world-class forestry-research infrastructure and personnel, with almost 2% of the forestry industry's turnover (private and public sectors) devoted to research. The priority fields of research include tree-breeding through applied silviculture, climate and soils, environmental impact and management solutions, forest biology, hydrology and forest protection.

The major institutes servicing the research needs of the industry are the Institute of Commercial Forestry Research in Pietermaritzburg, the Forestry and Agriculture Biotechnology Institute, and the Council for Scientific and Industrial Research in Pretoria. The South African National Biodiversity Institute also plays an important role in terms of species protection.

The total annual forest-sector R&D investment in South Africa is approximately R163 million, more than 80% of which is funded by the commercial forest industry.

The faculties of agricultural and forestry sciences at the universities of Stellenbosch, KwaZulu-Natal and Venda offer forestry degrees. The Nelson Mandela Metropolitan University (George Saasveld Campus) offers diplomas and limited degree courses in forestry disciplines. The Natal University of Technology offers a diploma in Pulp and Paper Technology, and the Fort Cox College of Agriculture and Forestry a diploma in Social Forestry.

Skills training is provided by a number of industry-sponsored and in-house training centres. Industry-sponsored bursaries are available, as are company-sponsored bursaries for study at these institutions.

The Forest Industries Education and Training Authority (Fieta) is, among other

things, responsible for ensuring that the training undertaken by the industry meets certain quality standards.

It also manages the distribution of training grants to employers and to Fieta-sponsored projects which will help meet the goals of the National Skills Development Strategy within the sector.

The department, together with Fieta, offers bursaries to students who choose to study in the forestry field.

## Community forestry

The *White Paper on Sustainable Forest Development in South Africa* states that community forestry is designed and applied to meet local social, household and environmental needs and to favour local economic development.

Community forestry is implemented by communities or with the participation of communities, and includes tree-centred projects in urban and rural areas, woodlots, and woodland management by communities and individuals. Community forestry has gained impetus through more focused core functions, particularly in urban greening and forest enterprise development.

Participatory Forest Management (PFM) of the Department of Agriculture, Forestry and Fisheries is an integrated approach that contributes to achieving the SFM of South African forests.

Elements of PFM were initially developed for indigenous state forests. However, the aim is to use PFM as an approach to manage all forest types where feasible (indigenous forests, plantations, woodlots and woodlands) and where different types of ownership and management (state, provincial, communal, private and community) exist.

## Food and Trees for Africa (FTFA)

The FTFA is the sub-Saharan African partner of Global Releaf, an international greening organisation.

The FTFA's mission is to contribute to a healthy and sustainable quality of life for all, through environmental awareness and greening programmes.

The FTFA was started in 1990 to address sustainable development through greening, climate change action, sustainable natural resource management and food security programmes. Today, the FTFA has distributed over 3,6 million trees, facilitated over 2 500 organic food gardens for the poorest



in South Africa and launched the first carbon calculator and the Carbon Standard (now the Carbon Protocol) in this country.

The FTFA works in partnership with government, the private and public sectors and civil society.

The FTFA attempts to provide trees to as many underserved communities as possible with the help of sponsors and certificate programmes.

The Urban Greening Fund is managed by the FTFA, the departments of water affairs and of agriculture, forestry and fisheries; and the Institute of Environment and Recreation Management. It was set up with donor funds, which included R1,2 million from the then Department of Water Affairs and Forestry.

It is a collective fund that supports partnerships aimed at sustainable development through tree planting, parks, food-gardening projects and environmental education.

Organisations, companies and individuals can contribute to the fund to help disadvantaged South Africans to create a greener, healthier and more secure life.

## Fisheries

The South African coastline covers more than 3 200 km, linking the east and west coasts of Africa. South Africa's shores are particularly rich in biodiversity, with some 10 000 species of marine plants and animals having been recorded.

The productive waters of the west coast support a variety of commercially exploited marine life, including hake, anchovy, sardine, horse mackerel, tuna, snoek, rock lobster and abalone.

On the east coast, squid, linefish and a wide range of intertidal resources provide an important source of food and livelihood for coastal communities. Marine life that is not harvested, such as whales, dolphins and seabirds, is increasingly recognised as a valuable resource for nature-based tourism.

The South African fishing industry, which was once concentrated in the hands of a few, largely white-owned companies, has undergone intensive transformation over the past 10 years.

South Africa has a well-established fishery sector and is a net exporter of fishery products. However, most of South African fisheries are considered to be fully utilised and high-value fisheries such as abalone, prawns and linefish are largely overexploited.

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The Department of Agriculture, Forestry and Fisheries embarked on a series of public information sessions during September and October 2010 to discuss and explain the draft Small-Scale Fisheries Policy. With this policy, government aims to take a new approach to managing marine living resources for small-scale fishers by providing access to marine living resources in fishing areas.

The small-scale fisheries sector is a key role player in the sustainable use of marine living resources, as direct and indirect users that already have a large impact on food security by way of fish for food and fishing and related activities, to generate an income to buy food in areas where small-scale fishing is a way of life.

The country also has a well-developed fisheries management system and is one of the world's leading countries in the implementation of an ecosystem approach for fisheries management. South Africa plays an important role internationally, in the Regional Fisheries Management Organisations and regional programmes such as the Benguela Current Commission and other related programmes.

The programme aims to promote the equitable and sustainable management and efficient use of marine living resources.

The South African coast provides substantial opportunities for economic and social development. However, it is a resource at risk from inappropriate development, pollution, poaching and over-use. The sector has two components, the wild capture and the aquaculture sectors. The department plans to look at the economic prospects for marine culture, namely the husbanding and harvesting of sea plants for economic purposes.

The department plans to reduce the degradation of the marine environment through policies that promote conservation and sustainable use of marine-living resources. It also aims to restore and maintain productive capacity and biodiversity of the marine environment and protect human health.

The projected increase in demand for high-end fisheries products provides an opportunity for substantial increases in aquaculture production.

South Africa's commercial fishery industry is valued at some R2 billion annually and employs about 27 000 people.

The total annual fish production from marine fisheries is more than 600 000 t. Given the market trends, South Africa's environmental potential for aquaculture and the state of development of its industry, production could grow from 3 543 t (worth R218 million) to more than 90 000 t (worth R2,4 billion) over the next 10 to 20 years.



The fishing industry has an annual turnover of about R80 billion and contributes 0,5% to the GDP.

As of July 2010, the commercial harvesting of abalone was opened to allow fishing communities to derive a livelihood from the sea. The opening came with multifaceted conditions to ensure that social, economic and security plans and structures were in place to support communities, especially along the entire south-western and west coast of South Africa.

With the implementation of the Abalone Recovery Strategy, abalone farming is set to increase significantly, relieving pressure on wild abalone stocks.

The Department of Agriculture, Forestry and Fisheries undertook a comprehensive review in 2010, in support of the sustainable use of the marine resources and as part of the process of developing the Integrated National Fisheries Development Plan to address the challenges of sustainability. This plan is also expected to support the departmental action plan towards achieving the Industrial Policy Action Plan (IPAP).

The department supports the adoption of sustainable aquaculture that benefits the poor, through its commitment to investing in infrastructure and skills transfer to the amount of R150 million over the 2010/13 period.

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