

SOUTH AFRICA YEARBOOK 2017/18

# Agriculture



The agriculture, forestry and fisheries sectors are crucial to South Africa's socio-economic development. However, the future of these sectors depends on critical issues such as climate change, population growth, skills shortages, changes in consumer needs and shifts in the global economy and related markets.

As one of the most employment-intensive sectors of the economy, agriculture's potential impact on empowerment and poverty relief is much larger than its actual weight in the economy suggests.

While the primary agricultural sector contributes about 3% to the country's gross domestic product (GDP), it represents about 7% of formal employment. If the entire value chain of agriculture is taken into account, its contribution to GDP reaches about 12%.

The mandate of the Department of Agriculture, Forestry and Fisheries (DAFF) is to address production and consumption in the agriculture, forestry and fisheries sectors.

The department's strategic goals over the medium term, which are organised around the key priority areas of food security, job creation, and rural and economic development, are to:

- provide effective and efficient strategic leadership, governance and administration;
- increase production and productivity in the agriculture, forestry and fisheries sectors, to enhance employment and economic growth;
- provide an enabling environment for food security and sector transformation; and
- ensure the sustainable use of natural resources in the forestry and fisheries sectors through the conservation, protection, rehabilitation and recovery of natural resources within ecosystems.

Agricultural activities range from intensive crop production and mixed farming to cattle-ranching in the bushveld and sheep-farming in the more arid regions. 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 ha are under irrigation.

The forestry industry is one of the strategic economic sectors in South Africa, with a significant contribution towards economic

growth and job creation. Therefore, the expansion of South Africa's forest resources remains one of the department's main objectives to ensure growth, transformation and sustainability of the sector.

As a natural resource, the fisheries sector is also recognised as a potential area for economic growth. The mandate for fisheries management includes fresh water and inland fisheries, as well as aquaculture.

Broadening the scope of aquaculture will provide an opportunity to increase the production of fish and other aquatic food species, thereby decreasing the pressure on natural fish resources. Through the National Aquaculture Strategic Framework, the department strives to ensure effective stakeholder engagement and management, as well as advancing the transformation agenda in the sector.

## Legislation and frameworks

Some of the legislation of the DAFF include:

- The Veterinary and Para-Veterinary Act, 1962 (Act 71 of 1962), as amended in 2012, provides for the establishment, powers and functions of the South African Veterinary Council and also regulates the institutions and registration of professionals in the practising veterinary and para-veterinary fields.
- The Fertiliser and Farm Feeds, Agricultural Remedies and Stock Remedies Act, 1947 (Act 36 of 1947) regulates the registration, acquisition, disposal, sale and use of fertilisers, stock feeds, agricultural remedies, stock remedies, sterilising plants and pest control operators.
- Consultation regarding the Plant Breeders' Rights Amendment Bill was underway to replace the Plant Breeders' Rights Act, 1976 (Act 15 of 1976). The Bill aims to strengthen the protection of intellectual property rights relevant to new plant varieties, which in turn positively impacts on the competitiveness of South Africa's agricultural sector.
- The Genetically Modified Organisms (GMO) Act, 1997 (Act 15 of 1997) provides for the regulation of GMO activities in South Africa, and states that biosafety assessments should be conducted for every proposed GMO activity. The Act provides 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.

- The Disaster Management Act, 2002 (Act 57 of 2002) and the National Disaster Risk-Management Framework of 2005 address agricultural risk management and climate change, and are supplemented by climate change-related policies and programmes.
- The Meat Safety Act, 2000 (Act 40 of 2000) provides for measures to promote meat safety and the safety of animal products; establishes and maintains essential national standards in respect of abattoirs; regulates the import and export of meat; and establishes meat safety schemes.
- The Conservation of Agricultural Resources Act, 1983 (Act 43 of 1983) provides for control over the use of natural agricultural resources to promote the conservation of soil, water sources and vegetation, and the combating of weeds and invader plants.
- The Control of Markets in Rural Areas Ordinance, 1965 (Ordinance 38 of 1965).
- The Problem Animals Control Ordinance, 1978 (Ordinance 14 of 1978).
- The Livestock Brands Act, 1962 (Act 87 of 1962) regulates the registration of a brand in the name of an owner of livestock for the purpose of identifying the livestock.
- The Agricultural Credit Act, 1966 (Act 28 of 1966) provides for a system of assistance to people or undertaking to farming operations, and for control in respect of assistance rendered.
- The Subdivision of Agricultural Land Act, 1970 (Act 70 of 1970) regulates the subdivision of agricultural land and its use for purposes other than agriculture.
- The Plant Improvement Act, 1976 (Act 53 of 1976) provides for the registration of establishments where plants and propagation material are sold and packed, for the introduction of schemes for the certification of certain propagation material, for the requirements to which plants and propagation material sold for the purposes of cultivation must conform and for quality control over plants and propagation material imported or exported.
- The Livestock Improvement Act, 1977 (Act 25 of 1977) regulates the collection and sale of semen and ova and the artificial insemination and inoovulation of certain animals, the

- establishment of a system for the evaluation and certification of the performance of certain animals quality control regarding the importation and exportation of certain animals, semen, ova and eggs the incorporation of livestock breeders' societies and the maintenance of the legal personality of livestock breeders' societies and the granting of certain exclusive powers relating to the registration of pedigrees of certain livestock.
- The Liquor Products Act, 1989 (Act 60 of 1989) provide for control over the sale and production for sale of certain alcoholic products, the composition and properties of such products and the use of certain particulars in connection with the sale of such products; for the establishment of schemes; for control over the import and export of certain alcoholic products; and for matters connected therewith.
  - The Co-Operatives Act, 1981 (Act 91 of 1981) regulates the formation, registration, management and functioning of various types of co-operatives.
  - The Perishable Products Export Control Act, 1983 (Act 9 of 1983) provides for the control of perishable products intended for export from South Africa and for the continued existence of a statutory board to bring about the orderly and efficient export of perishable products from the country.
  - The Agricultural Pests Act, 1983 (Act 36 of 1983) introduces measures for the prevention and combating of agricultural pests.
  - The Agricultural Research Act, 1990 (Act 86 of 1990) establishes a juristic person, the Agricultural Research Council (ARC), to undertake agricultural research and regulate matters regarding the ARC's proceedings, powers, duties, management, control, employees, financing and related matters.
  - The Agricultural Product Standards Act, 1990 (Act 119 of 1990) provides for control over the sale and export of certain agricultural products and other related products, with a view to the maintenance of certain standards regarding the quality of products and packing, marking and labelling.
  - The Agricultural Produce Agents Act, 1992 (Act 12 of 1992) provides for the establishment of an Agricultural Produce Agents Council and fidelity funds.

- The Onderstepoort Biological Products (OBP) Incorporation Act, 1999 (Act 19 of 1999) provides for the establishment of a company to manage the institution, the appointment of directors and the holding and disposal of shares in the company.
- The Marine Living Resources Act, 1998 (Act 18 of 1998) provides for the conservation of the marine ecosystem, the long-term sustainable use of marine living resources and the orderly access to exploitation, use and protection of certain marine living resources; and for the exercising of control over marine living resources in a fair and equitable manner for the benefit of all the citizens of South Africa. The Marine Living Resources Act of 1998 was amended by the Marine Living Resources Amendment Act, 2014 (Act 5 of 2014).
- The National Forests Act, 1998 (Act 84 of 1998) allows for an exemption for the use and handling of protected trees and their products; and authorises the Minister to establish a trust, in respect of state forests under certain circumstances.
- The National Veld and Forest Fire Act, 1998 (Act 101 of 1998) reforms the law on veld and forest fires and repeals certain provisions of the Forest Act, 1984 (Act 122 of 1984).
- The Sea Fishery Act, 1988 (Act 12 of 1988) provides for the conservation of the marine ecosystem and the orderly exploitation, use and protection of certain marine resources; and provides for the exercise of control over sea fisheries.

The African Growth and Opportunity Act (AGOA) is a trade act of the United States of America (USA), enacted on 18 May 2000 as Public Law 106 of the 200th Congress. AGOA has since been renewed to 2025. It provides duty-free access to the USA market for almost all products exported from more than 40 eligible sub-Saharan African countries, including South Africa.

### Agriculture sector

About three quarters of smallholder farms are within the former homelands, and the rest are split between urban areas and commercial farming areas. There is a scope to increase the size of the smallholder sector in each of these areas.

In the 2017/18 financial year, the DAFF work with provincial departments of agriculture (PDAs) to support these smallholders to become sustainable and meet the targets set out in the NDP.

In the former homelands, there are thousands of hectares of under-utilised arable land that can be put back under production. Currently the total hectares that have been planted since the Fetsa Tlala food production initiative was launched in October 2013 is 381 396 and the balance is planned for the remaining years of the current MTSF.

The department continues to provide targeted support programmes such as the Comprehensive Agricultural Support Programme (CASP), Ilima/Letsema and LandCare in order to realise enhanced food production, contributing towards the eradication of hunger by 2030. With the approval of National Policy on Food and Nutrition Security by cabinet, the department will reduce the percentage of households with inadequate to severely inadequate access to food.

The department would increase its inspection capacity and infrastructure for abattoirs and ports of entry for US imports to manage AGOA trade agreements.

The management of pests and diseases remains important in contributing to sustainable agricultural production and ensuring access of commodities to export markets. As such, the DAFF continues to provide intensified control measures to deal with outbreaks and maintain a Foot and Mouth Disease (FMD) free status.

In 2016, the department initiated the Compulsory Community Service (CCS) for newly qualified veterinarians.

In 2017/18, the DAFF will place 130 cohorts to strategically service resource-poor farmers in the rural and under serviced areas. The deployment of CCS veterinarians entrenches the department's commitment towards community service for young professionals.

### Budget and funding

For the 2017/18 financial year, the department was allocated R6 807 billion. An amount of R2,2 billion was allocated as a conditional grant to support farmers. R1,6 billion was for CASP and R522 million for Ilima/Letsema.

R220 million was set aside for the development of smallholder farmers to graduate to commercial farmers. The target is to have 2 250 black commercial farmers by 2022.

Over the medium term, the department will focus on

improving food security, creating decent jobs, and sustainably increasing the contribution of the agriculture, forestry and fisheries sectors to GDP. Through pursuing these objectives, the department contributes to the realisation of the goal of the National Development Plan (NDP) to eliminate poverty and reduce inequality by 2030, and outcome 4 (decent employment through inclusive growth), outcome 7 (comprehensive rural development and land reform) and outcome 10 (protect and enhance our environmental assets and natural resources) of government's 2014 – 2019 medium-term strategic framework.

Over the medium term, the department plans to support around 435 000 subsistence and smallholder farmers through:

- providing farm equipment, fencing, fertilisers, seedlings and other essentials
- disbursing a grant through the comprehensive agricultural support programme
- repairing flood-damaged infrastructure.

The DAFF will support the agri-park initiative, in collaboration with the Department of Rural Development and Land Reform. The initiative aims to:

- establish and maintain producer support infrastructure such as markets and agro-processing facilities
- create networks and provide logistical services for producers and input suppliers
- coordinate activities for producer support and development to create jobs and develop rural economies.

Through the R5,3 billion comprehensive agriculture support programme grant, the department will play a crucial role in supporting smallholder farmers who will supply produce to agri-park initiatives across South Africa.

The DAFF will also provide support to farmers by putting one million hectares of land into production, and provide farmers with advisory services and training on the basic components of food security.

The department plans to increase financial support to emerging producers by R370 million over the medium term, which will be accessed through the Land and Agricultural Development Bank of South Africa (Land Bank).

This amount has been reprioritised from funding for provincial conditional grants, and will provide loans to qualifying producers.

The loans will improve producers' access to production inputs (such as fertilisers, seeds, seedlings and chemicals) and farm infrastructure, to increase the participation of emerging producers in the agriculture, forestry and fisheries sectors.

The DAFF plans to spend R241 million on an agricultural census in collaboration with Statistics South Africa. The census will create a registry of subsistence, smallholder and commercial farmers, and gather baseline information.

The gathered information will be used to properly target support to farmers, avoid duplicating support to emerging farmers, and allow for a proper ratio of extension officers to ensure the productivity of emerging farmers.

The DAFF aims to deploy at least 150 veterinarians each year over the medium term, to strengthen primary animal healthcare, support smallholder animal production, and contribute to productivity and food security.

This initiative will be supported by an allocation of R403 million over the medium term, in the Agricultural Production, Health and Food Safety programme.

## Improving food security

South Africa has been self-sufficient in most agriculture products with the exception of wheat, poultry and red meat. Between 50% and 60% of the country's wheat requirement is imported, due to the fact that it is cheaper to import than to produce locally.

Grains remain an important part of food and nutrition security initiatives in the country. Accordingly, the Agricultural Research Council (ARC) has developed and disseminated at least seven new grain cultivars for improved yields and productivity in South Africa.

The country's investments in research and development continue to yield good results for market access. In February 2018, the ARC launched a new table grape, "Joybells" at the World's largest fruit exhibition in Berlin. This table grape variety was well received by producers and fruit traders in the global market. Already, more than 50 000 cartons of Joybells have sold across Europe and the UK and producers and exporters are expanding sales into other world markets. At least 200 hectares, and expanding, have been planted in South Africa to produce this table grape variety.

The DAFF promotes food and nutrition security by supporting food producers through the:

- Micro-Agricultural Financial Institutions of South Africa, which provides agricultural production loans to smallholder operators in the agriculture, forestry and fishery sectors
- CASP grant, which provides post-settlement support to targeted beneficiaries of land reform and redistribution, as well as to other producers who have acquired land privately and are engaged in domestic value-adding enterprises or exporting agricultural produce
- Ilima/Letsema projects grant, which provides production inputs to subsistence and smallholder farmers

## Creating jobs

The DAFF plans to support the production of commodities such as red meat, poultry, fruit, vegetables, wine and wheat.

This is expected to contribute to job creation, food security, growth and the export-import trade balance.

To contribute to the creation of 60 000 job opportunities over the medium term, the department plans to spend more than R1,7 billion on the Ilima/Letsema projects grant, which is transferred to provinces for food production initiatives.

The department's LandCare programme grant promotes sustainable land and soil management practices, and the prevention of land degradation and desertification in rural areas, thereby contributing to job creation through the establishment of more arable farmland.

Over the medium term, the programme is projected to create 4 725 local jobs through refurbishing forested and deforested plantations; as well as 2 400 full-time-equivalent local jobs through rehabilitating 48 900 hectares (ha) of land by reducing the spread of invasive alien plants, erecting fencing and protecting agricultural land from degradation.

About R233,7 million will be allocated towards the LandCare programme grant over the medium term.

The Oceans Economy Operation Phakisa is expected to increase the production of fish from 4 000 tons per year to 20 000 tons per year, over the medium term. This is expected to create 2 500 direct new jobs and 15 000 jobs in the fisheries value chain by 2020.

Over the medium term, the DAFF will spend R121 million in the Aquaculture subprogramme in the Fisheries programme to support Operation Phakisa initiatives.

Aquaculture is an important growth sector and a priority for the country. It has demonstrated potential for growth over the past 10 years and offers a significant opportunity to contribute to food security and nutrition, rural development, job creation and the GDP of the country.

There are currently 36 Operation Phakisa aquaculture projects, 26 of which are in production. At least 15 of these projects represent small scale entities.

The total investment committed to Operation Phakisa aquaculture projects is R690 million, of which government committed R227 million.

The total jobs created across Operation Phakisa aquaculture projects in 2016/17 is 1 806 on 26 registered aquaculture farms. A total of 3 500 tons of aquatic animal products was produced from these aquaculture projects.

Aquaculture production was expected to increase to 20 000 tons, resulting in an additional 2 500 direct jobs and 15 000 jobs in the value chain by 2019, and an additional investment of R500 million.

Further opportunities and livelihood alternatives in the fishing communities will be created through the continued implementation of the Expanded Public Works Programme (EPWP) in coastal and rural communities. The department aims to create 1 085 full time jobs under this programme.

Partnerships with several coastal municipalities and investors have been formed to rehabilitate abandoned fish processing plants in order to process fish for major retailers, including Woolworths and WiseFoods in the United Kingdom.

The beneficiaries of these will be the right holders of the community co-operatives who will eventually own the facilities. This is part of the implementation of the small-scale fisheries policy which was approved by Cabinet.

### Sector transformation

In addressing the developmental challenges in the sector and to achieve policy imperatives of the NDP, National Growth Path, Agricultural Policy Action Plan (APAP), Revitalisation

of Agriculture and Value Chains (RAAVC) and Land Reform; farmer training is crucial.

Colleges of Agriculture are best suited to offer practical accredited training for farmers, agricultural technicians, producers, processors, and farm managers. The colleges are playing a pivotal role in Agricultural Vocational Education and Training (ATVET) through a three-year diploma qualification and the vocational skills training to farming communities, youth and women. Correctly elevating these colleges to become a national competency will ensure that they are strategically positioned to respond to the agri-skills shortage challenge in a more comprehensive and uniform manner.

On average, each college admits 400 full time students and trains 1 000 farmers per annum and this relates to close to 1 000 potential entrant farmers and over 10 000 skills trainings per year.

In 2018, the DAFF was expected to place 1 000 unemployed agricultural graduates within the sector across the nine provinces on a two-year internship program, training them to be future agri-preneurs. The initiative will contribute in addressing the unemployment challenge in the sector and will be championed by the AGRI-BEE and the Fisheries Transformation Council in support of the sector skills development and transformation.

Government is also working with the private sector to achieve transformation in the fishing industry. Old Mutual's Sea Harvest, Brimstone and Masisizane Fund have committed to the establishment of a R100 million fisheries development fund. The fund will ensure the empowerment of small businesses entering the fishing industry in order to truly revitalise the Ocean's Economy. Focus will not only be on supporting smallholder production, but also on increasing the number of black commercial producers.

The DAFF with the assistance of the Dti, the Land Bank, the National Empowerment Fund and the IDC have developed a programme to commercialize black producers in the agriculture, forestry and fisheries sectors. This is an incentive-based programme to provide access to small, medium and large scale black producers in these sectors.

The Land Bank has been identified as the grant fund administrator, but together with commercial banks will provide

the loan portion of the funds required to commercialise these producers.

For small scale producers that have a turnover of less than R500 000 per year, the development support will remain the responsibility of provincial departments of agriculture in partnership with the commodity associations.

The department continues to support livestock farmers to develop and improve their livestock through dedicated programmes. One such programme is the Kaonafatso ya Dikgomo – an animal improvement scheme dedicated to the development and improvement of livestock breeding and production among black farmers.

To date more than 8 800 farmers are participating in the Kaonafatso ya Dikgomo programme which is designed to improve the health condition of livestock in rural areas. The majority of these farmers own an average of 20 cattle. Herd performance has increased over the past year.

The average calving rates for these farmers increased from 54% in 2016 to 57% in 2017. Average herd mortality remained relatively steady at around 6% while average herd off take rates increased slightly from 10% in 2016 to 11% in 2017.

Through participating in Kaonafatso ya Dikgomo programme, smallholder farmers were able to generate higher incomes. PDAs and ARC conducted five cattle auction sales involving 410 farmers during the previous financial year. With a high women participation rate of 30%, these auctions generated R7,8 million from the sale of 794 herd of cattle. The department also conducted two goat auctions involving 169 farmers with 41% women participation where R417 255 was generated from the sale of 502 goats.

### Agricultural Policy Action Plan

The challenges facing the agricultural, forestry and fisheries sectors are numerous:

- rising input costs
- an uneven international trade environment
- lack of developmental infrastructure (rail, harbour, electricity)
- a rapidly evolving policy and production environment
- transformation of the agriculture, forestry and fisheries sectors has been slow and tentative.

Based on this analysis of the various challenges within the agriculture, forestry and fisheries sectors, the Agriculture, Forestry and Fisheries Strategic Framework was developed to outline appropriate responses to these challenges. The APAP aims to translate these high-level responses offered in the Agriculture, Forestry and Fisheries Strategic Framework into tangible, concrete steps.

The Agriculture, Forestry and Fisheries Strategic Framework identifies four broad sector goals:

- equitable growth and competitiveness
- equity and transformation
- environmental sustainability
- governance.

These goals translate into a comprehensive, abiding intervention framework, which will be supported through iterations of APAP via short and medium-term interventions targeting specific value chains (sectoral interventions) or transversal challenges/interventions).

The APAP is the programmatic response to Priority One of the Nine-Point Plan to ignite growth and create jobs. It outlines a value chain approach in priority commodities, informed by the commodities with high-growth potential and high-labour absorption capacity identified in the NDP.

The APAP has been reviewed to ensure that it becomes a jobs driver and promotes growth, employment, rural incomes, investment, output, exports and African regional development.

## Agriculture and South Africa's role in the national and international economy

Agriculture's prominent, indirect role in the economy is a function of backward and forward linkages to other sectors. Purchases of goods such as fertilisers, chemicals and implements form backward linkages with the manufacturing sector, while forward linkages are established through supplying raw materials to the manufacturing industry. About 70% of agricultural output is used as intermediate products in the sector. Agriculture is therefore a crucial sector and an important engine of growth for the rest of the economy.

The South African economy grew by 1,3% in 2017, exceeding National Treasury's expectation of 1,0% growth. The

strengthening in economic activity in 2017 was partly driven by the agriculture, forestry and fisheries sectors recovering from one of the worst droughts in recent history. The sectors' contribution to the GDP was 2,4% in 2017.

The sectors have expanded in four consecutive quarters. The growth in the industry is attributed to the increase in the production of field crops, horticulture and animal products. The total volume of South African agriculture production for 2017 was estimated at 62,9 million tons compared to 50,8 million tons in 2016 – a 24% increase in production, which is attributed to the bumper summer crop harvest following good rainfalls during the season.

South Africa's agriculture exports increased to R127,85 billion in 2017 from R112,07 billion in 2016, boosted by growth in edible fruits, beverages, spirits as well as prepared fruits, vegetables and nuts. Imports of agriculture products increased by 21% in 2016, from R76,10 billion in 2015 to R91.81 billion. The import value of agriculture products decreased by 5% to R 86,93 billion in 2017, led by processed products such as prepared foods, meat, sugar and beverages.

The South African agriculture products continue to benefit from the Tripartite Free Trade Area agreement of the Southern African Development Community, Common Market for Eastern and Southern Africa and the East African Community.

Crop and livestock production decreased sharply in 2016/17. Maize production, for example, decreased by 24%, from 7,54 million tons in 2015/16 to 5,7 million tons in 2016/17. Higher yields are expected in 2017/18 as the drought is predicted to end.

The department expects to spend R644 million on infrastructure projects over the medium term, R75,4 million of which is allocated for the maintenance and erection of fences along the borders of the Kruger National Park. The erection of these fences plays a critical role in the management of the incidence and the spread of foot-and-mouth disease, which has a negative impact on the export of red meat products.

The estimated value of imports for 2016/17 came to R79515 million, an increase of 3,9% from R76 511 million for 2015/16. The value of exports increased by 17,4%, from R83 022 million in 2015/16 to R97 429 million in 2016/17.

According to the 2016/17 export values, citrus fruit (R16 989 million), wine (R8 731 million), apples, pears and quinces (R7 161 million), wool (R4 158 million) and nuts (R3 568 million), were the most important agricultural export products.

Rice (R6 438 million), maize (R6 364 million), meat (R5 717 million), cane or beet sugar (R3 788 million) and undenatured ethyl alcohol (R3 445 million) accounted for the highest imports in terms of value.

During 2016/17, the Netherlands, with exports to the value of R10 827 million, the UK (R8 908 million), Zimbabwe (R6 125 million), Mozambique (R5 938 million) and China (R5 389 million) were the five largest trading partners of South Africa in terms of export destinations for agricultural products. About 20,2% of the total value of agricultural exports from South Africa for the period July 2016 to June 2017 went to the Netherlands and the UK combined.

The five largest trading countries for South Africa's imported agricultural products during 2016/17 were Argentina (R7 306 million), Brazil (R5 375 million), the United States (R4 305 million), Thailand (R4 173 million), and Indonesia (R3 858 million). About 16,0% of the total value of agricultural imports by South Africa during the period July 2016 to June 2017 was from Argentina and Brazil combined.

## Farming income

Gross income from all agricultural products increased by 7,3% and amounted to R277 436 million for the year ended 31 March 2018. This was mainly influenced by the increase in income from animal products (14,7%) and field crops (1,7%). Income from horticultural products showed a slight decrease of 0,2%, from R77 119 million to R76 967 million. The increase in income from animal products was mainly due to the increase in income from poultry meat by 18,0%, cattle and calves slaughtered (15,8%), eggs (12,1%), milk (10,4%) and sheep slaughtered (6,9%).

The increase of 1,7% in income from field crops was mainly boosted by the increase in income from groundnuts by 419,8%, dry beans (92,5%), grain sorghum (70,4%), cotton (54,2%), soya beans (25,4%), tobacco (5,7%), sugar cane (4,0%), hay (3,7%) and maize (3,6%). However, the income obtained from wheat decreased by 20,7% and sunflower seed by 32,2%. The

decrease in income from horticultural products was caused by the decrease in income from deciduous and other fruit by 10,6% and subtropical fruit by 2,9%. Income from citrus fruit increased by 6,0%, viticulture by 1,4% and vegetables slightly by 0,7%.

The gross income of producers for the year ended 30 June 2017, amounted to R267 009 million, compared to R242 216 million the previous year – an increase of 10,2%. The increase can be ascribed mainly to significant higher volumes of maize, grain sorghum, groundnuts, soya beans and dry beans produced in comparison to the poor harvest during 2016 as a result of the severe drought.

The gross income from field crops increased by 24,2% to R63 718 million for the year ended 30 June 2017. Income from all major grain and oilseed crops showed marked improvements, notwithstanding lower prices paid to farmers. Income from maize amounted to R29 905 million, an increase of 20,2% on the R24 874 million of the previous 12 months.

At the end of June 2017, 54,0% of the expected record maize crop of 16 400 million tons were delivered. Soya beans income increased by 32,3% to R6 272 million. Income from sunflower seed amounted to R4 843 million, 33,9% more than the R3 617 million of the previous 12 months. Income from groundnuts increased by 304,7% to R746 million and that of grain sorghum by 83,8% to R470 million. Income from sugar cane at R8 094 million was 25,7% higher than that of the previous 12 months. Income from cotton production also increased by 29,3% to R298 million.

On average, prices received by farmers for their products decreased by 1,9% for the period ended 31 March 2018. This was due to the decrease in prices received for field crops (30,4%) and horticultural products (2,1%). The decrease of 30,4% in prices of field crops was mainly caused by the substantial decrease in prices of summer grains by 46,4%, oilseeds by 21,8%, hay by 9,8%, winter grain by 4,5%, sugar cane by 3,4% and tobacco by 2,6%.

The prices of cotton and dry beans increased by 9,1% and 1,6%, respectively. The reason for the decrease of 2,1% in prices of horticultural products was the decrease in prices of vegetables by 8,9%. The prices of viticulture increased by 6,9% and fruit slightly by 0,5%.

The prices of animal products increased on average by 16,5% due to the increase in prices of slaughtered stock by 19,5%, poultry by 17,3%, pastoral products by 13,4% and milk by 7,1%.

The prices paid for farming requisites, including machinery and implements, material for fixed improvements and intermediate goods and services increased by 3,9% compared to 5,1% the previous year. Prices of animal health and crop protection increased by 10,0%, seeds by 7,7%, packaging material by 5,4%, fencing materials by 4,6%, implements and maintenance and repairs of machinery by 4,2%, trucks and irrigation equipment by 4,1% each, fertilisers by 3,9%, tractors by 2,9%, fuel by 2,3% and feeds by 1,4%. Domestic terms of trade weakened by 5,3%, largely because of a decrease of 1,9% in prices received by the farmers for their products and 3,9% increase in prices paid for their production inputs.

The 7,3% increase in gross farming income and 6,2% increase in intermediate expenditure led to a 15,1% increase in net farming income. Interest payments increased by 8,7%, labour costs by 6,2% and rent payments by 4,7%. The farmers' cash flow increased by 9,0% to R103 816 million during the period under review, from R95 268 million the previous period.

The increase in gross farming income was mainly the result of the increase in income made from animal products (14,7%) and field crops (1,7%). The increase in income from animal products can be attributed mainly to the increase in prices, while that from field crops was largely due to significant increases in production levels of summer grains, cotton, oilseeds, dry beans, sugar cane and tobacco.

### Consumer prices

The consumer prices of all agricultural products increased by an average of 6,0% for the year ended June 2017. The consumer price index of food increased by 10,1% and that of non-food items by 5,3%.

The price index of sugar and related products rose by 19,2%, coffee and tea by 14,7%, fruit by 14,1%, grain products by 12,2%, fish by 9,5%, dairy products and eggs by 8,8%, meat by 8,4%, fats and oils by 8,1% and vegetables by 5,6%.

### Volume of agricultural production

The estimated volume of agricultural production in 2016/17 was 7,7% more than in 2015/16.

The field crop production volume increased by 50,8%, mainly as a result of increases in the production of summer crops (maize and sorghum), winter crops (wheat, barley and canola), as well as oilseed crops (soya beans, sunflower seed and groundnuts), hay, sugar cane and dry beans.

Maize production increased by 8,2 million tons (99,7%) and sorghum by 92 960 tons (114,7%) from the previous season and can mainly be attributed to the favourable production conditions that prevailed at the beginning of 2017.

Wheat production increased by 472 087 tons (32,6%), barley by 23 000 tons (6,93%) and canola by 12 000 tons (12,9%).

Soya beans production increased by 598 370 tons (80,6%), sunflower seed by 69 630 tons (8,9%) and groundnut production by 82 460 tons (412,2%). The production of hay increased by 396 000 tons (8,8%), sugar cane by 213 209 tons (1,4%) and dry beans by 36 390 tons (93,3%) from 2<sup>th</sup> the previous year.

Horticultural production decreased by 2,3% from the previous season, which can mainly be attributed to decreases in the production of citrus fruit and subtropical fruit. The decrease in the production of oranges by 395 061 tons (22,4%), grape fruit by 72 586 tons (18,6%), lemons by 30 068 tons (8,5%) and naartjes by 5 793 tons (13,8%) led to a decrease in citrus fruit production from 2015/16. The decrease in the production of bananas by 113 813 tons (28,3%), pineapples by 12 877 tons (12,3%) and avocados by 4 268 tons (4,9%) attributed to a decrease in the production of subtropical fruit from the previous season.

Animal production decreased by 0,6%, mainly as a result of decreases in number of stock slaughtered (sheep, pigs, cattle and calves), as well as decreases in the production of wool, ostrich feathers and eggs. The number of sheep slaughtered decreased by 224 668 units (4,4%), pigs by 65 603 units (2,3%) and cattle and calves by 58 940 units (2,0%), from the previous year. The production of wool decreased by 8 779 tons or 20,2%, ostrich feathers by 40 tons or 22,6% and eggs by 11 242 tons or 1,8%, as compared to the previous season.

### Role players

### Credit and assistance

The six major sources of credit for farmers are banks (56%), agricultural cooperatives and agribusinesses (9%), the Land Bank (30%), private creditors (3%) and other creditors and financial institutions (2%).

### Land and Agricultural Development Bank of South Africa

Established in 1912, the Land Bank is a government-owned Development Finance Institutions with the sole mandate of financing agricultural development to achieve food security, and to drive economic growth and development in South Africa. It is charged with promoting agricultural and rural development, as well as providing a range of financial products and services, including crop insurance to farmers and agribusinesses.

As part of its transformation objective, the Land Bank Insurance Company (LBIC) subsidiary launched and implemented a Black Broker Training Programme to train the first fully accredited Black Crop Insurance Brokers in the country. A total of 18 brokers were accredited and began marketing LBIC's crop insurance products, collectively writing R22,6 million in premiums in their first season of crop insurance solutions provision, which equates to R565 million worth of risk managed exposure.

The bank is a specialist agricultural bank guided by a government mandate to provide financial services to the commercial farming sector and agribusiness. It also makes available financial products to new entrants to agriculture from historically disadvantaged backgrounds.

Through its direct lending, Land Bank currently supports approximately 1 500 black farmers and relinquished approximately R100 million of its profits to subsidise interest rates to these farmers as well as an additional 700 emerging farmers through its WFF intermediaries. One of the contributing factors to the increase in development finance is that average transaction values increased from approximately R0,7 million in 2016 to more than R2,0 million in 2017.

The bank nearly doubled its Wholesale Finance Facility that supports emerging farmers through intermediaries from R477 million in 2016 to R914 million at the end of 2017.

It also disbursed more than R5,0 billion, including revolving

loans, to entities with a BBBEE Level of four or better in 2017.

In 2017, the bank relinquished approximately R100 million of its profit to subsidise interest rates to emerging farmers. The bank provided support to farmers impacted by the drought, disbursing more than R100 million in loans under its drought-relief programme, administered in conjunction with the Industrial Development Corporation of South Africa.

### Micro Agricultural Financial Institutions of South Africa (MAFISA)

MAFISA is a scheme that provides production loans to smallholder operators within the agriculture, forestry and fisheries sectors. The scheme's operations are guided by the MAFISA Credit Policy.

MAFISA loans were initially restricted to agricultural enterprises, but following the incorporation of the forestry and fisheries subsectors into the department of agriculture, the credit policy was reviewed so that it can also accommodate these two subsectors.

Loans are provided at 7% interest and accessed through a network of institutions accredited by the DAFF as retail intermediaries. Intermediaries submit monthly and quarterly reports to the department as part of its monitoring process. Regular workshops and inspection visits to intermediaries are also conducted as part of monitoring.

The scheme offers production loans of up to R500 000 per person, with the repayment terms structured according to the income cycle of the enterprise. The loans are limited to South African citizens who meet the eligibility criteria. Loans of up to R50 000 can be granted without security. Most of the loans disbursed are in respect of livestock, sugar cane, vegetables and grain crops. MAFISA loans are available for the entire value chain of agriculture, forestry and fisheries, though most of the loans are still in respect of primary production.

### Agri South Africa (AgriSA)

AgriSA was established in 1904 as the South African Agricultural Union. It serves approximately 32 000 large and small commercial farmers.

Its mission is to promote the development, profitability, stability and sustainability of agriculture in South Africa by means of its

involvement and input on national and international policy and the implementation thereof.

Essentially AgriSA, through its affiliated membership, represents a diverse group of individual farmers regardless of gender, colour or creed.

AgriSA's policy advocacy includes work on trade negotiations, industrial policy, taxation, financing, land reform, labour laws, training, farmer development, environmental affairs, water rights and water pricing, other input-related issues, farm safety, law and order, infrastructure, technology development and transfer, statistical information and local government.

Furthermore, the organisation maintains an extensive communication network with its members and other affected communities, organisations and individuals. AgriSA is a member of high-level business, trade and agricultural entities that includes Business Unity South Africa, the International Chamber of Commerce, the World Farmers' Organisation, the Southern African Confederation of Agricultural Unions and the Cairns Group Farm Leaders.

AgriSA communicates with its members via its two-monthly magazine, namely Agri (incorporating Die Boer/The Farmer) and an electronic newsletter. The magazine provides background information on policy, legislation and programmes of interest to farmers. It also offers advice, extension and news on topical events to more than 29 000 farmers who are members of Agri SA via the respective affiliates. The magazine is sent directly to each member. It is also distributed more widely to include opinion-formers and decision-makers. It is also responsible for programme content for an agricultural radio programme aired on Radio Sonder Grense (RSG).

Agriculture in South Africa remains an important sector despite its relatively small contribution to the GDP. The sector plays an important role in terms of job creation, especially in rural areas, but is also a foremost earner of foreign exchange.

Agriculture's prominent indirect role in the economy is a result of backward and forward linkages with other sectors. Purchases of intermediate goods and services form backward linkages with the manufacturing sector, while forward linkages are established through the supply of raw materials to industry.

Approximately 70% of agricultural output is used as

intermediate products. Agriculture is therefore a crucial sector and a key driver of growth for the rest of the economy – a fact also acknowledged in policy-related documents such as the NDP: Vision 2030.

Essentially, the NDP entails that agriculture – both emerging and commercial – should still be afforded the opportunity to contribute optimally to economic growth, job creation, foreign-exchange earnings and development of the industrial sector within a safe and non-discriminatory environment. AgriSA is preoccupied with ensuring a safe environment for all people involved in the agricultural sector. A sound working relationship has been established with the South African Police Service (SAPS) at both policy and operational level, with a view of addressing the relevant rural safety problems.

### **Agricultural Business Chamber (Agbiz)**

Agbiz is a voluntary, dynamic and influential association of agribusinesses operating in South and southern Africa.

Agbiz's function is to ensure that agribusiness plays a constructive role in the country's economic growth, development and transformation, and to create an environment in which agribusinesses of all sizes and in all sectors can thrive, expand and be competitive.

- Agbiz is the only organisation that serves the broader and common over-arching business interests of agribusinesses in South Africa.
- Agbiz addresses the legislative and policy environment on the many fronts that it impacts on the agribusiness environment.
- Agbiz facilitates considerable networking opportunities so that South African agribusinesses can play an active and creative role within the local and international organised business environment.

The strategic intent of Agbiz is to advocate for and facilitate a favourable agribusiness environment in order for its members to perform competitively and sustainably.

### **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, and safety and security. TAU SA conducts various projects to enhance the concept of successful agriculture.

### **National African Farmers' Union of South Africa (NAFU)**

NAFU was established in 1991 with the aim of creating a "home" for thousands of black farmers who had previously been excluded from the mainstream of agriculture. At the time of its formation, there was no farmer organisation operating at national level in South Africa. Between 1979 and 1991, the only organisation which attempted to address the needs of black farmers at national level was National African Federated Chamber of Commerce and Industry. This organisation eventually facilitated the formation of the NAFU.

NAFU is a mouthpiece of predominantly black smallholder farmers in South Africa. It strives to promote the interests of primarily black farmers who are largely a disproportionately disadvantaged farming community. NAFU therefore represents the aspirations of those who have been disadvantaged, neglected and marginalised.

The focus of NAFU has been on advocacy, and it has and continues to lobby for access to *crucial* resources such as land, credit, information, extension and other support services. However, NAFU also played and continues to play a role in building the capacity and strength of its membership through the use of effective communication systems, training, improving management skills and exposing farming to the latest and most up-to-date production techniques.

### **The African Farmers' Association of South Africa (AFASA)**

AFASA's objectives are to create a sustainable united body of African farmers with capacity to influence policies through lobbying and advocacy. AFASA, like any other organisation, is a collection of individuals who come together for a common purpose.

The DAFF is expected to support smallholder farmers through conditional grants such as the CASP, the LandCare Programme,

the Ilima/Letsema Programme, as well as the mobilisation of farmers, women and youth into agricultural co-operatives.

### **Veterinary services**

Veterinary public health and food safety aspects, in relation to animal products, remain a priority and are receiving increasing attention. The DAFF has set aside R100 million for the Primary Animal Health Care Programme. Special attention is being given to the major rehabilitation of existing infrastructure, as well as the building of new clinics, animal healthcare centres and other animal-handling facilities. Mobile veterinary vehicles will also be considered for remote areas. These efforts support the creation of an enabling environment for the Compulsory Community Service (CSS) Programme for newly qualified veterinarians.

The CCS is aimed at promoting primary animal healthcare in rural areas and at improving access to veterinary services.

The CCS service for young professionals is a government policy which started in 1998 when the medical doctors were deployed to rural areas. The deployment of veterinarians entrenches the department's commitment towards community service. This programme will also incorporate the training of veterinary technicians or paravets.

To strengthen the DAFF's animal healthcare, 18 primary healthcare clinics were delivered to provinces and the Veterinary Strategy, as part of the Animal Disease Management Plan.

In addition, the DAFF requested the World Organisation for Animal Health to conduct an evaluation on the performance of veterinary services in South Africa. The recommendations from the World Organisation for Animal Health's report will be applied to further enrich interventions on all veterinary issues.

### **Agricultural Research Council**

The ARC was established by the Agricultural Research Act of 1990 and is the main agricultural research institution in South Africa. In terms of the Act, the council's primary mandate is to conduct research and development, and effect the transfer of technology to promote agriculture and industry, contribute to a better quality of life, and facilitate and ensure conservation of natural resources.

The ARC's spending focus over the medium term will be on:

- generating knowledge and technologies that will enhance the efficiencies of crop production, animal production and health
- the management of natural resources
- research and development
- maintaining national assets
- providing diagnostic and analytical services on behalf of the DAFF and industry stakeholders.

Over the medium term, the ARC will spend its total budget of R4 billion on supporting 1 130 farmers participating in animal health improvement schemes, conducting 1 777 diagnostic and analytical services, and producing 238 peer-reviewed scientific publications in natural resource management.

In response to climate change, the council is working on 25 research studies into new crop cultivars that will be registered. The new cultivars are expected to benefit rural South Africa and the Southern African Development Community (SADC) region.

The council's staff complement will remain constant at 3 297 over the medium term to contain growth in expenditure on compensation of employees, which constitutes R2,7 billion or 68,3% of total expenditure. The council's main revenue stream over the medium term will be transfers of R2,8 billion received from the DAFF, and the Department of Science and Technology, constituting about 66% of total revenue. Other income, of R1,5 billion, will be generated by sales of publications, research material and technology to supplement transfers received.

### **Onderstepoort Biological Products state-owned company (SOC) Ltd**

OBP SOC was corporatised in 2000 under the OBP Incorporation Act of 1999.

The OBP's mandate is the prevention and control of animal diseases that impact on food security, human health and livelihood. This mandate is delivered through the continued development of innovative products and efficient manufacturing processes that ensure the affordability and accessibility of vaccines through diverse distribution channels.

The OBP possesses the capability, skills and scientific expertise to combat animal disease through the large-scale

production of specialised animal vaccines. The company produces millions of doses a year to control as many as 50 different diseases and is an acknowledged world leader in the battle against animal disease.

Experiments at the OBP have seen encouraging progress in the development of new and improved vaccines against African horse sickness, which, despite the development of immunisation programmes, remains a constant threat to farmers, breeders and owners.

In 2018, OBP will commence building a Manufacturing Plant which will be completed by 2020 for R347 million. This will lead to large scale production of competitively priced vaccines manufactured under global quality standards; consistent availability of OBP vaccines and improved response to animal disease outbreaks; penetration of previously inaccessible markets and sustainable job creation in the fields of Veterinary and Biotechnological Sciences.

It is the objective and target of OBP to improve performance and production efficiencies of current products. The government is expected to increase the number of new distribution points of OBP products in rural areas to nine.

OBP takes priority in advocating for farming skills to alleviate poverty. OBP has implemented two learnership programmes, the Pharmaceutical Sales (NQF Level 5) and Animal Production (NQF Level 4). The objective of the learnership is to bridge the gap between the current education and training provided and the needs of the labour market. It offers youth an opportunity to gain a qualification through a structured learning programme. The programme has registered eight learners.

### **Grain SA**

Grain SA was established in June 1999 and was formed out of the following organisations:

- National Maize Producers' Organisation (known as NAMPO) – maize
- National Oilseed Processors Association – soyabeans, sunflower and groundnuts
- Wheat Producers' Organisation – wheat, barley and oats
- SPO – grain and sorghum.

The mission of Grain SA is to provide commodity strategic

support and services to South African grain producers to support sustainability.

Grain SA is a voluntary association of grain farmers established to represent the interests of its members. It wants to be recognised as an autonomous and independent grain producers' organisation.

The organisation wants to be involved in all matters bearing on the wellbeing of the industry and to be consulted about policy issues relating to the industry. It is strongly apolitical and issues are dealt with only on merit and sound business principles without any party political consideration.

Grain SA is controlled by farmers for farmers and structured to ensure members' democratic control over their elected office bearers.

### **National Agricultural Marketing Council**

Currently, there are 18 industries that are subjected to statutory measures, collecting R517 million through statutory levies. The funds collected are used to finance industry-oriented activities including transformation. One of the approval conditions is that at least 20% of levy income be spent on transformation. NAMC works directly with eleven industry trusts that were formed during the process of deregulation. To date, the total asset value of the trusts is R2,4 billion from the initial value of R678 million.

Monthly, NAMC provides analysis of food price trends and tracks the cost of a basket of 28 selected basic food items. This information is made available to, amongst others community radio stations. This enables citizens to make informed choices in household spending on food.

The Competition Commission has raised competition issues in the industry, including barriers to entry for emerging farmers throughout the value chain. Lack of access to markets led to some of the produce rotting in the fields.

As such, a Transformation Review Committee was established to, among others, ensure the statutory levies collected are used by industries to contribute meaningfully to the development of black farmers. Milk SA's commercialisation project in the Free State developed nine projects that support black farmers with cattle, feed, milking parlour and electrification of the farms.

The result is that black farmers are able to supply formal

markets such as Nestle. Positive signs are emanating with other industries like mohair, potatoes, and grains ensuring that transformation occurs. NAMC together with DAFF and Buhle Farmers Academy deliver an annual accredited training programme for female agri-entrepreneurs. In its 11th year running, the programme focuses on technical, managerial and capacity building aimed at ensuring market access.

Over 360 female farmers have gone through the training programme. Some of the participants supply retail stores with their produce. One of the female agri-entrepreneurs participants from 2014, Ms Fezeka Mkile, was appointed a Council Member of the National Agricultural Marketing Council in 2017.

Last year, 2 234 animals from 400 farmers went through the Custom Feedlot Programme, generating R16,8 million. Currently, the programme employs 133 people. In May 2018, communal livestock farmers in the Amajuba District organised an auction which generated R1.4 million in sales.

The Youth Agriculture programme was launched in 2016 with the aim of promoting corporate careers in agriculture and entrepreneurship opportunities. Through this programme the NAMC adopts agricultural high schools, conducts career guidance, offers bursaries to best performing Grade 12 learners and provide internships to graduates at NAMC and industry organisations where they are assigned mentors.

Over 80 learners have gone through the internship programme since 2010 and more than 40 bursaries awarded. Dr Abongile Balarane, a young agricultural economist, is one such example, who today works at NAMC as a grains specialist and compiles a monthly Supply and Demand Estimates Report. Another group of interns involved in crop production were provided with training on irrigation under at Ga-Mapaila Irrigation Scheme in Limpopo.

### Perishable Products Export Control Board

The PPECB's Agricultural Export Technologist Programme remains one of the entity's flagship development program. It is aimed at attracting and developing young qualified black professionals and up skilling them in matters relating to export of perishable products. In 2017, the entity successfully trained 35 students from designated groups. To date 296 young people have been trained. About 80% of students that participated

in the PPECB's Agricultural Export Technologist Programme established in 2006, have managed to find employment within the sector.

PPECB with Agri Seta appointed six unqualified learners to provide them with practical work experience. Five graduates were also appointed within the support services departments to give them exposure and experience in their respective fields.

PPECB has trained 167 small holder farmers in Good Agricultural Practices, the responsible use of pesticides and food safety. The entity has further certified 20 small holder farmers through its SA GAP programme. PPECB will also fund a learnership programme in business administration for disabled learners.

### Products

According to the third production forecast for summer crops by the Crop Estimates Committee (CEC) for the 2018 production season, the expected commercial maize crop was 12,827 million tons, which is 23,7% or 3,993 million tons less than the 16,820 million tons of the 2017 season.

The estimated area planted to maize by South African commercial maize producers during the 2018 season is 2,319 million ha – 11,8% or 309 750 ha less than the 2,629 million ha planted the previous season. The expected yield is 5,53 t/ha. The ratio of white to yellow maize plantings was estimated at 55:45.

The estimated white maize plantings were 1,268 million ha, which is a decrease of 22,8% from the previous season's plantings of 1,643 million ha. Yellow maize plantings were estimated to be 1,051 million ha – 6,6% more than the 985 500 ha for 2017.

During the 2018 production season, most of the country's maize crop was planted in the Free State (45,5%) and the North West and Mpumalanga provinces both with (20,7%).

The plantings of maize decreased by 9,1%, from 1,160 million ha to 1,054 million ha in the Free State Province, and by 2,0%, from 490 000 ha to 480 000 ha, in Mpumalanga Province. Plantings in the North West Province are estimated at 480 000 ha – a decrease of 23,8% from the 630 000 ha planted for the 2017 season. The production forecast for white maize was

6,630 million tons, which is 33,1% less than the 9,916 million tons of the previous season. The expected yield for white maize was 5,23 t/ha, as against 6,03 t/ha in 2017. In the case of yellow maize, the production forecast was 6,197 million tons, which is 10,2% less than the 6,904 million tons the previous season. The yield for yellow maize was expected to be 5,90 t/ha, as against 7,01 t/ha for 2017.

A sunflower seed crop of 792 260 tons was expected, which is 9,4% less than the 874 000 tons of the previous season. The area planted to sunflower seed was estimated at 601 500 ha, which is 5,4% lower than the 635 750 ha planted for 2017. The expected yield for 2018 was 1,32 t/ha, as against 1,37 t/ha in 2017. The production forecast for soybeans was 1,430 million tons, which is 8,7% more than the 1,316 million tons of the previous season. The estimated area planted to soybeans was 787 200 ha, which is 37,2% or 213 250 ha more than the 573 950 ha planted for 2017. The expected yield was 1,82 t/ha, as against 2,29 t/ha in 2017.

The expected groundnut crop was 80 600 tons, which is 12,4% less than the 92 050 tons of the 2017 season. The area planted to groundnuts was estimated at 56 300 ha, which is 0,5% or 300 ha more than the 56 000 ha planted the previous season. The expected yield was 1,43 t/ha, as against 1,64 t/ha in 2017. The production forecast for sorghum was 84 750 tons – 44,2% less than the 152 000 tons of the previous season. The area planted to sorghum was estimated to be 28 800 ha, which is 32,0% or 13 550 ha less than the 42 350 ha planted for 2017. The expected yield was 2,94 t/ha, as against 3,59 t/ha the previous season.

The production of dry beans was expected to be 65 610 tons – 4,3% less than the 68 525 tons of the previous season. The estimated area planted was 53 360 ha, or 18,4% more than the 45 050 ha planted the previous season, with an expected yield of 1,23 t/ha for 2018, as against a yield of 1,52 t/ha in 2017.

Producers' intentions to plant winter cereals are based on the results of a non-probability survey conducted by the Directorate: Statistics and Economic Analysis of the Department of Agriculture, Forestry and Fisheries and reflects the position as at the middle of April 2018.

Early indications are that producers intend to plant 500 500

ha of wheat for the 2018 season. This is 1,8% or 8 900 ha more than 491 600 ha planted to wheat in 2017.

The main producing areas are within the Western Cape with 320 000 ha (64%), followed by the Free State with 95 000 ha (19%) and the Northern Cape with 37 000 ha (7%).

The expected area planted to malting barley is 95 700 ha, which is 4,7% or 4 320 ha more than the 91 380 ha of the previous year.

The expected area planted to canola is 78 500 ha, which is 6,6% or 5 500ha less than the 84 000 ha planted in 2017.

## Grains

### Maize

Maize is the largest locally produced field crop, and the most important source of carbohydrates in the SADC region for animal and human consumption.

South Africa is the main maize producer in the SADC, with production at 12 million tons (Mt) to 14 Mt a year over the past 10 years.

It is estimated that about 6 500 commercial maize producers are responsible for most of the South African crop, while thousands of small-scale producers are responsible for the rest. Maize is produced mainly in North West, the Free State and Mpumalanga.

About 43% of maize produced in South Africa is white and the remaining 57% is yellow maize. White maize is primarily used for human consumption, while yellow maize is mostly used for animal feed production.

White maize is generally produced in the western parts of the maize belt, while yellow maize is planted in the eastern parts.

Maize is planted during late spring/early summer, with optimal planting times in November and December. However, planting can start as early as October and extend to January.

In a particular season, the rainfall pattern and other weather conditions determine the planting period as well as the length of the growing season.

Most of the maize is harvested from late May up to the end of August.

Maize production in 2017 reached a record high of about 17,5 million tons, more than double the level of 2016 and well above

the previous five-year average. The significant production upturn reflects a 35% increase in plantings, which was spurred by higher prices, and bumper yields, mostly owing to wetter conditions following the dry weather conditions experienced in the previous season.

The country is expected to export around 2,4 million tons of maize in the 2017/18 Financial Year and consequently return to being a net exporter, in contrast to the previous year when an above average volume of nearly 2,4 million tons had to be imported.

Between April and November 2017, about 60% of the exported amount was shipped to East Asia, while a significant volume was also exported to Kenya.

In addition, to increased exports, closing stocks at the end of the 2017/18 Financial Year are expected to rise by almost four times to an above-average level compared to the reduced stocks in 2016/17.

Maize prices were stable in 2017 as upward pressure from a weaker currency and some earlier dry conditions during the start of the planting period for the 2018 maize crop were partly offset by forecasts pointing to good seasonal rainfall prospects. In addition, the abundant national supplies have continued to exert downward pressure, maintaining prices below their year-earlier levels.

An opening maize stock of over 4 million tons in 2018/19 is forecast in South Africa and, therefore, despite the anticipated production decrease, the country is still expected to have adequate supplies to fulfill the import demand by neighbouring countries. The larger domestic supplies also sharply cut maize import requirements for 2017/18, which are estimated to be less than 1 million tons compared to an average level of 2,4 million tons and 4,8 million tons imported in 2016/17. Most of the yearly decline reflects negligible imports, compared to the 2,2 million tons imported in 2016/17.

### Sorghum

Sorghum is an indigenous crop in Africa, while regarded as the fifth most important cereal in the world. There are two types of sorghum, namely bitter and sweet sorghum cultivars.

Preference is given to the sweet cultivars. Bitter sorghum is

planted in areas where birds are a problem because it contains tannin, which gives a bitter taste and consequently birds tend to avoid feeding on it.

Sorghum is mainly cultivated in low and erratic rainfall areas, especially on shallow and heavy clay soils. It is planted mainly between mid-October and mid-December.

During the last few years, sorghum production shifted from the drier western to the wetter eastern production areas. Sorghum for commercial purposes is mainly produced in the Western Free State, Mpumalanga, the drier parts of the North West and Limpopo provinces.

The rainfall pattern and other weather conditions of a particular season can determine the planting period as well as the length of the growing season to a large extent.

The country has moved from being a net exporter to a net importer. The area planted to sorghum is projected to be approximately 60 thousand hectares. The national consumption of sorghum is around 200 000 tons.

### Wheat

Wheat is the second most important grain crop produced in South Africa plays an important role in national food security. Most of the wheat produced in the country is bread wheat, with small quantities of durum wheat being produced in certain areas and is used to produce pasta. In South Africa, wheat is mainly used for human consumption (bread, biscuits, breakfast cereals, rusks, etc.) and the remaining is used as seed and animal feed.

There are other non-food uses such as production of alcohol for ethanol, absorbing agents for disposable diapers, adhesives and industrial uses as starch on coatings. Producers of wheat are estimated to be approximately between 3 800 to 4 000.

Wheat is planted between April and June in the winter rainfall areas and between May and end of July in the summer rainfall areas.

South Africa is a net importer of wheat. The price farmers get for their crop is, therefore, tied to import parity. There is and import tariff of R752.40/t. In 2016, the top exporters of wheat to South Africa were Russia, Germany, Poland, USA, Ukraine, Canada, Argentina and Australia. A quota of 300 thousand tons can be imported duty free from the European Union under the

new EPA. South Africa is expected to import almost two million tons by 2026. The crop is mainly planted between mid-April and mid-June in the Western Cape and between mid-May and the end of July in the eastern Free State province.

According to the Bureau for Food and Agricultural Policy (BFAP), the Free State is expected to account for approximately 14% of total area over the 2017 – 2026 outlook period – due to changing rainfall patterns which make dryland wheat production risky, and the competitive returns from growing soybeans.

The long-term expectation is for a 65% production of the country's wheat to come from the winter-rainfall areas of the Western Cape, and for national production to increase by less than 1% to around 1,7 million tons by 2026.

The wheat marketing season in South Africa commences on 1 October and ends on 30 September the following year. In a bid to protect the local industry, the tariff as at 2017, September 28 was R752,40/t a metric ton. South Africa remains the largest wheat producer in Sub-Saharan Africa after Ethiopia.

In October 2017, a partnership between government and the wheat production saw the launch of a platform that will improve wheat yields, despite the challenging climate.

The multimillion-rand Wheat Breeding Platform at Welgevallen Experimental Farm in Stellenbosch in the Western Cape is aimed at helping South Africa to meet the current local wheat demand and also become a wheat exporter.

Government has invested R15 million into a multi-consortium wheat breeding programme with the aim of improving abiotic stresses such as drought and extreme temperatures.

The platform is a partnership between the department, Grain SA, the Department of Agriculture, Forestry and Fisheries, the Agricultural Research Council, Sensako, Pannar and Stellenbosch University, among others.

Grains remain an important part of the food and nutrition security initiatives. Accordingly, the ARC has developed and disseminated at least seven new wheat cultivars for improved yields and productivity of wheat in South Africa.

The new wheat cultivars are for the Free State, Northern Cape, North West, Limpopo, Southern Cape and Western Cape. The aim is to ensure that farmers adopt these cultivars to increase the production of wheat and reduce the country's

import bill.

### Barley

Barley is one of the most important grain crops in South Africa, surpassed only by wheat and maize and is, following wheat, the most important small grain type.

The cultivation area for malting barley under dry land conditions is at present restricted to a very specific region, namely the Southern Cape, which stretches from Bot River in the west to Heidelberg in the east. It would not be economically viable to cultivate malting barley on dry land in an area that does not receive 350 mm of well-distributed rainfall during the growing season (April to October).

The concentration of the production of a relatively minor commodity, for instance malting barley, in a specific area, has various advantages, e.g. it facilitates transport, storage, control, extension and research, which also implies cost advantages.

However, because of the risk of unpredictable weather conditions in the southern Cape, barley production has also been introduced to the cooler central irrigation areas in the Northern Cape. There are also farmers in other areas of South Africa, such as the North West, Limpopo and Free State, who plant small quantities of malting barley under irrigation.

Malting barley under irrigation has a higher yield and is more stable than in the southern Cape, where the crop is dependent on rainfall.

Barley is planted over a relatively short period of time (from three weeks in certain areas to five weeks in others).

The earlier plantings generally have a higher yield potential. This results in greater yield increases with disease and pest control programmes in earlier plantings. Barley planted later than the optimum planting period is therefore at greater risk in terms of both yield and quality.

Barley is mainly used for the production of malt (for brewing beer), animal feed and pearl barley. However, the Crop Estimates Committee's barley estimates only involve malting barley, therefore excluding barley for animal feed.

### Dry beans

Dry beans are warm season annual legumes with upright or bush as well as creeping type or indeterminate growth habit. The first true leaf formed after the cotyledons emerge from the soil is simple or unifoliate and all subsequent leaves are compound (with three leaflets). Small flowers (self-pollinated) are produced in clusters at various nodes on the plant and may be either white or lavender in colour. Mature pod colour, seed colour and seed size or shape varies depending upon market class and/or variety.

The crop requires between 85 and 120 days from planting to maturity depending on variety. The first half of this period is vegetative development and the latter half is reproductive. In vine types, there is an overlap of the two periods because continued vegetative growth occurs after flowering begins. Flowering continues for 2 to 3 weeks so there can be new pods, half developed pods and fully developed pods as well as newly opened flowers present on many plants in early August. Pods are initially green changing to light brown or tan as they mature. Each pod can contain 2 to 4 seeds depending upon variety.

Gross returns from dry beans can easily be higher than for soya-beans. While yields are typically lower, dry beans fetch a relatively higher price. Achieving a good net profit is dependent on choosing an appropriate market class and good varieties to grow, keeping production costs under control, and finding a cost-effective way to clean, store, and deliver the crop. Although dry bean prices fluctuate, as a food crop they do not follow the prices of corn and soya-beans.

Adding dry beans to the mix of crops on a farm can assist in spreading out the risk from changes in market prices.

The crop has a high-water use efficiency and contribute to soil quality by fixing nitrogen in the soil. They can be used as feedstuff for animals and plays a major role in food security, especially since they are a vegetable protein. South Africa has a dry bean deficit and relies on imports. This provides an opportunity for the whole of Southern Africa to increase production.

The crop is mainly produced in the Free State, KwaZulu-Natal, Limpopo, North West and the Northern Cape provinces. Producers can sell directly to the trade or sell their product to

wholesalers and co-operatives.

### **Oilseeds**

#### **Groundnuts**

Groundnuts are grown mainly in the Free State, North West and Northern Cape. They are also produced in Limpopo, Mpumalanga and KwaZulu-Natal but production is lower in these provinces.

The normal planting time for groundnuts is mid-October to mid-November. The marketing season starts in March and ends in February the following year.

Oil made from groundnuts can be used for cooking and to make peanut butter. It can also be used to manufacture soap; massage oil; body, shaving and hair creams.

The crop is rich in protein and can be eaten raw, cooked or roasted. They work well as a rotational crop and should be planted on the same soil once every four years.

#### **Sunflower seed**

The Free State and North West provinces, are the major producers of sunflower seed, followed by Limpopo, Mpumalanga and Gauteng. South Africa is the world's 10th largest producer of sunflower seed. Sunflower seed can be planted from the beginning of November to the end of December in the eastern parts of the production areas and up to the middle of January in the western part.

Sunflowers grow best when planted in midsummer to ensure that less moisture is lost from the soil during the crucial growing phases.

Compared to other crops, sunflower performs well under dry conditions. This is probably the main reason for the crop's popularity in the marginal production areas of South Africa. A close link exists between the area planted to maize and the area planted to sunflower seed because farmers can easily switch to sunflower if the normal period for maize planting has passed.

Sunflower seed is primarily used for manufacturing sunflower oil and oilcake. The oil is used for cooking and can also be converted to diesel.

Sunflower is used to prepare margarine and spreads, used daily by many people in South Africa. Its seed also produces oil

cake, which is widely used for animal feeds.

South Africa contributed 850 000 tons of the global 46,1 million in 2017.

Major exporters of sunflower seed to South Africa are Romania, Botswana, Bulgaria and Argentina. Importing from SADC countries utilises the SADC Free Trade Agreement which facilitates flow of commodities among countries in the region at no tariff charges.

Sales of sunflower seed are mostly to the domestic market with very little quantities destined for the export market. Mostly, South Africa remains a net importer of sunflower seed.

Sunflower seed can grow on marginal soils with little fertiliser, is consistent crop under unfavourable weather conditions, and historically, it could be planted "as a last resort".

The sunflower marketing season in South Africa commences on 1 March.

#### **Macadamia nuts**

The DAFF together with the Eastern Cape Department of Rural Development and Agrarian Reform has invested R40 million of CASP since 2006 to establish 300 ha of Macadamia Nuts in Ncera area.

This is a private, public partnership with landowners, the community and private partners. A total of 180 ha of Macadamia Nuts have been planted with 80 ha harvested for export market, creating 110 permanent jobs. The project is estimated to be completed by 2017/18 with 300 sustainable jobs created. This project has turned the tide of unemployment, unskilled communities and poverty. It created a vibrant society with better prospects for the future.

This macadamia development programme will be further expanded in the Eastern Cape, KwaZulu-Natal, Mpumalanga and Limpopo, focusing on growing the participation of black producers in this industry.

#### **Soya beans**

Soya beans are produced mainly in Mpumalanga, the Free State and KwaZulu-Natal. Small quantities are also produced in Limpopo, Gauteng and North West. Various soya bean cultivars have adapted quite well to South African conditions. Depending

on prevailing local conditions, soya beans are usually planted in November and December. It is a relatively difficult crop to grow and not all areas are suitable for soya bean cultivation. The plants thrive in warm, fertile, clayish soil and are mainly cultivated under dry land conditions.

Soybeans are an important source of vegetable oil and protein. The seeds can be eaten as a vegetable and when processed, they give soya milk.

The crop is a good rotation crop which benefits crops planted after it. South Africa is one of top soya beans producers in Africa, together with Nigeria, Zambia, Malawi, Benin and Zimbabwe.

The crop is mainly cultivated under dryland conditions, and grown in Mpumalanga and the Free State, KwaZulu-Natal, Limpopo, North West and Gauteng.

Soya beans are planted from November and December.

The area cultivated to soybeans increased to 574 thousand hectares in 2017. The area is expected to increase to just under 900 thousand hectares in 2026. The average yield is projected to increase to a total soybean crop of 2,1 million tons by 2026.

Domestic soya bean oilcake production has exceeded imported oilcake since 2014 and is projected to increase to over 1,8 million tons by 2026, continually replacing imports so that only 250 thousand tons or 13% of domestic soya bean oilcake use is projected to be imported by 2026. Soya oil imports are projected to decrease from 160 thousand tons in 2017 to merely 50 thousand tons by 2026.

In 2016/17, soybeans were consumed as follows: human consumption, 19 838 tons; animal feed, 85 930 tons; oil and oilcake, 756 624 tons.

#### **Canola**

Canola is an oilseed crop grown mainly in the Western Cape. Canola competes on the local market with other oilseeds such as sunflower seeds and soya beans.

Canola was developed in the early 1970s using traditional plant breeding techniques by Canadian plant breeders to remove the antinutritional components (erucic acid and glucosinolates) from rapeseed to assure its safety for human and animal consumption. The canola plant produces seeds with a very low level of saturated fat.

Local and international investors in the oilseed crushing sector are boosting South Africa's capacity to process local oilseed crops such as soya beans, canola and sunflower seed.

About 99% of the canola crop in South Africa is produced in the Western Cape province, particularly in the southern Cape. Over time, there were also farmers in other areas of South Africa, such as the Northern Cape, Free State, Eastern Cape, KwaZulu-Natal, Limpopo and North West, who started to plant small quantities of canola.

## Sugar

South Africa produces cost-competitive high-quality sugar. The sugar sector 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, as well as a range of byproducts.

The cane-growing sector comprises about 29 000 registered sugarcane growers farming predominantly in KwaZulu-Natal, with a substantial investment in Mpumalanga and the Eastern Cape.

Sugar cane is a ratoon crop, which means that after cropping, new shoots emerge from the roots. It yields up to 10 crops from the original rootstock, after which it is uprooted and the field is replanted. This is done on a rotational basis, with approximately 10% of the area under cane being replanted each season. Planting usually coincides with the first spring rains.

Sugar is manufactured by six milling companies with 14 sugar mills operating in these cane-growing regions.

The R12 billion South African sugar industry is cost-competitive, consistently ranking in the top 15 out of approximately 120 sugar producing countries worldwide. The industry makes a positive difference to the lives of more than a one million people and is a catalyst to economic growth and development. Sugarcane is a strategic crop for Kwazulu-Natal and Mpumalanga, where sugarcane production is located, comprising nearly 50% of field crop gross farming income across the two provinces.

The industry has transferred 21% of freehold land under cane from white to black owners since 1994 off a base of 5%. This industry's proactive stance on land reform, which commenced in 1996, has been the foundation for the achievement to date. The

industry has worked closely with the government on numerous land reform projects which have contributed to the success of land reform in the industry.

Based on revenue generated through sugar sales in the Southern African Customs Union region as well as world market exports, the industry generates an annual estimated average direct income of over R12 billion.

It makes an important contribution to employment and sustainable socio-economic development, particularly in rural areas. This is built on its agricultural and industrial investments, foreign exchange earnings, labour intensity, and linkages with major suppliers, support industries and customers. The industry provides education and training, contributes to excellence in research, science and technology, supporting enterprises, and ensuring the sustainable use of natural resources.

The industry is diverse, combining the agricultural activities of sugarcane cultivation with the manufacture of raw and refined sugar, syrups, specialised sugars by-products and co-products. In line with developments in the global sugar sector, it has the potential to be a producer of renewable energy, bio-fuels and bio-plastics.

The sugar industry creates employment in rural and deep rural areas in job starved regions where there is often little other economic opportunity. Direct employment occurs in both in the sugar cane field and the sugar mills and cuts across a diverse array of skills from farm workers to agricultural scientists.

There is also direct and indirect employment through numerous support industries in the provinces where sugarcane is grown and processed. The sugar industry creates approximately 79 000 direct jobs, which represents over 11% of the total agricultural workforce in South Africa. In addition, there are registered cane growers supplying cane for processing to sugar mills. Indirect employment is estimated at 350 000 jobs. Approximately one million people or 2% of South Africa's population depend on the sugar industry for a living.

Sugarcane is grown by approximately 24 000 registered growers, farming predominantly in KwaZulu-Natal with substantial operations in Mpumalanga, and some sugarcane production in the Eastern Cape. Sugar is manufactured by six milling companies with 14 sugar mills operating in the

cane-growing regions. The industry produces an average of 2,2 million tons of sugar per season. About 75% of this sugar on average is marketed in the SACU region. The remainder is exported to markets in Africa, Asia and the USA.

A unique relationship exists between sugarcane and sugar production, in that cane is a bulky, non-tradable commodity which requires rapid post-harvest processing in order to preserve the sucrose in the cane stalk. As a result, sugar mills are always located as close as possible to cane supply. The financial viability of these significant capital investments is entirely dependent on a sustainable supply of sugarcane in each mill supply area.

This in turn means the sheer size of economic activity generated in rural areas through the activities of sugarcane cultivation and sugar production generates a vast number of jobs in support industries and commerce. In most cases the sugar mill and accompanying cane farms form the backbone of the nearest rural town and are major contributors to the development of secondary economic activity, services and infra-structure that otherwise would be absent.

## Deciduous fruit

The deciduous fruit industry in South Africa, including fresh, dried and canned fruit for local consumption and export, is a multimillion rand industry. It is based on scientific research and development, resulting in optimum harvests and quality, a large variety of cultivars, and finely controlled storage methods. Deciduous fruits grown in South Africa include apples, pears, apricots, nectarines, peaches, plums, grapes, olives, figs and cherries.

The Western Cape is the largest and traditional producer of deciduous fruits in South Africa. However, in the past two decades, the Northern Cape, Eastern Cape, and Limpopo provinces have become increasingly large producers of deciduous fruit.

The country is ranked the fourth largest apple producer and second largest pear producer in the Southern Hemisphere.

Although some producers grow fruit both for processing (canning, juice and drying) as well as fresh consumption, it is estimated that in South Africa there are about 2 300 producers

of fruit for fresh consumption, 1 246 producers of dry and table grapes, 925 producers of stone fruit and 706 producers of pome fruit.

Apple production in the 2017/18 financial year is expected to decrease by 6% to 850,000 mt, due to the decrease in area harvested, limited irrigation water, lower yields and smaller fruit sizes. Exports of apples in the 2017/18 financial year are forecast to decrease by 5% to 500,000 mt, based on the available production and some fruit not meeting the export quality standards.

Pear production in the 2017/18 financial year is expected to decrease by 6% to 405,000 mt, due to the decrease in area harvested, limited irrigation water, lower yields and smaller fruit sizes. This is expected to result in about a 3% decrease in exports – to 250,000 mt.

Table grape production is expected to decrease by 14% to 287,000 mt, because of the reduction in area harvested and small fruit size in the Western Cape. This decrease was partially due to the higher yielding new generation varieties, as well as normal production and growing conditions in the Orange River growing regions. This will result in a 15% decrease in the 2017/18 table grape exports to 258,000 mt.

South Africa's deciduous fruit industry is export-oriented and prioritizes exporting as much volume as they can before supplying the surplus fruit to the local market. As a result, the 2017/18 domestic consumption of apples, pears and table grapes will decrease based on the lower production. South Africa only imports small quantities of deciduous fruits to fulfill a niche market or to satisfy domestic demand when supply is limited.

### Dried fruit

Dried fruit is produced mainly in the western and southern parts of the Western Cape province and the Lower and Upper Orange River areas in the Northern Cape province. Tree fruit, as opposed to vine fruit, is dried mainly in the Western Cape.

The most important dried fruit products in terms of volume are Thompson seedless raisins, golden sultanas, unbleached sultanas, currants, peaches, pears, apricots and prunes.

The quantities of dried fruit produced vary per fruit type,

depending on the factors that influence production and the opportunities offered by alternative marketing channels.

Apricots are grown mainly in the Little Karoo and prunes are produced almost exclusively in the Tulbagh District in the Western Cape.

Most raisins are produced in the area along the Lower Orange River and currants are mainly from the Vredendal District in the Western Cape.

### Cotton

In South Africa, cotton is grown in the warm regions of the Limpopo, Mpumalanga, Northern Cape, North West and KwaZulu-Natal where minimum night temperatures are at least 15°C during the growing season. Cotton is planted mainly during October, although planting can be done until the second half of November.

The cotton industry is labour-intensive and provides work for roughly one worker per hectare of cotton planted. Oil extracted from cotton seed can be used for cooking and salad dressings. Extracted seed can also be used as a fertiliser or as feed for livestock, poultry and fish.

The 10th estimate for the 2016/17 production year indicated a total crop of lint bales to be produced from locally grown seed cotton to go up 64% from the previous season.

### Tobacco

Virginia tobacco is produced mainly in Mpumalanga, Limpopo, Eastern Cape, Western Cape and North West.

Flue-cured leaf tobacco contributes more than 79% to total production, with the number of ha cultivated for flue-cured tobacco being about six times the land cultivated for air-cured leaf tobacco. The industry produces 15 million kg tobacco a year.

There are 176 tobacco growers in South Africa operating on some 5 000 ha of land. Tobacco farmers employ about 8 000 – 10 000 farmworkers; in addition, more than 35 000 dependants are also able to make a living in deep rural areas thanks to the tobacco industry.

More than 90% of tobacco used in South Africa goes toward the manufacturing high-quality tobacco products.

### Honeybush and rooibos tea

Honeybush production is a young, growing industry that is unique to South Africa. Honeybush is part of the fynbos that grows wild in the Cederberg area of the Western Cape and is not produced anywhere else in the world. The plant grows naturally on the wetter and cooler southern slopes of mountains. Some species are mostly harvested in the wild, while others are cultivated commercially.

Some 230 ha of honeybush tea are under cultivation. It is harvested from the natural mountainous veld in the Langeberg and Swartberg in the Eastern and Western Cape and processed at farm-processing facilities.

The honeybush industry has the potential to grow from an annual average of 150 t of processed tea to 1 500 t by 2021 and to increase turnover from R10 million to R100 million. South Africa produces about 200 t of honeybush tea a year. Local and international demand exceeds supply.

Fewer than 10 farmers cultivate only 30% of honeybush tea and the rest (70%) is harvested in the wild.

Owing to the growing interest in the health properties of natural products and specifically, herbal teas, many biochemists round the world are investigating rooibos. The rooibos plant grows well in the Cederberg area, where temperatures drop to 0°C during the winter months and rise to 48°C at the height of summer. On average, South Africa produces about 15 000 t of rooibos tea a year. South Africans consume 4 500 t to 5 000 t and the rest is exported.

Since July 2014, South Africa has won the right to secure geographical indicator status for Rooibos tea. This enables Rooibos tea growers to look for new markets in Asia and increase those that already exist.

ARC Infruitec-Nietvoorbij is responsible for managing nine genebanks. The genebanks include field collections of various deciduous tree fruit crops, grapevines, olives, indigenous flowers of the Proteaceae and honeybush, in vitro collections of yeasts, fungi and bacteria as well as some tree fruit and berry crops in medium-term cold storage.

The main purpose of the field genebanks is to conserve genetic diversity of fruits, grapes and indigenous crops,

particularly in support of breeding programmes; the yeast collection contributes to oenological research; and the fungal and bacterial collections provide for research and diagnostics.

With its high levels of antioxidants, rooibos has long been known for its ability to help prevent cancer from developing, but recent research shows that it could potentially also be used to treat – but not cure – the disease.

In laboratory studies, Stellenbosch University (SU) biochemist Prof Amanda Swart found rooibos extract interferes with the male sex hormone dihydrotestosterone – which is one of the main drivers of prostate cancer. This action is similar to that of current drugs used in the treatment of prostate cancers.

Molecular testing showed that honeybush extract contained chemicals that can either block or increase oestrogen, which may drive the growth of some types of cancers.

Although still in the testing phases, honeybush-derived therapy may one day be used as a second-line drug against some of these cancers.

## Wine

South Africa is the eighth-largest wine producer in the world, with a contribution of 4,1% to the world's wine production.

The area under wine grape vineyards is estimated at 98 597 ha, which is 0,9% less than the 99 470 ha of the previous year.

The wine industry is labour intensive and provides employment to approximately 270 000 people directly and indirectly. The number of primary wine grape producers in South Africa is estimated at 3 232.

Wine is produced mainly in the Western Cape Province and along parts of the Orange River in the Northern Cape Province.

The traditional winegrowing areas along the coastal zone benefit from its cooling breezes that moderate the summer temperatures. The Cape mountain ranges form a backdrop to what is internationally recognized as one of the most beautiful wine producing areas of the world. The vineyards lie on a valley sides of the mountain foothills some areas, and in flatter plains in others. One of the potential competitive advantages of the Cape wine lands is great variety of soils, something that can be exploited.

Nietvoorbij, the internationally acclaimed research farm of the ARC, is synonymous with quality research in enology and viticulture. Annually, 1 000 different wines (10 – 20l) are made for research purposes in the modern experimental cellar. Next door, in the old, thatched roof cellar, traditional and modern winemaking methods are combined to create unique wines for enjoyment.

## Citrus and subtropical fruit

South Africa ranks 13th in world citrus production and despite increased competition, its citrus exports are growing. The country is also the world's third largest exporter of fresh citrus fruit by volume, after Spain and Turkey.

Citrus production is largely limited to irrigation areas and occurs in Limpopo (23 970 ha), Eastern Cape (14 770 ha), Western Cape (9 232 ha), Mpumalanga (9 375 ha), KwaZulu-Natal (3 192 ha), and Northern Cape (1 451 ha). Pineapples are grown mainly in the Eastern Cape and 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, as well as in the subtropical coastal areas of KwaZulu-Natal and the Eastern Cape.

Citrus fruit is grown in the Limpopo, Eastern Cape, Mpumalanga, Western Cape and KwaZulu-Natal in areas where subtropical conditions (warm to hot summers and mild winters) prevail.

The Western Cape and Eastern Cape are considered 'cooler' citrus growing areas and production is focused on Navel oranges and lemons. The cooler climate allows farmers to respond to consumer demand for easy peelers like clementines and satsumas. Farm sizes are also smaller and most citrus in the Western and Eastern Cape is packed by privatized cooperatives in huge facilities that are amongst the largest in the world. In Mpumalanga, Limpopo and KwaZulu-Natal, the climate is warmer and better suited to the cultivation of grapefruit and Valencia oranges. Farm sizes in these regions are larger and many farmers pack in smaller privately owned facilities.

In terms of gross value, the citrus industry is the third largest horticultural industry after deciduous fruits and vegetables.

Citrus represents one of South Africa's most important fruit group by value and volume.

A total area of 72 731 ha was under citrus production in South Africa during 2016. There are important differences between production regions in South Africa based mainly on climate.

A number of cultivars or varieties of oranges, soft citrus, grapefruit, and lemons and limes are grown in South Africa. In 2016, the cultivars planted mostly in South Africa were Midnight (34% or 9 411 ha), Valencia Late (20% or 5 512 ha), Delta (18% or 4 974 ha), and Turkey (Juvalle) (10% or 2 628 ha). Together, the four cultivars accounted for 82% of total Valencia oranges planted during the year. The total area planted to Valencia oranges in South Africa during 2016 was 27 535 ha.

Orange exports represented 13% of world exports and ranked number three in the world. Lemon and lime exports represented 7,7% of world exports and ranked number six. South African grapefruit exports represented 13,1% of world exports and its ranking on the world exports was number two. Naartjie exports represented 4,2% of world exports and its ranking on the world exports was number five.

## Vegetables (excluding potatoes)

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 Limpopo, South Africa's main tomato-growing area, most of the crops are found in Letaba (3 260 ha), Mooketsi and Musina (860 ha). Limpopo's total annual production is about 230 000 t.

Onions are grown mainly in Mpumalanga, certain areas of the Western Cape and the southern Free State and in all areas of Limpopo with the main production areas being Polokwane and Mokopane. Onions have an estimated planting area of 6 500 ha to 9 000 ha and a retail value of R200 million a year.

Cabbages are grown countrywide, but the largest crops are in Mpumalanga and the Camperdown and Greytown districts of KwaZulu-Natal.

Vegetables are produced in most parts of the country. However, in certain areas farmers tend to concentrate on specific crops; for example, green beans are grown mainly in

Kaapmuiden, Marble Hall and Tzaneen, green peas mainly in George and Vaalharts, onions mainly in Caledon, Pretoria and Brits and asparagus mainly in Krugersdorp and Ficksburg.

The perishables export industry is a substantial and sustainable contributor to the national economy, with perishables making up more than 50% of the country's agricultural exports, and boasting an annual export value of approximately R45,5 billion. The services delivered by the department through its subsidiaries, such as the Perishable Products Export Control Board, are amongst other measures, based on a national quality control system that ensures safe fresh products that require international best practices.

South Africa has consistently, over many decades, been a world leader of fresh produce supply in a highly competitive world market. This is indicative of the pivotal role of the agricultural sector in providing an efficient supply chain from farm to fork.

The DAFF aims to contribute to the benefit of the economy through sustaining and improving on global agricultural and food supply chains, while keeping on the cutting edge of technology in respect to food safety as a country.

### Potatoes

There are 16 distinct potato-production regions in South Africa, which are spread throughout the country. The main regions are situated in the Free State, Western Cape, Limpopo and Mpumalanga.

Potatoes are planted at different times because of climate differences in the production areas, resulting in fresh potatoes being available throughout the year.

In the early 1990s, there was a major shift in production from dryland to irrigation and currently almost 80% of plantings are under irrigation.

In 2016, the potato industry contributed approximately 52% to the total gross value of vegetable production, 10% of horticultural products and 3% of total agricultural products. Processing of potatoes has grown at a rapid rate over the past ten years. According to Potatoes South Africa, the processing industry represented 20% of the total potato crop.

Potatoes are produced from sixteen production regions which are spread throughout South Africa. The main producing

regions are situated in the Limpopo, Free State, Western Cape, Mpumalanga, Kwazulu Natal and Eastern Cape. In 2016, Eastern Free State province was the leading in the number of hectares planted, accounting for 21% of ha of the total national production. Potatoes are planted at different times due to climatic differences in the production areas. This has resulted in fresh potatoes being available throughout the year. The crop is produced all year round both in dry land and under irrigation. There has been a major shift for the past two decades from dry land production to production under irrigation. A total of 52 722 hectares were planted during the 2016 production year.

According to Potatoes South Africa, in 2016 there were 540 commercial table potato farmers. There are approximately 220 registered potato seed growers under the supervision and administration of potato certification services.

Potatoes are sold through different marketing channels such as national fresh produce market, informal trade (street hawkers), directly to retailers and processors for manufacturing of dry, frozen and fresh chips. They are also exported to other countries through export agents and marketing companies.

### Livestock

Animal production contributes approximately 48% to the country's agricultural output in terms of value. The industry employs about 500 000 people.

The ARC, in partnership with all the provinces, will roll out the implementation of the Livestock Development Programme. In this initiative, the ARC will introduce and expand on the dissemination of technologies, such as artificial insemination and embryo transfer.

The National Agriculture Marketing Council (NAMC) is also actively engaged in a programme to introduce farmers to the structure, operation and requirements of the formal red meat market. This is the National Red Meat Development Programme. It works with emerging and communal farmers to increase the income earned from raising cattle through greater and more beneficial participation in formal red meat markets.

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

By mid-2016, a conservative estimate of the value of South Africa's livestock industry was around R50 billion. The foot-and-mouth disease (FMD)-free status has enabled the country to negotiate market access for cloven-hoofed animal products. The DAFF is in the process of negotiating the export of game meat to the EU and beef to the Middle East.

In safeguarding the country's biosecurity, the ARC has developed a new vaccine against Heartwater that will be made available to farmers after evaluating for safety and registration by the authorities. The availability of a Heartwater vaccine will boost mohair production as Angora goats are the most susceptible to animal diseases.

Development of new vaccines will play a vital role in expanding the number of successful livestock farmers resulting in reduced losses and increase in revenue for the farmers

### Dairy farming

Milk production in South Africa contributes about 0,5% to the world's milk production. South Africa has four major dairy breeds, namely Holstein, Jersey, Guernsey and Ayrshire. The industry comprises various economic activities with, significant differences in farming methods and the processing of dairy products, including the production and marketing of raw milk, pasteurised milk and cream, fermented milk, long-life milk and cream, yoghurt, and cheese and its byproducts.

The South African dairy industry is important to the job market, with some 2 700 milk producers employing 60 000 farmworkers and providing 40 000 people with indirect jobs within the value chain, such as milk processing.

### Beef cattle farming

Beef is produced throughout South Africa. The quantity of beef produced depends on infrastructure such as feedlots and abattoirs, and not necessarily on the number of cattle available in those areas. South Africa has a highly developed transport infrastructure that allows for movement of cattle from one area to another, even to and from neighbouring countries, for example, Namibia. Commercial farmers own 59% of the 14 million head of cattle available in South Africa. There are 27 popular breeds in South Africa including the Brahman, indigenous Afrikaner

and Nguni, Tuli, Boron, Bonsmara, Drakensberger, Simbra, Beefmaster, Angus and Braford.

Beef cattle comprise approximately 80% of the total number of cattle in the country while dairy cattle make up the remaining 20%.

### Small stock (sheep and goat) farming

South Africa has about 8 000 commercial sheep farms and about 5 800 communal farmers. Most of the estimated 24,4 million sheep in South Africa is found in the Eastern Cape, followed by the Northern Cape, Free State, Western Cape and Mpumalanga.

The sheep breed with the highest wool production per head is the South African Merino, followed by other dual-purpose Merino breeds, such as the Dohne Merino, South African Mutton Merino, Afrino and Letelle breeds. Dual-purpose breeds are bred with the specific aim of maximising wool and mutton produce.

Mutton sheep are found mostly in the semidesert areas of the Northern and Western Cape, with the most popular mutton breed being the locally developed Dorper. Limited numbers of indigenous fat-tailed and Karakul sheep are still found. Karakul sheep are found in the more arid areas.

The Eastern Cape has the largest number of goats (38%), followed by Limpopo (19%). 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 one million goats.

The South African mohair clip of four million kilograms, accounts for 60% of the world's mohair production. About 63% of all goats in South Africa are so-called indigenous goats.

South Africa is also geared towards the conservation of indigenous Speckle goat and Namaqua Afrikaner Sheep breeds.

### Pig and poultry farming

The South African pork industry is relatively large, in terms of the overall South African agricultural sector. It contributes 1,9% to the primary agricultural sector. The gross value of pork production is dependent on the quantity produced and the price

farmers received.

The trend in gross value follows a pattern of prices, because the industry is characterised by volatile prices.

Pork is produced throughout South Africa with Limpopo and North West being the largest producers, contributing to 44% of total production. There are about 4 000 commercial, 19 stud and about 110 smallholder pig farmers; they own about 125 000 sows (100 000 commercial and 25 000, smallholder farmers); they employ about 10 000 workers, comprising about 4 000 farm workers and 6 000 workers in the processing and abattoir sectors.

The 46 registered pig abattoirs use modern technology to ensure a streamlined slaughtering process. The predominant pig breeds are the South African Land Race, the Large White, Duroc and the Pietrain.

The poultry industry (including meat and eggs) continues to dominate the agricultural sector in South Africa, and is the main supplier of protein in kilogramme terms to the South African consumer, as more poultry products are consumed per year than all other animal protein sources combined.

The poultry industry is an essential component of South Africa's food value chain. It is the single largest component of the agricultural sector in the country by turnover.

Although poultry producers remain the largest segment of South African agriculture, they have been facing challenges regarding input prices, which put profit margins in broiler production under pressure.

The volatility in price and profitability is inherent to the broiler industry, because biological factors, such as poultry diseases and prolonged turnaround times in the production chain, combined with hikes in feed costs, electricity and fuel have a direct impact on production costs.

Along with being the primary source of protein, the poultry industry remains an important contributor to job creation and employment opportunities. Some 10% of all agricultural sector workers are employed in the poultry sector.

Considering the dominance of the poultry industry in South Africa, it also has the largest influence on the feed industry as its main customer. The South African Poultry Association estimates that a total of 107 857 people (48 118 direct and 59 739 indirect)

are employed in the broiler, hatchery, rearing, processing and distribution industries.

At a gross turnover of R8,6 billion at producer level, eggs take their place as the fourth largest animal product sector in agriculture in South Africa.

Considerable scope exists for increased per capita consumption, particularly taking into account the price competitiveness of eggs as a protein source, compared to other animal proteins.

The industry remains an important employer with an estimated 8 000 workers.

Regarding the African Growth and Opportunity Act trade, although the deadline of 31 December 2015 passed without agreement, an agreement was reached on 6 January 2016 on the relevant three meats, namely beef, pork and poultry. The proclamation made by the USA not to suspend agricultural imports was extended to 15 March 2016. However, the agreement was eventually signed by the USA and is currently in force.

The DAFF has already issued permits for the first 16 250 t of poultry meat to 29 importers, of which nine are HDIs. Under AGOA, the agricultural sector has advantages for the exports of citrus, macadamia nuts, wine and other food products.

However, implications of the concessions are that the EU and other partners may require equal treatment, which will require readjustment of the current agreements with trading partners. Concerning SPS-issues, a protocol for highly pathogenic avian influenza was signed between the two countries.

### Hunting and wildlife sector

The hunting sector in South Africa consists of about 300 000 hunters, of which 75 000 belong to 28 accredited hunting associations.

Hunting can be divided into trophy hunting and meat hunting. South Africa is a popular hunting destination for international hunters that may want to take a trophy of their hunting experience home as memorabilia.

Local hunters, often referred to as biltong hunters, hunt for their own use as an alternative protein source, which also contributes to food security.

The five most popular hunting provinces are Limpopo, Northern Cape, Eastern Cape, North West and Free State. The five most popular species among biltong/consumptive hunters are springbok, impala, blesbuck, blue wildebeest and kudu.

Hunting primarily occurs in rural and remote rural areas, which provides an economic injection to communities that are home to many unskilled and unemployed people. The Limpopo, North West and Eastern Cape provinces are prime hunting destinations that generate employment for the unskilled workforce where other viable land-use options are often limited.

The financial rewards for wildlife management in dryland ecosystems, that stretch over vast areas of the country, is approximately three to four times higher than for domestic stock farming (R220/ha vs R80/ha). Compared to typical agriculture, wildlife-based enterprises employ three times more staff.

The hunting sector in South Africa is represented by various voluntary associations and organisations that serve in the interest of both consumptive and professional hunters. The SA Hunters and Game Conservation Association (SA Hunters) is the biggest representative body for hunters in South Africa and has approximately 42 000 members in 79 branches countrywide.

SA Hunters and other hunting associations in South Africa have taken the lead in the wildlife economy by advocating and practising responsible, sustainable hunting as the most effective wildlife management mechanism that supports the game ranching sector in the country.

## Programmes and projects

### Regulatory services

The DAFF's regulatory activities include: the inspection of plants, animals and their products to prevent the introduction and distribution of quarantine pests and diseases; to also ensure that exported animals/plants and their products are free from quarantine pests and diseases.

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

Trade in animals and animal products are regulated to prevent the entry of diseases.

The DAFF also ensures compliance with agricultural legislation by conducting inspections at designated ports of entry. Preborder inspections are aimed at exports for compliance with international requirements among trading partners. Post-border inspections are intended for those regulated articles that were given extended detentions at borders or escaped the border control inspections.

Plants and plant products are inspected for compliance with plant health, genetic resources and food and quality-assurance legislation. The department conducts surveillance for regulated pests and/or national pests of concern throughout the country.

The Pest Risk Analysis Division conducts scientific analysis of risks posed based on scientific data. Risks associated with the importation of plant propagation material are managed by prescribing a compulsory predetermined quarantine detention period for specific high-risk categories.

To prevent the introduction of harmful exotic plant pests, all imported plant material is tested and audited. The DAFF renders diagnostic services to ensure that all imported and exported products comply with international standards.

Closely linked to early detection is the implementation of proper pest-awareness programmes to keep the agricultural sector and the general public informed.

Through its Import/Export Protocols Division, the DAFF ensures and maintains 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.

Despite having maintained the country's lucrative fruit export markets, production and exports are still under threat. Accordingly, imports of host fruit from countries where pests have been established must be appropriately managed. This emphasises the importance of border control and risk management responsibilities.

### Food import and export standards

Internationally, standards for food imports and exports are harmonised through various international standard-setting bodies subscribed to under the World Trade Organisation (WTO) and to which South Africa is a signatory, including the

Sanitary and Phytosanitary Measurements Agreement, World Organisation for Animal Health, Codex Alimentarius Commission and the Intergovernmental Panel on Climate Change. These requirements aim to protect consumer rights, the environment, animal life and public health.

Through its Directorate: Food Import and Export Standards, the department collates information regarding the standards for sanitary and phytosanitary measures applicable to trade in animal and plant products. The DAFF also coordinates promotion and awareness programmes addressing cross-cutting standards and legislative requirements for food safety, quality, and plant and animal health.

The department and the PPECB work closely to assist South Africans – within the ambit of the law – to export their products successfully in a highly competitive global arena.

### Food safety and quality assurance

The Directorate: Food Safety and Quality Assurance (D: FSQA) is responsible for the development of regulations, standards and requirements regarding control of the export of agricultural products of plant and animal origin under the Agricultural Product Standards Act and to control the production, sale, import and export of certain alcoholic products in terms of the Liquor Products Act.

These standards and regulations are harmonised with various international standard-setting bodies such as the Codex Alimentarius Commission, The Organization for Economic Co-operation and Development, United Nations (UN) Economic Commission for Europe and the International Dairy Federation.

South African products can compete on an equal footing with overseas products and can also be marketed more competitively.

The Agricultural Product Standards Act makes provision for the appointment of assignees to undertake inspections at the point of sale, manufacture, packing or export to ensure that the set standards and requirements are complied with.

The following assignees are currently appointed:

- The PPECB conducts quality inspection and food safety services for regulated agricultural products under the Agricultural Products Standards Act, 1990 (Act 119 of 1990)

intended for export;

- Nejahmogul Technologies Agric Services (Pty) Ltd conducts quality inspection for dairy and related products on the local market;
- Agency for Food Safety conducts inspection for regulated animal products (poultry meat and eggs) on the local market;
- Impumelelo Agribusiness (Pty) Ltd conducts quality inspections on processed products on the local market;
- Leaf Services conducts quality inspections on grain and grain products on the local market;
- Product Control of South Africa conducts quality inspections of fresh fruit and vegetables; and
- South African Meat Industry Company conducts inspections of meat carcasses on the local market.

### National analytical services

The National Analytical Services (NAS) laboratories reside under the D: FSQA. There are two in-house laboratories within NAS; one situated in Stellenbosch and one in Pretoria. The laboratories provide and coordinate the analysis of certain agricultural products (fresh fruit and vegetables, grains, wines and spirits, dairy products and processed food) in support of the enforcement of the food safety and quality standards and requirements as laid down in the Agricultural Products Standards Act and the Liquor Products Act.

### Disaster and risk management

The National Agricultural Disaster Risk Management Committee provides strategic guidance on policy and advises the Ministry of Agriculture, Forestry and Fisheries on issues relating to agricultural disaster risk management. The committee comprises members from provincial departments of agriculture, organised agriculture such as Nafu, Agri SA, TAU SA and ARC and relevant directorates within the department.

The established National Drought Task Team, chaired by the DAFF, advises the National Disaster Management Advisory Forum on drought management. The task team comprises provincial disaster management centres, organised agriculture such as NAFU, Agri SA, TAU SA and ARC, and relevant directorates within the department. The department frequently

responds to hazards such as droughts, veld fires, floods and outbreaks of pests and disease, which includes the control of migratory pests such as locusts and quelea. It is also responsible for the control of the blackfly pest.

### International cooperation

Regarding AGOA trade, South Africa was given an extension on the 31 December 2015 deadline to comply to AGOA requirements. An agreement was reached on 6 January 2016 on the relevant three meats, namely beef, pork and poultry.

The Proclamation made by the USA not to suspend agricultural imports, was extended to 15 March 2016. The agreement was eventually signed by the USA and is currently in force. The DAFF has issued permits for the first 16 250 t of poultry meat to 29 importers, of which nine are historically disadvantaged individuals (HDIs).

Under AGOA, the agricultural sector has advantages for the exports of citrus, macadamia nuts, wine and other food products. However, implications of the concessions are that the EU and other partners may require equal treatment, which will require readjustment of the current agreements with trading partners.

Concerning sanitary and phyto-sanitary (SPS) issues, a protocol for highly pathogenic avian influenza was signed between the two countries in November 2015.

The DAFF has continued to open new markets. A notable achievement is the Indonesian government's recognition of the competence of South Africa's food safety control measures. This comes after a protracted negotiation process between the technical teams of the two countries, which eventually led to the opening of the Indonesian market to South African exporters.

The recognition was granted in respect of 15 commodities, including deciduous fruit, citrus, grapes and nuts. South African exporters will be allowed to use the port of Jakarta, the port of Tanjung Priok, which is closer to the main Jakarta market, therefore reducing transport costs and preventing quality loss.

In safeguarding biodiversity, the ARC has developed a new vaccine against Heartwater that will be made available to farmers after evaluation for safety and registration by the authorities.

The availability of a Heartwater vaccine will boost mohair

production as Angora goats are the most susceptible to animal diseases. Development of the new vaccine will play a vital role in expanding the number of successful livestock farmers, resulting in reduced losses and increased revenue for farmers.

Regarding exotic fruit flies, the quarantine pest *Bactrocera dorsalis* was detected in all provinces except the Western, Eastern and Northern Cape and the Free State. No surveillance took place in North West. However, pest management interventions took place in KwaZulu-Natal and the Eastern Cape. The pest was also detected in new areas – eastern parts of the Eastern Cape and the Mpumalanga Highveld.

South Africa, under the leadership of DAFF, has acceded to the Indian Ocean Tuna Commission and the Commission for the Conservation of Southern Bluefin Tuna, thereby allowing the country greater influence in negotiating for increased tuna quota allocations and access.

The associated benefits of fully acceding to these regional fisheries management organisations (RFMOs) has resulted in the immediate increase in the allocation of Southern Bluefin Tuna from 40 t to 150 t. This has increased the sector's income from about R24 million to more than R100 million.

### Weather and climate

#### Climate change

The agricultural sector in South Africa faces considerable impact from climate change, which affects the livelihoods of most people, especially those who are vulnerable to food insecurity.

South Africa responds to international obligations regarding climate mainly through the Department of Environmental Affairs, but the DAFF, as well as other departments such as those of mineral resources, energy, science and technology, and water affairs are also involved. The Climate Change Programme implemented by the DAFF includes programmes on raising awareness, policy development, the development of sector mitigation and adaptation plans, conducting vulnerability assessments countrywide, and identifying and coordinating climate-related research projects.

South Africa is a full member of the Global Research Alliance which, among other objectives, aims to enhance collaborative research into reducing agricultural emissions and increasing

support and resourcing for agricultural emissions research.

### Early warning unit

The increasing risk of disaster is reduced by strengthening early warning systems and disseminating early warnings, as well as raising awareness through campaigns. This helps to build resilient farming communities.

The DAFF has, therefore, developed and implemented an Early Warning System (EWS) that disseminates extreme weather warnings to farming communities. The EWS communicates monthly advisories and daily extreme weather warnings, in support of reducing disaster risk.

The implementation of the EWS is continuously monitored and evaluated to identify and address gaps in the system. National Agro-Meteorological Committee meetings are held quarterly.

### Sustainable resource management and use

The DAFF and the ARC's Institute for Soil, Climate and Water have developed an inventory of soils, terrain forms and climate (land types). The National Land Type Survey, available for use at a 1:250 000 scale, aims to assist and guide land-use planning and decision making at national level.

All available natural-resource spatial information and other required data sets, including the latest Spot 5 satellite imagery and agricultural information, are found on the internet-based Agricultural Geo-Referenced Information System (Agis). Using interactive web-based applications, Agis provides access to spatial information, industry-specific information and decision-support tools.

The Advanced Fire Information System (Afis) tracks all fire outbreaks in the SADC region through the use of Moderate-Resolution Imaging Spectroradiometer satellite imagery. The information may be viewed at [afis.meraka.org.za](http://afis.meraka.org.za).

### Soil degradation

Soil degradation is largely related to the decline in organic soil matter. Monoculture cereal production, intensive tillage, short-term fallow periods and limited crop rotation have contributed to this in the commercial sector.

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.

It is calculated that 1,5 million ha (around 1% of the land surface) have a high to extremely high erosion risk. More than 11 million ha (9%) are classified as having a moderate erosion risk, and 17% as very low to very 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 the north-western Free State – the areas that produce 75% of the country's maize.

South African soils are also extremely prone to serious soil compaction, particularly under intensive mechanised cultivated agriculture, in both dry land and irrigated land. 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 prone to serious crusting (surface sealing). The extent resulting and awareness of it have increased sharply over the last two decades.

Human-induced soil acidification is a major problem. Its effect is severe since it impacts on the country's scarce, arable land, especially the limited high-potential agricultural land. Soil-fertility degradation is a concern.

In commercial agriculture, there has been nutrient capital-building of some nutrients, especially phosphorus and zinc. In some cases, phosphorus has built up to excessive levels, where it starts to reduce crop yields.

### Genetically modified organisms

Genetic modification (GM) provides a way to meet the growing demand for food without placing greater pressure on scarce resources.

South Africa has commercialised three different GM crops, namely maize, cotton and soya beans.

South Africa is the ninth largest producer of genetically modified crops in the world and remains the pioneer for the

adoption of genetically modified crops. This is aligned to Section 24 of the Constitution, which advocates for sustainable use of biodiversity

### LandCare Programme

The National LandCare Programme is a government-supported community-based initiative, which is active throughout the country. Driven by both the public and private sectors through partnerships and cooperation, it seeks to:

- conserve natural resources
- use them in a sustainable way
- create a conservation ethic through education and awareness
- create jobs and address poverty by launching various natural resource rehabilitation, improvement and conservation projects.

Serious concerns about land and water degradation are identified in each province and specific projects address these issues. Projects have been implemented in all nine provinces through the LandCare Conditional Grant, whereby ring-fenced funding is transferred to provinces, in terms of the Yearly Division of Revenue.

Four subprogrammes, namely WaterCare, VeldCare, SoilCare and JuniorCare, are all part of the LandCare Programme.

The LandCare Programme is aligned with Government's broader objective of job creation. The temporary jobs created under the programme are funded through the EPWP and the LandCare Programme adheres to the target of 55% women, 40% youth and 2% people with disabilities as specified by the EPWP.

Funding for these projects is transferred quarterly to the respective provincial departments as implementing agents, as conditional grants under the Division of Revenue Act (DORA). Assessment and reporting requirements are specified in DORA, as well as by the EPWP. The provincial departments use the reporting tools provided by the EPWP to report on the number of jobs created.

Additional monthly, quarterly and annual reports are forwarded by the provincial departments to DAFF to monitor performance and the impact of the programme on the state of the natural agricultural resources.

### WaterCare

WaterCare promotes the development of techniques for water-resource management and encourages opportunities for training in this field.

The rehabilitation of irrigation schemes increases water supply and household food security. 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.

The DAFF has embarked on a process to rehabilitate 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.

### VeldCare

This programme 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 Conservation Agriculture (CA) approach has encouraged the proactive and sustainable use of agricultural natural resources. CA aims to ensure the effective and sustainable use and management of natural resources through minimum disturbance of the soil.

CA integrates the management of soil, water and biological resources, to maintain and enhance land productivity and reduce the level of risk.

It further aims to protect the potential of natural resources, prevent soil and water degradation and ensure economic viability with a reduction in vulnerability to the effects of climate change.

The result of these practices will ensure continued household and national food security through crop production, while conserving the environment. CA is characterised by three principles:

- minimum mechanical soil disturbance (minimum tillage)
- permanent organic soil cover, particularly through available crop residue
- diversified crop-rotation practices.

### Junior LandCare

The objectives of Junior LandCare are to empower previously disadvantaged youth by providing training in facilitation and leadership skills.

This includes promoting 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.

### Smallholder development

In support of food security, the DAFF has persistently strengthened its support for smallholder producers and continues to do so with the involvement of both internal and external partners.

Support to smallholder producers is being synchronised through the department's coordinated Programme Management Unit, which comprises all DAFF technical support units.

The Programme Management Unit has been established to reinforce smallholder support activities of the already existing Smallholder Development Working Group, which is constituted by other national government departments, the ARC and the provincial departments of agriculture. Smallholder access to markets is pursued and engagements with institutions such as the World Food Programme and the Food and Agriculture Organisation for such market opportunities are at an advanced stage.

A web-based platform of the supported small-holder producers is being developed to ensure proper data and updates on all

smallholder activities. The implementation of the approved Strategic Plan for Smallholder Support is on track with support funding received from the Department of Trade and Industry's Employment Creation Fund.

Small-scale sugar cane farmers in the Nkomazi area of Mpumalanga are to benefit significantly from Government's Jobs Fund and are expected to double their production and create 1 544 new and sustainable jobs.

The farms should, over a five-year period, increase production from 450 000 t of cane to 850 000 t per year.

The fund is targeted at established companies with a good track record and which plan to expand existing programmes or pilot innovative approaches to employment creation, with a special focus on opportunities for young people.

Akwandze Agricultural Finance Ltd, through funding provided by the Jobs Fund, is addressing this need by ensuring these farmers can get adequate, cost-effective and appropriate financing with favourable terms.

Akwandze is also providing a package of associated farmer support initiatives such as on-site service back-up, training and capacity building.

According to the South Africa Sugar Association, the number of small-scale sugar growers declined by 33% between 2005 and 2011. The productivity of small-scale farmers has also been declining. The tonnage in sugar produced by small-scale farmers has dropped from 850 000 at its peak to 450 000 t per year.

Akwandze is also supporting a cooperative of 216 small-scale farmers called Siboshwa to expand their growing area of 83 ha by 20 ha, developing their irrigation infrastructure and ensuring everything is in place to maintain it according to manufacturer specifications. This should allow them to produce another 2 000 t of cane.

Akwandze has matched a grant of R50 million from the Jobs Fund with a further R70 million and will recapitalise irrigation infrastructure for 1 281 small-scale growers, which will help to rehabilitate 10 000 ha of sugar cane land.

Akwandze will also extend its lending capacity to the growers for replanting, fertiliser, weeding and irrigation costs. The result should be to double the total annual tonnage of sugar cane

produced by small-scale growers in Nkomazi.

It is anticipated that the Akwandze Project will create 1 544 new full-time jobs and increase turnover for these small-scale growers.

The agricultural, forestry and fisheries sectors have the best multiplier effect for every rand invested in terms of employment, exports, fiscal revenue and economic output.

With all conditions favourable, the agriculture and agro-processing value chain has the potential to increase the number of smallholders from 171 670 in 2013 to 471 670 in 2019; increase the value added of the sectors from R42,5 billion in 2012 to R48,9 billion in 2019 (or 2% real growth per year); real increase in the value of net exports from an annual average of R5,1 billion in 2012 to R5,8 billion in 2019 (or 2% real growth per year); decrease in the value of diesel, fertiliser and machinery imports from an annual average of R9,6 billion in 2012 to R7,4 billion in 2019 (or 3% real decline per year) and increase the number of jobs in the sector from 660 000 in 2012 to a potential one million jobs by 2030.

The intensification of the RAAVC will focus on the following five crucial areas, namely the implementation of the Agri-parks — expanding infrastructure support to 44 Agri-hubs and 88 farmer production support units; implementing APAP with special focus on the production of high value crops where R3,2 billion will be spent on projects and 11 082 jobs created; collaborating with private sector partners to leverage new investments; increasing market access for smallholders through the implementation of programmes such as SA-GAP and increasing intra-African trade and other global trade opportunities and continued implementation of the Aquaculture Lab to strive towards achieving total production of 8 100 t, 3 200 jobs and an additional R500 million investment.

Public entities, the ARC and the NAMC in particular, have been actively involved in the development of APAP/RAAVC over the past two financial years. The research and databases from the ARC's Soil Testing Laboratories was used in its spatial analysis and maps to determine which commodities can be produced in which places.

These maps have been overlaid with the mapping by the Department of Rural Development and Land Reform following

their land audit.

The NAMC also supported APAP/RAAVC with economic analysis and their expertise in value chain mapping. The NAMC is also the coordinator for Strategic Infrastructure Project 11, which pertains to agrolistics and rural infrastructure.

The PPECB has committed to expand the number of smallholder farmers with South African Good Agricultural Practice (SA-GAP) certification. The organisation is also working with the OBP to secure adequate funding to ramp up vaccine production.

In March 2017, the Eastern Cape government announced that small-scale farmers were to benefit from the school nutrition programme by supplying fresh produce to their local schools.

The DAFF was working on a local farmer development programme that seeks to give local farmers an opportunity to directly provide schools in their areas with fresh produce.

The pilot would be in one circuit per district to test the inclusion of local fresh food producers in the school nutrition programme. The benefits of this would be increased access to healthier food for school learners through supporting local food producers who would benefit financially from this new market.

The DAFF engages service providers who are given contracts to supply hot meals to schools on a daily basis. The school nutrition programme in the Eastern Cape has in the past been marred by inflation of prices by rogue service providers.

MEC Makapula said the school nutrition programme was increasing learner enrolment and retention at schools in the province. The programme was allocated R1,1 billion rand for 2017.

### Extension and advisory services

The National Policy on Extension and Advisory Services for the agricultural, forestry and fisheries sectors recognises and calls for the involvement of a wide array of stakeholders involved in the delivery of extension and advisory services through a pluralistic and integrated approach.

Such an approach is expected to ensure that extension and advisory services benefit from the distributed technical expertise, financial capital and other resources located across the stakeholder base. The DAFF targets to deploy 20 extension

practitioners to commodity organisations per financial year.

The intention is to deploy 100 extension practitioners by 2019/20, to ensure that extension practitioners acquire skills and gain experience of a specific commodity value chain.

### Training

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

At grassroots level, South Africa has a number of regular schools offering a range of agricultural subjects and specialised agricultural high schools such as Bekker High School in North West, Harry Oppenheimer Agricultural High School in Limpopo and Boland Agricultural High School in the Western Cape.

Prospective farmers and technicians are trained at the country's colleges of agriculture such as Grootfontein Agricultural Development Institute in the Eastern Cape, Cedara College of Agriculture in KwaZulu-Natal and Madzivhandila College of Agriculture in Limpopo.

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

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

The ARC, several universities and various private-sector organisations, as well as some provincial departments of agriculture, which are responsible for technological development and transfer aimed at improving managerial efficiency on farms, conduct agricultural research.

### Research and innovation

It is only through proper research that the country can be able to increase productivity, come up with disease resistant plants and animals, and alleviate the impact of climate change.

The ARC, several universities and various private-sector organisations, as well as some provincial departments of agriculture, which are responsible for technological development

and transfer aimed at improving managerial efficiency on farms, conduct agricultural research.

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 Research and Development Strategy. This encompasses the national priority-setting process, developing guidelines, administering a national research and technology fund and overall monitoring and evaluation.

The National Agricultural Research Forum (NARF) provides a platform for stakeholder consultations on research and development while the Government Agricultural Research and Development Action Group provide a platform for Government and State-owned entities to plan research and technology development within the national agricultural research system.

The NARF facilitates consensus and makes recommendations to Government on the coordination of research, development and transfer of technology to enhance national economic growth, social welfare and environmental sustainability.

In the last 18 months, the ARC has identified and provided scientific solutions to farmers for crop pests and diseases such as tomato leaf miner, Fall Armyworm, Mirafiori lettuce big vein disease and false codling moth among others.

Solutions provided have enabled the majority of farmers, commercial and smallholder, to achieve the record yields. Through the use of ARC cultivars, the fruit canning industry provides sustainable income to more than 20 000 direct employees and generates more than R2,5 billion per annum.

## Policy

The Directorate: Policy Research Support in the DAFF coordinates all agricultural research and development activities. The mandate of the Policy Research Support on policies extends beyond policies and strategies in research but covers the entire sector related policies.

The Policy Research Support Unit is responsible for ensuring that available sector policies are aligned to government

protocols, which is conducted by subjecting available policies to the objectives of the main government policies, such as the NDP, to ensure that sector policies address Government's priorities.

The unit is also responsible for conducting the review of sector policies for alignment with the NDP.

## Animal identification

Under the Animal Identification Act, 2002 (Act 6 of 2002) the Minister declares animals for compulsory identification. The national register is available to the SAPS through the State Information Technology Agency to help it trace 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.

## Regulation services

### 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 DAFF.

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

To respond comprehensively to the management of regulated plant pests and diseases, the department, in close collaboration with the South African fruit industries, has developed an early warning surveillance programme for the quarantine of fruit flies. The technical forum continues to identify, prioritise and manage quarantine pest risks such as the African invader fruit fly.

In the global trade of food and food products, veterinary public health and food safety aspects in relation to animal products received increasing attention.

## Food security

To address the challenges of households vulnerable to poverty, inequality, unemployment and persons with inadequate or severely inadequate access to food, the department has

prioritised food and nutrition security, including agrarian transformation.

In 2013, the South African Cabinet approved the National Policy on Food and Nutrition Security, the Household Food and Nutrition Security Strategy and the Fetsa Tlala Integrated Food Production Initiative. These policy frameworks are intended to streamline, harmonise and integrate the diverse food and nutrition security interventions in South Africa.

The strategic objective of the National Policy on Food and Nutrition Security is to ensure the availability, accessibility and affordability of safe and nutritious food at national and household levels.

The National Food and Nutrition Security Plan (NFNSP 2017 – 2022) embodies a collective response of government to the challenges of food insecurity and malnutrition in the country. It reflects a common vision across government departments and entails a unified set of national goals and objectives, indicators and targets for monitoring progress, as well as a common budget for implementation of activities.

It enables the country to address problems such as hunger, malnutrition and micronutrient deficiencies that affect physical growth and cognitive development, especially among children, as directed by the NDP 2030.

The goal of the NFNSP is to implement a priority set of actions and establish the necessary institutional architecture to lead, coordinate, budget and monitor the implementation of these actions to deliver significant improvements in food and nutrition status by 2030.

The NFNSP actions are guided by six strategic objectives which were derived from a consultative process aimed at establishing a governance and leadership system; to review current policies and strategies; reform the current duplicated and uncoordinated delivery of food and nutrition security (FNS) interventions and to ensure the implementation of strategic and comprehensive FNS initiatives in a coordinated manner.

It also took into account the recommendations from Cabinet; the Policy on Food and Nutrition Security, and the Diagnostic/Implementation Evaluation of Nutrition Interventions for Children from Conception to Age 5 (2014), which compared South Africa to Brazil, Colombia, Malaysia, Malawi and Mozambique.

The department also worked with the private sector to develop the APAP, which will bring one million ha of underused land into full production over the next three years.

Through APAP/RAAVC, the department aims to bring more smallholders into the mainstream as envisaged in the NDP. However, the effective participation of the previously excluded black majority in agriculture and food production will only occur meaningfully, when they have access to land and the means to work it.

An inclusive and scientific process will be used to assess the situation in terms of land capability for different commodities and in different localities, so as to inform land acquisition and allocation for different categories of producers across the country.

Although the country can maintain the ability under normal weather conditions to meet national food requirements, more than 14 million citizens have insufficient access to food, are vulnerable to hunger and are food insecure. To reduce hunger and ensure that good nutrition is attained, the DAFF will focus on the promotion and empowerment of smallholder producers.

These producers are supported in various ways, among others, by providing production inputs, training and advisory services, as well as access to finance and credit through MAFISA, CASP and Ilima/Letsema. These interventions have increased their competitive edge towards becoming sustainable producers to provide products to markets. Through the Fetsa Tlala initiative, the department's strategic objective is to use one million ha of land in rural areas for the production of crops.

To ensure mechanisation support to smallholder producers, the National Mechanisation Policy creates a favourable regulatory environment in which Government will continue to make agricultural machinery such as tractors available to smallholder producers to ensure the optimal production of food.

An innovation of which the department is particularly proud is the drought tolerant maize cultivar which was launched by the ARC in 2014. Results indicate that farmers who planted the new maize cultivar experienced on average 50% increased yields when compared to conventional varieties available on the market. The department now has to ensure that sufficient seed

is available for farmers.

The final small-scale fisheries regulations were gazetted on 8 March 2016, along with the Marine Living Resources Amendment Act signed by the President. These now provide the legal mechanism for the implementation of the small-scale fisheries policy. These reforms give legal recognition to small-scale fishers and will promote the transformation of the subsector to assist fishing communities living along the coastal areas in creating sustainable livelihoods, generating income and creating jobs.

Aquaculture has been given a boost through its inclusion in the Oceans Economy Operation Phakisa. Through Operation Phakisa and the detailed plans on the development of 24 marine and inland aquaculture projects, which are being implemented, the department expects to increase production from the current 4 000 t to 20 000 t per year, increase the current value of the subsector from R400 million to R6 billion per year and create up to 210 000 sector jobs by 2030.

### **Fetsa Tlala Food Production Initiative**

The Fetsa Tlala Food Production Initiative mobilised smallholder producers to increase production and to access export market opportunities through, for example, the World Food Programme.

Initially, the initiative sought to put one million ha of underutilised agricultural land in communal areas and land reform farms back in production.

The department will accelerate support programmes and continue to forge partnerships with the private sector and other relevant stakeholders to claw back on the upward trajectory for Fetsa Tlala for the coming production seasons.

Work on a Government-led food procurement model, linked to the smallholder producers, is currently under way. This is one of the interventions by Government to sustain the economic viability of this vulnerable agricultural sector.

Through this initiative, Government will reprioritise its procurement on food to create markets for subsistence and smallholder producers in rural, urban and peri-urban areas.

Sector interventions to assist smallholder producers with technical, infrastructure and financial support will continue to be rolled out. These include the CASP and the Ilima/Letsema and

LandCare programmes.

### **Female Entrepreneur Awards**

Top female farmers were recognised during the DAFF's prestigious Female Entrepreneur Awards ceremony in Mpumalanga in August 2017. The annual ceremony continues to pay tribute to the efforts and contribution by women, young females and women with disabilities for the roles they play towards ensuring food security, poverty alleviation, job creation and economic growth in the sector. The awards were held under the theme "Proclaiming progress towards women's empowerment."

Kedidimetse Rakgoale from North West was crowned the overall winner of the night. She also received an award in the Top Entrepreneur Commercial category. Rakgoale produces broiler chickens at the Selame Poultry farm and has created 14 permanent jobs.

Other awards presented on the night were:

- Best Female Worker: Zona Nzimande from the Eastern Cape
- Best Subsistence Producer: Kobanku Msibi from the Free State Province
- Top Entrepreneur – Smallholder: Julia Madihlaba from Limpopo.
- Top Entrepreneur – Processing and the Ministerial Award for Young Female Entrepreneur: Berene Damons from Western Cape.

The Western Cape also walked away with a third award for Top Entrepreneur: Export Markets which was handed to Carmelita Kelly – the first black person to study and qualify as a wine maker in South Africa (in 1995).

A second Ministerial Award for Disabled Female Entrepreneur went to Busisiwe Nyathi from Mpumalanga.

Winners walked away with prize money and tablets loaded with the Agrisuite app to help them with farming information and fertilisers.

## **Regional and international cooperation and trade**

### **Regional cooperation**

South Africa has strong and mutually dependent economic links

with countries in the southern African region through the SADC and the SACU.

As contribution to the African regional development, the DAFF continues to implement South Africa's foreign policy objectives, through the facilitation of SADC and AU engagements and implementation of the South-South Cooperation.

The International Relations Strategy is an instrument put into place to interact with various sector stakeholders at regional and international level in support of producers to access international markets.

### Regional trade

South Africa, as a member of SACU and a signatory of the SADC Treaty, is committed to sharing its objectives with other nations in the region. SACU opened its markets to the countries of the SADC region by implementing its tariff reduction commitments under the SADC Trade Protocol.

The signatories to the SADC Trade Protocol are: Botswana, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, the Seychelles, Swaziland, Tanzania, Zambia and Zimbabwe. Angola and the Democratic Republic of the Congo are still in the process of acceding to the protocol.

The first objective of the trade protocol is to remove both tariff and non-tariff barriers to trade between SADC countries.

The SADC has set up an electronic reporting system for non-tariff barriers, in which the DAFF is involved as a contact point to receive traders' complaints.

South Africa, as part of the SACU and SADC, is in the process with negotiating with the Common Market for Southern and Eastern Africa and the East African Community for the Tripartite Free Trade Area Agreement.

### Forestry

The DAFF is the custodian of South Africa's forest resources, which cover over 38 million ha (about 31,1%) of the country's land surface area.

The forestry sector employs around 158 400 workers with the forest sub-sector providing about 60 200 direct jobs and 28 000 indirect jobs. Forestry provides livelihood support to 692 000 people of the country's rural population. The pulp and

paper industry provides about 13 200 direct and 10 800 indirect employment opportunities.

Some 20 000 direct workers are employed and 8 000 indirect in sawmilling, and 6 000 in the timber-board and 2 200 in the mining timber industries, while a further 10 000 workers are employed in miscellaneous jobs in forestry.

In terms of land use, the afforested area is about 1,22 million ha or about 1,0% of the total South African land area of 122,3 million ha. The forest sector (forestry and forest products) contributes about 0,91% to the GDP, a considerable decline from the usual average of 1,2% to the GDP in the previous few years. In terms of regional GDP, forestry in KwaZulu-Natal contributes 3,4%; Mpumalanga 3,1%; the Eastern Cape 0,9%; Limpopo 0,7% and Western Cape about 0.2%.

The DAFF contributes to eradicating poverty through the Forestry Livelihoods Programme. Firewood, construction poles, medicinal plants and edible fruit are all critical to the livelihoods of the rural poor.

The department develops human resources through forestry-sector skills development initiatives and promotes employment through commercial forestry activities such as forestation and downstream activities. The integration of forestry programmes into provincial and municipal development plans assist with the United Nations' Plant a Million Trees Campaign.

The DAFF is pursuing a target of 10 000 ha of net new afforestation a year. However, the target has not been met due to various reasons that include challenges with acquisition of water use licences for afforestation and the need to conduct environmental impact assessments since forestry is classified as a stream flow reduction activity in terms of environmental law. There are new efforts to review the target. However, it has emerged recently that afforestation on areas issued with planting licences has been slow due to various reasons.

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 DAFF is working closely with other government structures in the Eastern Cape and KwaZulu-Natal to fast-track

the afforestation licensing process.

In the Eastern Cape, the DAFF and the Dti have recently funded the processes of conducting environmental impact assessments – a prerequisite preceding any afforestation activity.

Afforestation is taking 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, which will lead to broad economic growth. An additional R500 million a year could be generated from such plantations.

The forestry programme also includes greening and tree-planting projects. The programme prioritises work on integrated fire management and the Working on Fire Programme and fire protection associations registered in terms of the fire law are playing a crucial role in this regard. The department encourages the establishment and registration of fire-protection associations (FPAs), which are community-based organisations established in terms of the National Veld and Forest Fire Act of 1998.

Although forestry contributes a modest 0,6% to the GDP, it supports manufacturing subsectors such as pulp, paper and cellulose manufacture, sawmilling, pole treating, panel and fibre board manufacturing, as well as mining timber, tannin extract (used in leather tanning) and charcoal manufacture.

Of the total land area of 122,3 million ha in South Africa, only 1% or 1,221 million ha is used for forestry.

In 2016, plantation area per province, as a percentage of the total plantation area in the country was as follows: 40,6% in Mpumalanga, 39,9% in KwaZulu-Natal, 11,6% in the Eastern Cape, 4,3% in Limpopo and 3,6% in the Western Cape. The production of roundwood in the same year was 16,442 million m<sup>3</sup> (14,222 million tons), while the value of sales from plantations amounted to R9,0 billion. This production was, in turn, processed by the forest products Industry into primary processed products valued at R25,5 billion in 2015/16.

An analysis of the trends of commercial forestry ha planted by tree species and primary use indicates that, firstly, there has been a marked decline in new afforestation since the mid-1990s, secondly there has been a shift away from softwood to

hardwood and thirdly, an increase in plantations for pulpwood purposes as compared to the ha for sawlogs and mining timber. Of upmost importance is that the total area of plantations has declined by almost 300 000 ha (or 20%) from its peak of 1,518 million ha in 1996/97 to 1,221 million ha in 2015/16.

Underlying these trends are various factors, but in particular the tighter regulatory framework governing water usage – forestry is regarded as a “stream flow reduction activity”, therefore, new water use licences are required to expand the area under plantations. Other factors include the removal of large areas within riparian zones to comply with certification and water legislation requirements, the removal of over 50 000 ha in terms of the State’s “exit strategy” and the conversion of plantations to more profitable crops such as macadamia nuts and avocados.

The forest products industry ranks among the top exporting industries in the country. Paper and paper board, wood pulp, wood and articles of wood and charcoal were the leading export products and constituted 94% of total forestry products. The forest sector continues to generate substantial net trade surpluses. In 2016 this net trade surplus amounted to R9,3 billion with export values amounting to R29,1 billion as opposed to forest product imports of R19,8 billion.

Production from plantations has been declining in recent years – from a peak of 22,8 m m<sup>3</sup> (19,6 m tons) in 2005/06 to 16,4 m m<sup>3</sup> (14,2 m tons) in 2015/16.

One subsector that has already been affected by the decline in timber supply is sawmilling, with the number of sawmills decreasing in number over the past decade by 27 (or 26%) - from 104 in 2004/05 to 77 in 2015/16.

While it is clear that the private sector does have good management capacity and has also ushered in efficiencies across the value chain, the State must still play a role to ensure adequate levels of investment in long-rotation sawlog plantations as the State produces sawlogs for the private sector to process. The State’s role to forestry has, however, declined substantially since the partial privation of SAFCOL through the leasing out of most of its plantation assets to the private sector. SAFCOL, through KLF, is nevertheless an important player in the Industry and continues to play a role in providing the private

sector sawmilling sector with sawlogs.

Mpumalanga has the highest investment in plantations at R17,9 billion (41,8%) followed by KwaZulu-Natal with R15,4 billion (35,8%), the Eastern Cape at R5,7 billion (13,3%), Limpopo R2,0 billion (4,7%) and the Western Cape at R1,9 billion (4,4%).

The DAFF manages approximately 64 000 ha of plantations categorised into Category B and C. These plantations have vast areas suitable for planting but are currently unplanted. The department intends to revitalise the plantations, which will create jobs for people in the surrounding communities. South Africa is currently experiencing a shortage of timber and is constrained to meet the national demand for saw log timber. Approximately 30 000 ha of currently fallow areas, could be a strategic contribution to timber supply in order to meet needs along the value chain.

The forestry sector offers long-term investment opportunities for rural economic development. Increased production and productivity in prioritised areas will be ensured by sustainable forest management through the replanting of 1 725 hectares in temporary unplanted areas; certification of one plantation for the Forestry Stewardship Council; and the implementation of the Agro-forestry Strategy.

In the 2017/18 financial year, 16 000 hectares of agricultural land and 300 hectares of state indigenous forests and woodlands are expected to be restored through rehabilitation, including fencing, controlling of weeds and alien invasive species, veld reclamation, clearing of alien invasive plants, tree planting, soil conservation works and natural regeneration.

Regarding integrated fire management, the DAFF has facilitated the registration of Fire Protection Associations (FPAs) in high-risk areas, and has also embarked on the process of the consolidation of non-viable FPAs and alignment of FPAs with municipal boundaries to ensure the effective utilisation of limited resources.

Furthermore, 8 351 ha have been replanted within the Jobs Fund/DAFF Rehabilitation Programme. Sustainable management of natural resources, such as land, soil, water and climate systems is critical for the sustainable use of resources and food security. To address the loss of prime agricultural land

to other sectors, the department has developed and formulated the Preservation and Development of Agricultural Land Framework.

## Legislation

The National Forests Act of 1998 and the Forestry Laws Amendment Act, 2005 (Act 35 of 2005), reflect the vision for the future of forestry in South Africa. They emphasise sustainable forest management, and explain how people and communities can use forests without destroying them. The Acts set out rules for protecting indigenous forests, and ensure 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 and shrub species. Some are threatened, and 47 species are protected under the Act.

Protected trees may not be cut down, damaged, destroyed or possessed, collected, removed, transported, exported, purchased, sold, donated or in any other way acquired or disposed of except under a licence granted by the Minister or in terms of an exemption. In terms of the National Forests Act of 1998, all natural forests are protected. In 2014, the National Forests Act of 1998 was amended to ensure ease of implementation.

The National Veld and Forest Fire Act of 1998 and the National Veld and Forest Fire Laws Amendment, 2001 (Act 12 of 2001), are the primary legislation regulating veldfire management in the country.

The purpose of these Acts is to prevent and combat veld, forest and mountain fires. The legislation provides a variety of institutions, methods and practices for achieving the purpose. The Acts place an individual duty on every landowner where there is a risk of fire to take certain minimum precautions to prevent and combat fires. It also introduces the concept of voluntary FPAs, which may be formed by landowners for purposes of veldfire management in a specific area. The Act provides for FPAs for two reasons:

- Veldfires often become emergencies because they threaten life and assets on the property where they have started, or when they spread, or threaten to spread, beyond the

boundaries of any one property,

- Require co-operation to manage the conditions that determine their occurrence, to prevent and control veldfires, and to use controlled burning for environmental and other purposes.

## Industry and exports

The forestry industry was a net exporter of over R9,2 billion worth of goods in 2016. The forest products industry ranks among the top exporting industries in the country, having contributed 2,6% to total exports and 1,8% to total imports in 2016.

The value of forest product exports grew by 52,4% between 2013 and 2016, from R19,0 billion to R29,0 billion. In 2016, pulp products were the most important exports after recording R12,2 billion, followed by paper and solid wood products with R8,8 billion and R6,9 billion respectively.

Pulp products also reported the largest trade surplus in history during 2016 of R10,7 billion, up by 13,1% from previous year. Paper products recorded a deficit of R4,2 billion during the same year. South Africa's primary forestry sector GDP was valued at R8,9 billion in 2016 from R10,0 billion in 2015.

On the other hand, the sales of timber increased from 8,9 million to 9,0 million m<sup>3</sup>/tons between 2015 and 2016. The book value of the commercial forestry sector was R21,8 in 2016. Capital investment in the industry amounted to an estimated R42,9 billion in 2016.

## Role players

### National Forest Advisory Council (NFAC)

The function of the NFAC is to advise the Minister on any matter related to forestry in South Africa. The functions of the CSFM are to advise: the council, the department, and the Minister on all aspects of sustainable forest management in the country; the department and the Minister on the administration of criteria, indicators and standards for sustainable forest management; and the department on convening forum for interested persons to participate in the formulation of criteria, indicators and standards.

The functions of the CFA are to advise the Minister on promoting the granting and exercise of access to forests; promoting education on the sustainable management and use

of forests, and the use of the National Forest Recreation and Access Trust funds.[]

### South African Forestry Company Limited (SAFCOL)

SAFCOL is Government's forestry company, conducting timber harvesting, timber processing and related activities, both domestically and internationally.

Through its operations, it employs about 5 000 people through direct and indirect employment and by extension, are responsible for about 20 000 lives in communities adjacent to its operations.

It subscribes to the Forest Sector Charter and plays a leading role in transformation within the industry. With the focus on communities adjacent to its plantations and specifically the youth in those communities, it makes a difference in the physical circumstances and networking in the communities.

The structured approach of community partnerships was strengthened, with the focus on implementing needs-driven development and making a positive impact in community members' lives.

Of special note is the launch of the SAFCOL-sponsored Forestry Chair at the University of Pretoria, which is an opportunity for students who wish to further their studies in forestry-related fields.

### Forestry South Africa

Forestry South Africa (FSA) was formed in 2002 through the amalgamation of the erstwhile Forestry Owners Association and the South African Timber Growers Association.

FSA represents the interests of its members in particular and the promotion and wellbeing of the South African commercial Forestry Industry in general. Although voluntary in its nature, FSA's membership includes all 11 corporate timber companies, including their subsidiaries, operating in South Africa, 1 100 commercial timber farmers and over 20 000 small-scale black timber growers. This membership represents over 90% of the industry as a whole and virtually all the private sector involved in the industry. Due to this representivity, FSA is viewed by both government and the private sector as the body which represents

the South African Forestry Industry.

FSA is involved in a host of areas such as research, education and training, water and environmental affairs, forest protection, bio-energy, business development and transport.

### 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 healthier living, especially in disadvantaged communities, 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.

The FTFA works in partnership with Government, the private and public sectors and civil society. Its goal is to provide trees to as many underserved communities as possible, with the help of sponsors and certificate programmes.

The FTFA; the departments of water affairs and of agriculture, forestry and fisheries; and the Institute of Environment and Recreation Management, manage the Urban Greening Fund.

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 create a greener, healthier and more secure life.

### 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 forest research function within the department has been coordinating a number of research projects focusing on sustainable management of forest resources. These include:

- the monitoring and evaluation of bark-harvesting techniques used for two indigenous tree species in the Letaba State Forest
- sustainable harvesting of plants used for medicinal purposes
- the sustainable use of monkey rope (*Secamone alpini*) by

local subsistence farmers

- ex situ and in situ conservation of the critically endangered *Protea roupelliae* sbsp. *hamiltonii*
- conservation of the co-occurring endangered *Leucospermum gerrardii* within the Dr Hamilton Nature Reserve.

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 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 offers 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 Fibre Processing and Manufacturing (FPM) Sector Education and Training Authority (SETA), is responsible for ensuring that the training undertaken by the industry meets certain quality standards.

The department, together with the FPM Seta, offers study bursaries in forestry-related fields.

## Programmes and initiatives

### Participative forestry

The department supports the establishment of community projects through regional forestry staff. An estimated R2 million has already been spent from the Community Facilitation Fund to support the establishment of projects on the ground. Projects include the establishment of medicinal plant nurseries, in partnership with various stakeholders, and beekeeping, in partnership with the ARC.

In addition to producing honey, beekeepers play a critical

role in agriculture, contributing to crop pollination and the development of products worth billions of rand.

The honey industry in South Africa has an average annual turnover of R3,2 billion and produces some 2 000 t a year. Government's investment in KwaZulu-Natal aims to increase national production to 100 000 t and employ over 100 000 people.

### National Arbor Week

South Africa celebrates Arbor Week from 1 – 7 September annually. The DAFF, as the custodian of forestry in South Africa, is responsible for the campaign.

Arbor Week 2017 was celebrated under the theme; "Forests and Water". The theme was retained from the 2016 theme because South Africa had not escaped the effects of drought.

For Arbor Week 2018, trees will be planted using trained Community-based Educators to ensure that departmental programmes have economic spin-offs for the communities. The department manages seven state nurseries and five of these in Ulundi, Bloemhof, Mahikeng, Upington and Qwaqwa will be revitalised in 2017/18. As part of the management of the 60 000 ha of state plantations, the department will plant 550 ha.

Arbor Week is an opportune time to urge all South Africans to plant indigenous trees as a practical and symbolic gesture of sustainable environmental management.

The primary purpose of the campaign is to spread and herald the importance of protection, conservation and preservation of the country's green heritage, namely forests, indigenous trees and related green resources. The secondary aim is to educate, change attitudes and modify the general behaviour of the South African public in a way and a manner they perceive and relate to the green heritage.

Greening refers to an integrated approach to the planting, care and management of all vegetation in urban and rural areas, to secure multiple benefits for communities.

Greening in the South African context takes place in towns, townships and informal settlements, specifically because in the past the latter mentioned areas were disadvantaged in terms of planning for parks as well as tree planting in streets and open spaces.

To promote greening, especially the planting of indigenous trees whose occurrence has become scarce, the concept of the trees of the year was born some years ago. There are two selected Trees of the Year comprising of a rare and common species. The common tree of the year for 2018 is *P. elongatus*, *P. falcatus*, *P. henkelii*, *P. latifolius*; Common name: yellow woods and *Boscia albitrunca*; Common names: Shepherd's tree) which will be planted during the 2018 Arbor Week Campaign.

### Champion Tree Project

The purpose of the Champion Tree Project is to identify and protect trees that are of national importance and worthy of special protection, due to their remarkable size, age, aesthetic, cultural, historic or tourism value. Similar projects have been established in several other countries, but this is the first of its kind in Africa.

Nomination forms with guidelines for the nomination process are available from the DAFF.

Every nomination cycle starts on 1 August each year, and ends on 31 July the following year.

Eighty Six trees and groups of trees have been declared by the department as Champion Trees, based on criteria such as size, age and historical value. These trees are all protected under the National Forests Act of 1998. They include the Tsitsikamma Big Tree along the Garden Route, the Post Office milkwood tree of Mossel Bay, the Sagole baobab in Limpopo and camphor trees planted at Vergelegen Estate in the Western Cape three centuries ago. The Sagole baobab has the second biggest trunk in the world, while a stand of saligna gum trees planted in 1906 near Tzaneen in Limpopo are the tallest trees in Africa.

A few Champion Trees have died since the launch of the project, including the Platland Baobab in Limpopo province, which collapsed in 2017. At Cape Town in the Western Cape, the Tokai Arboretum was damaged by fire, and extensive work had to be undertaken by arborists to fell dead trees and prune or treat others.

The Adopt a Champion Tree project initiated by Aurecon assisted with the development of a visitor's site to a Champion tree in the Eastern Cape, and the treatment of a diseased Champion oak tree in Gauteng. Through the DAFF-Aurecon

partnership, a number of information boards have been erected, and launch events have been held at some newly proclaimed trees, such as the Whisper Tree in Albertinia, Western Cape.

The oldest planted tree in South Africa is a saffron pear, brought from the Netherlands and planted in the Dutch East India Company's gardens in Cape Town more than three centuries ago, supposedly by Jan van Riebeeck. 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, the daughter of Bram Fischer, who was a founding member of the South African Communist Party. In 2015 a new record-breaking tree was discovered in an old tree lane in the Boschendal wine estate. This karri gum tree of 50,4m tall has a massive crown and a trunk circumference of over 8m, and is now officially the largest tree in South Africa.

A group of international and local tree climbers has visited and climbed the champion trees around the country, contributing to more accurate height measurements, and installing nesting boxes for the rare Cape parrot in some of the large champion trees that occur in natural forests.

All the trees were also visited by a professional photographer, to create a proper photographic record of the trees.

In 2015, an internationally acclaimed book was published on the Champion Trees, titled "We are the Champions". This was followed by another book at the end of 2016, titled "Remarkable Trees of South Africa". The project was also cited as an international forestry best practice within the Southern African Development Community countries. Several international delegations from organisations such as the International Dendrology Society visited South Africa in the past decade to see the tree heritage of the country, including Champion Trees.

### Million Trees Programme

The Million Trees Programme was launched in 2007 as part of a UN greening initiative to encourage countries worldwide to plant more trees. Its purpose is to ensure that at least one million trees, including fruit trees and indigenous ornamental shade trees, are planted every year in various member states of the United Nations.

In South Africa, the Million Trees Programme is a partnership

between the three spheres of government, non-governmental and community-based organisations, schools and the corporate sector.

It is part of the South African contribution to the UN Environment Programme "Plant for the Planet: Billion Tree Campaign", where communities, industry, civil society organisations and governments are encouraged to plant at least one billion trees worldwide.

## Resources

### Sustainable forest management

Forest products contribute about R34,5 billion to the economy – about 0,6% of the GDP. Export value increased by 13%, from R26 to R29 billion. This is underpinned by 1,2 million hectares of well-developed plantation forestry. The forestry sector is responsible for 158 400 direct employment, about 1,3% of South Africa's workforce.

The forestry industry is at continuous risks from fire, pests' diseases and drought. The department is currently amending the National Veld and Forest Fire Act of 1998. Forestry has also been impacted negatively by drought. This calls for more efficient usage of water. To address the issue, the department is conducting a study with the Water Research Commission to investigate the existing estimations of land under irrigation and water used by irrigated agriculture. The study will cost R2 million and is expected to be published in August 2018.

The three cape provinces are still experiencing drought, and as a result, government has declared a national state of drought disaster. Through the support of DAFF, the Western Cape Province was allocated R40 million during 2017/18 financial year to assist drought-stricken farmers with provision of animal fodder.

A report by the Western Cape Department of Agriculture with the Bureau for Food and Agricultural Policy estimates that the impact of the drought equates to an average production decline of about 20%.

In an effort to address the issue of competing land use between agriculture and forestry, the department developed a strategy on agro-forestry. Agro-forestry is a practice that integrates forestry and agriculture on the same piece of land

with social, economic and environmental benefits. This strategy will ensure household food security and increase the country's fibre.

In the 2017/18 financial year, the department was expected to conclude Memoranda of Understanding with key role players in the two provinces earmarked for piloting the project – Limpopo and Mpumalanga. Implementation will commence and preparations will be made to roll-out the system in KwaZulu-Natal and the Eastern Cape.

Forestry is one of the sectors that have a huge potential in job creation whilst ensuring the sustainable use of natural resources. Through the EPWP in the Environment and Culture sectors, the department has managed to create 720 temporary and 211 permanent jobs. For 2017/18 financial year, R2 284 million has been allocated to the department as part of the incentive where a total of 2 706 work opportunities and 1 353 full time equivalents will be created.

These policy measures and interventions are intended to enhance the resilience of agricultural and food production systems; contribute to the reduction of the greenhouse gases emissions; intensify agricultural and forestry production while safeguarding food security and creating job opportunities.

There are three categories of forests in South Africa, namely indigenous forests, woodlands and plantation forests. Natural forests cover approximately half a million ha of land in total, plantation forestry covers less than 1,3 million ha and the woodlands collectively cover approximately 38 million ha.

Forestry activities in indigenous forests and woodlands are not limited to the protection of the resource as a natural heritage, but include its development, use and management, as well as the management and processing of non-timber forest products.

Plantation forestry practices include, among other things, the establishment of vast areas of land with exotic tree species that are harvested and processed into pulp for the paper and packaging industries; sawn timber for the production of structural and industrial timber used in the construction industry; poles for telephone and electricity supply; mining timber for use as underground support structures in primarily the gold and platinum mining sectors. The balance of other timber produced is used for a variety of other products such as charcoal and

match manufacture.

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 conducted.

There has been an increase in the number of non-corporate growers who have become certified. This may 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.

### Indigenous forests

Only about 0,5% of South Africa's total land area is covered by natural forests. About half of the more than 1 700 indigenous tree and shrub species, representing some 530 000 ha of dense growth, 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 in isolated valleys and ravines.

A number of these natural forest regions, such as the Tsitsikamma National Park, are important tourist attractions.

The large Afro-temperate forests of the southern Cape, although distributed close to the coast, are aligned with the inland forest types of the Eastern Cape, KwaZulu-Natal, Mpumalanga and Limpopo. This is because the southerly temperate latitudes compensate for the altitude of inland forests.

Almost half of all natural forests in South Africa are found on private property or land under communal tenure. A detailed inventory of natural forests helps Government to monitor changes in forest areas.

Although the country's low natural forest coverage has led to the development of the commercial forestry sector over the last 100 years, natural forests have continued playing a major role in the livelihoods and well-being of many rural communities.

The use of natural forests as sources of building material, fuel wood, food and medicine is increasing, with an estimated 80% of South Africa's population still using medicinal plants, most of which are sourced from natural forests.

The forest-type classification for natural forests represents 24 broad forest types. The Natural Forests Protected Areas System guides the setting aside and demarcation of natural forests as protected areas.

Systematic timber harvesting occurs in certain areas of southern Cape forests and on a smaller scale, in the Amathole forests in the Eastern Cape. This sustainable harvesting system concentrates on the removal of small quantities of senile trees dying off within the forest. 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).

The seven-week fern (*Rumohra adiantiformis*), harvested in the Knysna and Tsitsikamma forests, is another valuable product of indigenous forests. The South African market for this fern is considerable and reaches its peak in September, when sales have been known to exceed 420 000 bunches.

### Woodlands

The woodlands, also known as savannahs, constitute a forest resource of major importance in South Africa. It is the most accessible forest resource for poor communities and contributes in the region of R2 000 to R5 000 to poor households annually. Natural forests cover less than one million ha of land in total, plantation forestry covers less than 1,3 million ha and the woodlands collectively cover about 29 million ha to 46 million ha.

The cover includes extensive areas in the low-lying, drier areas of Limpopo, KwaZulu-Natal and Mpumalanga. Rich biodiversity is found in savannah woodland comprising 5 900 plants, 540 bird species and 175 mammals.

These include iconic species such as the Big Five group of mammals that are important to the tourism industry. Several protected tree species of the savannah, such as camel thorn and Leadwood, contribute substantially to the lucrative braai wood market, and guidelines have been set for licensing processes to assist with the control of their use.

Kathu Forest in the Northern Cape is the first woodland area to be declared protected woodland under the National Forests Act of 1998.

In the past, this resource was not really recognised as a forestry responsibility, except where some woodland occurred on state-forest land in conservation areas. However, the National Forestry Action Programme of 1997 identified woodland management as a key area of operation for forestry.

The New Forests Act of 1998 also includes woodland in its definition of forests and mandates monitoring and reporting on the state of the woodlands. This legislation protects woodlands on private and communal land, as well as in state forests, while promoting sustainable use.

Savannah 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 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. They form the backbone of the livelihoods of millions of people. The annual marula-fruit (*Sclerocarya birrea*) harvest, for example, is worth some R1,1 billion a year to rural communities.

There are 87 savannah woodland types, and although the biome as a whole is fairly well protected in formal and private reserves, many underprotected savannah types have been identified.

Another woodland type is the Albany thicket biome, characterised by dense growth of woody and succulent plant species. There are 13 thicket types, which together cover about three million ha. Extensive Spekboom plantings are underway in the Eastern Cape to restore the carrying capacity of degraded thicket areas, and to capitalise on the high carbon sequestration rates of this species as a climate change offset.

### Commercial forests

Commercial forest plantations predominantly meet South Africa's demand for wood. During the 1930s, Government started extensive commercial plantations to make South Africa

self-sufficient in its timber requirements, and to provide more job opportunities.

Commercial plantations of exotic species proved to be a sound investment and the private sector established large plantations of pine, eucalyptus and wattle. South Africa's plantation forests cover about 1% of the combined cultivated (arable) and grazing land.

The commercial forestry industry in South Africa is committed to practising sustainable forest management and is a world leader in forest certification. Stringent environmental codes of practice are implemented in all plantation and processing activities.

The Institute for Commercial Forestry Research (ICFR) completed its role in developing the National Forest Protection Strategy for the DAFF, a project funded by the FAO of the UN.

Another development which will assist in enhancing forest protection is the MoU, formalising FSA's support and funding for these activities at the Forestry and Agriculture Biotechnical Institute (Fabi), which has been entered into with the University of Pretoria.

The FAO and DAFF approved the National Forest Protection Strategy, which includes forest-fire related matters. Once fully implemented, the strategy is expected to provide the industry with additional resources and enhance the coordination of responses to combat forest fires.

### Plantation yields

South Africa's intensively managed commercial forestry plantations are recognised as some of the most productive in the world – not only climatic and soil conditions but also advanced management techniques. Consequently, from a limited geographic footprint of 1,2 million ha, the industry can produce, on a sustainable and annual basis, between 15 and 18 million tons of timber a year.

Average production per hectare has increased from 10,2m3 in 1980 to 13,5m3 in 2016 – a 32% increase.

In the 2015/16 financial year, production from the country's plantation forests amounted to 14,2 million tons (16,4 mm3), some 1 100 000 tons or 7,7% less than the 15,3 million tons (17,9 million m3) recorded the previous year.

In terms of production by product, pulpwood production at 8,7 million tons was by far the highest, representing 61% of total production. Sawlog production was 4,7 million tons (33% of total). This was followed by mining timber production of 299 000 tons, pole production of 236 000 tons, charcoal production of 197 000 tons and production of other products of 87 000 tons.

Sappi Forests supplies over 70% of the wood requirements of Sappi Southern Africa from both its own and committed commercial timber plantations of 492 000 ha. This equates to approximately 30 Mt of standing timber.

The Lomati Sawmill produces 102 000 m<sup>3</sup> per year of sawn timber for the construction and furniture manufacturing industry.

All wood grown on Sappi-owned land and a large proportion grown on plantations managed by us, is Forest Stewardship Council® (FSC®) certified.

Approximately 150 000 ha of land is set aside and maintained by Sappi Forests to conserve the natural habitat and biodiversity found there, including indigenous forests and wetlands.

The timber is used in wood products such as roof trusses. It is also pulped, so that the wood fibre may be used for newspapers, boxes, paper bags and paper.

South Africa's intensively managed commercial forestry plantations are recognised as some of the most productive in the world – not only weather and soil conditions but also advanced management techniques. Consequently, from a limited geographic footprint of 1,22 million ha, the industry can produce, on a sustainable and annual basis, between 16 and 18 Mt of timber a year.

Production from the country's plantation forests amounted to 15,3 Mt (17,9m3) in 2015.

Pulpwood production at 11,8 Mt was the highest, representing 66,1% of total production. Sawlog production was 4,8 Mt (26.1% of total). Mining-timber production of 557 000 tons and other products such as poles and charcoal at 711 600 tons made up the balance.

### Socio-economic reform and growth

The forestry vision states that forests are managed for people and that there is a need to create an enabling environment for economic and social development through sustainable forestry,

especially at local level.

Forestry strategies to achieve this vision include forestry enterprise development, aimed at creating opportunities for people to use forests including indigenous forests, woodlands and plantations, and forest-based resources for economic growth, income-generation and job creation.

The forestry enterprise development concept is central to Government's pro-poor agenda and also a key component of Broad-Based Black Economic Empowerment (BBBEE) in the forestry sector.

### BBBEE Charter

The BBBEE Charter process is one of many government strategies aimed at transforming the economy. The formulation and implementation of BEE programmes at different levels and in different sectors of the economy include partnerships between Government and the private sector, including trade unions and community-based organisations.

The BBBEE Charter for the forestry sector will be instrumental in achieving objectives such as increasing the number of black people, particularly women, who own, manage and control enterprises and productive assets; and facilitating ownership and management of enterprise and productive assets by communities, workers, cooperatives and other collective enterprises.

Under the charter, Government aims to process about 15 000 ha of water-use licence applications a year for the next 10 years to obtain a nett increase in afforested land of about 10 000 ha a year or 100 000 ha over the entire period.

### Community forestry

Community forestry is designed and applied to meet local social, household and environmental needs and to benefit 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 being managed 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 of the DAFF is an integrated approach that contributes to achieving the sustainable management of South African forests.

Elements of participatory forest management were initially developed for indigenous state forests.

However, the aim is to use participatory forest management as an approach to managing 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.

Some 96 community-stream flow-reduction activity applications, totalling about 13 000 ha, were supported by the departments of agriculture, forestry and fisheries and trade and industry through assistance provided in the undertaking of environmental impact assessments in the Eastern Cape.

## Fisheries

The DAFF is tasked with managing the development and sustainable use of marine and coastal resources; maximising the economic potential of the fisheries sector; and protecting the integrity and quality of the country's marine and coastal ecosystems.

The South African coastline covers more than 3 000 km, linking the east and west coasts of Africa. These shores are particularly rich in biodiversity, with some 10 000 species of marine plants and animals 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 main challenge in fisheries is to create a balance between maximising the social and economic potential of the fisheries industry; protecting the integrity and quality of the country's marine and coastal ecosystems and addressing transformation

in the sector.

In line with international trends, the department recognises fisheries as an economic activity rather than a purely environmental or biodiversity matter.

Government has expanded the mandate for fisheries management by adding fresh water and inland fisheries, as well as aquaculture, to the department's existing responsibilities.

The department will gradually establish offices of the fisheries branch in coastal, as well as inland provinces. These are economic decisions, which contribute to employment creation and poverty alleviation.

The fisheries sector contributes roughly 0,1% to the GDP, which is small even by the standards of agriculture. However, it is more important for economic development in the Western Cape where 11 of the 13 proclaimed fishing harbours are situated. These contribute more the 5% to Gross Provincial Domestic Product.

The total output is estimated at 600 000 t worth about R6 billion, depending on the Pelagic catch of pilchards and anchovy, which could be as much as 600 000 t.

It is estimated that the direct employment in the industry constitutes approximately 27 000 jobs (16 000 in the primary sector and 11 000 in the secondary and tertiary sectors), while an additional 81 000 people are indirectly (net building, bait preparing, etc.) employed in industries that are at least partially dependent on the fishing sector (figures based on industry estimates and the Total Allowable Catch and Total Allowable Effort, calculated as a function of tonnage).

Fisheries output is determined by catch volumes, which in turn depends on the health and management of fish stocks, varying according to ecological changes and subjected to overexploitation through illegal, unreported and unregulated fishing activities.

Inshore species are especially vulnerable to stock depletion, as they are easily accessed, especially illegally. According to one study, 68% of commercial line fish stocks have collapsed and another 11% are overexploited.

The DAFF seeks to prevent overexploitation by means of assigning Total Allowable Catch and/or Total Allowable Effort per species, which are adjusted regularly depending on the

estimated state of the resource. The DAFF has also sought to promote transformation in the sector through inclusion of small-scale fishing communities. The Marine Living Resources Amendment Act of 2014 will grant small-scale fishing communities better access to fishing rights and resources.

The small-scale fishing sector was expected to directly benefit approximately 30 000 people from coastal communities and is expected to transform the entire fishing industry. This new sector is designed to address food security needs within the local community, and will allow fishers to derive maximum benefit through value-adding of products and accessing markets.

The effective management of the existing 12 harbours and proclamation of additional new harbours will support resource management. Although wild catch fisheries appear unlikely to expand beyond their present levels, aquaculture is becoming more important as a substitute for wild capture fisheries.

While the marine-based "mariculture" part of aquaculture has been around for some years, focusing on species such as abalone, oysters and mussels, freshwater aquaculture is experiencing a rapid expansion, owing in part to Government's multipronged aquaculture promotion campaign.

Aquaculture has been included in the Oceans Economy Operation Phakisa. Globally, wild fish stocks have been dwindling, growing at a modest 1% per annum, while aquaculture has grown by 7% and accounts for 44% of the global fish production. Therefore, aquaculture is seen as a quick win for growing the oceans economy.

Through Operation Phakisa and the detailed plans on the development of 24 marine and inland aquaculture projects, which are being implemented, the expectation is to increase production from the current 4 000 t to 20 000 t per year, increase the current value of aquaculture from R400 million to R6 billion and create up to 210 000 sector jobs by 2030.

Aquaculture is an important element of the Ocean's Economy Strategy, Operation Phakisa. It is anticipated that Operation Phakisa will place marine resources in a central position in the economy. Through Operation Phakisa, Government plans to grow the sector value from its current R400 million to R6 billion, with a possible job creation of up to 210 000 jobs in this sector by 2030.

The WfFP will remain one of the vehicles for economic growth and sustainable livelihoods for fishing communities.

Regarding vulnerability to stock depletion in inshore species, the DAFF will prevent over-exploitation by assigning Total Allowable Catch and Total Allowable Effort per species which will be adjusted on a regular basis depending on the estimated state of the resource.

Globally, wild fish stocks have been dwindling, growing at a modest 1% per annum, while aquaculture has grown by 7% and accounts for 44% of the global fish production. As a result, aquaculture is seen as a quick-win for growing the oceans' economy.

The department will continue to advocate for responsible management of the marine resources, supported by extensive research on the declining marine stock. The DAFF in collaboration with the industry will accelerate growth in the sector to meet the aspirations of increasing the aquaculture sector five-fold to 20 000 tons annual production, thereby creating 15 000 jobs and contributing R3 billion to the GDP by 2019.

Freshwater aquaculture is becoming more important as a substitute for wild capture fisheries and is experiencing a rapid expansion, owing in part to government's multi-pronged aquaculture promotion campaign.

A total number of eight initiatives in aquaculture focus area have been identified to spur the growth of the sector. One initiative will address the selection and implementation of 24 catalyst projects across the country by 2019.

Together, these projects are expected to grow the size of the aquaculture sector from approximately R700 million to almost R3 billion by 2019, increase production from about 6 000 tons in 2013 to approximately 20 000 tons in 2019 and create 2 500 direct new jobs and also 15 000 jobs in the value chain over the same period.

Other initiatives will include the creation of an enabling regulatory environment, the establishment of an Inter-Departmental Authorisations Committee (IAC) to coordinate aquaculture applications and approvals, increasing the skills pool and awareness, improving funding and providing access to markets. An amount of R338 million in private sector investment has been committed in the sector to augment the R106 million

of government investments. In addition, 521 jobs have already been created in ten aquaculture farms that are in production, and the seven new projects that are already assessed will potentially create a further 335 jobs once implemented.

### Small-scale fisheries sector

To implement its Small Scale Fisheries sector, the DAFF conducted a series of training programmes with small scale fisheries cooperatives. The workshops commenced in two fishing communities Hondekilp Baai and Port Nolloth, Northern Cape and was expected to be rolled out in other provinces.

More than 120 small scale fishers were registered from the two fishing communities in the Northern Cape. Following the completion of the cooperative training programme, the official registration of the cooperatives is expected to be finalised after which rights will be allocated.

The training programme included understanding what a cooperative model is, how to run and manage cooperatives successfully and how to register cooperatives among others.

The sector is aimed at redressing the inequality suffered by coastal fishing communities which, as a result of unintended consequences, have remained marginalised through previous rights allocation systems. Furthermore, the establishment of the small-scale sector seeks to empower small-scale fishers to contribute meaningfully to the national GDP and to play a meaningful role in food security and job creation.

This process is informed by the Marine Living Resources Act and the regulations thereof which was amended to legally recognise small-scale fishers who have been living in coastal communities and depending on fishing and its related activities as a source of livelihood.

In March 2016, the department began a process to register, verify and recognise small-scale fishers and fishing communities, of which a total of 289 fishing communities were visited in the four coastal provinces to register small-scale fishers as per the regulations relating to small-scale fishing.

From these visits, an overwhelming total of 22 580 individuals requested to be recognised as small-scale fishers. A well-detailed socio-economic baseline report of each community visited has been generated to better understand this new sector.

## Industry and products

South Africa is among the global fishing nations that have identified the challenges within their fishing industry. With 22 commercial fisheries sectors and new fisheries being explored and experimented with, South Africa has two fisheries sector components.

Wild capture fisheries include three distinct components, namely commercial, recreational and subsistence fisheries, each of which requires specific research and management interventions.

The aquaculture (fish farming) sector is considered underdeveloped and as a result, has been prioritised, owing to declining wild stocks.

## Legislation and policies

- The Small-Scale Fisheries Policy seeks to address imbalances of the past and ensure that small-scale fishers are accommodated and properly managed. For the first time, fishing rights will be allocated on a group, rather than an individual basis. The policy further aims to support investment in community entities to take joint responsibility for sustainably managing the fisheries resources and to address the depletion of critical fisheries stocks.
- The department has entered into a service level agreement with the South African Navy to manage its fleet of four patrol vessels and three research vessels for a year, while the department considers its various options regarding the long-term management of these vessels.

## Resource management

The department increased its capacity to combat illegal, unregulated and unreported fishing, and launched an anti-poaching project in the Western Cape, funded through the WfFP.

This enabled the department to deploy 60 military veterans in the Overberg region to serve as the "eyes and ears" of Government.

The fishing sector comprises large-scale operators and small-scale and recreational fishermen and women.

According to a recent UN report, more than two-thirds of the

world's fisheries have been overfished or are fully harvested, and more than one third is in a state of decline, owing to the loss of fish habitats, soaring pollution levels in oceans and rivers and climate change.

According to the report, abalone stocks remain in a depleted to heavily depleted state as the resources continue to decline, due to increasing levels of poaching and ecological factors.

Meanwhile, line fish resources range from heavily depleted to optimal states, depending on species.

There are, however, signs of a positive response by some species to the emergency management measures implemented in 2000.

Given the low population sizes of many line fish species, however, present management measures are expected to assist in allowing stock to increase.

Under the operational management procedure, the West Coast rock lobster is showing signs of recovery.

Deep-water hake remains depleted, however, its status is improving, whereas shallow-water hake is considered optimal to abundant.

The implementation of precautionary management approaches to hake fisheries in recent years has resulted in a faster than anticipated recovery of deep-water hake.

Harders, which are the main target of the beach-seine and gillnet fisheries, remain in a depleted to heavily depleted state.

Environmental anomalies and illegal netting have affected the recruitment of the species in recent years.

The abundance of Agulhas sole has remained relatively constant over the past 15 years, while Cape horse mackerel has increased in abundance in recent years, due to good recruitment, and the stock is considered to be in an optimal state.

The anchovy stock is at the lowest level observed in the past 15 years, but sardine and round herring stocks continue to increase.

In South Africa, the fisheries sector is worth around R6 billion a year and directly employs some 27 000 people in the commercial sector. Thousands more and their families depend on these resources for food and the basic needs of life.

The total allowable catch apportioned for the subsistence

(small-scale/interim relief) subsector, is set at 276 t (138 kg per fisher).

The apportionment for the recreational fishing subsector remains unchanged at four West Coast rock lobsters per person per day for the duration of the fishing season.

The size restriction remains at 80 mm carapace length and recreational fishing permits will only be issued to persons above the age of 12 years. Any west coast rock lobster caught, collected or transported shall be kept in a whole state.

West coast rock lobster caught with a recreational permit may not be sold by any person.

Recreational west coast rock lobster permits are obtainable at the Post Office, at a cost of R92 per permit and are valid for the entire recreational fishing season.

The department's decision to pursue the recovery target has been welcomed by WWF and carries the unanimous support of all the WCRL user sectors.

The International Commission for the Conservation of Atlantic Tunas (ICCAT) is an RFMO that is responsible for the management of tuna and tuna-like species in the Atlantic Ocean and Mediterranean Sea.

South Africa's strategic intent with participating in the ICCAT is to ensure long-term fishing access in the Atlantic Ocean for South African fishing companies in the tuna pole fisheries and the developing large pelagic fisheries.

Access to the Atlantic Ocean is essential for encouraging future investment in the tuna/swordfish fisheries, to create the enabling environment for these fisheries to develop.

The ICCAT will benefit South Africa with management activities, including collating fisheries data, guiding research, conducting stock assessments, establishing management and conservation measures and issuing country quotas.

### Aquaculture

Aquaculture incorporates the breeding, trading or rearing of aquatic organisms in a controlled or selected aquatic environment for recreational, commercial or subsistence purposes.

Fisheries and aquaculture support the livelihoods of an estimated 540 million people. Aquaculture, is the farming of

aquatic organisms and is divided into fresh-water culture and mariculture.

Species farmed in the latter include dusky kob, abalone, Pacific oysters, Mediterranean mussels and black mussels, among others. According to the National Aquaculture Strategic Framework, the sector is relatively small and Government wants to create a climate in which it can grow.

Special attention will be paid to freshwater aquaculture, as it has shown growth potential.

Government will also boost investments in research, development technology, transfer and extension, as well as education and training programmes in aquaculture.

The Agriculture Development Enhancement Programme, which offers cost-sharing grants of R40 million per company aims to create more jobs in the sector. The grants will be made available for machinery, equipment, infrastructure, commercial vehicles and work boats, in pursuit of boosting competition in the industry.

Abalone fishing is severely restricted in South African waters, however, poaching is rife, as it is a lucrative trade.

Poaching has caused the decline in abalone numbers over the years. The species is highly coveted and fetches high prices, especially in the Far East.

The National Aquaculture Policy Framework was developed against the backdrop of a global aquaculture sector that has seen an increased demand for fishery products.

The policy provides a unified framework for the establishment and development of an industry that contributes towards sustainable job creation and increased investment.

In South Africa, marine and freshwater aquaculture presents a good opportunity to diversify fish production to satisfy local demand; contribute to food security, job creation, economic development and rural development; and improve export opportunities.

To fast-track the growth of the aquacultural sector an amount of R338 million in private sector investment has been committed to supplement the R106 million government investments. In the nine aquaculture farms that are already in production, 521 jobs have been created while a further 335 jobs are envisaged. These nine aquaculture farms are located in the Eastern Cape,

KwaZulu-Natal, Northern Cape and the Western Cape and produce kob, oysters, abalone and trout.

Aquaculture has been given a boost through its inclusion in the Oceans Economy Operation Phakisa. Through Operation Phakisa and the detailed plans on the development of 24 marine and inland aquaculture projects, which are being implemented, the department expects to increase production from the current 4 000 t to 20 000 t per year, increase the current value of the subsector from R400 million to R6 billion per year and create up to 210 000 sector jobs by 2030.

The aquaculture sector has unlocked investments of more than R400 million across 10 aquaculture farms, which are already in production. The community in Hamburg in the Eastern Cape has seen its first harvest of dusky kob (kabeljou — fish) and the Siyazama Aquaculture Cooperative in Hamburg sold its first harvest of dusky kob to the Cape Town Fish Market at the V&A Waterfront.

The expansion of aquaculture projects to inland and other coastal areas in support of SMMEs will create 3 200 jobs and contribute R500 million to the GDP over the next three years. Furthermore, the draft Aquaculture Bill was by mid-2016 ready for public consultation. The DAFF has also established the Interdepartmental Authorisations Committee and the Aquaculture Development Fund.

The effective management of the existing 12 harbours and proclamation of additional new harbours will support resource management. Although wild catch fisheries appear unlikely to expand beyond their present levels, aquaculture is becoming more important as a substitute for wild capture fisheries.

While the marine-based “mariculture” part of aquaculture has been around for some years, focusing on species such as abalone, oysters and mussels, freshwater aquaculture is experiencing a rapid expansion, owing in part to Government’s multipronged aquaculture promotion campaign.

Aquaculture has been included in the Oceans Economy Operation Phakisa. Globally, wild fish stocks have been dwindling, growing at a modest 1% per year, while aquaculture has grown by 7% and accounts for 44% of the global fish production. Therefore, aquaculture is seen as a quick win for growing the oceans economy.

Through Operation Phakisa and the detailed plans on the development of 24 marine and inland aquaculture projects, which are being implemented, the expectation is to increase production from the current 4 000 t to 20 000 t per year, increase the current value of aquaculture from R400 million to R6 billion and create up to 210 000 sector jobs by 2030.

### Subsistence fisheries

Participation in subsistence fisheries is comprehensive – coastal communities have traditionally made use of intertidal and shallow-water resources as a source of food. Only surplus not consumed by fishers is sold locally.

### Recreational fishing

While the illegal harvesting of abalone poses the greatest threat to management objectives, the DAFF will continue to work with all stakeholders in the abalone sector and continue to strengthen partnerships with other law-enforcement agencies and communities to ensure that the country grows and protects its resources.

With South Africa’s extensive coastline spanning two oceans and its numerous dams, lakes, rivers and streams, the country is a recreational fisher’s paradise. However, recreational fishing may only be undertaken with a valid permit, and recreational fishing is limited to certain times of the fishing season.

To reduce user conflicts between commercial and recreational fishing, and to, protect stocks during breeding periods, certain areas have been declared closed areas.

Recreational fishers are also subject to bag limits of fish on a per-day basis.

Annual recreational fishing licences in all industries total about 300 000, with income generated from these licences amounting to R18 million. The actual annual catch is about 17 000 t of high-value species.

### World Soil Day

World Soil Day is observed and celebrated every year on 5 December by all UN member states, the organisations of the UN system and other international and regional organisations, civil society, non-governmental organisations and individuals to

emphasise the importance of soil.

### Rural Enterprise Development (REID) Hub

A RED hub was launched in the Eastern Cape in March 2017.

The hub is one of government’s efforts to stimulate growth through agriculture and agro-processing.

This development will alleviate poverty and address low levels of development in the district.

Agriculture is the third highest contributor to the Alfred Nzo District’s economy. There is an urgent need for major new private sector investments to create jobs and improve livelihoods in the area.

The establishment of the RED Hub will thus stimulate local economic development as well as the investment drive to expand beyond agriculture and traditional subsistence farming.

Farmers will also move from subsistence to commercial farming.

The creation of the RED hubs is another effort to stimulate primary and agro-processing as well as the marketing of products from the rural areas.

In addition to this RED Hub, the province has other three RED hubs: in Mqanduli in the King Sabatha Dalindyebo Municipality, Ncora at Intsika Yethu Municipality and Lady Frere in Emalahleni Municipality.

The total amount invested by Government in the RED hubs over the past three years is R190 000 000.

Of the four existing RED Hubs, the hub in Mbizana leads the pack in terms of investment as Government has invested R53 000 000 for the state-of-the-art structure.

Fourteen primary co-operatives that have been formed, which in turn formed a secondary co-operative which is a structure that owns the RED Hub.

### Information for International travellers Are you travelling to South Africa?

South Africa is one of the world’s most attractive business and leisure travel destinations because of its economic opportunities, scenic beauty, magnificent outdoors, sunny climate and cultural diversity. As people and commodities move around the world, pests that threaten the life and health of plants and animals

travel with them. The increasing volume of international tourism and trade raises the risk of introducing alien invasive species as well as foreign pests associated with plants, plant products, animals, animal products and other regulated goods from one country to another.

Once a pest has entered South Africa, climate change may influence its establishment and spread, as well as the damage it causes.

When travelling to South Africa, make sure you do not bring in prohibited agricultural products. These products may harbour pests that occur in other countries and their introduction may endanger South Africa's competitiveness in trade and agricultural productivity.

The introduction, establishment and spread of these pests undermine agricultural productivity and trade because of the direct damage to plant and animal resources, the high costs involved in pest eradication and post-harvest programmes, technical difficulties encountered in eradicating these pests and loss of markets.

Animals and animal products such as meat and dairy products, plants and plant products, honey and honey products as well as other regulated goods, are all potentially high-risk materials. These materials may only be imported into South Africa by means of an import permit, unless exempted, and must be declared with the DAFF inspectors for inspection at ports of entry before entering South Africa..

In the interest of protecting plant health, animal health, human health and the country's territory against exotic pests, South Africa has put legislative measures in place to control the importation of agricultural products into the country and invested in raising biosecurity awareness to the international travellers and traders.

Inspectors from DAFF conduct luggage and consignment inspections at the ports of entry by means of visual and sniffer dogs to ensure compliance with the import permit requirements.

Prohibited products will either be confiscated, destroyed or returned to the country of export and those found carrying them may face a fine of up to R20 000 or imprisonment.

