

# STATE OF THE FORESTS REPORT

## 2015



agriculture,  
forestry & fisheries

Department:  
Agriculture, Forestry and Fisheries  
REPUBLIC OF SOUTH AFRICA

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## ACRONYMS

ADEP	Aquaculture, Development and Enhancement Programme
ADP	Ad hoc Working Group on the Durban Platform for Enhanced Action
AFF	African Forest Forum
AFWC	African Forestry and Wildlife Commission
AHEG	Ad Hoc Expert Group
AMESD	Africa Monitoring of Environment for Sustainable Development
ARC	Agricultural Research Council
BBBEE	Broad-based Black Economic Empowerment
BEE	Black Economic Empowerment
BRIC	Brazil, Russia, India and China
CDM	Clean Development Mechanism
CGRFA	Commission on Genetic Resources for Food and Agriculture
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
COFO	Committee on Forestry
CPF	Collaborative Partnership on Forests
CSIR	Council for Scientific and Industrial Research
DAFF	Department of Agriculture, Forestry and Fisheries
DEA	Department of Environmental Affairs
DoL	Department of Labour
DPME	Department of Planning, Monitoring and Evaluation
DPSIR	Driving forces-Pressures-States-Impacts-Responses
DRDLR	Department of Rural Development and Land Reform
DTI	Department of Trade and Industry

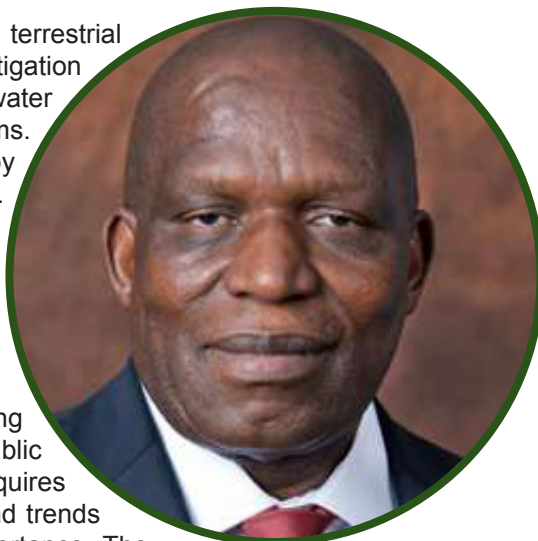


DWS	Department of Water and Sanitation
EAC	East African Community
ECOSOC	Economic and Social Council
ECRDA	Eastern Cape Rural Development Agency
EPWP	Expanded Public Works Programme
ESEID	Economic Sectors Employment and Infrastructure Development
FABI	Forestry and Agricultural Biotechnology Institute
FANR	Food, Agriculture and Natural Resources Directorate
FAO	Food and Agriculture Organization of the United Nations
FED	Forestry Enterprise Development
FiE	Forest In Exhaustion
FLEGT	Forest Law Enforcement, Governance and Trade
FMU	Forest Management Unit
FPA	Fire Protection Association
FPARMS	Fire Protection Associations Registration Management System
FP&M	Fibre Processing and Manufacturing Seta
FRA	Forest Resources Assessment
FSA	Forestry South Africa
FSC	Forest Stewardship Council
FSCC	Forest Sector Charter Council
GCF	Green Climate Fund
GDP	gross domestic product
GEF	Global Environment Facility
GFFFN	Global Forest Financing Facilitation Network
GIZ	German International Cooperation
HLS `	High Level Segment
IADFP	Integrated Agriculture Development Finance Policy Framework
IAF	International Arrangement on Forests
ICFR	Institute for Commercial Forestry Research
ICT	Information and Communication Technology
IDC	Industrial Development Corporation
IFF	Intergovernmental Forum on Forests
INPE	Brazilian Agency for Space Research
IPF	Intergovernmental Panel on Forests
ITTO	International Tropical Timber Organization
IUCN	International Union for Conservation of Nature
JFSQ	Joint Forest Sector Questionnaire
LFCCs	Low Forest Cover Countries
LULUCF	Land Use, Land Use-Change and Forestry
MAFISA	Micro Agricultural Financial Institutions of South Africa
MESA	Monitoring of Environment and Security in Africa
M&G	Mail and Guardian
MLEs	Medium and Large Enterprises
MMM	Mbazwana, Manzengwenya and Mabaso
MoUs	Memorandums of Understanding
MRV	Measuring, Reporting and Verification
NA	National Assembly
NCs	National Correspondents
NCOP	National Council of Provinces
NCT	Natal Co-operative Timbers
NCV	National Certificate Vocational
NEMA	National Environmental Management Act, 1998 (Act No. 107 of 1998)
NEMPAA	National Environmental Management: Protected Areas Act (Act No. 57 of 2003)
NEPAD	New Partnership for Africa's Development
NFA	National Forests Act, 1998 (Act No. 84 of 1998)
NFAC	National Forests Advisory Council
NFAP	National Forestry Action Programme (1997)
NVFFA	National Veld and Forest Fire Act, 1998 (Act No. 101 of 1998)
NFI	National Forest Inventory
NFDRS	National Fire Danger Rating System

NGOs	Non-Governmental Organisations
NGP	New Growth Path
NLBI	Non-Legally Binding Instrument
NLC	National Land Cover
NRF	National Research Foundation
NTFP	Non-Timber Forest Products
NVIS	National Veldfire Information System
PAMSA	Paper Association Manufacturing of South Africa
PTC	Permanent Technical Committee
RSA	Republic of South Africa
SADC	Southern African Development Community
SAEO	South Africa Environmental Outlook
SAFCA	South African Forestry Contractors Association
SAFCOL	South African Forestry Company Limited
SANBI	South African National Biodiversity Institute
SANSA	South African National Space Agency
Sappi	South African Pulp and Paper Industry
SARB	South African Reserve Bank
SARS	South African Revenue Services
SASCP	South African Sirex Control Programme
SAWS	South African Weather Service
SBI	Subsidiary Body for Implementation
SBSTA	Subsidiary Body for Scientific and Technological Advice
SDGs	Sustainable Development Goals
SFM	Sustainable Forest Management
SFRA	Stream Flow Reduction Activity
SIDS	Small Island and Developing States
SMME	Small, Medium and Micro Enterprises
SOF	State of the Forests
SRAP	Sub-regional Action Programme to Combat Desertification
TDCA	Trade, Development and Cooperation Agreement
TMMDT	Tembe Mbila Mabaso Development Trust
TPCP	Tree Protection Cooperative Programme
TUPs	Temporally Unplanted Areas
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
UNFF	United Nations Forum on Forests
UNFFS	United Nations Forum on Forests Secretariat
UN-REDD	United Nations Collaborative Programme on Reducing Emissions from Deforestation and Forest Degradation in Developing Countries
WoF	Working on Fire Programme
WWF	World Wildlife Fund
QSM	Qualifying Small Enterprises

## MESSAGE FROM THE MINISTER'S DESK

Forests are widely known as the world's largest repository of terrestrial biodiversity. They play a vital role in global climate change mitigation and adaptation and further contribute significantly to soil and water resources conservation in many sensitive and fragile ecosystems. Moreover, forests contribute significantly to food security, thereby providing fruit, bush meat and edible insects, amongst others. Like any forest elsewhere in the world, South Africa's forests and trees outside the forests contribute to the rural livelihoods and poverty alleviation through income generated by employment in the production of forest goods and services, including primary and secondary processing.



This report is the fourth State of the Forests report I am presenting to Parliament of the Republic of South Africa and the general public in accordance with the National Forests Act of 1998. The Act requires the Minister to collect data on forests and report on the facts and trends thereof and on any other matter deemed to be of national importance. The report presented hitherto to the people of South Africa presents the status of our forest resources, their locality, their extent, their contribution to socio-economic and ecological aspects of development. This edition of the State of the Forest report: 2015 covers performance of the forestry sector for the years 2013, 2014 and 2015.

The National Development Plan: Vision 2030 aspires to create an inclusive rural economy wherein *“rural communities should have greater opportunities to participate fully in the economic, social and political life in the country, people should have access to high quality basic services that enable them to be nourished, healthy and increasingly skilled. Rural economies will be supported by agriculture and where possible by mining, tourism, agro-processing and fisheries, better integration of the country's rural areas achieved through successful land reform, job creation and poverty alleviation.”*

*As the primary rural economic activity in rural areas, the National Development Plan (NDP) sees agriculture and forestry as having the potential to create approximately one million jobs by the year 2030. It is therefore highly expected that forestry will contribute significantly towards the achievement of this performance indicator. It is anticipated that the afforestation of the green fields identified in the provinces of the Eastern Cape and KwaZulu-Natal and the recommissioning of forestry areas in the Western Cape and Mpumalanga will contribute towards the creation of some 18 000 estimated new decent jobs in the next few years and 300 000 jobs by 2030. The planting of the 100 000 ha of new areas identified in the Eastern Cape and KwaZulu-Natal, the recommissioning of areas that DAFF initially exited in Mpumalanga (4 000 ha) and Western Cape (21 000 ha) will result in a total of 25 000 ha being available for planting. In the Western Cape, the process is conducted in the manner that seeks to benefit local communities and in turn it will stimulate local economic development. Replanting has begun in the Western Cape.*

The other area that could lead to economic growth and job creation in forestry is the state plantations which amount to 63 114 ha. These plantations are characterised by a high number of Temporally Unplanted Areas (TUPs) which is above the industry norms and standards. The TUPs currently amounts to 21 000 ha. Currently, DAFF is working with other role players such as the Department of Trade and Industry, Department of Public Enterprises and the South African Forestry Company Ltd. (SAFCOL) to turn these plantations around. If the production potential is improved in the state plantations, this could result in increased fibre in the country which will support the down-stream processing industries, create more economic opportunities, employment and SMME development (Forestry contractors).

The total area to be planted is 147 000 ha. If the entire area was to be planted in the first year of operation it will create approximately 18 000 direct jobs. In addition, approximately 42 000 jobs could be created with down-stream processing industries and across the forestry sector value chain. This totals to approximately 60 000 jobs.

The Millennium Development Goals (MDGs) have come to an end in 2015 with the country presenting the sixth and the final Millennium Development Goals since the adoption of the MGDs in 2000, reflecting on the achievements made by South Africa in dealing with the triple challenge of extreme poverty, inequality and unemployment. My department continuously participated and contributed towards several indicators of the MDGs thematic areas.



The end of the MDGs heralded the birth of the new Sustainable Development Goals (SDGs), the post-2015 Agenda and the department is already actively participating in the processes for shaping the SDGs path. This is done to align seamlessly with the country's development agenda as embraced in the National Development Plan, the DAFF's Integrated Growth and Development Plan and its implementing vehicle, the Agricultural Action Policy Plan and other State macro policies. The country's National Development Agenda, Vision 2030, as espoused in the NDP, reflects our commitment to improving the lives of our people, particularly the rural, poor and marginalised persons which states:

*"By 2030, we seek to eliminate poverty and reduce inequality. We seek a country wherein all citizens have the capacities to grasp the ever-broadening opportunities available. Our plan is to change the life chances of millions of our people, especially the youth that remain stunted by our apartheid history."*

The NDP sets out key employment drivers and the priority sectors. The plan seeks to shift the economy towards strong, sustained and inclusive economic growth with emphasis on rebuilding the productive sectors of the economy. Infrastructure development and agriculture, in particular, have been identified as a foundation for more jobs and address rural underdevelopment. The NDP provides the following guidelines for agriculture, forestry and fisheries:

Restructuring of land reform to support smallholder schemes with comprehensive support around infrastructure marketing, finance and extension services

- Upgrading employment in commercial forestry
- Acceleration of land claims processes and better support to emerging farmers following restitution settlements
- Programmes to ensure competitive pricing of inputs.

This report therefore illustrates the strides made in forestry, though not at a level we want to see, the challenges faced by the sector and opportunities presented which if tapped into, will bring meaningful transformation in the industry to ensure meaningful participation of previously excluded groups, particularly women and youth.

Finally, more information on what the department and its strategic partners have done as well as the more work that needs to be done collectively to unlock the full potential of the sector are reflected in this report.

I hope you will enjoy reading the State of the Forests report: 2015 and that it will stimulate new ideas on the multiple relationships between people and forests and how the people of the country can work together to achieve the objectives of the department's Agricultural Policy Action Plan and the National Development Plan by using forests as one of the vehicles to improve the lives of our people.



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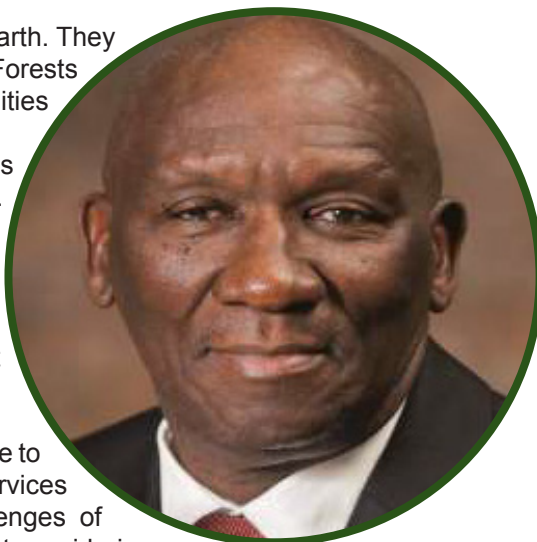
**MR S. ZOKWANA, MP**  
MINISTER OF AGRICULTURE, FORESTRY AND FISHERIES

## STATEMENT BY DEPUTY MINISTER

Our forests represent some of the most diverse ecosystems on Earth. They provide safety net for communities, particularly the rural poor. Forests provide employment, and livelihoods for large portions of communities as well as a number of ecological services.

For our forests to continue to provide goods and services there is a need to develop and manage them in a sustainable manner. South Africa, like many other countries in the world subscribes and strongly believes that if our forests are not sustainably managed, their capacities to provide goods and services will lead to catastrophic situations, particularly with regard to adaptation and mitigation of the effects of climate change, the current phenomenon affecting the globe.

To support our country's growth and development plan, forests have to be developed to increase their potential for providing goods and services including their contribution to the fight against the triple challenges of unemployment, poverty and inequality. This is even more important considering that South Africa is rated as one of the most unequal countries in the world.



To achieve, the goal of reducing the triple challenges faced by the country, the factors identified as hindrances for forestry to reach its full potential need to be addressed. From my engagement with the forest community, the following were identified as some of the challenges hindering development of the forest sector, particularly commercial forestry: (a) conflicts in the industry –whereby there are alleged conflicts between communities and industry and between communities themselves. There needs to be co-existence and harmony between people and forests and between communities and forest companies; (b) participation of youth and women in the sector is inadequate– there seems to be some understanding in terms of youth participation but there is a need to define participation of women especially at the level of forest ownership, control and management. The infusion of the new generation in the sector should be coupled with new innovation, but more importantly, all social partners (government, labour and business) need to embrace transformation as a vehicle for meaningful participation by previously disadvantaged groups, namely Africans, women and youth in the forestry sector; and (c) implementation of Agroforestry systems – forestry has shown its ability to support job creation and economic growth and to contribute towards food security. This is achieved through the promotion of multiple land use and diversification. I strongly believe that implementation of Agroforestry will attract youth into the sector, who are conspicuously absent at this point in time. It is alleged that the long term rotations associated with the business of plantation forestry are contributing towards lack of interest by youth to get involved in forestry.

Land restitution is also considered as a major inhibitor of growth and development of the sector since most of the forestry areas are under land claims which take a very long time to settle and negatively affecting investor confidence. We need to work together with our key stakeholders to seek ways of expediting the restitution processes.

The country has legislative frameworks meant to address lack of transformation across the sectors of the economy in a decisive manner. These include the Black Economic Empowerment legislation and their related transformation charters, the Broad-based Black Economic Empowerment Forest Sector Charter in the case of forestry. We need to ensure full implementation of these tools in order to achieve meaningful transformation of the forest sector and its entire value chain.

Reading through the report, one will realise that forest monitoring in South Africa is inadequate. While the country can account with confidence on the extent of plantation forestry, data is relatively scanty or inadequate when one considers indigenous forests and woodlands, particularly the later. This is another area which needs attention and concerted effort from all stakeholders, both public and private. I would like to commend the private sector on their work towards making sure that our forests are sustainably managed, particularly on commercial plantations considering that South Africa is rated as the country with the highest forest stewardship council certification at more than 82% in terms of proportional area.

As the Department of Agriculture, Forestry and Fisheries mandated with the responsibility of ensuring that our forest assets are managed in a sustainable manner, we hope that the information in this report will help broaden the discussions on forests and stimulate renewed actions at various levels. Such discussions and actions will put the country in a better position to engage with the World and enhance the notion of a better Africa and World.

I thank you,

A handwritten signature in black ink, appearing to read 'Bheki Cele', enclosed within a large, loopy circular flourish.

.....  
**GENERAL BHEKI CELE, MP**

DEPUTY MINISTER OF AGRICULTURE, FORESTRY AND FISHERIES



## EXECUTIVE SUMMARY

This fourth edition of the State of the Forests report: 2015 (report 2013 – 2015) addresses the legal mandate of the Department of Agriculture, Forestry and Fisheries, thereby bringing knowledge and information and analysing data about the socio-economic benefits of forests. It builds on the information and examinations done before with the three previous editions of these triennial reports for the years 2006, 2009 and 2012.

The first part (Part 1) of the report sets out its context, objectives and purpose. The globally accepted system of principles, criteria, indicators and standards (PCIs) for Sustainable Forest Management (SFM) requires that forest resources should be managed in a sustainable manner for the benefit of the current and future generations. To achieve these objectives, South Africa enacted through Parliament, the National Forests Act, 1998 (Act No. 84 of 1998), which is supported by the guidelines on PCIs for SFM. It is against these principles, criteria, indicators and standards that the country's forest assets are monitored and evaluated for compliance.

This report therefore emanates from the process of collecting and analysing data on the monitoring of forests. It presents the findings on facts and trends, the possible implications of the trends, if they are of national interest, reporting on measures being implemented to address any negative trends and recommendations on specific actions and future directions required to enhance the country's development and compliance with the principles of Sustainable Forest Management.

Part 2 of the report provides information on the profile of the forestry sector in the country. Data shows that the area for commercial plantations has decreased by 3,3% from 2013 to 2015. The commercial forestry areas are at 1 224 456 million ha (2015) from 1 265 811 million ha in 2013.

The ownership of the commercial forestry industry in South Africa is predominately privately owned. Currently, private sector ownership accounts for 83% of the total land under plantation forestry. The total area under plantation forestry in South Africa in 2013/14 was 1 233 259 ha and 1 224 456 ha in the 2014/15 season. This indicates that the total land cover under commercial forestry is continuing to decrease.

In 2014/15, forestry contributed R29 billion (excluding paper and paper packaging which added another R14 billion) to the economy, even though the land has been decreasing. The employment figures in 2011/12 were at 165 300. It is expected that this figure could have decreased due to factors such as drought and the current economic climate in the country. Forestry's contribution to GDP fluctuated during the period under review, having increased by 2,3% in 2013 and only to fall to 1,6% in 2014. However, South Africa's exports to the BRIC block increased to nearly R2 billion (42,4%) compared to the previous reporting period (2009-2012). The total value of imports from the rest of Africa declined to R1,6 billion in 2015 from R2,0 billion in 2014. However, South Africa remains a net exporter of forestry products. The total export value of forestry products increased by 37,1% from R18,2 billion to R24,9 billion between the years 2013-2015.

Despite the signing of the forestry sector charter in May 2008, transformation in the sector is very slow. The charter aspired a situation whereby 10 000 ha was to be afforested (planting on virgin land) annually from its inception. However, the available data indicates that only about 14 245 ha have been afforested to date since the signing of the charter.

The area for savannah woodlands forest type covers about 75% of the country's land surface. Data indicates that the loss of woodlands areas stood at the highest figure ever, whereby about 2,9 million ha were lost, from the 39 million ha reported in 2012 to 36 million ha in 2014. This is attributed to land use change, but it may also be due to some recent recalculations. Due to different classification systems used to map woodland forests, it is difficult to provide accurate extent of woodland areas. Until such time when a common system is adopted for the country, the challenge for accurate mapping of woodlands and thickets will continue to persist.

The pressure on indigenous (natural) forests continued during this reporting period. Natural forest cover decreased from 497 100 ha in 2005 to 427 619 ha in 2014. This amounts to a 14% loss over the period of eleven years. The main causes of natural forest losses include mining, encroachment as a result of settlements, property development, illegal harvesting of timber and loss of land to agriculture.

Despite the existence of the National Forests Act, 1998 (Act No. 84 of 1998), which provides protection for all natural forests, ensuring compliance and enforcement remains a challenge due to a number of factors, including lack of financial resources for implementation of programmes as well as a lack of competency in certain areas, for example, the limited number of competent forestry scientists in the department. There is a lack of and/or inadequate coordination of efforts between the sector and law enforcement agencies. This emanates from the absence of a coherent compliance and enforcement strategy in the forest sector.

In terms of biological diversity and conservation and sustainable forest management, the sector continues to integrate conservation planning in commercial plantation areas. South Africa remains the country with the highest Forest Stewardship Council certified area in the world in terms of proportional area (82%). The country is ranked as the third most biodiverse country in the world in terms of species richness. Eight state forest nature reserves were declared in Mpumalanga, covering 17 052 ha, thereby raising their protection status.

Fires, pests and diseases continue to pose a serious threat to the country's forest assets. The annual area burnt during the period under review (2013-2015) was at 2,8 million ha with the North West Province recording a rise of over 120% between 2012 and 2013. Twenty six (26) Fire Protection Associations were registered during this period bringing the total number of FPAs registered in terms of the National Veld and Forest Fire Act to 261. Fire Protection Associations are voluntary, community-based organisations formed and registered to manage veld and forest fires in their areas of jurisdiction.

As a developing country, South Africa is still experiencing a fraction of food insecurity. The 2016 Community Survey by Statistics South Africa revealed that some 2,2 million households in South Africa had skipped a meal in the 12 months before the survey was conducted.

The commercial forestry companies continued to implement their social responsibility programmes during this period. Sappi, for example, donated 10,4 tons of various grades of paper to local schools and community-based organisations in the Lowveld areas of Mpumalanga in 2013, SAFCOL invested R6 million every year between 2013 and 2015 on socio-economic development programmes and R10 million was budgeted for the 2016/17 period and PAMSA offers a National Certificate-Vocational qualification in process plant operations and paper making technology from levels 2-4.

The living conditions of forestry workers remain very much unchanged with the monthly wage package having moved only from R2 229,32 in 2013 to R2 420,41 in 2015.

The report in Part 3 gives a synopsis of the republic's international and regional cooperation with other countries on matters relating to forestry development and management, including cooperation on integrated veld and forest fires.

South Africa continued to participate at various sessions of the bodies of the regional, continental and international systems during the period under review. Some of the meetings the country participated in include the 10th Session of the United Nations Forum on Forests in Turkey in April 2013; the 11th Session of the United Nations Forum on Forests in the United States in May 2015; the 40th Session of the Subsidiary Body for Implementation (SBI 40); the Subsidiary Body for Scientific and Technological Advice (SBSTA 40) and the 20th Session of the Conference of the Parties for the UNFCCC in December 2014 in Peru.

The country also participated in various international capacity building workshops. These include attendance at the FAO-provided training on National Forest Monitoring and Information Systems for the REDD+ project; workshops on the Monitoring for Environment and Security in Africa, which includes fire monitoring; a Five-Day Online Media Literacy and Grants Application Skills, a Five-Day Project Design for Sustainable Forest Management and the Eastern and Southern Africa Sub-regional workshop on Forest Products Statistics new system.

The National Forests Act, 1998 and the National Veld and Forest Fire Act, 1998 have been subjected to a review during the period and the process was almost complete by the time of publishing this report. The review was proposed to ensure smooth implementation of the two Acts based on the experiences from the implementers on the ground. The amendments include certain definitions in the fire legislation and the need to make provision for municipalities and traditional authorities to facilitate formation of Fire Protection Associations in their areas of jurisdiction. The proposed amendments in the National Forests Act include a need to strengthen the legislation in certain areas such as inclusion of women and youth in the sector mainstream activities and to provide for appeal process in cases where disputes arise from ruling by the department.

In Parts 4 and 5, the report describes the strategic policy responses to protect the environment and develop the sector as espoused in various plans and frameworks. Part 5 of the report, in particular, presents the analysis of the sector's contribution to sustainable development and management. The analysis is done by applying the Driving forces-Pressures-States-Impacts and Responses (DPSIR) framework for monitoring and assessing management practices in areas of natural resources and environmental management.

Several factors have been identified as barriers which should be unlocked to enhance performance of the sector and its contribution to the fight against the triple challenge of poverty, unemployment and inequality prevalent in the country. The identified factors include, among others, the following:

shortage of sawlog timber, low afforestation rate, decimating forest land cover, inadequate leadership role by Government, transformation, climate change and land reform. The analysis of the impact of each of these is provided in Part 5 of the report.

Finally, conclusion and recommended interventions required to enhance and increase the forestry footprint in the country are presented in Part 6 of the report. This chapter lists the challenges that have been identified and analysed in Parts 4 and 5, respectively and proposes the required strategic interventions to overcome the challenges.





# 1

## BACKGROUND, PURPOSE AND OBJECTIVES OF THE REPORT

## 1.1 BACKGROUND OF THE REPORT

The State of the Forests report is a mandatory requirement produced at least every three years in compliance with section 6(3) of the National Forests Act, 1998 (Act No. 84 of 1998). It further requires the Minister to report to Parliament on facts and trends which emerge from the monitoring, whether the facts and trends observed are of national interest and measures being taken to address negative trends. Section 6(1) of the Act, in particular, states that the Minister must monitor forests with reference to the matters referred to in section 4(6). The Act also requires the Minister to disseminate the information derived from the monitoring to the public in a way that in his or her opinion will promote SFM [section 6(2)].

The report is mainly based on information derived from implementation of principles, criteria, indicators and standards for sustainable forest management which the Minister is expected to publish as required by section 4(4) of the same legislation. The criteria and indicators, in accordance with section 4(6) may include, but are not limited to those for determining:

- a) The level of maintenance and development of:
  - forest resources
  - biological diversity
  - the health and vitality of forests
  - the productive functions of forests
  - the protective and environmental functions of forests
  - the social functions of forests
- b) The level of provision of socio-economic benefits
- c) The status and appropriateness of the policy and legislative and institutional framework for forest management

The criteria, indicators and standards may apply nationally or regionally to a specific forest management unit, or to all or specific forest types and may be binding. However, the South African government has taken a precautionary approach by not publishing the criteria, indicators and standards as regulations rendering them voluntary at this stage.

The National Veld and Forest Fire Act, 1998 (Act No. 101 of 1998) also promotes protection, prevention and management of unwanted veld, forests and mountain fires which pose a threat to natural resources and human life. The Act provides for formation and registration of voluntary, community-based organisations referred to as Fire Protection Associations (FPAs).

The fire legislation requires of the Minister to annually monitor the performance of Fire Protection Associations to establish if these are functional and provide reasonable support to the non-functioning FPAs, where feasible and applicable. The information so derived, in the form of annual reports, is an integral part of the State of the Forests report. This is the fourth edition of South Africa's State of the Forests report and it covers the years 2013-2015.

## 1.2 PURPOSE OF THE REPORT

This report is produced every three years to meet the requirements of section 6(3) of the National Forests Act of 1998. The State of the Forests report aims, but is not limited to:

- provide information to the general public, scholars, academia, research institutions and international bodies to assess progress in achieving the principles of Sustainable Forest Management and development as called for by the United Nations system and national legislation
- provide information to policy makers to enable implementation of required interventions
- indicate progress in relation to implementation of government policies and programmes
- make recommendations to policy makers for possible review or augmentation of certain policies, tools, programmes and provisions of legislation in order to create an enabling environment for transformational and developmental imperatives of Government.

### 1.3 OBJECTIVES OF THE REPORT

It is a global practice for countries to periodically produce State of the Forests reports and their Environmental Outlook reports. The international community through various forums developed Principles, Criteria, Indicators and Standards (PCI&S) for sustainable forest management (SFM) based on social, economic and ecological pillars. It is against these PCIs that Member States of the United Nations are measured. However, implementation of principles, criteria, indicators and standards for sustainable forest management and the reporting thereof are voluntary. Like many countries, South Africa has developed national Principles, Criteria, Indicators and Standards for sustainable forest management and the National Forests Act, 1998 (Act No. 84 of 1998) encourages implementation of these in all forest types. The National Forests Act, section 6(3), in particular, requires of the Minister to report to Parliament and the public on the status of the forest resource in the country at least every three years. This information is presented in the triennial State of the Forests report. The key objectives of the State of the Forests report are to:

- present the facts and trends revealed by the monitoring process to Parliament, decision makers and the public
- present the possible implications of the trends considering whether or not these are of national interest
- report on measures being implemented to address negative trends and any other relevant issues related to South African forests and related sectors
- make recommendations on specific actions and future directions required to advance South Africa's progress towards sustainable forest management
- enable the country to meet its regional and international reporting obligations such as the Global Forest Resources Assessment led by the United Nations' Food and Agriculture Organization (FAO) as well as the global report on Millennium Development Goals (MDGs), now referred to as Sustainable Development Goals: Vision 2030.

### 1.4 REPORT LAYOUT

This edition builds on the 2012 SOF report without significant changes on the structure. The first part of the report sets the scene by providing the background to the report, the purpose, aims and objectives of the report.

The second part provides an overview of the extent and distribution of all types of forests in South Africa. The indicators used to assess sustainable forest management are derived from global practices, supported by the legislative mandate and are grouped into three categories: Environmental, economic and social aspects. For each main category, the report assesses the state, trend and response measures to trends that are of national interest and adequacy of information.

The third part takes a broader view by discussing developments in the international arena. It provides an overview of several forestry and environmental protocols in which South Africa participates or supports, including those under the leadership of other sister departments such as the Department of Environmental Affairs (DEA). It also covers institutional, forest policy and legislative framework that guides and informs decision making in forestry.

The fourth part of the report describes strategic policy responses and interventions towards protecting the environment and developing the forest sector and describes measures that the forestry and natural resources management branch is undertaking to translate the manifesto and MTSF into outcomes.

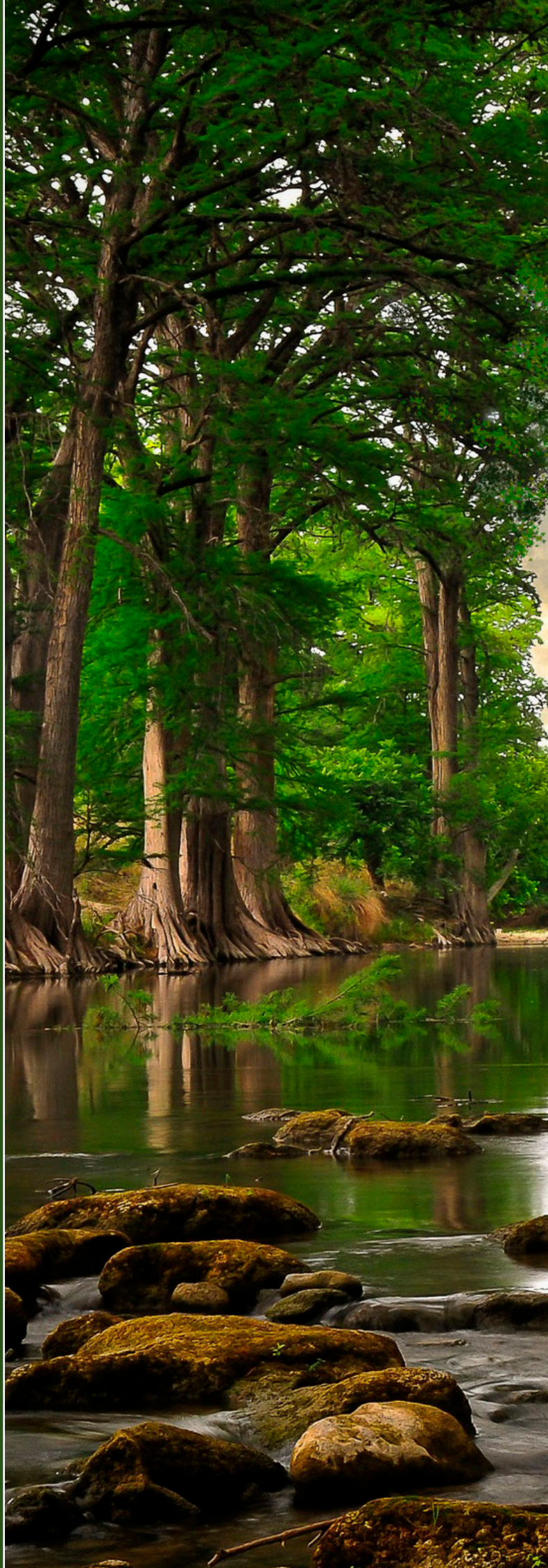
The fifth part of the report provides an analysis of the sector in terms of its contribution to sustainable development and management using the Driving forces-Pressures-States-Impacts and Responses (DPSIR) framework

The sixth part concludes the report and provides recommendations that seek to promote sustainable forest management and development.



# 2

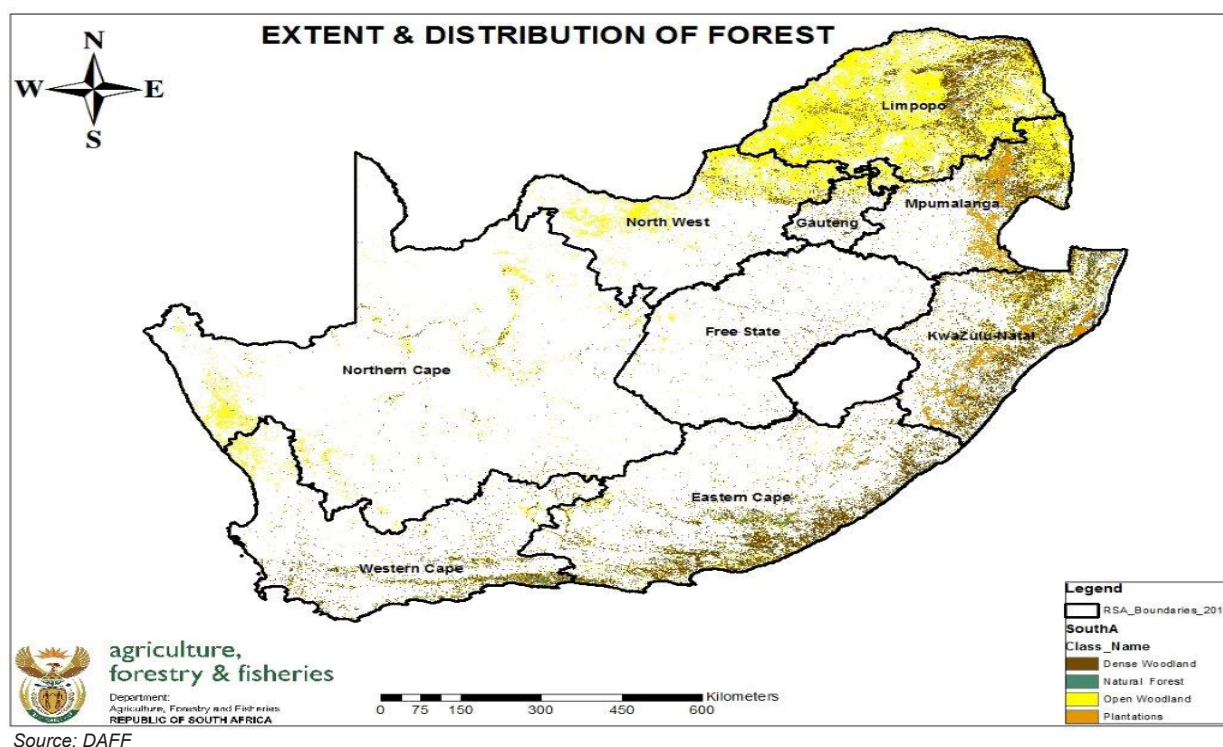
## PROFILE OF THE SOUTH AFRICAN FOREST SECTOR





## 2.1 EXTENT AND DISTRIBUTION OF FORESTS IN SOUTH AFRICA

South Africa has a population size of 52,98 million (2013) and a land surface of 1 219 602 kilometers<sup>2</sup> (122 million ha). With the key economic sectors being mining, services, transport, energy, manufacturing and agriculture, forestry contributes to the agriculture sector in terms of the gross domestic product and job creation. The forest area currently covers just less than 38 million ha of the country's land surface area (about 31,1%). The forest resources in South Africa are divided into three main categories, namely; natural (indigenous) forests, wooded savannahs (woodlands) and commercial (plantation) forests. The forest resources are spread across all the nine provinces of South Africa, namely, Gauteng, KwaZulu-Natal, North West, Limpopo, Free State, Mpumalanga, Eastern Cape, Western Cape and Northern Cape. However, commercial plantations do not occur in the provinces of Free State, Gauteng and the Northern Cape whereas the North West Province has less than 300 ha of woodlots (gums). Woodlands, on the other hand, have a footprint in all provinces whereas natural forests are predominantly found in the Eastern Cape, KwaZulu-Natal, Limpopo, Mpumalanga and the Western Cape.

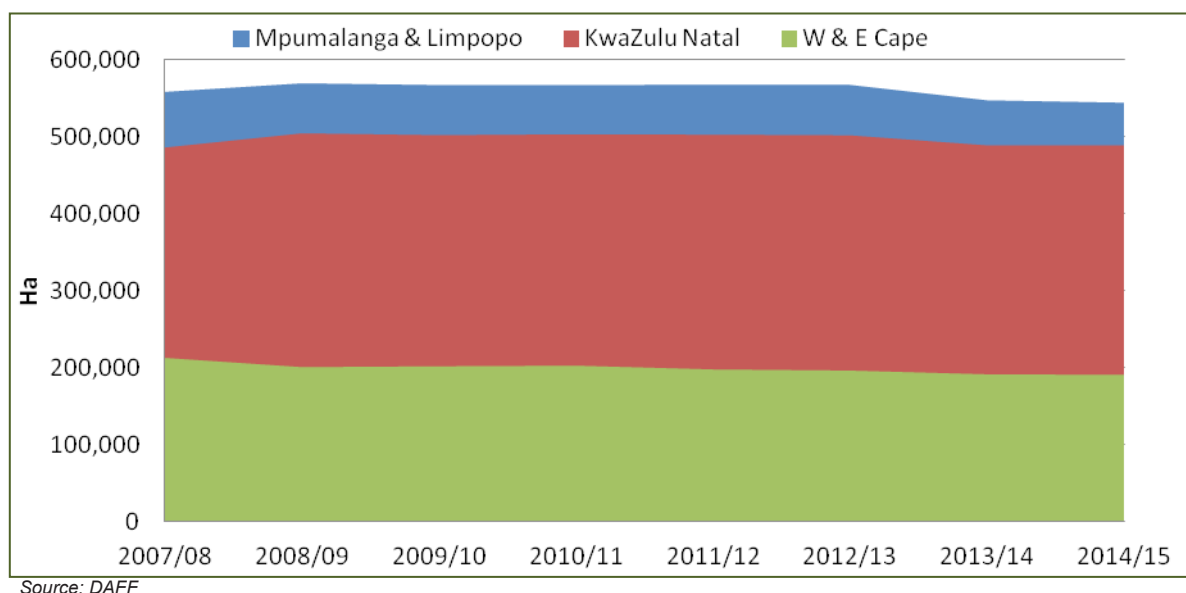


**Figure 1: Extent and distribution of different types of forests.**

Such low forest cover demonstrates that most parts of South Africa are characterised by low (below average) rainfall of about 464 mm throughout the year, as it is the case with most Sub-Saharan African countries compared to global average annual rainfall of 860 mm. The largest area of the country's forest resource is the wooded savannah (woodlands). The total forest land cover has declined considerably over the last few years. In 2005 the Department of Agriculture, Forestry and Fisheries (DAFF) reported that forest accounted for over 36% of the total land area, marking a decrease of nearly 3% over a ten-year period. This decline could be attributed to improved economic activities which lead to deforestation due to property development, particularly along the coastal areas. Mining, residential developments, noncompliance with environmental laws, as well as agriculture, also contribute to losses in forest areas in South Africa. The commercial plantations, covering some 1,224 million ha occurs mainly in the provinces of the Eastern Cape and Western Cape (191 039 ha), KwaZulu-Natal (488 591 ha), Limpopo and Mpumalanga (544 826 ha). Natural forests covering some 427 619 ha are predominantly found in the Eastern Cape and KwaZulu-Natal and a significant area is also in the Western Cape. Approximately 189 000 ha of indigenous forests are in the direct ownership and management of the DAFF and the remainder is in the hands of the private individuals and provincial conservation authorities. Woodlands, covering some 36 million ha occur mainly in communal land across the country.

### 2.1.1 Commercial plantations in South Africa

The average total annual timber plantation area in South Africa was estimated to be 1,23 million ha per year between 2013 and 2015. Data shows that the plantation area declined significantly by 3,3% from 1,265 million ha in 2013 to 1,224 million ha in 2015. If the world and domestic trend is to go by; the country's forest sector should gear itself up for an uninterrupted decline in total plantation area over the next few years. However, Government in collaboration with the commercial forestry private sector is implementing a programme for afforestation in the provinces of KwaZulu-Natal and the Eastern Cape, having identified an area of approximately 100 000 ha in these provinces. An uptake of these areas is currently underway. Figure 2 is an illustration of trends in the plantation area according to regions. It depicts that the decline was primarily due to the number of hectares lost in Limpopo and Mpumalanga (4,0%), KwaZulu-Natal (2,6%) and the Western and Eastern Cape (2,8%) during the same period under consideration. The table further indicates that Mpumalanga and KwaZulu-Natal remain the most planted provinces in South Africa, responsible for around 80% of the total planted area.



**Figure 2: Commercial plantation area**

Table 1 presents South Africa's most planted species between 2013 and 2015. It indicates that softwood species was the most planted in 2015, accounting for 50,8% of the total species planted. The figure also illustrates that the amount of softwood planted fell by 3,6% to 619 311 ha between the two periods under consideration. Data also shows that the Mpumalanga Province (287,415 ha) is currently the largest producer of softwood species, followed by the Eastern Cape (100,050 ha). Eucalyptus and Wattle species were the second and third most produced species during 2015 as they were responsible for 41,8% and 7,2%, respectively in the country.

**Table 1: Plantation area by species**

SPECIES IN HECTARES	2013	2015	% Change
Softwood	642 408	619 311	-3.6%
Eucalyptus	527 291	511 772	-2.9%
Wattle	91 194	88 319	-3.2%
Others	4 919	4 600	-6.5%
Total	1 265 812	1 224 002	-3.3%

Source: DAFF

## 2.1.2 Natural forests in South Africa

DAFF reported that natural forest cover decreased from 497 100 ha in 2005 to 427 619 ha in 2014. This significant decline of 14% was not expected due to the existence of the National Forests Act (NFA), 1998 (Act No. 84 of 1998) which seeks to protect all natural forests in the country, irrespective of where they occur (private and public land). The Act clearly stipulates that all natural forests are protected and access to as well as permission to deforest this natural resource is very stringent, but more importantly, they may not be destroyed except in exceptional cases. It should also be noted that the vast majority of South Africa's natural forests are evergreen and found in mountains with high rainfall. As a result, it is suspected that as farmers are beginning to expand their activities to these areas as the impact of climate change and demand for food intensified, deforestation is likely to occur.

**Table 2: Distribution of indigenous forests and woodland area by forest type and class**

Natural Forest type	Area (ha)	Woodland Class	Area (ha)
Albany	22 046,37	High altitude acacia	18 442 443
Amatole Mistbelt	64 221,09		
Drakensberg Montan	1 926,39		
Eastern Cape Dune	10 940,58	Low Altitude Acacia	4 092 504
Eastern Mistbelt	41 841,86		
Eastern Scarp	33 750,17	Ghaap Plateau	2 335 628
KwaZulu-Natal Coastal	21 089,11		
KwaZulu-Natal Dune	12 395,89		
Licuati Sand	24 275,67	Kuruman	1 294 580
Lowveld Riverine	11 401,28	Southern	129 293
Mangrove	2 392,70	Rhenosterveld	
Mpumalanga Mistbelt	32 772,36	Waterberg	967 868
Northern KwaZulu-Natal Mistbelt	5 323,42		
Northern Mistbelt	1 9203,65	Combretum	839 037
Pondoland Scarp	12 337,00		
Southern Cape Afrotropical	68 563,35	Soutpansberg	395 874
Swamp	3 021,77		
Transkei Coastal Platform	61 484,01	Spekboom	1 493 276
Transkei Mistbelt	30 249,84	North Succulent	1 279 392
Western Cape Afrotropical	4 731,06	South Succulent	920 317
Western Cape Milkwood	2 499,74	Mopane	1 230 299
<b>Total area</b>	<b>492 699,76</b>	<b>Total area</b>	<b>40 971 848</b>

Source: Berliner & Benn 2004; Systematic conservation for forest biome of South Africa

Table 2 shows the types of natural forests and their distribution as of 2004. Amatole and Eastern Mistbelt as well as Eastern Scarp, Licuati Sand and Albany are estimated to be the most dominant natural forest types in South Africa, covering over 70% of the country's natural forests. The large proportion of this resource is predominately found in the Eastern Cape, Mpumalanga, KwaZulu-Natal and Western Cape Provinces. It is also important to indicate that the country's ability to adequately estimate natural and savannah woodland forests extent remains extremely limited due to financial and expertise constraints, particularly within Government. As a result, monitoring of these forest types takes place at very long intervals which inevitably compromises their sustainability as intervention measures may be implemented long after much damage has been done.



### 2.1.3 Wooded savannah forests (Woodland) in South Africa

Existing data collection and mapping systems indicate that this forest type currently occupies an estimated 75% of the total forest area in the country. Savannah woodland generally suffered some unprecedented loss of about 2,9 million ha after some recent recalculation from 39 million ha in 2012 to 36 million ha in 2014, mainly due to land use change. However, DAFF noted that accurate mapping of the extent of South Africa's forest has proved to be difficult, particularly of thicket and woodland. The main reasons being that there is spectral image confusion which makes distinguishing forest from non-forest difficult and different methodologies used to map forests (land cover classification systems). As a result, this has created a lot of difference and debate on the extent and distribution of this forest type.

## 2.2 THE AFFORESTATION PROGRAMME IN SOUTH AFRICA

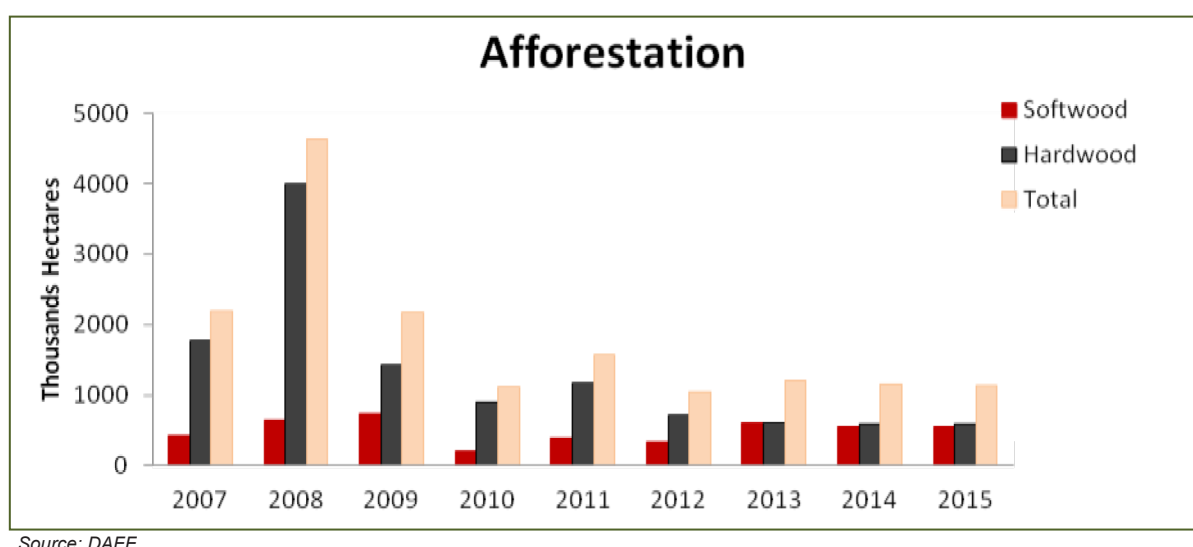
Afforestation is the establishment of a forest or stand of trees in an area where there was no forest (planting of trees on virgin land). Approximately, 16% of South Africa, primarily the wetter eastern parts, is suited for afforestation. Such a small land area together with the fact that afforestation is competing with other forms of land use already indicate the daunting task facing afforestation in the country. However, the move by Government to identify some land for afforestation affirms the forest sector's ability to contribute towards decent job creation and economic growth.

**Table 3: Afforestation by province in the country from 2003-2015**

	Mpumalanga & Limpopo (ha)	KwaZulu-Natal (ha)	W & E Cape (ha)	Total (ha)
2002/2003	1272	5842	304	<b>7418</b>
2003/2004	574	1371	50	<b>1995</b>
2004/2005	3636	290	145	<b>4071</b>
2005/2006	797	1838	0	<b>2635</b>
2006/2007	706	1492	0	<b>2198</b>
2007/2008	293	4348	0	<b>4641</b>
2008/2009	414	1751	4	<b>2169</b>
2009/2010	437	876	3	<b>1316</b>
2010/2011	455	1114	4	<b>1573</b>
2011/2012	434	608	3	<b>1045</b>
2012/2013	408	764	33	<b>1205</b>
2013/2014	348	765	42	<b>1155</b>
2014/2015	348	761	32	<b>889</b>
<b>Total Area (ha)</b>	<b>10122</b>	<b>21820</b>	<b>620</b>	<b>32310</b>

Source: DAFF

Table 3 above shows that the country reached its second lowest level ever in the total number of afforested (planted) area after recording 1 141 ha in 2015 from 1 155 ha and 1 205 ha in 2014 and 2013, respectively. Mpumalanga and Limpopo saw a significant decline of about 15% in afforestation between 2013 and 2015. KwaZulu-Natal and the Cape Provinces reported a marginal decline during the same period under review. Figure 3 below depicts that hardwood accounted for 52% of the total afforested area in the country in 2015 after contributing over 75% in 2012. Afforestation of softwood grew by more than double in recent years in the country. This change in preference among farmers is being driven primarily by the current rise in demand and anticipated future demand of softwood species.



**Figure 3: Afforestation by type of species**

### 2.2.1 Addressing the afforestation challenges

It is widely known that afforestation in the country is mainly being hindered by water use licencing processes and availability of land to afforest. A water use licence is required for operations classified as stream flow reduction activities and forestry is one. The water use authorisation process does not reside with one authority; it involves several government agencies with the Department of Water and Sanitation being the lead department. It can take up to 300 days to process a permit for afforestation or replanting of land that is virgin or remained unproductive for a period exceeding five years. The department and the private sector have identified an area of 100 000 ha in the provinces of KwaZulu-Natal and the Eastern Cape for expansion of the forest sector in line with the Broad-based Black Economic Forest Sector Charter gazetted in February 2007. The Forest Sector Charter agreed to and signed by the key partners, Government, labour and business is a contract intended to deliver on the government's transformational and developmental aspirations. In terms of the charter, the objective was to plant annually 10 000 ha of new land over a period of 10 years. However, this goal does not seem to be achievable due to various challenges, including the regulatory environment, lack of means of implementation (funding), land restitution and the apparent lack of incentives to entice the youth and women to the sector, given the long-term nature of the business. This means that returns on investment can only be realised after a minimum period of 25 years when harvesting of the crop, particularly sawn timber, is done.

This therefore calls for strategic interventions from all role players to come up with strategies that will ensure short-term returns while waiting for the harvesting of the final product. The Department of Agriculture, Forestry and Forestry (DAFF) has therefore embarked on the development of an Agroforestry Strategy which, once implemented, will result into inter-cropping and multiple use of the forest land. It is anticipated that this will attract the youth and women to participate significantly in the sector. Agroforestry will inevitably contribute significantly to the war against hunger and poverty faced by the majority of the people of South Africa, particularly the rural poor.

The challenge of the delayed business process can only compound the programme of afforesting the identified 100 000 ha of new land and subsequently hinder development and transformation of the commercial forest sector in South Africa. To address this challenge, an Intergovernmental Committee to deal with water use licensing has been established. Currently, the committee comprises of representatives from Department of Agriculture, Forestry and Fisheries (DAFF), the Department of Water and Sanitation (DWS), Trade and Industry (dti), the forestry industry and the Industrial Development Corporation (IDC) as a development finance institution. In addition, the department and other state institutions recently made some strategic interventions by paying for the costly Environmental Impact Assessments (EIAs) to enable afforestation.

The IDC has plans aimed to develop about 25 000 ha of land by 2017 for afforestation, of which 8 000 ha will be implemented by 2020 to expand industrial capacity of the forest sector through afforestation, mainly in the Eastern Cape. There are now good reasons to be optimistic as millions of rands have already been approved and that the current initiatives and plans to afforest involves a diverse range of stakeholders such as the Eastern Cape Rural Development Agency (ECRDA), the Department of Agriculture, Forestry and Fisheries and private companies.

According to the DWS, about 52 water use licenses were issued for afforestation purpose between 2013 and 2015, covering some 6 042 000 ha. The majority of those granted licenses were in the Eastern Cape and KwaZulu-Natal.

## 2.3 FOREST OWNERSHIP IN SOUTH AFRICA

### 2.3.1 Plantation ownership



Source: SA Forestry, Mechanical harvesting on a commercial forestry plantation

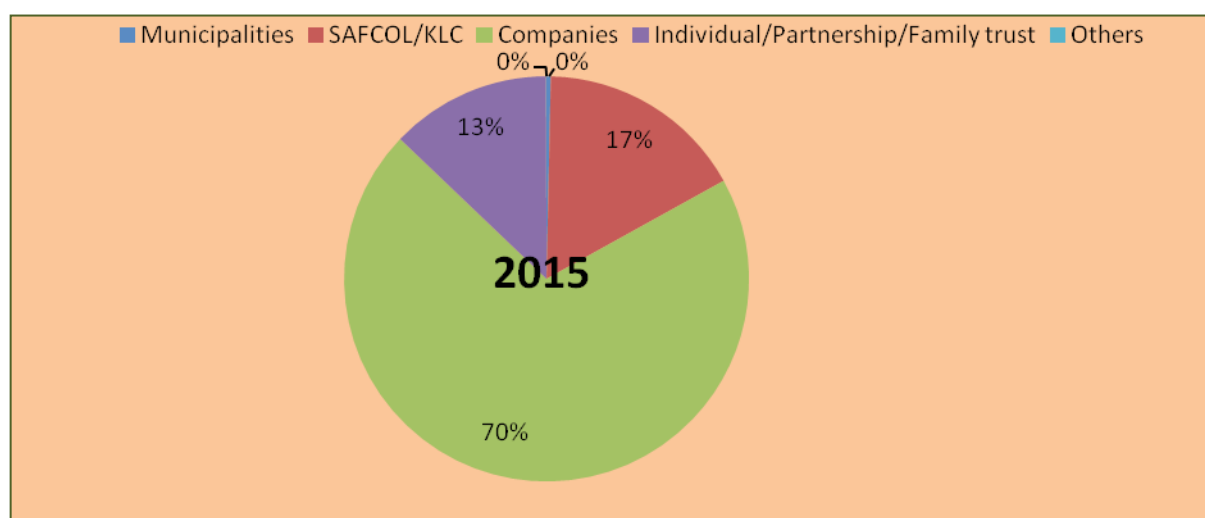
South Africa's commercial plantation area is predominately owned by the private sector. The table below shows that companies owned around 70% of the total commercial plantation area in 2015, which remained unchanged from 2011. The commercial forestry ownership in South Africa is depicted in Figure 4. The lack of changes in ownership was driven primarily by the declining trend in the overall commercial plantation area in the country, which fell slightly from 1,273 million ha to 1,224 million ha between 2011 and 2015. A closer assessment revealed that companies were the biggest losers, after recording a 6% loss of planted area followed by SAFCOL at 1,2%. Individuals posted an increase of about 2% and municipalities also recorded some increase.

**Table 4: Trends in plantation ownership structure**

Organisations	Extent in hectares		
	2011	2013	2015
Public ownership	215,849	211,120	213,188
Municipalities	4,280	4,357	4,285
SAFCOL/KLC	211,569	206,763	208,903
Private ownership	1,057,508	1,054,691	1,011,268
Companies	893,669	886,919	843,892
Individual/Partnership/Family trust	163,416	167,349	166,953
Others	423	423	423
Total	1,273,357	1,265,811	1,224,456

Source: DAFF

It is also clear that there is a great barrier to enter this sector of the economy. Few companies appear to have dominant power because they are vertically structured and there is also the high start-up cost of establishing a forestry company, as well as long government processes and the regulatory environment for acquiring planting permits. These apparently hinder the development of small- and medium-sized enterprises, economic development and decent job creation as aspired by the National Development Plan: 2030. As a result, this has not provided equitable opportunities to participate in the economy and promote greater spread of ownership, in particular to increase the ownership stakes of the historically disadvantaged persons, including women and youth.



Source: DAFF, own data and calculations, commercial timber resources annual reports

**Figure 4: Plantation area by ownership 2015**

### 2.3.2 Land ownership of natural forest and savannah woodlands

South Africa conducted the National Forest Inventory in 2002 to determine the extent of ownership of the country's natural forests. The study showed that of the total 497 101 ha of natural forest, private ownership was around 66%, while the public ownership was at about 34%. This ownership pattern is interesting and a stark contrast to Poland, where state ownership was 80% (2001). The distribution of ownership of the woodland forest in the country remains largely blurry but these occur predominantly in communal land and conservation agencies in the form of national parks or nature reserves.

## 2.4 FOREST PROTECTION

### 2.4.1 Protected trees

South Africa's natural forests and trees are protected in terms of the National Forests Act under section 12 to prohibit persons to cut, disturb, damage, destroy, remove or transport any protected trees or parts thereof without a valid permit. The minister follows a normal procedure for declaring protected trees which involves giving notice of the proposal to protect a tree or group of trees to invite comments within a specified period and consider them thereafter. As required by the NFA, DAFF publishes a list of all protected trees annually and by 2015 the department had declared at least 47 tree species as protected and the list is republished every year, although the Act is under review to publish the list once every five years and/or when required. This is because, although attempts were made to declare some trees as protected over the last few years on an annual basis, the list remained fairly unchanged. Trees are also protected under section 7 of the NFA, which prohibit the destruction of indigenous trees in any natural forest without a license by any person. The current list of protected trees is attached as Annexure 1 (at the back of the report).

### 2.4.2 Declaration of Champion Trees

Trees are declared as Champion Trees on the basis of their biological attributes (diameter, height and crown spread), age of tree and cultural heritage. Those are considered significant key parameters for evaluating champion status. The Champion Trees Project is aimed at identifying and protecting individual trees or group of trees of national conservation importance under section 12 of the NFA. The number of trees declared as Champion Trees increased to 87 in 2015 from 70 (reported in the last State of the Forests report: 2012). This project has led to the significant improvement in the status of forest and tree protection in the country as its introduction offered protection to many trees that were not previously protected. These trees are declared as protected by notice in the *Government Gazette* and in national newspapers. Once listed as protected by notice, Champion Trees have special protection status in terms of the legislation. No such trees may be cut down, disturbed or damaged without a licence. A strict approach is taken to their protection and licences are issued only under exceptional circumstances, such as a tree that poses a danger to life or property.





*The Baobab Champion Tree, Limpopo*

### 2.4.3 Conservation of woodland forests

Woodlands are a forest type which do not receive as much attention as the other two forest types, namely, natural forests and commercial plantations. There are several reasons for this trend. These include the great size and distribution (extent) of the woodland forest type, lack of financial resources for their upkeep, multiple ownership and large tracts of communal land. This makes it difficult to implement compliance and enforcement programmes. High poverty levels lead to the overexploitation of woodlands for livelihoods, especially in communal areas. Currently there is no coherent policy to manage and develop the resource.

Since the declaration of the Kathu forest as the first woodland type to be protected under section 12(1) (c) of the National Forests Act in 2009, no further protected woodlands were declared. DAFF has a challenge to declare more woodland areas as protected under the Act, primarily due to a lack of financial resources. However, DAFF is currently collaborating with provincial agencies to establish five (5) protected areas as biodiversity off-sets for development within underprotected woodland types as part of the conditions for licenses issued under section 15 of the National Forests Act. Two of these are in the process of being declared under the National Environmental Management: Protected Areas Act, 2003 (Act No. 57 of 2003) (NEMPAA). Furthermore, DAFF attempted to negotiate an off-set around the De Hoop Dam in Limpopo/Mpumalanga which, when finalised, will see an area of 1 000 ha of savannah woodland receiving special protection status. However, the challenge is with funding as the area requires to be developed, including fencing off the perimeter and deploying personnel to protect the area from unchecked exploitation for fuelwood and other resources. It is estimated that an amount of R30 million is required to deploy security personnel in the area over a period of three years. This is an indication that much more resources will be required if more protected areas are to be established in underprotected woodland types and to promote sustainable woodland management.





*A typical woodland forest*

## 2.5 BIODIVERSITY IN SOUTH AFRICA

### 2.5.1 Status of biodiversity

South Africa's fifth national report to the Convention on Biological Diversity (2014) reported that the country is home to over 95 000 known species, contributing a significant proportion to world plant species (6%), reptile species (5%), bird species (8%) and mammal species (6%). The Richtersveld is renowned for its exceptional plant diversity and endemism, globally recognised as a biodiversity hotspot as more than 300 endemic plant species are already known from the area. However, due to increasing threats from overgrazing, mining and illegal wild plant collecting, the country is reporting increasing threat status for 100 endemic and near-endemic species.

The South African National Biodiversity Institute's (SANBI) recent Red List assessment results show that one in eight plant species is threatened in the country. The proportion of the highest numbers of threatened species (over 2 500) are found among the plant group as compared to other groups such as reptile, bird and mammal species. The report further shows that some of the terrestrial ecosystems are critically endangered (10%) and endangered (21%).

### 2.5.2 Biodiversity protection

The Department of Environmental Affairs (DEA) is primarily responsible for the regulation and management of all biodiversity, heritage and conservation matters in a manner that facilitates sustainable economic growth and development. The country through this department and other departments has developed a variety of environmental legislation and policies that provide basis for biodiversity protection in the country.

The legislative policies and frameworks important in regulating biodiversity include the National Environmental Management: Biodiversity Act, 2004, the White Paper on the Conservation and Sustainable Use of South Africa's Biological Diversity (1997), the National Environmental Management: Protected Areas Act (NEMPA), 2003 and National Biodiversity Strategy and Action Plan (2005). These regulate activities in terrestrial, river and wetland, estuarine, coastal and marine ecosystems within the country's borders. Approximately 22% of the terrestrial ecosystem is well protected in South Africa; the rest is either not protected or poorly protected.

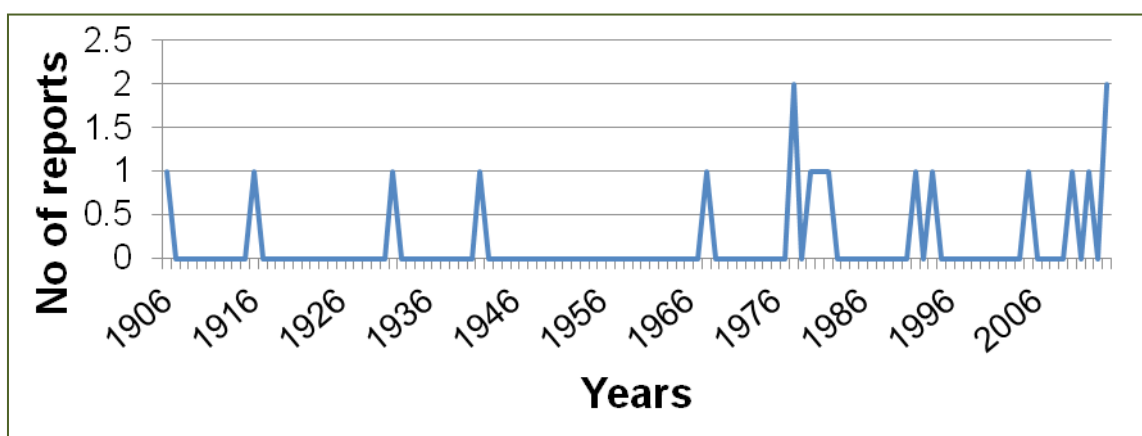
## 2.6 THREATS TO FOREST HEALTH AND VITALITY

### 2.6.1 Pests, diseases and alien invasive species in forests



Tree damage by pests

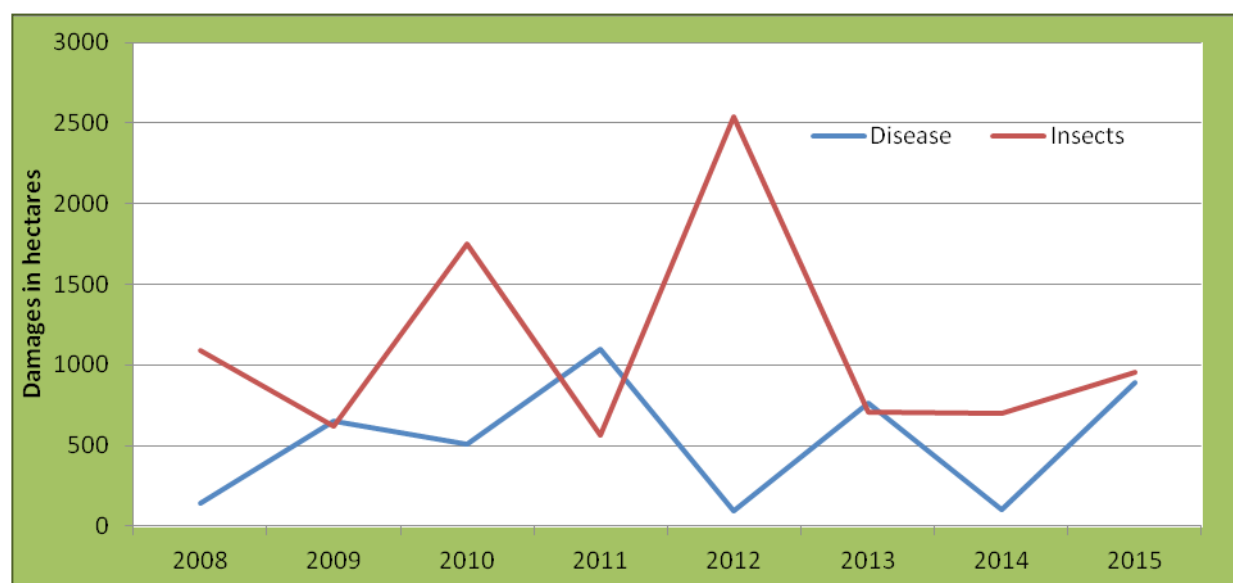
Pests and diseases have a significant impact on both plantations and natural forests. They can tremendously affect development of trees and harvesting of forest products thereof. Although some pests prey on other pests that are harmful to forests, it has also been evident that others, particularly the imported pests, have a very detrimental impact on the biodiversity and species richness of the area invaded. The trend of pests and diseases in South Africa from 1906-2014 is presented in Figure 5.



Source: FSA

**Figure 5: Introduction of new pests and disease between 1906 and 2014.**

Figure 5 illustrates the rate at which new pests and diseases cases have been reported in the country over the past 100 years and more. According to Forestry South Africa (FSA), an estimate of 17 new pests and diseases were identified during the period under consideration (2013-2015). It is also became clear from Figure 5 above that the reporting of these incidents occurred very often from 2005 to date, for example, in 2014 two new pests and diseases were reported and according to FABI one of those is a new pest for eucalyptus trees. This recent trend is expected to have led to a surge in the number of damages and losses caused by pests and diseases in gum plantations. The costs incurred by tree farmers as a result have only been presented in hectares and not in monetary terms. The industry indicates that is due to the complexities of quantifying loss caused by pests and diseases. Figure 6 below depicts the total number of hectares damaged by insects and diseases. It shows that the impact of insects was reduced significantly by over 200% between the 2012 and 2013 reporting period, mainly due to the Sirex Control Programme.



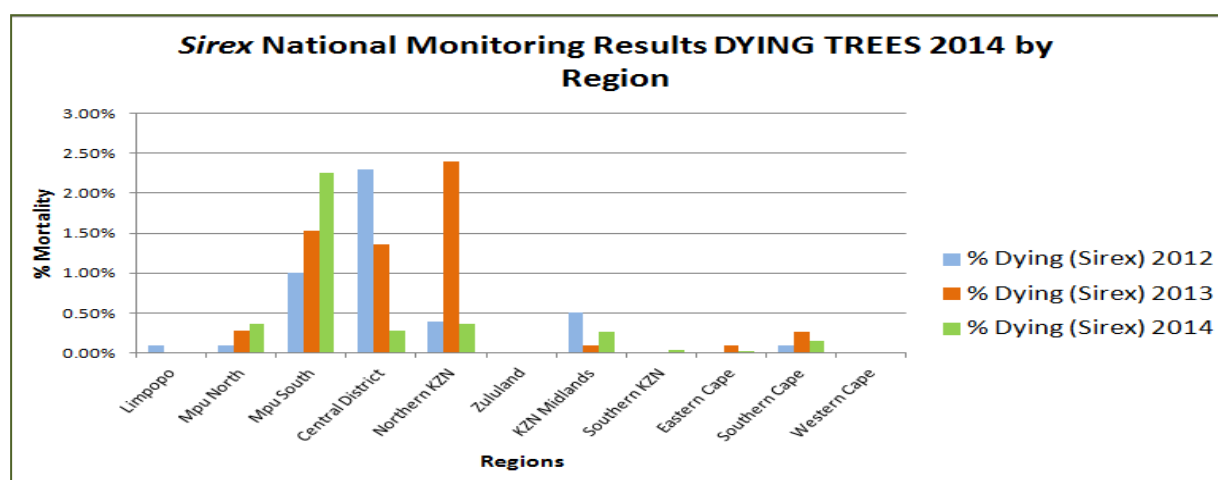
Source: DAFF

**Figure 6: Plantation area damaged by insects and diseases**

In South Africa, the following pests are common in plantations: cutworms, white grubs, termites, grasshoppers and crickets; eucalyptus borers, eucalyptus snout beetle, wattle bag worm and wattle mirid. Despite a variety of insects in the country, comprehensive information regarding the impact of a specific pest or disease has only been compiled for the invasive *Sirex* wood wasp (*Sirex noctilio*).

Government and private sector joined forces to ensure the establishment and continuous functioning of the South African *Sirex* Control Programme (SASCP). This initiative has provided some significant relief to the forest industry, particularly for pine growers in the country. The Institute for Commercial Forestry Research (ICFR) annual report on the programme revealed that in 2014, 8 836 trees were inoculated with biological control using nematodes (*Deladenus siricidicola*) by the operational group of the South African *Sirex* Control Programme (SASCP). During the same year, 2 337 logs were collected and placed in the emergency cages at the three depots which include Linwood in the KwaZulu-Natal Midlands, Vryheid in the Central Region and George in the Western Cape. After some inspection, Linwood recorded the highest level of parasitism at 37% followed by George and Vryheid at 30% and 24%, respectively. The report also indicated that biological control using the parasitoid wasp (*Ibalia leucospoides*) was also used in KwaZulu-Natal and Mpumalanga to assist in reducing *Sirex* population numbers.

The national monitoring programme is using a model to provide an indication of areas of high, medium and low risk of *Sirex* infestation for most of the commercial pine plantations in South Africa. Currently, the national monitoring initiative assesses one site in every 600 ha of appropriate aged pine stands, i.e., 535 sites over a total area of 323 000 ha. By using the risk assessment tool developed earlier in the programme, it was determined that 90% of these are high risk sites and 10% are low risk sites. Results for 2014 showed that areas where *Sirex* infestation levels are still high are in the Southern and Northern Mpumalanga, Limpopo and the Hogsback area in the Eastern Cape. Figure 7 depicts results of areas damaged as a result of *Sirex* infestation per area.

Source: FABI and DAFF's South African *Sirex* Control Programme 2014/15 annual report



**Figure 7: Current (2014) and older Sirex damage observed per area**

Overall, the implementation of national monitoring met the objectives of painting a small-scale picture of the Sirex activity in the pine plantation landscape of South Africa and of highlighting areas where further monitoring and intervention are required (Figure 7).

**2.6.2 Veld and forest fires**

Fires are both the friend and an enemy of human life. Fire is an important tool as it plays a vital role in the functioning of the veld and forest ecosystems, particularly natural and managed (prescribed) fires. However, wild (uncontrolled) fires can be a nuisance; they wreak havoc, destroy assets and property; cause loss of life, destroy livelihoods, cause pollution and emit and increase quantities of toxic gases. Unwanted fires, depending on their intensity and magnitude, have the potential to destroy economies and hamper development across the peoples of the world. This type of fire is responsible for inflicting irreparable damage to the environment and in the process causing mayhem in people's lives and economies of nations. South Africa has seen occurrences of veld and forest fires during the period under review as illustrated in Table 5.

**Table 5: Illustration of burnt areas per province for 2013-2015**

BURNED AREA IN HECTARES			
PROVINCE	2012/13	2013/14	2014/15
Eastern Cape	302 260	307 682	433 359
Free State	334 888	264 661	332 302
Gauteng	140 150	104 642	85 916
KwaZulu-Natal	574 662	571 266	598 889
Limpopo	425 260	343 364	297 514
Mpumalanga	699 164	491 942	598 964
North West	659 238	291 236	97 598
Northern Cape	227 903	466 729	96 359
Western Cape	118 083	138 188	115 322
<b>TOTAL (%)</b>	<b>3.9</b>	<b>2.44</b>	<b>2.1</b>

Source: DAFF

Table 5 shows that South Africa's burnt areas between 2013 and 2015 averaged 2,8 million ha annually, a slight rise from the previous reporting period of 2,7 million ha. The country experienced a rapid expansion of around 30% in the size of land affected by fire between 2012 and 2013. The North West Province was largely responsible for this national expansion as it recorded a rise of over 120% during the same period despite the placement of one helicopter fire bomber and over 400 fire fighters on the first of June 2013 by the Working on Fire Programme. The national total burnt areas declined significantly during the 2014 and 2015 reporting seasons.



*Firefighting demonstration by the Working on Fire team*

### 2.6.3 Deforestation in natural forests and woodlands

Deforestation is the permanent destruction of forests; it does not include the removal of industrial forests such as plantations of gums, pines or wattles. In South Africa, savannah woodland is particularly experiencing the highest rate of deforestation as compared to natural forests. It is primarily because they are not given the same level of attention and protection. Deforestation of savannah woodland is occurring across the country as they are more evenly distributed amongst all nine (9) provinces. Some causes of deforestation are:

- **Land use change:** large areas are transformed every year by agriculture, mining, urban development and infrastructure expansion. Forests (mostly savannah woodland) are lost due to such land use change, affecting large numbers of protected trees. In particular, the severe impact of agricultural expansion is exacerbated by the lack of suitable agricultural land, drought and climate change effects as risk of food insecurity intensifies.
- **Population growth:** South Africa's population grew to such a significant rise in population and has a detrimental impact on the survival of forests as it results in a rise in demand for residential land and in some areas also leads to an increase in the use of forest resources. This claim is supported by recent trends, which show that during the same period under review, forest land cover of all types in the country has been on the decline.
- **Economic development:** It encompasses a rise in the quality of life of the majority of people and this cannot happen in isolation—it requires land expansion. Forest land with no economic activity lead communities and business people to see a need to substitute the forest land with other income-generating activities to improve the living standard of people.
- **Illegal harvesting:** Some species are illegally harvested, with Bushman's tea (*Catha edulis*) under severe pressure for the harvesting of leaves and the pepper-bark tree (*Warburgia salutaris*) almost extinct due to medicinal use of the bark, leaves and roots. Some protected tree species like giraffe thorn tree (*Vachellia erioloba*) are abundant keystone species, but are under pressure in certain areas due to clearance for land use and wood use by the large braai wood industry, with some illegal felling taking place.

The department is currently exploring and putting in place effective ways to reduce the rate of deforestation. These include awareness campaigns to highlight the importance of trees, the negative impact of deforestation on the environment and legal consequences to offenders. Some of the most effective ways is to place forest guards and also declaring the area that are under deforestation attack as a forest control area.

## 2.7 PROTECTION OF BIODIVERSITY AND NATURAL FOREST RESOURCES

### 2.7.1 Forest biodiversity conservation planning

There is a need to strengthen planning on conservation of forest biodiversity in the country by looking at the prevalence of illegal harvesting of protected forest products. It is important to also indicate that this objective is difficult to achieve as it competes with economic and social needs of communities. The Department of Environmental Affairs and the Department of Agriculture, Forestry and Fisheries and other stakeholders have recorded success in conserving forest biodiversity. This was mainly achieved through the declaration of forest areas into forest nature reserves and forest wilderness areas. DAFF declared eight forest nature reserves in Mpumalanga in 2013 (Table 6), covering an area of 17 052 ha.

**Table 6: List of state forest nature reserves declared in 2013 in Mpumalanga**

Protected/Conservation Area Name	Type of Area	Declaration Date	Total Area in Ha.
Mac Mac Reserve	Forest Nature Reserve	2013	1 866
Morgenzon Reserve	Forest Nature Reserve	2013	4 359
Ngodwanakloof Reserve	Forest Nature Reserve	2013	1 577
Queensriver Reserve	Forest Nature Reserve	2013	3 719
Nelsberg Reserve	Forest Nature Reserve	2013	542
Tweefontein Reserve	Forest Nature Reserve	2013	147
Blouswaelvlakte Reserve	Forest Nature Reserve	2013	426
Hartbeesvlakte Reserve	Forest Nature Reserve	2013	4 416
<b>Total Area (ha)</b>			<b>17 052</b>

Sources: Department of Environment Affairs

Table 6 above shows that in 2013 a total of 17 052 ha were declared as forest nature reserves in the country and all of those are found in the Mpumalanga Province. According to the Protected Area Register, the country started practicing this method in the early 1970s and to this day forest nature reserves and wildernesses in the country covers approximately 172 511 ha and 274 489 ha, respectively.

### 2.7.2 Awareness raising on conserving biodiversity

The international community has recently shown some commitment towards raising awareness with regard to the importance of conserving forest biodiversity. The Food and Agriculture Organization of the United Nations (FAO) has chosen 21 March of every year as the International Day of Forests to celebrate the role of forests. This started in 2013 and during the 2015 celebrations, the FAO published messages stating that “forests host and safeguard the planet’s biodiversity and act as our natural defense against climate change; provide the clean air that we breathe and the water that we drink.” South Africa hosted the 14th World Forestry Congress and ran the annual Arbor Week campaign during the first week of September in 2015. For the country, these were two excellent platforms for raising awareness about the importance of forests and trees outside the forests, both internally and externally as the congress was an international event. The theme for the congress was “Forests and People: Investing in a sustainable future,” which provided a good fit for the relationship between people and forests and the need to protect these for the current and future generations

### 2.7.3 National Veld and Forest Fire Act (NVFFA)

The National Veld and Forest Fire Act (NVFFA) provides for the formation, registration and duties and functions of Fire Protection Associations (FPAs). Land owners are entitled to form an association for the purpose of predicting, preventing, managing and extinguishing veld fires. If the Minister is of the opinion that an FPA should be formed in a certain area, he or she can identify what assistance the department can provide to ensure formation and operation of the FPA.

## 2.7.3.1 Fire Protection Associations

**Table 7: Registered FPAs from 2013-2015 by province**

FPAs PER PROVINCE	2012/13	2013/14	2014/15	TO DATE
Eastern Cape	5	2	2	58
Free State	0	0	0	60
Gauteng	0	1	0	23
KwaZulu-Natal	2	2	1	25
Limpopo	2	0	0	25
Mpumalanga	1	0	1	14
North West	2	0	1	21
Northern Cape	1	1	1	20
Western Cape	1	0	0	15
<b>TOTAL</b>	<b>14</b>	<b>6</b>	<b>6</b>	<b>261</b>

Source: DAFF

There were a total of 261 registered FPAs in South Africa as at the end of 2015 with most of these based in the Eastern Cape and the Free State. However, the Eastern Cape was amongst the top three provinces with the highest number of burnt areas during the 2014/15 season. It is not surprising to see the Mpumalanga Province with the highest numbers of burnt areas in hectares during the 2014/15 reporting season as they also have the least number of FPAs. This revelation highlights the role and significance of these associations in the fight against veld and forest fires.

**2.7.4 National Forests Act (NFA)**

The National Forests Act, 1998 (Act No. of 84 of 1998) was introduced in the quest to promote sustainable forest management and the promotion of certain forests and trees, thereby preserving trees for cultural, environmental and aesthetic value. To achieve the purpose of the act, DAFF employed hundreds of forest officers across the country to protect the forest and bring to justice anyone who contravenes this act by working closely with enforcement agencies. The department also held marketing campaigns to create awareness of protected trees and areas.

**2.8 SOCIO-ECONOMIC BENEFITS OF SOUTH AFRICA'S FORESTS****2.8.1 Recreation**

The demand for forest tourism and outdoor recreational activities are increasingly becoming more popular among tourists in South Africa and elsewhere in the world. This primarily depends on the protection and conservation of natural and woodland forests in the country. Over the past years forests provided basis for the country's tourism sector to attract both local and foreign tourists, enabling the sector to generate some income. Tourist areas such as Table Mountain, the Kruger National Park and other areas are constituted by forests. However, it is difficult to quantify in monetary terms the contribution of forests to ecotourism.

**2.8.2 Forestry's contribution to poverty alleviation**

Statistics South Africa reported that employment grew by 1,2% or 190 000 in the fourth quarter of 2015, followed by a decline in the number of unemployed persons by 225 000 resulting in a decline in the official unemployment rate by 1,0 percentage point to 24,5%. Employment levels increased in six industries during this period: large employment gains were observed in the finance and other business services (113 000), trade (80 000) and community and social services (42 000) industries. However, job losses were recorded in the agriculture (37 000), manufacturing (36 000) and construction (21 000) industries.

Table 8 below shows the number of people employed in the forest sector in 2015. According to Forestry South Africa (FSA), the total number of people employed in the sector increased from 145 900 in 2011 to 158 400 in 2015. Primary forestry remained the largest employer by far, although some jobs have been shed between the two periods under review.



The majority of those employed in the forest sector are found in the KwaZulu-Natal province followed by Mpumalanga province. The two provinces combined make just over 80% of the total forest sector employment. Provinces where the forestry sector creates decent employment are rural provinces and this confirms the sector amongst the few relevant sectors capable of creating decent jobs in rural provinces.

**Table 8: Number of people employed in the forest sector in 2015**

Sub-sector	No. of employees		Total Employment
	Direct	Indirect	
<b>Forestry</b>	<b>60,200</b>	<b>28,000</b>	<b>88,200</b>
<b>Pulp and Paper</b>	<b>13,200</b>	<b>10,800</b>	<b>24,000</b>
<b>Sawmilling</b>	<b>20,000</b>	<b>8,000</b>	<b>28,000</b>
<b>Timber Board</b>	<b>6,000</b>	<b>n/a</b>	<b>6,000</b>
<b>Mining Timber</b>	<b>2,200</b>	<b>n/a</b>	<b>2,200</b>
<b>Other</b>	<b>10,000</b>	<b>n/a</b>	<b>10,000</b>
<b>Total</b>	<b>111,600</b>	<b>46,800</b>	<b>158 400</b>

Source: FSA

### 2.8.3 Forests and food security

The Food and Agriculture Organization of the United Nations' (FAO) 2013 report on the state of food insecurity in the world estimates that at least 840 million people (12%) of the global population were unable to meet their dietary energy requirements in 2011/12, particularly in developing countries. Statistic South Africa also reported in their last Community Survey that approximately 2,2 million (13,3%) households in South Africa indicated that they had skipped a meal in the 12 months before the survey.

Forests could provide a complimentary source of food in rural South Africa and in developing nations. In Burkina Faso, for example, where tree foods constitute 30% of rural diets, it has been reported that 100 grams of a fruit from the baobab tree contains 100% of a child's recommended daily allowance of iron and potassium, 92% of a child's recommended daily allowance of copper, and 40% of a child's recommended daily allowance of calcium. It is evident that forests contribute directly to the diets of rural people in South Africa through harvesting of forest fruits and vegetables, nuts, honey, Mopane worms and other edible insects. Forests also provide much needed grazing area to feed cattle, goat and sheep as these remain the country's main source of food.

### 2.8.4 Commercial Forestry Social Responsibility

Commercial forestry companies have a duty to ensure that they fulfil their social responsibilities on local communities near the operations of forestry companies operations. Preliminary observation shows that most companies are particularly interested in supporting communities in the area of education, sustainable resources management, skills development and job creation. Companies such as the Paper Association Manufacturing of South Africa (PAMSA), the South African Forestry Company Limited (SAFCOL) and the South African Pulp and Paper Industry (Sappi) are making significant contributions and a huge difference in local communities.

#### a) Education

**Primary Education:** In 2013, Sappi donated 10,4 tons of various grades of paper to local schools and community-based organisations in the Lowveld region of Mpumalanga Province. They also donated building material to the Idalia community, Mpumalanga to replace the shack that was used as a school. The building of the school with a permanent structure benefited 45 children. In addition, Sappi Forests and Ngodwana Mill donated recreational materials such as toys, books, musical instruments, playground equipment and a water tank which benefits 69 children. Sappi's Twello plantation donated school uniforms to 23 orphans and Typek photo copy paper to the Louisville School.

SAFCOL, on the other hand, completed several projects in the communities surrounding their operations such as a Teenage Health Programme and a classroom at Mlambo. The contribution of the Ngome plantation in the KwaZulu-Natal Province includes: Mooiplaas Preschool and Information and Community Technology (ICT) centres at the Ntendeka Primary and Maranikwe Primary Schools. The company spent at least R6 million every year between 2013 and 2015 on socio-economic development programmes and have budgeted about R10 million in the financial year, 2016/17.

Tertiary Education: PAMSA through the Umfolozi and Ekurhuleni East Further Education and Training colleges currently offers a National Certificate–Vocational (NCV) qualification in process plant operations and pulp and papermaking technology from levels two to four. The certificate is preferred in the manufacturing of paper products, newspapers, facial and toilet tissues and carton containers, among others. PAMSA also funds two lecturers at the Durban University of Technology and one at the University of KwaZulu-Natal to provide specialist education to the industry.

#### b) Community support

SAFCOL constructed a brand new, timber-framed multi-purpose centre, consisting of a hall, kitchen, office and a patio to the value of R1,5 million for the Onceleni community in the Eastern Cape Province and a borehole for the Emhlabaneni community in the KwaZulu-Natal Province between 2013 and 2015. The borehole will serve learners of Prince Somcuba Primary School and approximately 35 households in this area. About 20 direct jobs were created and skills were transferred during the construction phase of these projects.

Sappi has identified packaging as a strategic growth sector and this has been in line with the primary sponsor of the 2014 Student Gold Pack Awards: Graphic Design category. The company recently provided paper donations for publication such as the award-winning Climate Change Diary, the annual report of the Peace Parks Foundation and public information brochures and reports.

Impact Recycling is running a programme called Ronnie Banks to allow the broader community to raise funds by recycling paper. Igloo-shaped banks are placed throughout the community at churches, community centres and charity organisations for members to deposit paper. In total, the company spent R5,6 million (2013), R4,6 million (2014) and R6,3 million (2015) on community social investment.

#### c) Conservation and environment

The partnership between the World Wildlife Fund (WWF) and Sappi supported the construction of the 125 m Dlinza Forest Aerial Boardwalk, a 20 m high observation tower and interpretive centre in the Eshowe area in the KwaZulu-Natal Province through a combined capital investment of R1,2 million. The boardwalk has been visited by thousands of visitors and has catalysed the development of tourism in the greater Eshowe region. The boardwalk has raised the profile of Zululand's "great forests," leading to the district municipality launching a campaign aimed at developing the eco-tourism potential of these forests.

#### d) Job creation and skills development

Sappi has invested R3,8 million to establish a community training centre in Ngodwana, Mpumalanga. To date, just short of 600 previously unemployed community members were trained and 354 of the trainees were employed at their Ngodwana Mill. In April 2013, Sappi introduced a specialised welding course. SAFCOL on the other hand employed a total of 91 interns between 2013 and 2015 and also provided Upholstery and Wood Processing Learnerships for 47 young people. Impact Recycling provides jobs for around 100 000 people, many of whom are entrepreneurs and small business owners that rely on sustained volumes of recycled material to earn a living.

### 2.8.5 Conditions of forestry workers in public and private sector.

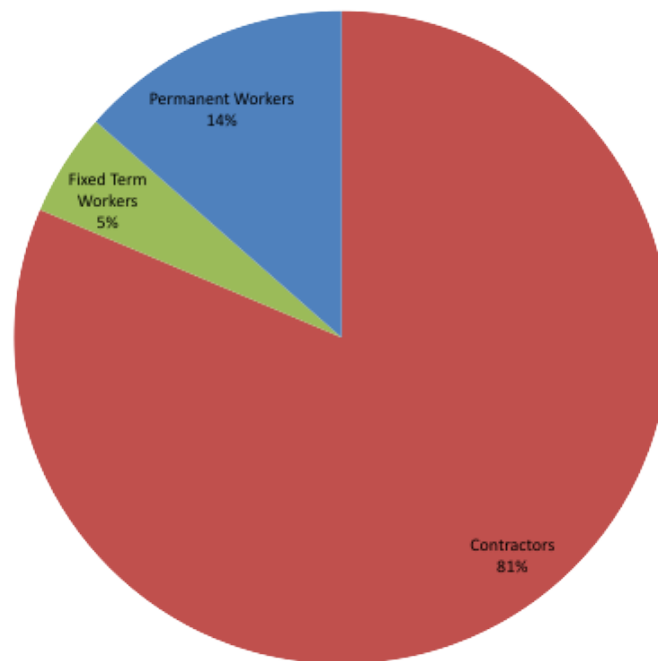
The Department of Labour (DoL) reported that with effect from 1 April 2013, an employer must pay a forestry worker at least the minimum wage prescribed in terms of Table 9 below. An employer must pay a forestry worker who works 45 ordinary hours of work per week at least R514.50. This amount was raised by 8,6% during the 2013/14 and 2014/15 reporting periods.

**Table 9: Minimum wages for employees in the forestry sector**

Minimum rate for the period							
1 April 2013 to 31 March 2014				1 April 2014 to 31 March 2015			1 April 2015 to 29 February 2016
Monthly	Weekly	Daily	Hourly	Monthly	Weekly	Hourly	Monthly/Weekly/Hourly
R2229.32	R514.50	R102.90*	R11.43	R2420.41	R558.60	R12.41	100% of the Farm Workers wage

Source: Department of Labour

DAFF conducted a study during 2012 titled "Investigation of Working Conditions of Forestry Workers in South Africa." This report was published in 2014 and identified the following as key issues: low wages and lack of benefits, insecure employment contracts as well as health and safety concerns. Below is the graph depicting that a shocking 81% of workers employed by large growers are under contractors profoundly known for providing poor working conditions.



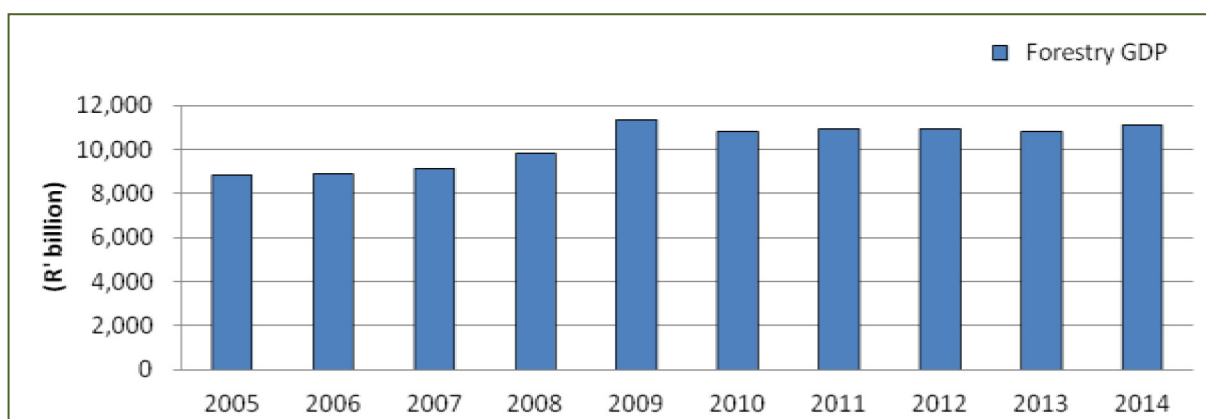
**Figure 8: Composition of the large grower workforce**

Further investigation indicates that lower wages are paid to contractor and fixed term workers doing the same work as permanent workers and that there is violation of labour laws. Less than 4% of forest workers are protected by labour unions. Workplace forums have not been adopted or adequately empowered. Generally, the study recommended that penalties for contraventions be increased to strengthen compliance to labour laws and these legislation need to be amended to ensure significant improvements to workers conditions. The poor conditions prevail despite the presence of the sectoral determination for the forestry sector by the Department of Labour. The sectoral determination deals with issues such as working hours, particulars of employment and termination of employment as well as prescribed minimum wages and leave.

On 6 May 2015, the Mail and Guardian (M&G) reported that with increasing amounts of labour being casualised in the forestry sector, workers increasingly employed on a non-permanent basis in forests and on plantations are losing their homes and even basic services as they lose benefits that are preserved for permanent workers. This is despite amended legislation that seeks to ensure equality in terms of benefits among all workers, whether they are employed on a contractual basis or through labour brokers.

### 2.8.6 Contribution of forestry to the economy

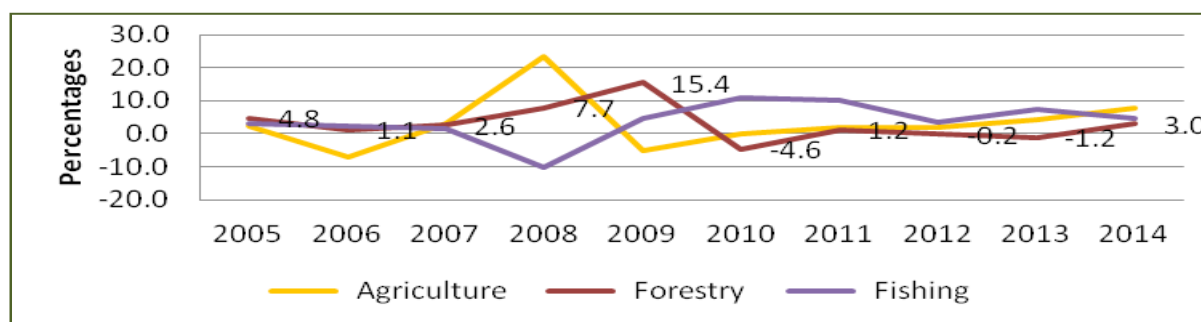
According to Statistics South Africa, the value of the country's real gross domestic product (GDP) at constant prices peaked at R3,0 trillion in 2014 from R2,9 trillion in 2013. During the same period, the agriculture, forestry and fisheries sector continued to increase its value of GDP to R75,4 billion in 2014 from R70 billion in the previous year. Figure 9 below depicts the forestry subsector value of GDP between 2005 and 2014. It shows that the subsector value gained 3,0% to reach R11,1 billion in 2014 from the previous year.



Source: Stats SA

**Figure 9 - Annual gross domestic product by industry at constant 2010 prices (R million)**

South Africa's annualised and seasonally adjusted GDP at market prices increased by 2,3% in 2013 and fell to 1,6% in 2014. Figure 10 shows that the forest subsector remained depressed in 2013 after posting a negative growth of 1,2%. However, the subsector rebounded strongly the following year by recording a growth of 3,0%. Despite this improvement, economic activities in the forestry subsector had struggled to replicate growth experienced between 2008 and 2009. In the past year, the agriculture subsector was the leading contributor to the overall agriculture, forestry and fisheries sector although the fisheries subsector has been the backbone in the last four years, mainly due to the introduction of the new fishing licensing system and Operation Phakisa as well as the launch of the Aquaculture, Development and Enhancement Programme (ADEP) in 2013, which attracted new investment.



Source: Stats SA

**Figure 10 - Percentage change in the annual GDP by industry at constant 2010 prices**

South Africa has been recording trade deficit on annual basis in the overall trade balance since 2012 while its forestry trade posted massive surplus. Figure 11 illustrates imports and exports trends of South Africa's forestry industry between 2007 and 2015. The total export value of forestry products increased by 37,1%, from R18,2 billion to R24,9 billion between 2013 and 2015. It is evident that the country was a net exporter of total forestry products between 2007 and 2015. The growth of the country's forestry exports into the world was fueled by the level of quality of forestry products as compared to the rest of the world and weakening value of the local exchange rate during this period.

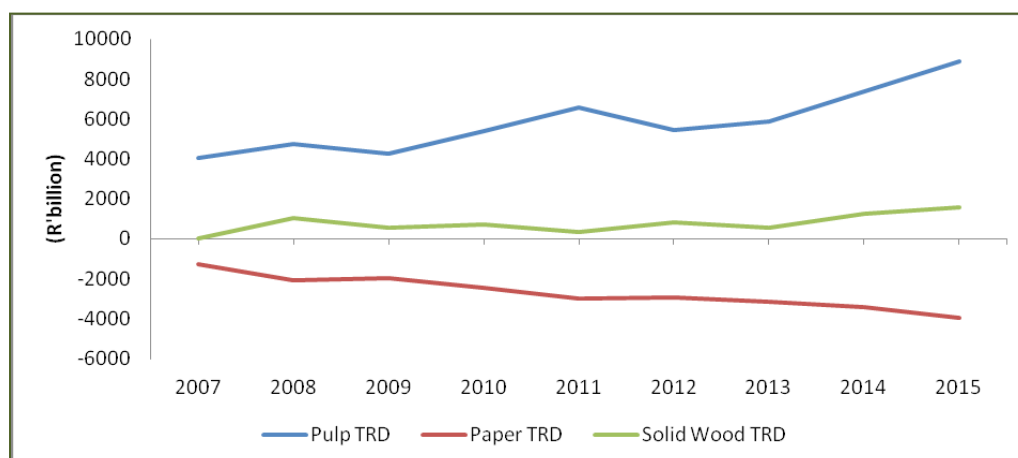


Source: SARS

**Figure 11: Timber products imports and exports**

Figure 12 below shows the trade balance trends of forestry products between 2007 and 2015. It has been noted that pulp products reported the largest trade surplus in history, from R7,3 billion in 2014 to R8,8 billion in 2015, up by 20,3%. It is worth mentioning that the country is likely to see a boom in the exportation of pulp products in 2016 due to the rapid weakness of the rand against the US dollar and euro. On the other hand, paper products also recorded the largest trade deficit in history, from R3,4 billion in 2014 to R3,9 billion in 2015—a growth of 15,7%. The wood industry had seen insignificant changes in activities during most parts of the reporting period.





Source: SARS

**Figure 12: Trends in trade balance for forestry products****2.8.7 South Africa's trade with the BRIC countries**

Table 10 presents South Africa's forestry export to BRIC (Brazil, Russia, India and China) countries between 2014 and 2015. The country's exports to the BRIC group rose nearly by R2 billion (42,4%) between the two periods under consideration, a significant contribution to the total exports from SA. This significant increase is attributable to China and India's rising demand of South Africa's pulp wood. China is a leading consumer of South Africa's local forestry products amongst these countries, followed by India because of the size of their economies and population. Generally, exports to these countries have been rising since South Africa joined the group in 2010.

**Table 10: Value of exports to BRIC in 2015 and 2014**

FORESTRY PRODUCTS EXPORTED TO BRIC			
Countries	2015	2014	%Change
China	R 4 121 847 307	R 2 817 409 6	14529.9%
India	R 2 088 155 107	R 3 657 921 642	-42.9%
Brazil	R 38 864 336	R 703 293 760	-94.5%
Russian Federation	R 118 185	R 21 767	443.0%
Total	R 6 248 984 935	R 4 389 411 265	42.4%

Source: SARS, 2015

Table 11 illustrates South Africa's forestry imports from BRIC countries between 2014 and 2015. The data shows that the country imported around 20% of its forestry products from the BRIC group in 2015. This figure increased from R3,3 billion in 2014 to R3,7 billion in 2015. China was the largest supplier of those products, particularly paper products after importing a whopping 66% of the total forestry products. It was followed by Brazil, India and the Russian Federation, respectively. In 2014, China replaced Germany as the top supplier, after exporting forestry products valued at R2,4 billion to South Africa. This change can be attributed to the rapid rise of the Chinese economy and improved political relations as well as the formation of BRICS. However, imports from European countries are expected to be boosted by the fact that South Africa offered to liberalise 86% of its duties on European Union originating products through the Trade, Development and Cooperation Agreement (TDCA).

**Table 11: Value of imports from BRIC in 2015 and 2014**

FORESTRY PRODUCTS IMPORTED FROM BRIC			
Countries	2015	2014	%Change
China	R 2 526 803 206	R 2 427 851 843	4.1%
India	R 393 150 092	R 498 045 700	-21.1%
Brazil	R 732 081 834	R 365 660 052	100.2%
Russian Federation	R 120 871 118	R 29 757 647	306.2%
Total	R 3 772 906 250	R 3 321 315 242	13.6%

Source: SARS, 2015

## 2.8.8 South Africa's trade with African countries

The total value of exports to the rest of Africa decreased to R8,3 billion in 2015 from R10,8 billion in 2014. However, the top five recipients of South Africa's forestry products posted a growth of 41,3% between the same periods under consideration. Table 12 below depicts that in 2015, Namibia was the country's main trading partner in the continent, followed by Botswana which recorded an enormous growth of 348% between 2014 and 2015. African countries spent a total of R665 million on cartons, boxes and cases of corrugated paper or paperboard, other paper and paper board and articles of apparel products. Although China is the country's biggest export market, African countries have emerged as the most important market.

**Table 12: Exports to African countries in 2015 and 2014**

FORESTRY PRODUCTS EXPORTED TO AFRICA			
Countries	2015	2014	%Change
Namibia	R 1 671 961 251	R 857 246 864	95.0%
Botswana	R 1 281 562 154	R 285 643 539	348.7%
Zimbabwe	R 1 155 591 751	R 1 041 761 307	10.9%
Mozambique	R 962 933 483	R 1 110 131 892	-13.3%
Zambia	R 777 593 246	R 845 007 774	-8.0%
Total	R 5 849 641 885	R 4 139 791 376	41.3%

Source: SARS

The total value of imports from the rest of Africa declined to R1,6 billion in 2015 from R2,0 billion in 2014. Table 13 below shows that South Africa reduced most imports from the top five African countries by up to 8% between the two periods under consideration (2014 and 2015). Swaziland by far remains the largest supplier of forestry products to SA, accounting for over 62,4% from the African continent. The majority of these products are sawn wood, fuel wood and cartons, boxes and cases of corrugated paper or paperboard.

**Table 13: Imports from African countries in 2015 and 2014**

FORESTRY PRODUCTS IMPORTED FROM AFRICA			
Countries	2015	2014	%Change
Swaziland	R 1 007 142 937	R 857 246 864	17.5%
Namibia	R 158 148 339	R 285 643 539	-44.6%
Botswana	R 85 911 471	R 115 775 560	-25.8%
Zimbabwe	R 79 284 537	R 112 635 206	-29.6%
Lesotho	R 56 029 430	R 136 421 952	-58.9%
Total	R 1 386 516 714	R 1 507 723 121	-8.0%

Source: SARS

## 2.8.9 Forestry education and training

### a) FORESTRY EDUCATION

There are variety of tertiary institutions in the country which currently offer forestry and related qualifications. Table 14 depicts the total number of forestry graduates in the country for the period 2013-2015. It is clear from the table that the Nelson Mandela Metropolitan University (NMMU) is the largest producer of forestry professionals in the country after a total number of 251 forestry graduated from the university in the 2013-2015 academic years. A large number of graduates received diplomas and are predominately black males.

**Table 14: Number of forestry graduates per institution**

	2013	2014	2015
Nelson Mandela Metropolitan University	80	90	81
Stellenbosch University	23	20	28
University of Pretoria	2	3	5
University of Venda	7	11	6
Total	112	124	120

Source: NMMU, SUN, UP, UNIVEN

b) BURSARIES

Generally, forestry companies in the country are seriously involved in producing forestry professionals by providing financial support to deserving students who wish to further their studies in forestry and related sectors. PAMSA, for example, currently has an exciting bursary scheme for postgraduate chemical engineering students. The Master of Science Development Programme facilitates bursary and scholarships for nine eligible applicants each year.





# 3

## INTERNATIONAL AND REGIONAL COOPERATION



### 3.1 INTERNATIONAL CONVENTIONS AND PROCESSES

The Republic of South Africa, as one of the United Nations Member States, has endorsed and signed several international agreements and protocols aimed at ensuring sustainable management and development of natural resources, thereby contributing to socio-economic development and improvement of the lives of the people of the world. These conventions, agreements and protocols impose predetermined obligations to Member States which are aimed at ensuring environmental sustainability and sustainable utilisation of natural resources. More importantly, they also provide opportunities for eradicating poverty and growing the economies of Member States at all levels, that is, national, regional and globally. A selection of the conventions and forums to which South Africa is a signatory are briefly discussed below:

#### 3.1.1 United Nations Forum on Forests

The United Nations Forum on Forests (UNFF) was established in 2000, following a five-year period of forest policy dialogue within the Intergovernmental Panel on Forests (IPF) and the Intergovernmental Forum on Forests (IFF). In October 2000, the United Nations Economic and Social Council (ECOSOC), in resolution 2000/35, established the International Arrangement on Forests (IAF), which established the UNFF as a subsidiary body of ECOSOC, with the main objective of promoting the management, conservation and sustainable development of all types of forests.

The UNFF's principal functions are to: facilitate the implementation of forest-related agreements and foster a common understanding on sustainable forest management; provide for continued policy development and dialogue among governments, international organisations and major groups, as well as to address forest issues and emerging areas of concern in a holistic, comprehensive and integrated manner; enhance cooperation and policy and programme coordination on forest-related issues; foster international cooperation and monitor, assess and report on progress and strengthen political commitment to the management, conservation and sustainable development of all types of forests. The UNFF holds its sessions bi-annually.

South Africa, for the period under review (2013-2015), continued to participate in several meetings and sessions of the UNFF. These include attendance and participation at the 10th Session of the United Nations Forum on Forests (UNFF-10) held in Istanbul, Turkey, in April 2013 and the 11th Session of the United Nations Forum on Forests (UNFF-11) held in New York, United States, in May 2015.

The country further participated at the 2nd Open-Ended Inter-governmental Ad Hoc Expert Group (AHEG) meeting of the United Nations Forum on Forests on the IAF held in New York, United States, in January 2015 as well as at the African Group Preparatory Meeting for the UNFF-11 held in Mombasa, Kenya, in April 2015.

The issues discussed at the 10th and 11th sessions of the UN Forum on Forests are discussed below:

The 10th United Nations Forum on Forests (UNFF-10) met from 8-19 April 2013 in Istanbul, Turkey. Among other items, delegates adopted the "Resolution on Emerging Issues, Means of Implementation (MoL) and the UNFF Trust Fund," which decided that the effectiveness of the IAF would be reviewed in 2015, and established an AHEG to review the IAF's performance and effectiveness. The resolution set out the elements to be included in the review and decided that it should have the following components: submissions by countries, the Collaborative Partnership on Forests (CPF), its members and other relevant organisations and stakeholders; an independent assessment of the IAF and an AHEG on the IAF review as well as the Non-Legally Binding Instrument (NLBI) and four Global Objectives on Forests, which to a greater or lesser degree have guided regional and national policies on SFM.

The 11th session of the United Nations Forum on Forests (UNFF-11) took place from 4-15 May 2015 at the UN Headquarters in New York. Participants, including Member States, international organisations, CPF members and Major Groups, gathered to address a range of issues including: forests: progress, challenges and the way forward for the IAF; means of implementation for sustainable forest management (SFM) and forest law enforcement and governance and a multi-stakeholder dialogue. After long negotiating sessions over the course of the two weeks that often went late into the night, delegates welcomed the adoption of the Ministerial Declaration at the High Level Segment (HLS) on 14 May 2015 and the adoption of the UNFF-11 resolution on 15 May 2015. Many felt that the two documents contained appropriate steps forward for a constructive future for the UNFF and the larger IAF.

### 3.1.2 Convention on International Trade in Endangered Species of Wild Fauna and Flora

The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) was established as a result of an International Union for Conservation of Nature (IUCN) resolution of 1963. CITES became effective on 1 July 1975 after the required number of states ratified the convention. South Africa was among those first founding (parties). Currently, there are 182 States that are Parties to the convention. Parties are clustered into six major geographical regions: Africa, Asia, Europe, North America, Central and South America and the Caribbean and Oceania.

The Africa Region is represented by 53 countries, of which Angola was the most recent to join the Convention in 2013. CITES, regulates international trade of live animals and plants as well as a vast array of products derived from them; including ivory, rhino horn, food products, material used for medicinal purposes, exotic leather goods, wooden musical instruments, timber and tourist curios. More than 35 000 species of animals and plants derive protection of varying degrees from CITES. The convention is implemented by Member States through domestic legislation tailored to give effect to its resolutions. CITES' strategic vision is cited as:

*“Conserve biodiversity and contribute to its sustainable use by ensuring that no species of wild fauna or flora becomes or remains subject to unsustainable exploitation through international trade, thereby contributing to the significant reduction of the rate of biodiversity loss and making a significant contribution towards achieving the relevant Aichi Biodiversity Targets.”*

In terms of CITES, there are often disagreement among countries on how certain matters should be dealt with, however it is important that consensus be reached on any matter subjected to negotiations. South Africa and other countries in southern Africa, for example, are more amenable to regulated trade; whereas countries in East Africa are more opposed to trade. The evidence is a case whereby the world had to watch an event where Kenya had to burn stockpiles of ivory. As far as the country's forest issues are concerned, only one South African tree species is currently listed on a CITES appendix, the African Cherry (*Prunus africana*), which has a wide distribution across the continent. In South Africa, this species is protected in terms of Section 12 of the National Forests Act. Statistics on the use and trade in this species across the borders of South Africa is lacking, however, it is presumed the species is well protected in the country.

Another South African tree species protected under the National Forests Act that may be subject to intra-African trade, is Bushman's tea (*Catha edulis*). This species may need to be considered for CITES listing in future. In order to substantiate this, there need to be focused research on the extent of illegal harvesting and cross-border trade in this species. The department had in recent years taken legal action against people in the Limpopo Province who illegally harvested material of this species. It is assumed that illegal harvesting continues, however, limited financial resource in particular undermine the ability of the department to monitor and enforce the protection of the species more effectively. *Catha edulis* has been flagged for investigation in terms of future listing under CITES. However, the species will not be considered during the 17th Session of Conference of the Parties (CoP17) scheduled to take place in Johannesburg, South Africa from 24 September to 5 October 2016 due to lack of information to substantiate any claim.

Other than the abovementioned local tree species, South Africa is located along the shipping route for several CITES listed tropical timber species. It is anticipated that more timber species will be proposed for listing on CITES appendices during CoP17. Although most of these are not threatened in South Africa, other countries may use the country's ports and assets as a means to transport tree species to other destinations. The role of the department in this regard is to assist with timber identification in consignments going through customs. Where such CITES listed timber is identified, the department will have to implement or support the necessary enforcement measures. Similarly, there need to be measures in place to prevent import of CITES listed timbers for trade on the domestic market.

There are tree species and genera currently listed for other countries, or proposed for listing, that are also represented in South Africa; Sandalwood and the genus *Dalbergia* being examples. South Africa needs to consider how the listing of such species will affect indigenous tree species belonging to those groups. Among others, there may be threats of illegal trade shifting to countries where these species are not protected or existing legal trade, even if sustainable, may be adversely affected.

Several other tree species that are listed on CITES appendices are endangered and some are critically endangered. South Africa need to consider its possible role in ex situ genetic conservation of these species and how the country may cooperate within a global strategy for plant conservation; which will involve a response to a CoP proposal from Mexico in December 2016.

Other than plants, there are forest dwelling animals regulated by CITES. The Cape Parrot is an example of a forest bird which is listed on one of the CITES appendices. Such species need special attention in terms of forest management as well as law enforcement and trade.

### 3.1.3 United Nations Framework Convention on Climate Change

The United Nations Framework Convention on Climate Change (UNFCCC) entered into force on 21 March 1994. Currently, it has near-universal membership. The 197 countries that have ratified the Convention are called Parties to the Convention.

The UNFCCC is a “Rio Convention,” one of three adopted at the “Rio Earth Summit” in 1992. Its sister Rio Conventions are the UN Convention on Biological Diversity and the Convention to Combat Desertification. The three conventions are intrinsically linked. It is in this context that the Joint Liaison Group was set up to boost cooperation among the three Conventions, with the ultimate aim of developing synergies in their activities on issues of mutual concern. It now also incorporates the Ramsar Convention on Wetlands. The ultimate aim of UNFCCC is to prevent “dangerous” human interference with the climate system. The objective thereof is to stabilise greenhouse gas concentrations “at a level that would prevent dangerous anthropogenic (human induced) interference with the climate system.” It states that “such a level should be achieved within a time-frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened, and to enable economic development to proceed in a sustainable manner.” It is believed that industrialisation is the main contributor to climate change, therefore countries have been encouraged to minimise their footprint in emission of greenhouse gases.

South Africa is the twelfth largest emitter of carbon dioxide (CO<sub>2</sub>) in the world. In 2004, South Africa emitted about 387 million metric tons of CO<sub>2</sub>, just under half of CO<sub>2</sub> emissions for all of Africa and about 1,6% of global emissions. During the 2009 Copenhagen climate change negotiations, South Africa voluntarily announced a willingness to undertake nationally appropriate mitigation actions to reduce domestic greenhouse gas (GHG) emissions by 34% by 2020 and 42% by 2025 from business as usual subject to the availability of adequate financial, technological and other support. Data for determining whether the country is on track to achieve this target is not readily available. However, the country has put systems in place towards the achievement of the target and the Department of Environmental Affairs (DEA) is leading these processes.

The country participated at various platforms where climate change issues were discussed and continues to do so. For the period under review, the country participated at, but was not limited to the following global events:

- The 40th Session of the Subsidiary Body for Implementation (SBI-40) and the Subsidiary Body for Scientific and Technological Advice (SBSTA 40), as well as the June session of the Ad hoc Working Group on the Durban Platform for enhanced action (ADP) under the United Nations Framework Convention on Climate Change (UNFCCC) were held on 4-15 June 2014 in Bonn, Germany. The issues related to forestry discussed under the SBSTA agenda covered the Reducing Emissions from Deforestation and Forest Degradation (REDD+), which encompassed non-market-based approaches and non-carbon benefits; Land Use, Land Use-Change and Forestry (LULUCF) and Forest In Exhaustion (FiE). The outcome of this session is that the SBSTA agreed to continue its consideration of the development of methodological guidance on non-market-based approaches at SBSTA 41. On the non-carbon benefits, the SBSTA agreed to continue its consideration of methodological issues related to non-carbon benefits at SBSTA 42, which was subsequently held in June 2015. The SBSTA further agreed to consider and prioritise the following themes (groups) of possible additional LULUCF activities in the context of mitigation practices limited to changes in carbon stocks; namely; revegetation; cropland management and grazing land management, wetland drainage and rewetting. With regard to the topic on Forest in Exhaustion, there was no final conclusion what the parties came to, however, they agreed to further discuss the matter at the SBSTA 41 which took place in December 2014 in Lima, Peru.
- The 20th Session of the Conference of the Parties and the 10th Session of the Conference of the Parties serving as the meeting of the parties to the Kyoto Protocol (COP 20/CMP 10) under the United Nations Framework Convention on Climate Change (UNFCCC) were held from 1 to 12 December 2014 in Lima, Peru. The forestry related matters discussed in the session were the Forest in Exhaustion (FiE), LULUCF and REDD+. A Programme for Forests and the Lima Information Hub for REDD+ was developed, the Lima-Paris (Peru and France) Action Agenda was launched: a committee to explore the Means of Implementing (Financing). The response to climate change activities was tabled during the session. More countries also accepted the Kyoto Protocol Doha Amendment in this session.
- The 42nd Session of the Subsidiary Body for Implementation (SBI 42) and the Subsidiary Body for Scientific and Technological Advice (SBSTA 42), as well as the June Session of the Ad Hoc Working Group on the Durban Platform for Enhanced Action (ADP2-9) under the United Nations Framework Convention on Climate Change (UNFCCC) held on 1 to 11 June 2015 in Bonn, Germany. Forest in Exhaustion (FiE); LULUCF; AND REDD+ were issues that were discussed during the session. The 42nd Session recommended that the REDD+ should be one of the key elements included in the COP 21 agreements, particularly as they related to financing and support for the implementation of REDD+.



- The 38th Session of the Subsidiary Body for Scientific and Technological Advice took place from 3 to 14 June 2013 in Bonn, Germany. The session agreed that in terms of REDD+, to continue its work on guidance for the technical assessment of proposed forest reference emission levels and/or forest reference levels, as requested in decision 12/CP.17, paragraph 15. On the Land Use, Land Use-Change and Forestry (LULUCF), the SBSTA also agreed to continue, at SBSTA 39, its consideration of issues relating to modalities and procedures for possible additional LULUCF activities under the Clean Development Mechanism (CDM) and modalities and procedures for alternative approaches to addressing the risk of non-permanence under the CDM, with a view to forward draft decisions on these matters to CMP 9. Finally, on the Forest in Exhaustion (FiE) subject, the SBSTA continued its consideration of the agenda item and invited parties to submit their views on the implications of a possible revision to the eligibility of lands as clean development mechanism afforestation and reforestation project activities during the second commitment period of the Kyoto Protocol to the Secretariat by 19 February 2014.
- The 19th Session of Conference of the Parties (COP) was held from 11 to 22 November 2013 in Warsaw, Poland. The Warsaw Climate Change Conference 2013 concluded successfully. Key decisions adopted at this conference include decisions on further advancing the Durban Platform, the Green Climate Fund and Long-Term Finance, the Warsaw Framework for REDD+, the Warsaw International Mechanism for Loss and Damage and other decisions.
- The 21st Session of the Conference of the Parties and the 11th Session of the Conference of the Parties serving as the meeting of the parties to the Kyoto Protocol (COP 21/CMP 11) under the United Nations Framework Convention on Climate Change (UNFCCC) were held from 30 November to 11 December 2015 in Paris, France. The session continued to concentrate on the same subjects of REDD+, LULUCF and FiE. In this session, the SBSTA requested the Secretariat to organise an in-session workshop at SBSTA 44 scheduled for May 2016 in Bonn, Germany to identify the types of revegetation activities potentially eligible as project activities under the CDM based on the existing modalities and procedures contained in decisions 5/CMP.1 and 6/CMP.1. The REDD+ programme was included in the Paris Agreement as Article 5.

South Africa, through DAFF, has commenced on the facilitation and implementation of UNFCCC processes and mechanisms such as REDD+. Currently, work is being undertaken with the intention of developing a National REDD+ Strategy for the Country.

### 3.1.4 Food and Agriculture Organization of the United Nations

The Food and Agriculture Organization of the United Nations (FAO)'s mandate is to achieve food security for all and to make sure people have regular access to enough high-quality food to lead active, healthy lives.

The FAO has three main goals, namely, (a) the eradication of hunger, food insecurity and malnutrition; (b) the elimination of poverty and the driving forward of economic and social progress for all and (c) the sustainable management and utilisation of natural resources, including land, water, air, climate and genetic resources for the benefit of present and future generations. In order to realise these strategic goals, the FAO uses multipronged approaches of putting valuable information within reach, sharing best practices and creating meeting platforms which bring together an array of expertise from the government sector, the private sector and civil societies. These endeavours assist in sharing policy expertise with the wider populace while also creating knowledge and information for decision making purposes.

The FAO has several bodies assigned with the tasks of rolling out its mandates and these include the Committee on Forestry (COFO) which is the highest FAO statutory body and the Commission on Genetic Resources for Food and Agriculture (CGRFA). Several meetings and sessions took place under the auspices of the FAO in the review period. South Africa, for example, attended the technical meeting of National Correspondents (NCs) and their alternates to the Global Forest Resources Assessment (FRA) 2015 held in Chiang Mai, Thailand in May 2013. The country also attended the regional meeting of the NCs to FRA 2015 held in Kenya in September 2013. Subsequently, South Africa submitted the country report on Forest Resources Assessment (2015) which became an integral part of the 2015 Global Forest Resources Assessment Report. The key findings of this global report were released during the 14th World Forestry Congress hosted by South Africa in Durban in September 2015.

## 3.2 INTERNATIONAL CAPACITY BUILDING

South Africa, as a Member State to the United Nations system, contributes and derives benefits from international programmes and projects intended to ensure sustainable development and growth and ultimately improving the socio-economic positions of the peoples of the world. During the period under review, the country received capacity building interventions from a variety of the initiatives led by the Food and Agriculture Organization of the United Nations (FAO). These include:

### **3.2.1 National Forest Monitoring and Information Systems for a transparent and truthful REDD+ by the FAO**

A training workshop was held in South Africa from 3 to 7 November 2014 wherein officials from the Departments of Environmental Affairs and Agriculture, Forestry and Fisheries were trained on using the Google Earth plugin developed by the FAO for forest sampling analysis in synchronism with the Google Earth Engine and Open Foris Collect application. The training was under the auspices of the United Nations Collaborative Programme on Reducing Emissions from Deforestation and Forest Degradation in Developing Countries (UN-REDD+ Programme), which is a collaborative effort between the FAO, the UN Development Programme (UNDP), which is the United Nations' global development network and the UN Environment Programme (UNEP), which advocates for environmental issues. One of the FAO's activities related to REDD+ is the "National Forest Monitoring and Information Systems for a transparent and truthful REDD+ process" project whereby Member States are capacitated on data collection using Open Source software.

The capacity building workshop was aimed at supporting the UNFCCC REDD+ readiness process in eighteen developing countries and to develop free tools for forest monitoring that could be used by other developing countries to be compliant with REDD+ requirements and South Africa was one of the beneficiaries. Follow-up training on the Terra-Amazon System training, based on the PRODES project which monitors satellite deforestation by clear-cutting, annual rate of deforestation in the Amazon, used by the Brazilian government for the establishment of public policies was also conducted. The training organised by the Brazilian Agency for Space Research (INPE) and the FAO was held in Belém, Brazil, from 2 to 13 February 2015.

### **3.2.2 The Food, Agriculture and Natural Resources Directorate (FANR) of the Southern African Development Community (SADC) and the German International Cooperation (GIZ)**

South Africa participated in the earth observation training for Measuring, Reporting and Verification (MRV) for Reducing Emissions from Deforestation and Forest Degradation (REDD+), organised by the Food, Agriculture and Natural Resources Directorate (FANR) of the Southern African Development Community (SADC) and the German International Cooperation (GIZ) on behalf of the Federal Ministry which was held in Windhoek, Namibia, from 12 to 23 January 2015.

### **3.2.3 Monitoring for Environment and Security in Africa**

The Monitoring for Environment and Security in Africa (MESA) is a follow-on project of the African Monitoring of the Environment for Sustainable Development (AMESD) project. The Thematic Action of the Southern African Development Community (SADC) was adopted for AMESD. MESA aims to deliver operational regional information services to support and improve the decision-making process in the field of environmental management based on Earth Observations, for the benefit of all SADC Member States, building on the AMESD project achievements.

The 1st Monitoring for Environment and Security in Africa (MESA) Forum, under the theme "Streamlining MESA products and services towards the decision-making cycle in support to sustainable environmental management," was held from 31 August to 4 September 2015 in Nairobi, Kenya. South Africa participated in this session. There are four thematic actions for the Southern Africa Development Community (SADC) region which include floods, drought, fire and agricultural services. As stated, the MESA programme aims to increase capacity in information management in the African national and regional institutions with mandates for environment-related sectors and to facilitate their access to Africa-wide environmental information derived from Earth Observation technologies to support decision making. South Africa is actively participating in the programme through a number of agencies such as the DAFF, Agricultural Research Council (ARC), South African National Space Agency (SANSA), the Council for Scientific and Industrial Research (CSIR) and the South African Weather Service (SAWS). South Africa, through the DAFF participated in regional training on wildfire management in the framework of the monitoring for environment and security in Africa held in Harare, Zimbabwe in March 2015.

### **3.2.4 Five-Day Online Media Literacy and Grants Application Skills workshop**

The country participated at the Five-Day Online Media Literacy and Grants Application Skills workshop held at the United Nations headquarters in New York, United States of America from 8 to 12 September 2014 as part of the UNFF facilitative process project on forest financing. The training was one of the initiatives for implementing two UNFF resolutions which recognised the need for provision of Means of Implementation for development projects, that is, financing. The workshop therefore focused on capacitating participating countries on how to mobilise funds from potential donors for implementation of projects.

### 3.2.5 Five-Day Project Designing for Sustainable Forest Management

Building on the five-day workshop held in New York in September 2014, another Five-day Project Designing for Sustainable Forest Management (UNFF) workshop was held at the Victoria Falls, Zimbabwe, from 16 to 20 November 2015, as part of the UNFF facilitative process project on forest financing. This was rolled out as a result of the UNFF, at its eleventh session in 2015, having decided to strengthen and upgrade the facilitative process into the Global Forest Financing Facilitation Network (GFFFN). One of the main functions of the GFFFN is to promote the design of national forest financing strategies, projects and programmes to facilitate access to existing and emerging financing mechanisms.

The United Nations Forum on Forests Secretariat (UNFFS) in collaboration with the African Forest Forum (AFF) organised this workshop on project design, which was part of the GFFN on facilitating financing for SFM in Small Island and Developing States (SIDS) and Low Forest Cover Countries (LFCCs). The main aim of the workshop was to develop capacity of the participants to design project proposals for SFM and locate financial resources such as those in the hands of Global Environment Facility (GEF) and Green Climate Fund (GCF), including exposure to tools and skills to identify funder priorities and source SFM finance in the region, as well as equipping them with skills for developing an effective SFM project design.

### 3.2.6 The Eastern and Southern African Sub-regional workshop on Forest Products Statistics

The Forestry Department of the United Nations Food and Agriculture Organization and the International Tropical Timber Organization (ITTO) organised the Eastern and Southern African Sub-regional workshop on Forest Products Statistics in Boksburg, Johannesburg from 25 to 27 November 2014. This workshop, in which South Africa participated, had the following objectives, amongst others, to introduce importance, coverage and data requirement of international forest products statistics; to provide training on international standardised definitions in forest products statistics and filling out Joint Forest Sector Questionnaire (JFSQ); review of current statistical system for forest products at the national and regional level and most importantly, to enhance statistical skills and competencies of national forest products statistics correspondents.

## 3.3 REGIONAL COOPERATION

### 3.3.1 Southern African Development Community

The Southern African Development Community (SADC) is a Regional Economic Community comprising 15 Member States: Angola, Botswana, the Democratic Republic of Congo, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, the Seychelles, South Africa, Swaziland, Tanzania, Zambia and Zimbabwe. Established in 1992, the SADC is committed to Regional Integration and poverty eradication within Southern Africa through economic development and ensuring peace and security. To realise these objectives, the SADC has developed several protocols of which forestry is one. The work of the SADC is coordinated by eight (8) primary institutions. Two of these institutions have offices in Gaborone and Windhoek. The remaining institutions are coordinated at Member State level. The 2002 SADC Protocol on Forestry is the vehicle of engagement among the SADC Member States on matters of forestry development and sustainable management of natural resources. Since the adoption of the SADC forestry strategy by the SADC Council of Ministers of Environment in July 2010, an Implementation Plan has since been developed and adopted.

During the period under review, a meeting of the SADC senior officials took place from 2 to 5 November 2015 and the scope of the meeting included issues relating to environment, climate change, biodiversity, sustainable development, forestry, fisheries and aquaculture. The ministerial meeting, attended by nine SADC Member States also took place on 6 November 2015 and the meeting was officially opened and chaired by the Minister of Environment, Wildlife and Tourism of the Republic of Botswana, who is also the Chairperson of the SADC Committee of Ministers of Environment and Natural Resources. The ministers noted that with support from the German government, the SADC implemented the capacity building component of the SADC Fire Management Programme. The programme aims at establishing a regional fire coordination centre. In this regard, Mozambique volunteered to host the centre and provide the land where the centre will operate from, subject to council approval. However, the proposal will be taken to the council for approval.

The SADC Secretariat commenced with the process of mobilising resources to fully implement the Regional Fire Management Programme, which includes early warning and a fire response system based on experiences from the Africa Monitoring of Environment for Sustainable Development (AMESD) and Monitoring of Environment and Security in Africa (MESA) projects. The ministers further noted that the SADC Secretariat secured funding amounting to 3,4 million euros from the German government through GIZ for the implementation of a project on Measuring Reporting and Verification (MRV) for REDD+ (October 2011 to February 2015). The objectives of the project were to develop a Regional Integrated MRV System for measuring carbon emissions from deforestation and forest degradation and enhance capacity for MRV in the SADC region.

Mauritius, Namibia and South Africa ratified the Doha Amendment and the remaining SADC Member States who have not ratified the Amendment and submitted their instruments of acceptance for the Doha Amendment to the UNFCCC have been urged to do so. The SADC region has now developed Protocols on Forestry, Fisheries, Wildlife Conservation and Law Enforcement, Environmental Management for Sustainable development and Shared Watercourses, which promote sustainable management and utilisation of natural resources and the environment. Many countries are yet to ratify these. The SADC Ministers of the Environment have since further approved new programmes and strategies to further intensify the regional integration agenda, reduce greenhouse gas emissions, foster low carbon development pathways and resources efficiency. The approved programmes are:

- The Sub-regional Action Programme to Combat Desertification (SRAP)
- The Green Economy and Law Enforcement and Anti-Poaching
- The Blue Economy
- Common position for the negotiations at the 21st Conference of the Parties (COP 21) at the United Nations Framework Convention on Climate Change (UNFCCC) held in Paris, France in December 2015 as mandated by the SADC summit of August 2015.

### **3.3.2 SADC Forest Law Enforcement, Governance and Trade Programme**

The SADC Forest Law Enforcement, Governance and Trade (FLEGT) Programme was approved by the ministers in October 2013 in Maputo, Mozambique. The main objective of the programme is “to ensure that forests are harvested and traded with and within the SADC region and other countries based on a jointly agreed legal framework in line with the principles of sustainable forest management with the participation of all stakeholders including communities and with strong independent and transparent law enforcement agencies.”

In line with the programme, the Zanzibar Declaration on Illegal Trade of Timber and Forests Products was developed during the 3rd East Africa Timber Trade Stakeholders Forum meeting of 29 June to 1 July 2015 in Zanzibar, United Republic of Tanzania. The SADC Secretariat and some Member States participated at the forum. The Zanzibar Declaration aims to promote collaboration between the East African Community (EAC) and the SADC in order to curb illegal trade in timber and forest products and the declaration was presented at the 14th World Forestry Congress held in September 2015 in Durban, South Africa. South Africa will need to establish a National Steering Committee to drive the SADC FLEGT processes.

### **3.3.3 African Forestry and Wildlife Commission**

Early in the history of the United Nations Food and Agriculture Organization, countries recognised the importance of building international cooperation in forestry from the ground up; this spearheaded the formation of national subcommittees that would be used to represent major geographical regions of the world. There are six Regional Forestry Commissions that were established by the FAO conference between 1947 and 1959. These include:

- European Forestry Commission
- Latin America and Caribbean Forestry Commission
- Asia Pacific Forest Commission
- Near East Forest Commission
- African Forest and Wildlife Commission
- North American Forest Commission

The commissions play a key role in the international arrangement of forests, serving as a link between global dialogues at the Committee on Forestry and the United Nations Forum on Forests. Every two years, the commissions bring together the Heads of Forestry in each major region of the world to address the most important forestry issues in the region. The commissions consider both policy and technical issues. The African Forest and Wildlife Commission was created in 1959; as one of the six Regional Commissions established by the Food and Agriculture Organization. Its purpose is to mainly advise on the formulation of forest and wildlife management policy and to review and coordinate its implementation at the regional level. Membership is open to all member nations and associate members of the FAO, whose territories are situated wholly or partly in the Africa Region as defined by the organisation.

The 19th Session of the African Forestry and Wildlife Commission was held on 30 September to 4 October 2013 in Namibia, Windhoek and the 20th Session was planned for 1 February to 5 February 2016 in Kenya, Nairobi. The theme for the 19th Session of the AFWC was “Development of the Forest and Wildlife sectors for effective contribution to food security and a Green Economy in Africa.” South Africa participated at the event and issues discussed included maintaining the integrity of forest ecosystems and wildlife habitats for food security in Africa; follow up to the conclusions of the International Conference and implications for Africa; illegal trade and poaching of wildlife products: implications for economic development in Africa; valuation of the contribution of forest and wildlife to economic development in Africa; implementation of the “Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the context of national food security” in Africa and the FAO’s new Strategic Framework, amongst others.



### 3.3.4 Integrated Fire Management in the SADC Region

The principal Act for veld and forest fire management in South Africa is the National Veld and Forest Fire Act, 1998 (Act No. 101 of 1998). This legislation takes an integrated approach for veld and forest fires management, thereby considering the prevention, combating and recovery aspects. It provides for systems, institutions and procedures for veld and forest fire management in the country. These include the provision for formation and registration of community-based institutions called Fire Protection Associations, which collaborate for fire management purposes; the establishment of a national fire danger rating system which is an early warning tool for possibilities of veld and forest fires occurring and the estimated effort required to fight them in the likelihood that they occur.

Since wildfires (unplanned fires) have the capability and tendency of crossing country borders, South Africa took an initiative aimed at managing cross-border fires. The intention is for the country to enter into Memorandums of Understanding (MoUs) and collaborate in terms of sharing resources and expertise on a wide range of forestry issues including integrated fire management. The country has a national resource in the form of the Working on Fire Programme (WoF), a multi-stakeholder funded programme which is part of Government's Expanded Public Works Programme (EPWP). The EPWP is a government programme of intervention intended to create jobs, capacitate communities on various skills and ultimately mitigate the effects of poverty and reduction of unemployment. The WoF Programme currently employs more than 5 000 young men and women, predominantly from poor communities. These young men and women are fully trained as wildland firefighters and are stationed in more than 200 base camps across South Africa. This programme has footprints in certain countries outside South Africa; it has resources and the capacity to assist other countries during wildfires incidences.

By concluding the MoUs, the countries sharing common boundaries may be able to access the services of the WoF Programme. There are six countries having common boundaries with South Africa; namely, Namibia, Swaziland, Lesotho, Botswana, Mozambique and Zimbabwe. Currently, MoUs have been signed with Swaziland and Lesotho while a draft MoU with Namibia is in place and is yet to be signed. A meeting held between SA and Namibia in July 2015 developed an Action Plan which resulted with the draft memorandum. The Permanent Technical Committee (PTC) will be established after signing of the MoU. With Lesotho, a Permanent Technical Committee (PTC) was established in 2005 to oversee implementation of the MoU but the committee has not been active for some time now due to certain members resigning, particularly South African officials. The country needs to urgently consider replacements for the officials if the PTC is to become functional again. With Swaziland, the PTC met in February 2013 in Pretoria, South Africa to discuss various issues of common interest including control of alien invasive plants and sharing of fire fighting resources, particularly access to the WoF Programme.

With regard to Botswana, South Africa prepared a draft MoU which was submitted to the relevant authorities for consideration and a response is yet to come which will culminate into the signing of the cooperation document. No engagements have taken place about cooperation on integrated fire management and other forestry issues with Mozambique and Zimbabwe.

## 3.4 FOREST POLICY, GOVERNANCE AND LEGISLATIVE FRAMEWORK

### 3.4.1 Constitution of the Republic of South Africa

The Constitution of the Republic of South Africa (1996), renowned worldwide as a progressive document rated amongst the best across the globe, is the supreme law of the country. Any other law enacted by Parliament has to be consistent with the spirit and intent of the Constitution. The Constitution requires that the environment be managed in a manner that shall not compromise the sustainability of the current and future generations. In terms of the Constitution, forests in South Africa are a responsibility of the national sphere of Government. However, natural forests are a concurrent competence of both the National and Provincial spheres of Government.

### 3.4.2 White Paper on Sustainable Forest Development in South Africa

In its endeavour to operationalise the aspirations of the Constitution of the Republic, South Africa came up with a White Paper referred to as "the White Paper on Sustainable Forest Development in South Africa, 1996," which is an extensive consultative policy that culminated into two forestry legislation, namely, the National Forests Act (1998) and the National Veld and Forest Fire Act (1998). The White Paper was a product of an intensive consultative process which provided a direction the country needed in moving the forestry sector forward. The White Paper clearly indicated the need for Government not to be involved in the business of commercial forestry operations. As a result, the country initiated and implemented a forestry restructuring process which saw some government-owned plantations transferred to third parties in the form of lease agreements. The core role of Government was therefore set as that of a regulator of the sector and of the creation of an enabling environment to ensure a thriving and sustainable forest sector. The Government further pronounced on the need of possibly devolving management of indigenous forests to provincial conservation agencies depending on their capacity to manage these and the willingness to receive these, since this competence lies in both the national and provincial spheres of Government (concurrent) in terms of the constitution.

Whereas some of the indigenous forests are managed by conservation agencies, central government (DAFF) is responsible for management of approximately 189 000 ha and other open areas or state forest nature reserves.

### **3.4.3 National Forests Act**

The National Forests Act, 1998 (No. 84 of 1998) was introduced in the quest to promote sustainable forest management and the promotion of certain forests and trees, thereby preserving trees for cultural, environmental and climate change mitigation purposes to minimise the damaging impact of economic development of South Africa. To achieve the purpose of this Act, DAFF employed hundreds of forest officers across the country to protect the forest and bring to justice anyone who contravenes this Act by working closely with law enforcement agencies. The department also held campaigns to create awareness on the protected trees and areas across the country.

### **3.4.4 National Veld and Forest Fire Act**

The National Veld and Forest Fire Act (NVFFA), 1998 (Act No. 101 of 1998) provides for the formation, registration and duties and functions of Fire Protection Associations. Private land owners may voluntarily form an association for the purpose of predicting, preventing and extinguishing veld and forest fires as provided for by the fire legislation. However, for owners or managers of state land, it is compulsory to join a Fire Protection Association where this has been formed. If the Minister is of the opinion that an FPA should be formed in a certain area, he or she can identify what assistance the department can provide to ensure formation and operation of the FPA in that area, particularly where the veld fire risk is high or extreme.

There were a total number of 261 registered FPAs in South Africa as at the end of 2015. Most of these FPAs are based in the Eastern Cape and Free State. The Mpumalanga Province experienced the highest numbers of burnt areas in hectares during the 2014/15 reporting season and they also have the least number of FPAs.

### **3.4.5 Forest governance**

The mandate for forest development and management in South Africa resides with the National Department of Agriculture, Forestry and Fisheries. The Branch, Forestry and Natural Resources Management within the department is responsible for development of policies, legislation, regulations, guidelines and norms and standards for sustainable forest management and development in the country as well as ensuring that transformation does take place in the forestry sector, particularly the commercial forestry industry. The DAFF has regional offices in all nine provinces of the country which ensure implementation of the departmental programmes and strategies, including ensuring compliance and enforcement of forestry legislation. The private forestry sector has a non-profit organisation, Forestry South Africa (FSA), which represents the interests of the growers. Similarly, the processing sectors have their representative bodies which serve their interest and these are key stakeholders that the department engages on matters relating to forestry (production and processing), through the Commercial Forestry Liaison Forum.

On the other hand, the Minister of Agriculture, Forestry and Fisheries appoints a council, the National Forests Advisory Council (NFAC) which is a body that advises him/her on all matters relating to forestry. The Forest Sector Charter Council, also appointed by the Minister is a body that oversees the implementation and compliance with the agreements of key stakeholders in the commercial forestry sector as per the imperatives and objectives of the Forest Sector Broad-based Black Economic Empowerment Charter. The charter is an undertaking signed by the social partners (Government, labour and business), which seek to transform and develop the forestry sector, particularly as it relates to bringing on board the previously disadvantaged members of society.

### **3.4.6 National Forests Advisory Council**

The National Forests Advisory Council (NFAC) is established in terms of the National Forests Act, 1998 for a period of three years. The main objective is to advise the Minister of Agriculture, Forestry and Fisheries on all forestry related matters. Section 34(3) of the Act requires the Minister to establish the Advisory Committee which includes the Chairpersons of the Portfolio Committees dealing with forestry matters in the National Assembly (NA) and the National Council of Provinces (NCOP) or their delegates. The responsibility of the Advisory Committee is to compile a shortlist of suitable candidates from the list of nominations and submit these to the minister for consideration and approval.

The Advisory Committee, appointed by the Minister, met on 18 December 2014 for the selection process and reached consensus on sixteen (16) candidates to be members of the new council for the next term. Two (2) candidates withdrew their nominations due to other commitments, leaving a total of fourteen (14) shortlisted candidates. Seven (7) of the shortlisted members served in the previous NFAC. The Minister approved and appointed the recommended nominees to be members of the NFAC for the period 2015-2018 and signed the letters of appointment of the nominated council members and Chairperson of the Council on 15 September 2015. In November 2015, the Minister and the Deputy Minister accepted the invitation to attend and address the first meeting of the NFAC.

### 3.4.7 Forest Policy and Legislative Review: 2013-2015

The forestry mandate in South Africa is primarily derived from the 1996 Constitution of the Republic which guarantees everyone the right to a safe environment and promotion of conservation of natural resources to ensure development of the country and sustainable use of resources for present and future generations. The 1996 White Paper on Sustainable Forest Development in South Africa is the forest policy developed to implement the imperatives of the Constitution; consequently serving as the guiding vehicle for forestry development and management in the country. The twin legislation, namely, the National Forests Act, 1998 (Act No. 84 of 1998) and the National Veld and Forest Fire Act, 1998 (Act No. 101 of 1998) are laws passed by Parliament to ensure sustainable management and development of forests for the benefit of all.

The National Forests Act (NFA), in particular, aims to promote sustainable management and development of forests and to create conditions conducive to maximum access and participation in all aspects of forestry and the forest products industries by persons previously disadvantaged by unfair discrimination. The National Veld and Forest Fire Act (NVFFA), on the other hand seeks to prevent veld, forest and mountain fires throughout the country. The NFA and NVFFA have seen two amendments effected simultaneously in 2001 and 2005 since their promulgation, through the National Veld and Forest Fire Laws Amendment Act, 2001 (Act No. 12 of 2001) and in 2005 by the Forestry Laws Amendment Act, 2005 (Act No. 35 of 2005). The third round of amending the two legislation commenced in March 2012. The current revision of the NFA has firstly been informed by a generic legislative review project of the Department of Agriculture, Forestry and Fisheries (DAFF). Secondly, to address the legal gaps identified during the implementation of the Act, some of which presented major enforcement challenges which threatened the achievement of the overarching goal, namely, the promotion of a thriving forestry sector utilised for the lasting and sustained benefit of all. The National Forests Amendment Bill aims to (i) empower poor people and vulnerable groups who are predominantly in the rural areas of the country; (ii) ensure promotion of gender equity by inclusion of women and youth as members of the National Forests Advisory Council, the body responsible for providing advisory services to the Minister; (iii) align the provisions of delegations of powers and duties with Section 99 of the Constitution of the Republic of South Africa which deals with assignment of functions to provincial Executive Councils and Municipal Councils and finally, (iv) to provide for an appeal process to address grievances arising from departmental rulings. Challenges pertaining to non-comprehensive definitions and/or terminology used in the Act and problems encountered with the promotion of the spirit of the Act such as compliance and enforcement as well as challenges with measures to control and remedy deforestation (removal of forests) and forest degradation further increased the impetus for a need to amend the legislation.

For the NVFFA, the proposed amendments were triggered by the following challenges encountered with implementation of the Act; viz., (i) to amend certain definitions and insert new definitions relating to the additional clauses; (ii) to make provision for the municipalities and traditional leaders in communal lands to facilitate the formation of Fire Protection Associations if the Minister is still of the opinion that a Fire Protection Association is needed; (iii) to provide that State-owned entities, organs of State and municipalities should join registered Fire Protection Associations; (iv) to provide for the Minister to set conditions for the exemption of landowners when a warning in terms of subsection (1) (b) has been issued that no person may light, use or maintain a fire in the open air in the region where the fire danger is rated as high; (v) to provide that the Minister may delegate powers and duties to the South African Weather Service; (vi) to provide for the inclusion of Peace Officers and Traditional Leaders to enforce the Act under certain conditions and (vii) to insert the appeals clause against decisions or actions of the delegated officers and the process to be followed thereof.

The National Veld and Forest Fire Bill was published in a gazette for comments in March 2015 and presented to the National Economic Development and Labour Council (NEDLAC) in July 2015 after consultations and consolidation of comments. It was subsequently pre-certified by the Office of the Chief State Law Advisor in August 2015, followed by a Socio-Economic Impact Assessment and Quality Assurance certificate from the Department of Planning, Monitoring and Evaluation (DPME) in October 2015 and presented at the Economic Sectors Employment and Infrastructure Development (ESEID) in November 2015. The National Forests Amendment Bill was also subjected to the same processes as the National Veld and Fire Bill. No forest policies were subjected to a review during this reporting.

### 3.4.8 Forest certification standards

The National Principles, Criteria and Standards have been adopted by the Department of Agriculture, Forestry and Fisheries as the overarching standard for sustainable forest management. The National set of PCI&S addresses four key aspects of sustainable forest management: environmental, social, economic and policy. The Forest Management Unit (FMU) level indicators and measures have been designed to assess the level of sustainable forest management being achieved on each FMU. Since the development of the PCI&S, DAFF has undertaken a number of initiatives to look at operationalising the monitoring and reporting aspects of the PCI&S on State-owned indigenous forests and plantations. This has included the development of a PCI&S framework with an associated auditing checklist for FMUs.

In 2014, Government and the industry established a working group to drive development of the National Standard from which interested and affected parties can use to affiliate themselves with any certification body in the world. To achieve this, the current PCIS framework was reviewed to: (i) include current legislation, e.g., Spatial Planning and Land Use Management Act (SPLUMA), 2013 (Act No.16 of 2013), (ii) include indicators for climate change response, (iii) remove redundancy, (iv) improve relevance from an implementation perspective and (v) produce an auditable standard.

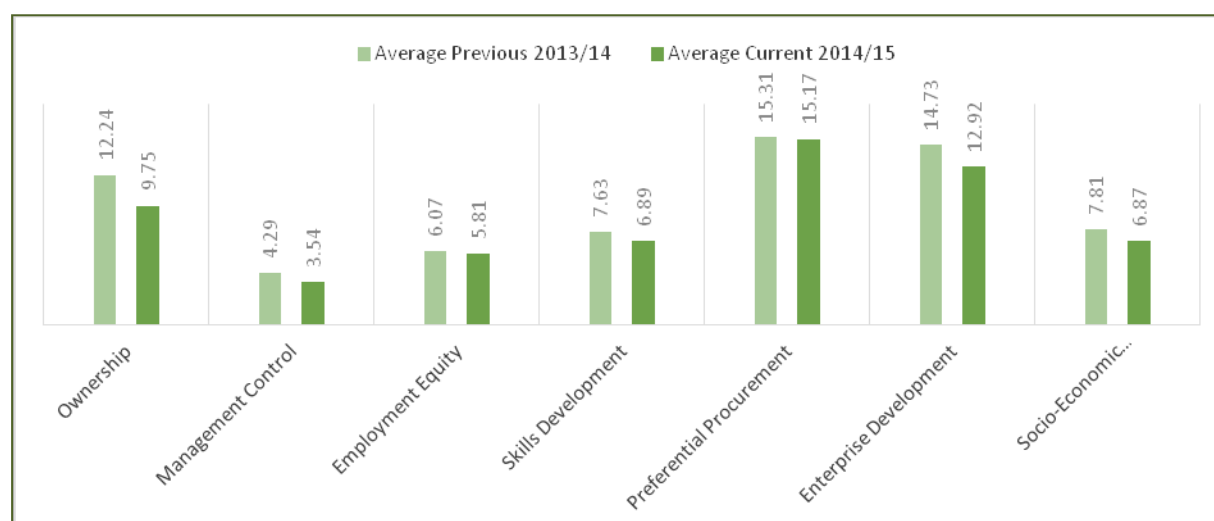
As part of the stakeholder consultations which took place between 2015 and 2016: (i) workshops were held in KwaZulu-Natal, Eastern Cape and Mpumalanga (ii) a Government Gazette was published for comment and all comments consolidated in the draft document and (iii) a presentation was done to the National Forests Advisory Council.

### 3.5 ASSESSMENT OF TRANSFORMATION IN COMMERCIAL FORESTRY

#### 3.5.1 Forest Sector Charter Council and the Forest Sector Charter

The Forest Sector Charter Council (FSCC) has been established to encourage, support and facilitate the implementation of the Forest Sector Broad-based Black Economic Empowerment Charter (B-BBEE) undertakings, thereby monitoring and reporting on implementation of the Charter (B-BBEE) undertakings. It also informs stakeholders on the opportunities and benefits of the Charter. The Charter outlines the proposed targets and commitments by industry, Government and labour in effecting transformation and development in the sector. Figure 13 highlights the performance of Medium and Large Enterprises (MLEs).

**Figure 13: MLEs Average scores per Element for 2013-2014 and 2014-2015**



Source: FSCC

The FSCC reported that in 2014-2015 the sectors maintained a level 4 B-BBEE contributor status, with points scored improving from 66.5 in 2013-2014 to 68.2 in 2014-2015. All the seven elements showed a decline compared to the previous year. Ownership, management control, skills development, enterprise development and socio-economic development recorded a significant decline in performance between the two periods. This declining trend has been far more significant when comparing the years 2015 and 2011, especially regarding the same indicators as indicated in Figure 13.

Qualifying Small Enterprises (QSEs) have performed exceptionally well in enterprise development and socio-economic development, a trend that is similar to the one observed under the MLEs. They have also scored better points in management control and employment equity which is contrary to the performance achieved within the MLEs. QSEs have maintained their Level 3 BEE contributor status even for the year being reviewed. The average score over all seven elements amounted to 20.63, which translates into a weighted value of 82.52. This indicates a decline of about 5.17 points from the previous reporting period, whereby a score of 87.69 was attained.

The 2012/13 report recommended that the FSCC should engage the BEE verification agencies and industry bodies to assist with the sourcing of BEE certificates and verification reports, this is expected to increase participation by companies. The underperformance in some key areas of transformation during the 2013/14 reporting period led to the recommendation that the industry considers a coordinated approach towards the economic development areas of the score card going forward to improve overall transformation of the industry.



### 3.5.2 Forestry restructuring and transformation

In 1994, Parliament passed the Restitution of Land Rights Act, 1994 (Act No. 22 of 1994), the legislation envisaged by section 25(7) of the Constitution. In accordance with the Restitution of Land Rights Act, a commission was established to investigate and process land claims throughout the country. The Act also enables creation of the Land Claims Court for the resolution of disputes concerning land claims. Between the date of the coming into operation of the Act and 31 December 1998, the deadline for the lodgment of claims under this Act, about 80 000 claims were filed. In May 2013, the Minister published the first draft Restitution of Land Rights Amendment Bill providing for the re-opening of land claims. The National Assembly passed the Bill on 25 February 2014, which was subsequently signed by the President on 29 June 2014 and took effect as the Amendment Act on 1 July 2014. However, a Constitutional Court judgment on 28 July 2016 ruled that "the Restitution of Land Rights Amendment Act 15 of 2014 is declared invalid effective from the date of this judgment. Pending the re-enactment by Parliament of an Act re-opening the period of lodgment of land claims, the Chief Land Claims Commissioner, is interdicted from processing in any manner whatsoever land claims lodged from 1 July 2014." This decision also affects and delays the processing of forestry land claims lodged from 1 July 2014.

On the positive side of the restructuring process of Government, DAFF transferred the Rossbach plantation in 2015 to the Rossbach Community Property Association. The plantation was valued at around R1,289 million, according to the 2013/14 biological assets valuation report. Other immovable and movable assets such as buildings and office equipment were also transferred to the same community in 2015 and post-settlement support was provided to the community and this is ongoing. In June 2013, the then Minister of DAFF, Ms Tina Joemat-Pettersson approved the transfer of the Mbazwana sawmill and the Mbazwana, Manzengwenya and Mabaso (MMM) plantations and all the operational assets to the Tembe Mbila Mabaso Development Trust (TMMDT) using the community forestry agreement (CFA) as provided for by the National Forests Act. The Minister signed the community forestry agreement between DAFF and the TMMDT in April 2016 on the transfer of the Mbazwana, Manzengwenya and Mabaso plantations.

The total amount of revenue disbursed decreased from R91 985 995.97 during the previous reporting period (2010-2012) to R6 440 138 in the current reporting period (2013-2015). This decrease was caused by challenges experienced after the disbursement of monies during 2010-2012. Notably, conflict arose between the Phalane, Ngunjini and Western shores Communal Property Associations beneficiaries and the issue of mismanagement of funds were also reported. This has led to the involvement of some key stakeholders such as DAFF and the Department of Rural Development and Land Reform (DRDLR). Most of these challenges remain unresolved at this point in time, as some are being dealt with through court processes. As a result, DAFF and DRDLR resolved to stop the disbursement of monies to these communities. It is important to indicate that the total rental balance at the South African Reserve Bank (SARB) as of 30 September 2016 amounts to R521 million.

**Table 15: Revenue disbursed between 2013 and 2015**

Name of Community (Beneficiaries)	2013-2015 (Amount disbursed)
St. Paul	R5 353 649.00
Ndzimankulu (Vierkant)	R1 086 489.00
Total	R6 440 138.00

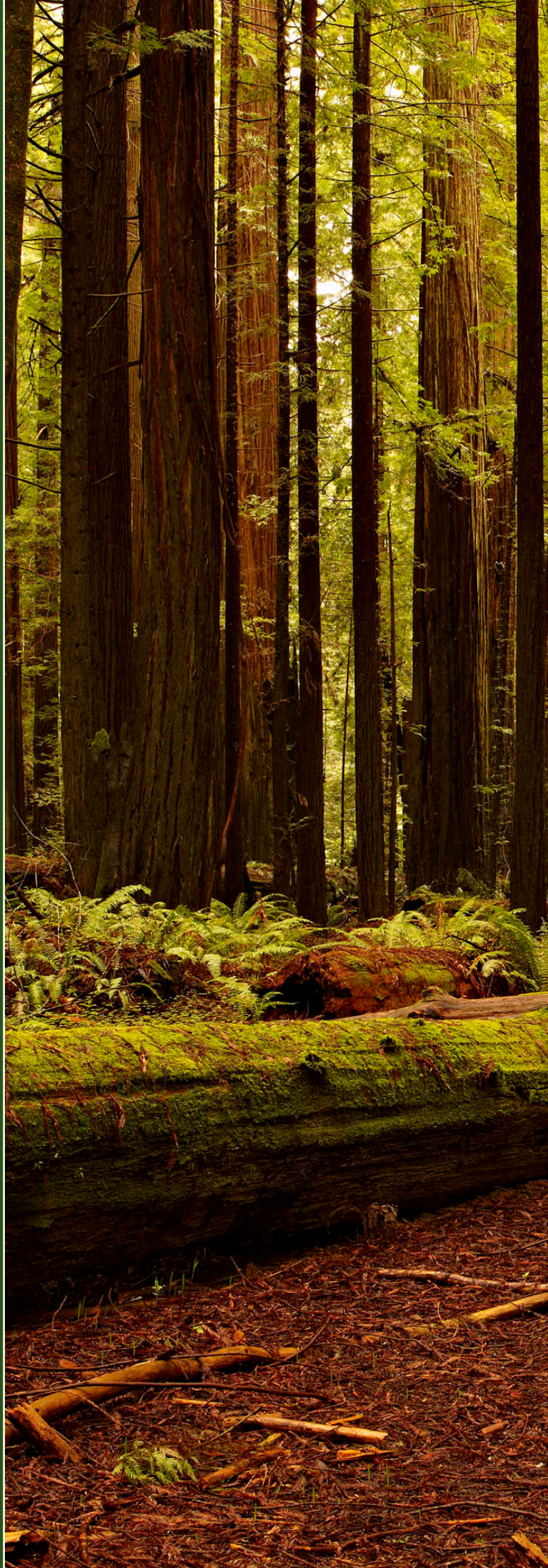
Source: DAFF

Lastly the Komatiland Forests (KLF) package remains unsold in Limpopo, Mpumalanga and North of KwaZulu-Natal. However, negotiations between DAFF and SAFCOL resolved that SAFCOL should settle all the outstanding rental monies. As a result, SAFCOL recently settled the market related rentals that were outstanding for the period 2013-2014. In addition, through negotiations these two parties agreed to conduct rent review to determine market related rental rates for the next five-year period (2015-2020). The study has been finalised, but approval is yet to be granted.



# 4

## FORESTRY CHALLENGES AND STRATEGIC INTERVENTIONS FOR PROMOTING SECTOR DEVELOPMENT AND GROWTH





## 4.1 KEY CHALLENGES FACING THE FOREST SECTOR

South Africa's macro development plan, the National Development Plan (NDP): Vision 2030 aspires for a situation where the development and growth of the country contribute significantly to address the triple challenges of poverty, inequality and unemployment. The NDP: Vision 2030 highlights the need to expand irrigated agriculture by at least 500 000 ha, cultivation of underutilised land in communal land and supporting upstream and downstream job creation.

However, there are a number of challenges which hinder the sector from achieving its full potential in terms of contribution to creation of decent jobs and wealth creation as well as conservation of biological diversity. The challenges range from inadequate supply of timber products; biased equity distribution in the value chain and slow afforestation uptake due to cumbersome licensing processes within Government. Furthermore, the forestry industry is vertically integrated and concentrated in few companies. These challenges threaten the long-term sustainability of the sector and need to be addressed as a matter of urgency if the full potential of the sector is to be unlocked with regard to economic opportunities, job creation and rural development. The following are some of the main challenges experienced in the forestry industry:

**4.1.1 *Shortage of timber:*** Underinvestment in long-rotation timber, e.g., sawlogs is not attractive to investors and developers. This could result in efforts to import, thereby reducing economic opportunities and local job creation. However, by not stimulating investment in this area of timber production could result in shortages that can be crucial in mining timber production, sawlogs, construction and furniture making. The Department of Agriculture, Forestry and Fisheries manages about 63 000 ha of plantations areas. It is estimated that 38% of these areas are temporarily unplanted, resulting in large areas which are not in production. By industry norms, the acceptable Temporary Unplanted Areas (TUPs) are between 2% and 3% and this points to the fact that DAFF plantations are not sustainably managed and this situation exacerbates the challenge of timber shortage and may inevitably lead to the country having to import sawn timber in the near future.

**4.1.2 *Low afforestation rate:*** There are a number of factors that cause low afforestation. These include the cumbersome licensing process; inadequate funding for conducting Environmental Impact Assessments as required by the National Water Act of 1998, since forestry is classified as a Stream Flow Reduction Activity (SFRA). The authorisation process is not within a single authority but cuts across several government departments, including Water and Sanitation; Agriculture, Forestry and Fisheries and Environmental Affairs. The slow afforestation rate due to the cumbersome licensing process and the increasing cost to do business are serious issues that need to be addressed, especially for Small, Medium and Micro Enterprises. However, some role players are disputing the notion that the low afforestation rate is attributed to the cumbersome authorisation processes, arguing that in some areas where licences have been issued, planting on the ground is not taking place. A counterargument on this position is that the proximity of such areas to the markets serves as a deterrent for investors in certain instances.

**4.1.3 *The decreasing forest land cover:*** Forestry competes with other land uses such as agriculture and mining and more often, priority is on agriculture for ensuring food security. Fires, pests and diseases also contribute to reduced forest cover. The area under commercial forestry has been decreasing steadily over the past few years and this seems to go unabated at this point in time.

**4.1.4 *Inadequate leadership role by Government:*** Government is accused of not being able to take its position as sector leader due to inadequate advisory services, which are more often fragmented and reactive and lack funding to support/subsidise small growers. The costs of establishment of plantations are high, small and medium growers and producers need to be assisted in this regard. However, Government is not able to intervene adequately due to lack of financial resources in many instances. Fragmentation of support services between the government, private sector and other role players only serves to exacerbate the situation. There could be duplication and gaps and the impact is not easy to measure and quantify.

**4.1.5 *The slow pace of transformation:*** Since the gazetting of the Broad-based Black Economic Empowerment Forest Sector Charter in 2007 and the subsequent appointment of the Forest Sector Charter Council to oversee the implementation of the charter and compliance by the social partners (Government, Labour and Business), not much progress has been made on certain aspects of the commitments, particularly on ownership and management. One of the reasons for inadequate transformation on ownership and management is because the commercial forestry sector is in the hands of a few companies which are vertically integrated, making it difficult for new entrants to penetrate the businesses.

**4.1.6 Climate change:** Climate Change is a reality facing all nations. Whereas there is general acknowledgment and appraisal of the effects and impacts of climate change and many countries, including South Africa, having agreed to develop climate change adaptation and mitigation strategies and plans, it would seem South Africa is still grappling to come up with a forestry specific strategy and/or the implementation thereof.

**4.1.7 Land Reform:** A lot of the commercial forestry areas are a subject of land claims. The slow process in resolving land reform issues by the DRDLR results in land invasions by land reform beneficiaries in certain areas. Expectations have been created and the beneficiaries are starting to lose patience, particularly in Mpumalanga and the Eastern Cape, with some claims having taken more than ten years to settle.

## **4.2 STRATEGIC INTERVENTIONS**

The Department of Agriculture, Forestry and Fisheries and its key stakeholders collectively acknowledge that there are challenges that hinder the growth and development of the sector. In April 2016, the Deputy Minister of Agriculture, Forestry and Fisheries, General Bheki Cele convened a Forestry Indaba (Bosberaad) involving all key stakeholders in the sector including the relevant sister departments such as Water and Sanitation, Trade and Industry, Rural Development and Land Reform, Public Enterprises and Environmental Affairs.

### **4.2.1 Timber shortages**

Since 2011 to date, the country's plantation area has been on the decline with imports steadily rising for the fourth consecutive year and round wood removals/production are also decreasing, though not uninterruptedly. It is also anticipated that South Africa may not be able to meet domestic demand of timber as urbanisation and economic development rises. These trends, if not mitigated, are expected to contribute in hindering the NDP: Vision 2030, especially with regard to the integrated and inclusive rural economy as commercial forestry is strategically placed to drive rural economy. In an effort to deal with these challenges DAFF has developed the Growth Strategy for State plantations which was approved in the 2013/14 financial year. The purpose of the strategy is to unblock the factors that constrain the rehabilitation and productivity in the plantations, propose interventions and provide an implementation plan that will ensure continuous monitoring of the progress. In addition, there are initiatives by both public and private sectors to bolster afforestation in the country, particularly in KwaZulu-Natal and the Eastern Cape.

### **4.2.2 Small, Micro and Medium Enterprises development**

The forestry sector remains one of the most anticompetitive and less transformed sectors in South Africa, particularly primary forestry and this impedes on Small, Micro and Medium Enterprises (SMMEs) development. A wide variety of factors has contributed to this state; and these include monopoly, start-up cost and lack of suitable land (land restitution). It is worth mentioning that studies have shown over the years that SMMEs are able to create many decent and sustainable jobs. The vigorous promotion of small businesses in this sector will help alleviate unemployment problems, especially in rural areas.

### **4.2.3 Lack of information and research**

South Africa's forest sector, like many other developing countries, is faced with the challenge of receiving insufficient support to continuously conduct forest research and update forest information, especially on woodland and natural forests. This prevents the country to purely understand forest trends resulting from both natural and anthropogenic factors and possibly forces the country to second guess decision making on some issues relating to the forestry sector as they are not based on conclusive facts and research. DAFF is currently in the process of conducting a National Forest Resource Assessment, which is expected to help with the generation of base information in the two pilot areas, namely Bushbuckridge Local Municipality in Mpumalanga and Buffalo City in the Eastern Cape.

### **4.2.4 Low afforestation rate**

The primary forest sector's inability to expand has proven over the last few years to be one of the sector's main challenges as forestry dominated provinces in the country continue to experience significant decline in the rate of afforestation. The main causes remain to be the water use licensing and the land to afforest on as well as low investment as the forest sector faces strong competition from other sectors. These challenges are expected to push SA into a timber importing country as local demand escalates beyond local supply and possibly contribute to the country's deteriorating trade position, struggling economy and rising unemployment. However, it is encouraging to note that the effort of DAFF and other stakeholders are beginning to bear some fruits as thousands of hectares are expected to be afforested in the Eastern Cape and KwaZulu-Natal in the next few years.



#### 4.2.5 Poor conditions of forestry workers

The Forest Sector Transformation Charter cited “linking forestry as a rural-based industry with poverty eradication and local economic development” as one of the sector challenges in November 2007. Almost ten years on, the conditions of most forest workers remain dire, particularly of blacks. Less than 4% of forest workers are protected by labor unions, this figure is likely exacerbated by the fact that the majority of forest workers are employed on a non-permanent basis. Workplace forums have not been adopted or adequately empowered. However, the Department of Labour reported that the Veld and Forest Union of Workers has been registered as a trade union with effect from 20 June 2013 in terms of the Labour Relations Act for the first time. In addition, the government amended legislation to ensure equality in terms of benefits among all workers (permanent or contract). Several studies have been conducted in the past few years, some published in various media platforms highlighting the plight of the forest and farm workers. However, there is no data available indicating the steps that forestry companies, including Government, have taken to mitigate the situation. On the contrary, the situations of these workers seem to be getting worse because there have not been any significant improvements on the wages and other conditions of forest workers with some earning even less than the workers employed in the agriculture sector (farm workers).

#### 4.2.6 Loss of forest land

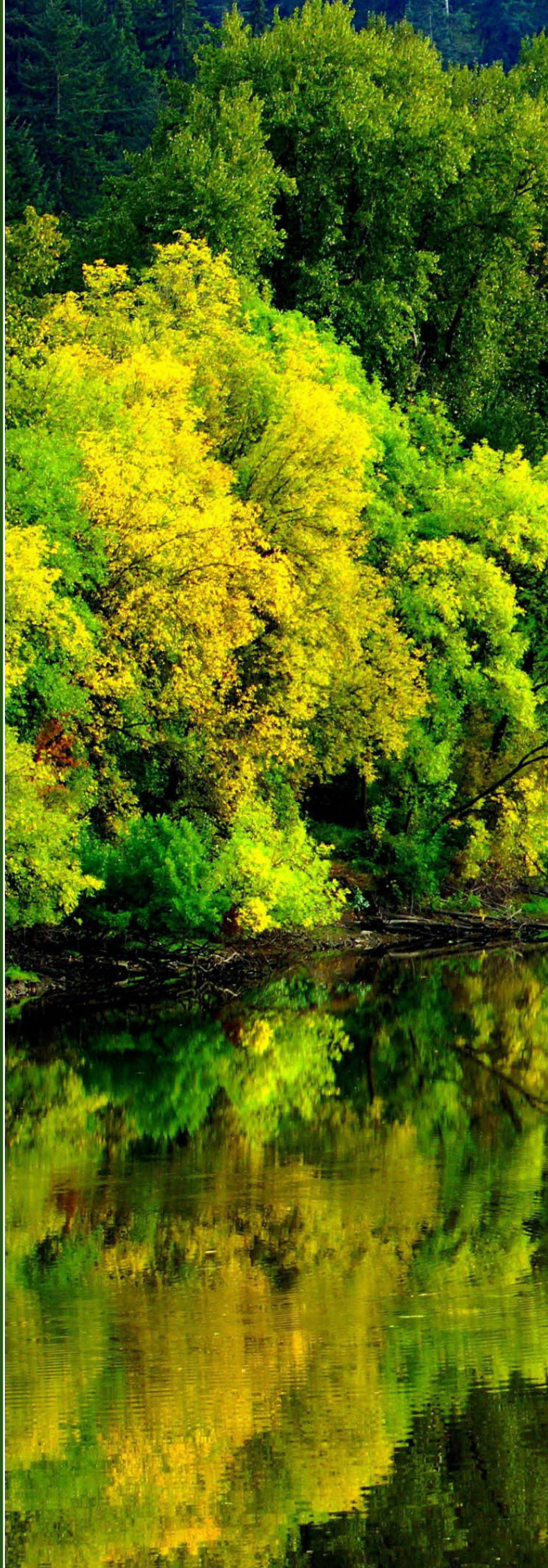
South Africa has been losing forest land to other land use purposes over the last few years, particularly in terms of plantation and woodland areas. During 2013/14 and 2014/15, reported conversion from timber to other land uses amounted to 353 ha and 193 ha, respectively. Since 1994, the forest sector has lost almost 50 000 hectares of plantation land. Although other forms of land use are also benefiting from this loss of forest land, it is important to note that most of the land is being transferred to the agriculture sector. On the other hand, woodland areas have suffered losses of millions of hectares in the last 20 years. It is also worth indicating that Government's main defence against forest loss is the NFA but this trend proves that the Act is more effective towards the protection of indigenous forest and not necessarily on the plantation and savannah woodland forest. Measures to mitigate forest losses are currently very much subdued owing to a number of factors such as developments, ownership and distribution of woodland forests as well as lack of adequate capacity for enforcement and compliance.

#### 4.2.7 Forest conservation and protection

Around 22% of terrestrial land is well-protected in South Africa; the balance is either not protected or poorly protected. In addition, eight plant species are threatened in the country. As a result, the country continuously experience illegal clearing of forests and trees outside the forests. The National Forests Act was introduced with the quest to promote sustainable forest management and the promotion of certain forests and trees, thereby preserving biological diversity and mitigating the effects of climate change which threaten livelihoods and ecosystems. Furthermore, Government is also declaring some forest areas into forest nature reserves and forest wilderness areas to improve the scope of forest conservation and protection and elevate their protection statuses.

# 5

## ANALYSIS OF THE FORESTRY SECTOR AGAINST SUSTAINABLE AND SUSTAINABLE MANAGEMENT AND DEVELOPMENT





This chapter provides a synopsis of the sector performance against the three pillars of development, namely, economic, social and ecological/environmental functions. This analysis follows the Driving forces-Pressures-States-Impact-Responses (DPSIR) framework used globally to assess environmental sustainability. The framework provides an overview of the relation between the environment and people and in this case forests and people. The DPSIR framework is based on the notion that social and economic developments and natural conditions, also referred to as driving forces, exert pressure on the environment (forests) resulting in changes on the statuses of the environment. The changes therefore lead to impacts on human health, ecosystems and materials. It therefore follows that certain interventions or responses are required to manage any negative trends to ensure sustainable development and growth. A selection of parameters is discussed hereunder:

## 5.1 Timber shortage

**Drivers:** South Africa is classified as low forest country and receives below annual rainfall compared to many other countries. South Africa's commercial plantation areas occupy 1,224 million ha of the country's 122 million ha surface area (about 1,0%). The majority of commercial forestry areas (83,3%) are privately owned and within the hands of very few companies which are vertically integrated. The companies therefore decide on what species and products they want to produce. Most of the companies are reluctant to invest in long-term sawlog production for business reasons (return on investment considering the period it takes before the final product is harvested). This inevitably leads to more focus directed to other timber products at the expense of long-term sawlog production. The Department manages some 63 000 ha of commercial plantations which are predominantly for saw timber production. However, a majority of these (about 38%) remain as Temporary Unplanted Areas (TUPs), whereas the acceptable level of temporary unplanted areas by industry norms is between 2% and 3%. The decision by Government to decommission commercial forestry areas in the Western Cape and Mpumalanga also led to a loss of substantial areas (over 46 000 ha). The decision has subsequently been reviewed, which led to an additional 25 000 ha being brought back to production.

**Pressures:** It would seem that the commercial forestry industries are reluctant to acknowledge that the envisaged looming sawlog timber shortage is as a result of their management objectives. This then leaves the responsibility of investing in long-rotation timber production with Government. However, the challenge is that Government has decided to move away from doing business in forestry to focus on its core mandate, as sector leader and regulator of the sector and this exacerbates the challenge.

**States:** At this point in time, the country is not yet in a crises position with regard to shortage of sawlog timber. However, it is envisaged that the situation could become worse in the near future unless some strategic interventions are put in place to mitigate the looming crises.

**Impact:** The situation whereby Government has decided to stop running commercial forestry as a business put the state on a tight rope. Government therefore needs to create an environment whereby investors are encouraged to invest in long-rotation timber production, thereby putting incentives where applicable.

**Responses:** The department, in collaboration with the industry has developed a National Sawlog Strategy in 2012. Despite the strategy having been approved, the challenge remains with its implementation as a result of various factors such as availability of land, water use authorisations for green fields identified in KwaZulu-Natal and the Eastern Cape for afforestation purposes and lack of adequate capital for Environmental Impact Assessments (EIAs) and start-up funds for businesses.

The recommissioning of areas that DAFF initially exited in Mpumalanga (4 000 ha) and Western Cape (21 000 ha) will result in a total of 25 000 ha being available for planting. In the Western Cape the process is conducted in the manner that seeks to benefit local communities and in turn it will stimulate local economic development and job creation. It is estimated that through this process, 500 direct and 2 000 indirect jobs will be created. This will yield a total of 2 500 jobs created. Turning around DAFF plantations is a step that should bring positive results and boost forestry productivity, thereby reducing the unacceptable high levels of Temporally Unplanted Areas (TUP), which is above the industry norms and standards. Currently, DAFF is working with other role players such as the Department of Trade and Industry, Public Enterprises and the South African Forestry Company Ltd to turn these plantations around. The DAFF is currently working on a model to turn around the status of the plantations to ensure that they are sustainably managed.

## 5.2 Decreasing forest land

**Drivers:** It is widely accepted that the country continues to lose forest land due to various reasons. These include loss due to land use changes by forestry farmers, developments in cases of natural forests, mining, overexploitation of forest resources and land invasions.

**Pressures:** The shrinkage in forest land means that the livelihoods of people, particularly those around these resources, are seriously threatened. This may result in illegal activities of unprecedented magnitude. The environment, if unchecked will impair sustainability and biological diversity, particularly as it relates to the forest biome which has the highest biological diversity compared to other biomes.

**States:** Deforestation is continuing to take place at an increased rate although there is no data to quantify the exact rate of forest degradation and deforestation at this point in time, especially when it comes to woodlands and indigenous forest types. Data on the rate of loss of commercial forest land is available and the areas declined by 751 ha over the last three years. The department is aware of cases (some pending) whereby mining companies are seeking licences from the relevant government departments for mining reasons and most of these affect natural forests areas.

**Impact:** The impact of forest losses is not quantifiable at the moment. However, it is widely acknowledged that losses in forest areas will inevitable have dire consequences on the effects of climate change and soil erosion and these will lead to serious threats to food security and biodiversity.

**Responses:** The government has developed a climate change mitigation and mitigation strategy inclusive of all sectors. Full implementation of the strategy will go a long way in mitigating the effects of climate change. The DAFF has developed guidelines for developments which affect natural forests. These guidelines require that, where developments are taking place, those natural forests and trees should be avoided and make provision for off-sets where the destruction of natural forests cannot be avoided at all. The National Forests Act provides full protection to natural forests irrespective of where they occur (public or private land). However, enforcing the legislation remains the big challenge due to limited resources. Then again, the department, in collaboration with other key stakeholders and law enforcement agencies, has a programme on capacity building and education which seeks to address the same challenges. Annually, the department and its key partners such as Total South Africa and municipalities currently run an awareness campaign, the Arbor Week during the first week of September. Moreover, the department annually publishes the list of protected tree species using various media platforms such as television, radio and newspapers, raising awareness about the importance of conserving natural trees and forests. The recommission of forestry land in the Western Cape and Mpumalanga will also go a long way in mitigating the decline of forest land.

### 5.3 Forestry employment

**Drivers:** Poor economic activities in the country and the world, declining plantation area, labour costs and laws, lack of investment and SMMEs are identified as the main drivers of employment in the sector. If these factors can be addressed, employment in forestry should receive a boost.

**Pressures:** Rising unemployment, poverty, inequality and possibly the increasing rate of food insecurity and crime as well as community unrest, particularly in rural areas, are exerting pressures on the sector.

**Status/State:** Recent trends show that the sector directly employed 111 600 people and indirectly employed 46 800.

**Indicators/Impact:** Despite the difficult economic conditions, the sector was able to add about 12 500 jobs in the last three years. However, this has not made a big dent on employment as the sector shed a lot of jobs in the past few years.

**Responses:** DAFF has finalised the Agricultural Policy Action Plan and the Integrated Agriculture Development Finance Policy Framework (IADFP) for smallholder farmers as well as the MAFISA Credit Policy Framework and the Integrated Growth and Development Plan. These plans together with other government initiatives from institutions such as the dti and IDC are expected to boost the country's effort to create the much needed employment, particularly in the agriculture and forest sectors. Replanting of recommissioned areas has started in the Western Cape and it is anticipated that more jobs will be created as the project expands.

### 5.4 Forestry transformation

**Drivers:** Transformation is primarily driven by the reality that the ownership of commercial forestry resources and activities remain in the hands of a few white owned companies. The forestry sector is viewed as very much skewed and non-inclusive across the entire value chain, particularly when it comes to representation of women and youth. Government has introduced the Black-Economic Empowerment Act as a vehicle for driving transformation and inclusivity across all the sectors of the economy. Subsequent to the empowerment Act, several Broad-based Black Economic Empowerment charters were developed and these set undertakings that were to be complied with by labour, Government and business. Despite the signing of the Broad-based Black Economic Empowerment Forest Charter, the sector remains very much unchanged, especially in relation to ownership and management and control in the upper echelons of the forestry companies.



**Pressures:** Rising economic and social inequality, poverty, unemployment and intensified racial conflicts have been identified as the major factors that would result from lack of transformation in the sector.

**States:** The Forest Sector Charter Council has reported that, while there are some achievements on some of the scorecard elements of the forest charter, there is too little or no movement when it comes to ownership and management positions in most private companies. The charter is a ten-year document and it is almost reaching its end with little or no movement on certain elements of the undertakings agreed to by all social partners. The Forest Sector Transformation Charter is expected to ensure transformation, diversity and equity in the sector and to ensure black people participate meaningfully in the sector. Nevertheless, the pace has been slow, especially on issues regarding ownership, management and control. But the lack of growth in the sector, i.e., expansion of timber production enterprises, has been pointed out as one of the factors hampering transformation. The charter was formulated on principles of growth and transformation. The other crucial issues that affect the pace of transformation include:

- the dominance by a few big players and vertical integration (production and processing integrated)
- BBBEE is currently not enforceable, particularly when enterprises do not do business with Government
- elements not doing well are ownership, management and control and those dealing with human capital as a result of the ownership patterns
- the previously disadvantaged Individuals (PDIs) who are interested in forestry businesses do not have the requisite capital and skills to participate.
- lack of adequate funding for conducting EIAs on areas earmarked for afforestation.

**Impact:** DAFF is currently in the process of transferring plantations and other immovable and movable assets such as buildings and office equipment to the previously disadvantaged communities in Limpopo. Most of these transfers are valued at millions of rands. However, Government alone cannot achieve the objectives of transformation; there is a need for a concerted effort and commitment from both the state and the private sector to jointly drive the transformation agenda. Blacks are beginning to have some stakes in the ownership and economic activities in some companies, although this development is very marginal. This marginal increase is further exacerbated by the lack of adequate land to afforest on as well as the regulatory requirements needed to establish a new plantation, in particular the water use licensing process.

**Responses:** DAFF and other stakeholders are working tirelessly to ensure that thousands of hectares are afforested in the Eastern Cape and KwaZulu-Natal in the next few years. This is expected to speed up transformation as most of the newly established plantations are anticipated to be in the hands of black people.

## 5.5 Land reform

**Drivers:** The history of South Africa is well documented to be that of land disposition which occurred during the era of apartheid system practices prior to 1994. When South Africa gained democracy in 1994, the new Parliament enacted a number of legislation that sought to redress the imbalances of the era before the dawn of Constitutional democracy. These legislation covered issues pertaining to land rights and restitution. An impression was created that the dispossessed persons will either be restored to their ancestral land or compensated accordingly. However, the restitution process has proven to be a very difficult task in that some cases took even more than ten years to conclude with some still pending. Some of these areas include forest land.

**Pressures:** It is estimated that more than 60% of the plantations under SAFCOL/Komatiland Forests (Pty) Ltd are under land claims. This puts the company under difficulties in that they are unable to carry their mandate freely. The safety of their personnel is under serious threat since they allegedly endure constant harassment and intimidation from people who are claimants of the same land under SAFCOL management. Similar cases have been reported in the province of KwaZulu-Natal.

**States:** There are several cases where disputes occur between Government and communities, with one case in Mpumalanga wherein one individual has occupied a state forest land in Nelshoogte and the DAFF is currently seeking a court order to evict the illegal occupant. A similar process has been initiated by the Department of Public Works in Mpumalanga to evict the same person. If the cases of land resettlement are not expedited, more of these kinds of land invasions are likely to occur in the future.

**Impact:** As a result of the impression created during the initial stages of the land restitution process, some forestry areas have seen illegal occupation (land invasions) in some parts of the country, with the SAFCOL plantations in the Eastern Cape and Mpumalanga bearing most of the brunt. This leads to serious uncertainties and deters potential investors in areas that have a potential for forestry establishment and development.

**Responses:** Emanating from the “Bosberaad”/Forestry Indaba convened by the Deputy Minister of Agriculture, Forestry and Fisheries from 21 to 22 April 2016, a High Level Forum comprising of Deputy Directors-General of the relevant departments that have a stake in forestry was proposed. The forum will seek to unlock all the challenges identified at the “Bosberaad,” with political interventions where applicable. The Department of Rural Development and Land Reform is the main player on issues pertaining to land reform and land restitution and has made an undertaking during the “Bosberaad” to also prioritise forestry cases. The Department of Agriculture, Forestry and Fisheries has established a Task Team to oversee implementation of the undertakings made at the April 2016 “Bosberaad.”

## 5.6 Forest health and vitality

**Drivers:** Human actions, natural causes and movement of timber products are said to be the main threats to forest health and vitality in the modern world and South Africa is not immune to these.

**Pressures:** Those drivers mainly result in the introduction of and widespread pests and diseases, veld and forest fires, deforestation and forest degradation in the country. The sector will then need to raise some funds to reduce or eliminate these pressures and this puts a huge financial burden on the industry, hampering its growth and development.

**Status:** It was estimated that 17 new pests and diseases were identified in South Africa over the last hundred years. However, the total number of hectares damaged by pests and diseases was reduced significantly in the last few years as a result of the pests and diseases control programmes at FABI, the ICFR and in the industry. South Africa’s burnt areas between 2013 and 2015 averaged at 2,8 million ha, a slight rise from the previous reporting period of 2,7 million ha.

**Impact:** Plantations were badly harmed by the Sirex wood wasp which defoliates young eucalyptus trees. The eucalyptus gall wasp and the bronze bug induced defoliation in eucalyptus trees. Loss of grazing due to fires has resulted in the loss of biodiversity in some areas.

**Responses:** Government and the private sector joined forces to ensure the establishment and continuous functioning of the South African Sirex Control Programme to reduce the impact of pests and disease to trees. This initiative has provided some significant relief to the forest industry, particularly pine growers in the country. With regard to integrated fire management, the department continues to encourage formation and registration of Fire Protection Associations as vehicles for collaborative fire management in the country. Government has a resource in the form of the Working on Fire Programme which continues to play an important role in fuel reduction, skills development, fire combating and creation of job opportunities.



# 6

## CONCLUSION AND RECOMMENDATIONS

South Africa is experiencing the triple challenge of unemployment, poverty and the forever illusive inequality. The country is rated as one of the most unequal societies in the world and the gap seems to be forever increasing, despite government efforts to narrow it. These challenges are therefore cascading down to various sectors of the South African economy, including forestry. The rate of unemployment is spiralling to unprecedented levels, currently standing at approximately 38% (2016).

Likewise, forestry has its own share of challenges which need a concerted effort and commitment from all stakeholders in order to turn the tide and reverse the unpleasant situation the sector finds itself in. The key challenges facing the forestry sector in South Africa vary from long periods for settling land claim issues to low afforestation. In moving the industry forward and to ensure that forestry plays its important role of enhancing the socio-economic benefits from forests, including its ecological functions, the following need to be taken into account and unblocked:

### **6.1 Shortage of timber:**

At this point in time, it is widely accepted that the looming shortage is not necessarily on all timber products but sawlogs. This is attributed to the long-term nature of sawlog rotation which may take a minimum of 25 years for the final product to be harvested, a situation discouraging most companies to invest much of their resources in long-rotation timber production. Currently, SAFCOL plantations are mainly managed for sawlog production but this cannot meet the demand. It is recommended that, with the 100 000 ha earmarked for afforestation in the Eastern Cape and KwaZulu-Natal, a substantial portion of this should be dedicated to sawlog timber production as the main management objective. To achieve this, Government should appraise the potential investors but also taking into account the economies of scale for the investments to be sustainable.

### **6.2 Low afforestation rate:**

Government, in particular the Department of Agriculture, Forestry and Fisheries and the industry are seriously concerned about the low rate of planting in the new areas (the greenfields) identified in KwaZulu-Natal and Eastern Cape. The low afforestation rate happens against the backdrop of the BBBEE Forest Sector charter signed on 22 May 2008. The charter set a target of planting of 10 000 ha per annum since its signing into operation. However, the annual average area planted since the charter came into effect averaged at 1 780 ha per annum and amounted to a total of 14 245 ha over the last eight years. There are a number of challenges that are considered to be hampering the Afforestation Programme, including funding for EIAs, proximity of the areas to markets and the regulatory environment. There are also concerns from the Department of Water and Sanitation (the water use licensing authority) that as much as the industry raises matters of protracted licensing process, the take up of licensed areas is not satisfactory or is very slow in that some areas remain unplanted although licenses have been issued for such areas. It is therefore recommended that the DAFF should fast track implementation of the Afforestation Strategy which was developed a few years ago. A consensus was reached during the “Bosberaad” organised by the Deputy Minister in April 2016 that there is a need for a High Level Forum to be established to unblock matters that hamper the development and growth of the sector. It is advisable that implementation of the afforestation strategy should be aligned to the Action Plan that was developed as the outcome of the “Bosberaad.”

### **6.3 Slow pace of transformation in the forest sector:**

The annual reports by the Forest Sector Charter Council (2013-2015) all point to a slow pace of transformation in the industry. The reports indicate that the area where performance by the sector is extremely poor is on ownership and management positions as it seems like there is too little or no movement on these scorecards. To ensure a meaningful transformation in the economic activities of the sector, it is recommended that Government should set stricter conditions that will ensure significant participation by PDIs at all levels of the sector, including on ownership and management echelons of the companies. This is more important because the current barriers result from the fact that forestry is in the hands of very few companies which are vertically integrated, making it difficult for new entrants to participate in the existing companies. Planting of the 100 000 ha of the new areas consequently provide good opportunities for meaningful transformation in the sector.

### **6.4 Land restitution:**

Prolonged restitution of land increases the risks within the sector. It has been reported that elsewhere in the country, companies such as SAFCOL are already experiencing a certain level of threats from potential beneficiaries of land restitution, particularly in Mpumalanga and the Eastern Cape. The DRDLR, as the custodian of the land restitution programme, has indicated the need to prioritise claims lodged for forestry areas during the April 2016 “Bosberaad.” It is therefore crucial that the DAFF takes this opportunity by working collaboratively with all key stakeholders to ensure that the claims lodged on forestry areas are settled as a matter of urgency to mitigate the threat of land invasions and perceived criminal activities, such as destruction of forests for human settlement purposes.



### 6.5 Underinvestment and fragmented research, development and innovation in the industry:

There is a general consensus that investment in forestry research and development is inadequate and that research work is highly fragmented in the sector. This leads to organisations conducting research solely for addressing only their needs and not necessarily in the best interest of the general public. The National Forest Sector Research and Development strategy was developed in 2012, but this is yet to be implemented in full. As part of the implementation, the forum was formed in 2015. The department has also appointed a dedicated resource for coordinating research efforts in the country. However, lack of funding is an impediment for full implementation of the strategy. It is therefore recommended that the key stakeholders in the sector should engage and develop a comprehensive implementation plan for the strategy while ensuring more funding is provided for the implementation of the plan.

### 6.6 Living conditions of forestry workers:

The 2012 State of the Forests report revealed the unsatisfactory living conditions that both the private and public sectors forestry workers are subjected to regarding accommodation and remuneration. Whereas workers in the public sectors are permanently employed and enjoying the benefits attached to decent employment, the report indicated that only 6% of forestry workers in the private sector enjoy real benefits. This is the percentage employed on permanent basis and the remainder are either casual labour or outsourced labour bound to independent forestry contractors. With government employees, the challenge is not necessarily on remuneration and employment benefits; rather more on accommodation facilities which are either not having the requisite amenities or are inadequately equipped, particularly as it relates to sanitation and clean running water.

Since the publishing of the 2012 State of the Forests report, there are no new data available indicating steps that have been taken by both Government and the private sector in improving the conditions for forestry workers. With regard to remuneration in the private sector, reports pointed to a situation whereby the wages for some forestry workers are lower than even those of farm workers. This situation is contrary to Government's position of intending to push back the frontiers of poverty, unemployment and inequality in society. It is therefore recommended that the Department takes a lead and engage the sector and the Department of Labour in making sure that the remuneration in the sector is significantly improved. This could be done by way of setting the minimum wages higher during the sector wage determination process. The reason for the recommendation is that studies have revealed that the minimum wages set by the sector determination process becomes the going rate and most companies do not go beyond this level. This will therefore ensure that forestry workers are paid equivalently to other related sectors. Both the government and private sector need to acknowledge that the living conditions of forestry workers are not acceptable and that a concerted effort is required to decisively address them. Government and the sector should develop infrastructure development plans and make funding available for incremental implementation of such plans in their respective areas of jurisdiction. It is further recommended that labour inspectors be appointed to assess and make recommendations regarding the living conditions of forestry workers, including inspections of the areas the workers live.

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## ANNEXURE A

### LIST OF PROTECTED TREES

BOTANICAL NAME	ENGLISH COMMON NAMES	OTHER COMMON NAMES AFRIKAANS (A), SEPEDI (P), SESOTHO (S), SETSWANA (T), TSHIVENDA (V), ISIXHOSA (X), ISIZULU (Z)	NATIONAL TREE NUMBER
<i>Vachellia erioloba</i>	Camel thorn	Kameeldoring (A) Mogohlo (NS) Mogôthlô (T)	168
<i>Vachellia haematoxylon</i>	Grey camel thorn	Vaalkameeldoring (A) Mokholo (T)	169
<i>Adansonia digitata</i>	Baobab	Kremetart (A) Seboi (NS) Mowana (T)	467
<i>Azelia quanzensis</i>	Pod mahogany	Peulmahonie (A) Mutokota (V) Inkehl (Z)	207
<i>Balanites maughamii</i> subsp. <i>maughamii</i>	Torchwood	Groendoring (A) Ugobandlovu (Z)	251
<i>Barringtonia racemosa</i>	Powder-puff tree	Poeierkwasboom (A) Iboqo (Z)	524
<i>Boscia albitrunca</i>	Shepherd's tree	Witgat (A) Mohlôpi (NS) Motlhôpi (T) Muvhombwe (V) Umgqomogqomo (X) Umvithi (Z)	122
<i>Brachystegia spiciformis</i>	Msasa	Msasa (A)	198.1
<i>Breonadia salicina</i>	Matumi	Mingerhout (A) Mohlômê (NS) Mutu-lume (V) Umfomfo (Z)	684
<i>Bruguiera gymnorhiza</i>	Black mangrove	Swartwortelboom (A) isiKhangati (X) IsiHlobane (Z)	527
<i>Cassipourea swaziensis</i>	Swazi onionwood	Swazi-uehout (A)	531.1
<i>Catha edulis</i>	Bushman's tea	Boesmanstee (A) Mohlatse (NS) Igqwaka (X) Umhlwazi (Z)	404

BOTANICAL NAME	ENGLISH COMMON NAMES	OTHER COMMON NAMES AFRIKAANS (A), SEPEDI (P), SESOTHO (S), SETSWANA (T), TSHIVENDA (V), ISIXHOSA (X), ISIZULU (Z)	NATIONAL TREE NUMBER
<i>Ceriops tagal</i>	Indian mangrove	Indiese wortelboom (A) isinkaha (Z)	525
<i>Cleistanthus schlechteri</i> var. <i>schlechteri</i>	False tamboti	Bastertambotie (A) Umzithi (Z)	320
<i>Colubrina nicholsonii</i>	Pondo weeping thorn	Pondo-treurdoring (A)	453.8
<i>Combretum imberbe</i>	Leadwood	Hardekool (A) Mohwelere-tšhipi (NS) Motswiri (T) Impondondlovu (Z)	539
<i>Curtisia dentata</i>	Assegai	Assegai (A) Umgxina (X) Umagunda (Z)	570
<i>Elaeodendron transvaalensis</i>	Bushveld saffron	Bosveld-saffraan (A) Monomane (T) Ingwavuma (Z)	416
<i>Erythrophysa transvaalensis</i>	Bushveld red balloon	Bosveld-rooiklapperbos (A) Mofalatsane (T)	436.2
<i>Euclea pseudebenus</i>	Ebony guarri	Ebbeboom-ghwarrie (A)	598
<i>Ficus trichopoda</i>	Swamp fig	Moerasvy (A) Umvubu (Z)	54
<i>Leucadendron argenteum</i>	Silver tree	Silwerboom (A)	77
<i>Lumnitzera racemosa</i> var. <i>racemosa</i>	Tonga mangrove	Tonga-wortelboom (A) isiKhaha-esibomvu (Z)	552
<i>Lydenburgia abbottii</i>	Pondo bushman's tea	Pondo-boesmanstee (A)	407
<i>Lydenburgia cassinoides</i>	Sekhukhuni bushman's tea	Sekhukhuni-boesmanstee (A)	406
<i>Mimusops caffra</i>	Coastal red milkwood	Kusrooimelkhout (A) Umthunzi (X) Umkhakhayi (Z)	583
<i>Newtonia hildebrandtii</i> var. <i>hildebrandtii</i>	Lebombo wattle	Lebombo-wattel (A) Umfomothi (Z)	191
<i>Ocotea bullata</i>	Stinkwood	Stinkhout (A) Umlungulu (X) Umnukane (Z)	118
<i>Ozoroa namaquensis</i>	Gariep resin tree	Gariep-harpuisboom (A)	373.2



BOTANICAL NAME	ENGLISH COMMON NAMES	OTHER COMMON NAMES AFRIKAANS (A), SEPEDI (P), SESOTHO (S), SETSWANA (T), TSHIVENDA (V), ISIXHOSA (X), ISIZULU (Z)	NATIONAL TREE NUMBER
<i>Philenoptera violacea</i>	Apple-leaf	Appelblaar (A) Mphata (NS) Mohata (T) isiHomohomo (Z)	238
<i>Pittosporum viridiflorum</i>	Cheesewood	Kasuur (A) Kgalagangwe (NS) Umkhwenkwe (X) Umfusamvu (Z)	139
<i>Podocarpus elongatus</i>	Breede River yellowwood	Breërviergeelhout (A)	15
<i>Podocarpus falcatus</i> ( <i>Afrocarpus falcatus</i> )	Outeniqua yellowwood	Outniekwageelhout (A) Mogôbagôba (NS) Umkhoba (X) Umsonti (Z)	16
<i>Podocarpus henkelii</i>	Henkel's yellowwood	Henkel se geelhout (A) Umsonti (X) Umsonti (Z)	17
<i>Podocarpus latifolius</i>	Real yellowwood	Regte-geelhout (A) Mogôbagôba (NS) Umcheya (X) Umkhoba (Z)	18
<i>Protea comptonii</i>	Saddleback sugarbush	Barberton-suikerbos (A)	88
<i>Protea curvata</i>	Serpentine sugarbush	Serpentynsuikerbos (A)	88.1
<i>Prunus africana</i>	Red stinkwood	Rooistinkhout (A) Umkhakhase (X) Umdumezulu (Z)	147
<i>Pterocarpus angolensis</i>	Wild teak	Kiaat (A) Morôto (NS) Mokwa (T) Mutondo (V) Umvangazi (Z)	236
<i>Rhizophora mucronata</i>	Red mangrove	Rooiwortelboom (A) isiKhangathi (X) Umdlume (Z)	526
<i>Sclerocarya birrea</i> subsp. <i>caffra</i>	Marula	Maroela (A) Morula (NS) Morula(T) Umganu (Z)	360
<i>Securidaca longepedunculata</i>	Violet tree	Krinkhout (A) Mmaba (T)	303
<i>Sideroxylon inerme</i> subsp. <i>inerme</i>	White milkwood	Witmelkhout (A) Ximafana (X) Umakhwelafingqane (Z)	579

BOTANICAL NAME	ENGLISH COMMON NAMES	OTHER COMMON NAMES AFRIKAANS (A), SEPEDI (P), SESOTHO (S), SETSWANA (T), TSHIVENDA (V), ISIXHOSA (X), ISIZULU (Z)	NATIONAL TREE NUMBER
<i>Tephrosia pondoensis</i>	Pondo poison pea	Pondo-Gifertjie (A)	226.1
<i>Warburgia salutaris</i>	Pepper-bark tree	Peperbasboom (A) Molaka (NS) Mulanga (V) isiBaha (Z)	488
<i>Widdringtonia cedarbergensis</i>	Clanwilliam cedar	Clanwilliamseder (A)	19
<i>Widdringtonia schwarzii</i>	Willowmore cedar	Baviaanskloofseder (A)	21

## ANNEXURE B

### LIST OF CHAMPION TREES

	Tree Species	Description	Height (m)	Stem diameter at breast height (m)	Crown diameter (m)	Index figure	Location/site
1	<i>Adansonia digitata</i> (baobab)  Sagole Tree, also known as Muvuyo wa Makhadzi	The largest indigenous tree of South Africa, and habitat for a rare colony of mottled spinetail swallows	20,5	10,8	40	426	Sagole,  Limpopo
2	<i>Adansonia digitata</i> (baobab)  <b>PART OF CROWN COLLAPSED</b>	Second largest indigenous tree in South Africa	17	15,9	37,05	413	The farm Glencoe, Hoedspruit,  Limpopo
3	<i>Ficus salicifolia</i> (Wonderboom fig)  Wonderboom fig of Pretoria	Largest Wonderboom fig, carbon dated to more than 1000 years old. Served as ox-wagon outspan area in earlier years, and legend that the tree draws its growing power from a local chief buried under the tree	22	5,32  (multiple stems)	56	380	Wonderboom Nature Reserve, Pretoria (Tshwane),  Gauteng
4	<i>Breonadia salicina</i> (matumi)  One of a trio of trees	Largest matumi tree in South Africa	33	2,81	37	336	Amorentia Estate, near Modjadjiskloof, Limpopo

Tree Species		Description	Height (m)	Stem diameter at breast height (m)	Crown diameter (m)	Index figure	Location/site
	called Three Queens						
5	<i>Breonadia salicina</i> (matumi)  One of a trio of trees called Three Queens	Second largest matumi tree in South Africa	38	2,6	24,9	306	Amorentia Estate, near Modjadjiskloof, Limpopo
6	<i>Breonadia salicina</i> (matumi)  One of a trio of trees called Three Queens	Third Largest matumi tree in South Africa (forms part of a trio of large matumi trees)	38,6	2,41	17,78	286	Amorentia Estate, near Modjadjiskloof, Limpopo
7	<i>Adansonia digitata</i> (baobab)  Platland Tree	Very large baobab and well-known tourist attraction with a bar inside	19	10,7	36	372	Platland/Sunland, near Modjadjiskloof, Limpopo
8	<i>Ficus sycomorus</i> (common cluster fig)  Cluster Fig Giant	The largest cluster fig in South Africa	31	3,34	35,1	336	The farm Excellence, Mica, Limpopo
9	<i>Afrocarpus falcatus</i> (Outeniqua yellowwood)  King Edward VIIth Tree	One of the well-visited Big Trees of the Knysna Forests	36,9	2,12	31,5	301	Diepwalle, Garden Route National Park, Western Cape
10	<i>Eucalyptus saligna</i> (saligna gum)  The 'O'Connor tree lane	Very tall landmark tree lane –planted in the 1930s by forestry pioneer AJ O'Connor. Situated next to O'Connor's	71	1,36	32,1	469	Woodbush State Forest, Magoebaskloof,



Tree Species		Description	Height (m)	Stem diameter at breast height (m)	Crown diameter (m)	Index figure	Location/site
		memorial					Limpopo
1 1	<i>Eucalyptus saligna</i> (saligna gum)  The tallest trees in South Africa and Africa, with the tallest four known as the Magoebaskloof Giants  Measurement of tallest tree shown	Stand of saligna gum trees planted in 1906 by forestry pioneer AK Eastwood, including the tallest trees in South Africa and Africa	81,5	1,04	10,7m	293	Woodbush State Forest, Magoebaskloof, Limpopo
1 2	<i>Sideroxylon inerme</i> (milkwood),  Grandfather of Still Bay	Largest milkwood in South Africa, estimated to be about 1000 years old	14	3,18	20	111	The farm Langebosch  Still Bay, Western Cape
1 3	<i>Sideroxylon inerme</i> (milkwood)  Mossel Bay Post Office Tree	Historic tree believed to have been the tree at which an old shoe was placed for exchange of messages by Portuguese seafarers in the 16 <sup>th</sup> century	8,5	1,1 (multiple stems)	32,9	51	Dias Museum, Mossel Bay, Western Cape
1 4	<i>Cinnamomum camphora</i> (camphor tree)  The Vergelegen trees	Historic trees planted more than three centuries ago by Governor WA van der Stel – very large trees with large landscape impact	26,3	4,01	31,4	295	Vergelegen Estate, Somerset West, Western Cape

	Tree Species	Description	Height (m)	Stem diameter at breast height (m)	Crown diameter (m)	Index figure	Location/site
15	<i>Eucalyptus</i> species & a variety of other tree species (Tokai Arboretum - all mature trees)	Arboretum of historic significance with trees planted there since 1885. Laid out by Joseph Storr Lister at the beginning of the forestry industry.	62	1,71	20,5	368	Table Mountain National Park, Cape Town, Western Cape
16	<i>Platanus acerifolia</i> (London plane)  Tree avenue in KwaZulu-Natal National Botanical Garden known as Marriot's Lane	Tree avenue of exceptionally old plane trees – planted in 1908 by Mr WE Marriot (curator). This lane is a central landscape feature of the botanical garden	35	1,77	28,9	250	KwaZulu-Natal Botanical Gardens, Pietermaritzburg, KwaZulu-Natal
17	<i>Eucalyptus camaldulensis</i> (river red gum)  The Irene Champion	Largest tree on an estate with a variety of trees planted since the late 19 <sup>th</sup> century by a Mr Fuchs, employed by Alois Nellmapius.	41	2,03	25,7	296	Irene Farm Estate, Centurion, Gauteng
18	<i>Eucalyptus paniculata</i> (grey ironbark), <i>E maculata</i> (spotted gum) & <i>E microrys</i> (tallow gum),  Commonwealth	Arboretum or sample plot of large gum trees planted in the 1930s and protected to commemorate the Commonwealth Forestry Conference of 1935	70	1,29	19,4	350	Middelkop Plantation, Magoebaskloof, Limpopo

Tree Species		Description	Height (m)	Stem diameter at breast height (m)	Crown diameter (m)	Index figure	Location/site
	plantation						
1 9	<i>Eucalyptus saligna</i> (saligna gum) Westfalia Showblock	Stand of tall trees gum trees planted in 1933 by the eminent Dr Hans Merensky	70	1,25	16,9	322	Westfalia Estate, near Modjadjiskloof, Limpopo
2 0	<i>Araucaria heterophylla</i> (Norfolk Island pine) Theological Seminary Tree	Tallest Norfolk Island pine planted in 1826 by wife of the last landdrost of Stellenbosch	46	1,9	21,21	292	Theological Seminary (Kweekskool),  Stellenbosch, Western Cape
2 1	<i>Eucalyptus camaldulensis</i> (river red gum) Bergzicht Market Trees	Planted in 1880. Prominent trees providing shade for an entire informal market	34,5	2,32	35	311	Bergzicht Market,  Stellenbosch, Western Cape
2 2	<i>Quercus robur</i> (English oak) Ryneveld Oak	Planted in 1812. One of only five oak trees remaining from the previous generation of planted oak trees	29	1,48	17,6	148	Ryneveld Street,  Stellenbosch, Western Cape
2 3	<i>Quercus robur</i> (English oak) Zandvliet Oak	Big oak tree planted in the nineteenth century at a historic farmhouse of an old wine estate	22	1,54	25,08	137	Solms Delta Estate, near Franschoek, Western Cape

	Tree Species	Description	Height (m)	Stem diameter at breast height (m)	Crown diameter (m)	Index figure	Location/site
2 4	<i>Populus nigra</i> (Lombardy poplar) Ruth Fischer Tree	Historic tree serving as landmark for fugitives from the Apartheid security forces to find the safe house of Ruth Fischer, daughter of Braam Fischer (a prominent founder member of the SA Communist Party)	22	1,12	5,89	56	Lothbury Avenue,  Auckland (Johannesburg),  Gauteng
2 5	<i>Afrocarpus falcatus</i> (Outeniqua yellowwood) Tsitsikamma Big Tree	One of the most accessible and famous Big Trees in Tsitsikamma forest. Visited by more than 95 000 tourists each year	39,3	2,77	33,6	379	Near Storms River,  Garden Route National Park,  Eastern Cape
2 6	<i>Afrocarpus falcatus</i> (Outeniqua yellowwood) Woodville Big Tree	One of the well-visited Big Trees of the Knysna Forests	34	2,8	30,55	314	Collin's Hoek,  Garden Route National Park,  Western Cape
2 7	<i>Afrocarpus falcatus</i> (Outeniqua yellowwood) Eastern Monarch	Well-visited Big Tree known as the Eastern Monarch, along the Tyume trail	39,4	2,75	29,69	355	Auckland Nature Reserve,  Hogsback, Eastern Cape
2 8	<i>Afrocarpus falcatus</i> (Outeniqua yellowwood) The Dalene Matthee Big Tree	Landmark tree towering above the forest, and the site of a memorial to writer Dalene Matthee	35,4	1,72	28,35	247	Goudveld, Garden Route National Park,  Western Cape



	Tree Species	Description	Height (m)	Stem diameter at breast height (m)	Crown diameter (m)	Index figure	Location/site
29	<i>Quercus robur</i> (English oak) The Slave Tree  <b>TREE WAS DAMAGED</b>	Very large oak tree planted in 1811 – one of the biggest oak trees in the southern hemisphere	24	1,81	27,4	169	York Street,  George, Western Cape
30	<i>Cedrus deodara</i> (deodar) etc.  Historic President Brand trees  <b>ALMOST ALL TREES DIED</b>	Historic collection of trees of different species planted by visiting dignitaries since 1879 in front of the old Government Buildings in President Brand Street, Bloemfontein.	22	0,8	16,9	81	Old Government Buildings,  Bloemfontein,  Orange Free State
31	<i>Quercus robur</i> (English oak)  The Sophiatown Oak, also called The Hanging Tree  <b>TREE DIED</b>	The first individual tree proclaimed as protected under the National Forests Act. Was mutilated and died, but the site could be considered of historic significance.  The tree was part of the history of Sophiatown and the struggle against the forced removal of the community in the 1950s	18	1,42	36	128	Bertha Street, Sophiatown, Johannesburg, Gauteng
3	<i>Eucalyptus ficifolia</i>	Very large and attractive tree,	22,1	2,31	25,3	169	Ida's Valley Homestead,

Tree Species		Description	Height (m)	Stem diameter at breast height (m)	Crown diameter (m)	Index figure	Location/site
2	(red flowering gum) Ida's Valley Giant	estimated to be more than two centuries old. A landmark on an old historic farm		(multiple stems)			near Stellenbosch, Western Cape
3 3	<i>Quercus robur</i> (English oak) The Northcliff Oak	The largest and oldest measured oak tree in Gauteng	22	1,89	29,4	164	Northcliff, Johannesburg, Gauteng
3 4	<i>Ficus macrophylla</i> (Moreton Bay fig) Arderne Fig Tree	Landmark tree planted by tree pioneers Ralph and Henry Arderne	27,4	3,56	45,1	347	Arderne Garden, Claremont, Cape Town, Western Cape
3 5	<i>Auracaria heterophylla</i> (Norfolk Island pine) The Arderne Pine	Landmark tree planted by tree pioneers Ralph and Henry Arderne	42,6	1,83	19,09	252	Arderne Garden, Claremont, Cape Town, Western Cape
3 6	<i>Quercus suber</i> (cork oak) Arderne Cork Oak	Landmark tree planted by tree pioneers Ralph and Henry Arderne	15,5	1,4	30,37	101	Arderne Garden, Claremont, Cape Town, Western Cape
3 7	<i>Quercus cerris</i> (Turkey oak) Arderne Turkey Oak	Landmark tree planted by tree pioneers Ralph and Henry Arderne	21,56	1,87	29,22	159	Arderne Garden, Claremont, Cape Town, Western Cape

	Tree Species	Description	Height (m)	Stem diameter at breast height (m)	Crown diameter (m)	Index figure	Location/site
3 8	<i>Pinus halepensis</i> (Aleppo pine)  Arderne Aleppo Pine	Landmark tree planted by tree pioneers Ralph and Henry Arderne	32,9	1,74	30,95	241	Arderne Garden, Claremont, Cape Town, Western Cape
3 9	<i>Agathis robusta</i> (Queensland kauri)  Arderne Kauri	Landmark tree planted by tree pioneers Ralph and Henry Arderne	27,7	1,57	26,45	179	Arderne Garden, Claremont, Cape Town, Western Cape
4 0	<i>Eucalyptus diversicolor</i> (karri gum)  Brackenhill Gum Trees	Very tall landmark stand of karri gum in the country, planted in 1922	70	1,46	25,77	429	Harkerville, near Knysna on the Garden Route,  Western Cape
4 1	<i>Casuarina cunninghamia</i> (beefwood)  Scanlen's Lane	Lane of large casuarinas planted in the 1860s by Charles Scanlen	27	1,68	23,12	168	Cradock, Eastern Cape
4 2	<i>Quercus robur</i> (English oak)  The Vergelegen Oak	Oak tree planted three centuries ago – largest and oldest oak tree in the country	14	3,4	22,1	121	Vergelegen Estate, Somerset West,  <b>Western Cape</b>
4 3	<i>Eucalyptus regnans</i> (mountain ash)	A trio of large trees situated on the scenic Benvie	61	2,18	27,85	475	Benvie Arboretum, near New

Tree Species		Description	Height (m)	Stem diameter at breast height (m)	Crown diameter (m)	Index figure	Location/site
	The Benvie Trees	Arboretum, established by Scottish emigrant John Geekie more than a century ago					Hanover, KwaZulu-Natal
44	<i>Pinus radiata</i> (Monterey pine) The Eastern Cape Pine	Tallest pine tree in the Eastern Cape, planted in the late 1880s	51	1,5	15,5	246	Isidenge State Forest, near Stutterheim, Eastern Cape
45	<i>Eucalyptus citriodora</i> (lemon-scented gum) Paul Roos Trees	Scenic group of big trees on school grounds	39	0.76	22,1	160	Paul Roos Gymnasium, Stellenbosch, Western Cape
46	<i>Quercus robur</i> (English oak) Bonniemile Oak	Large oak tree on a farmyard next to the original wagon route linking Stellenbosch with Cape Town, planted by coachmen of governor Simon van der Stel	24	1,64	33,5	178	The farm Bonniemile near Stellenbosch, Western Cape
47	<i>Eucalyptus camaldulensis</i>	Prominent landmark tree in Stellenbosch, planted around	33	2,5	33,15	301	Jonkershoek Avenue, Stellenbosch,



Tree Species		Description	Height (m)	Stem diameter at breast height (m)	Crown diameter (m)	Index figure	Location/site
	(river red gum) The Ruth Steer Tree	1880					Western Cape
48	<i>Eucalyptus camaldulensis</i> (river red gum) Wits Campus Tree	Huge gum tree planted more than 80 years ago along a major road between Johannesburg and Rustenburg	34	2,37	37,55	321	University of Witwatersrand, Johannesburg, Gauteng
49	<i>Liriodendron tulipifera</i> (tulip tree) The Baynesfield Tulip Tree	Tree planted by Joseph Baynes in 1882 on the historic Baynesfield Estate	34	2,04	26,02	248	Baynesfield Estate, near Richmond, KwaZulu-Natal
50	<i>Sequoia sempervirens</i> (Californian redwood) The Grootvadersbos Redwood Grove	Stand of tall redwoods planted at Grootvadersbosch more than 80 years ago	58	1,38	12,2	238	Grootvadersbosch Nature Reserve, near Swellendam, Western Cape
51	<i>Eucalyptus saligna</i> (saligna gum) Herbert Baker Chapel Trees	Group of scenic trees standing next to a chapel designed by Sir Herbert Baker	45	1,89	27,25	322	Orpen Road, Cape Town, Western Cape
52	<i>Sequoia sempervirens</i> (Californian redwood) The Table Mountain	Redwood trees planted in 1887 forming a landmark and recreation area for local residents, including tall Monterey pines at	51	1,09	15,1	207	Tokai Plantation, Table Mountain National Park,

Tree Species		Description	Height (m)	Stem diameter at breast height (m)	Crown diameter (m)	Index figure	Location/site
	Grove	the fringe of this grove					Western Cape
5 3	<i>Acacia galpinii</i> (Monkey thorn)  The Marico Tree	Tallest thorn tree measured in South Africa to date	37	1,81	31	277	The farm Veeplaas near Skuinsdrift,  North West
5 4	<i>Ficus burkei</i> (Common wild fig)  Umtentweni Giant	Largest Common wild fig in South Africa	28	3,31	31,9	288	Eden Park,  Umtentweni,  KwaZulu-Natal
5 5	<i>Eucalyptus camaldulensis</i> (river red gum)  The Infruitec Gum Tree	Very large landmark tree planted about 130 years ago	38,2	3,08	37,05	409	Infruitec, Helshoogte Pass, Stellenbosch, Western Cape
5 6	<i>Eucalyptus camaldulensis</i> (river red gum)  Wilgenhof Grandfather	Large tree planted about 130 years ago, and now a landmark	30,8	2,7	28,25	269	Victoria Street, Stellenbosch, Western Cape
5 7	<i>Adansonia digitata</i> (Baobab)  The King of Ga- Ratjeke	Third largest indigenous tree in South Africa	23,5	8,21  (multiple stems)	32,6	383	Ga-Ratjeke village, near Modjadjiskloof, Limpopo
5 8	<i>Quercus robur</i> (English oak)	Large landmark oak tree, possibly older than 175 years	28	1,94	26	198	Annandale Road, Stellenbosch,

Tree Species		Description	Height (m)	Stem diameter at breast height (m)	Crown diameter (m)	Index figure	Location/site
	Akkerdraai Oak Tree						Western Cape
59	<i>Eucalyptus grandis</i> (rose gum)  Gum Tree Corner	Group of exceptionally large gum trees	59,1	1,33	16,89	279	KwaZulu-Natal Botanical Garden,  Pietermaritzburg,  KwaZulu-Natal
60	<i>Sequoia sempervirens</i>  (Californian redwood)  Misty Grove	A stand of tall sequoia trees planted about 80 years ago	59	1,08	18	260	Woodbush State Forest,  Magoebaskloof,  Limpopo
61	<i>Eucalyptus saligna</i> (saligna gum)  Saasveld Sentinels	Large eucalypt landmark trees at the scenic Saasveld campus	39	1,46	34.2	276	Saasveld Campus,  George,  Western Cape
62	<i>Populus deltoides</i> (cottonwood tree)  The Parktown Tree	The largest cottonwood tree measured locally, and a remnant of the semi-rural surroundings of Johannesburg which are now built up	35	1,66	28,07	238	Parktown North, Johannesburg, Gauteng
63	<i>Pinus pseudostrobus</i> (false Weymouth pine)  The Three Matrons	The largest pine trees in Limpopo Province, planted in 1914	49,2	1,56	24,35	304	Woodbush State Forest,  Magoebaskloof,  Limpopo

	<b>Tree Species</b>	<b>Description</b>	<b>Height (m)</b>	<b>Stem diameter at breast height (m)</b>	<b>Crown diameter (m)</b>	<b>Index figure</b>	<b>Location/site</b>
6 4	<i>Ficus macrophylla</i> (Moreton Bay fig)  The Zoo Giant	Large landmark tree near the entrance of the Pretoria National Zoological Gardens	27	3,8	41,4	339	National Zoological Garden,  Pretoria,  Gauteng
6 5	<i>Pinus taeda</i> (loblolly pine)  The Buffelsnek Pine	Tallest pine tree measured in South Africa	60,1	1,2	18	279	Buffelsnek State Forest,  Knysna,  Western Cape
6 6	<i>Ficus sycomorus</i> (sycamore fig)  The Ilembe Tree	Very large tree in a rural landscape, known as a local landmark since a century ago	23	5,37 (multiple stems)	35,7	318	Ilembe, near Kranskop,  KwaZulu-Natal
6 7	<i>Cussonia spicata</i> (Lowveld cabbage tree)  The Kurisa Forest Giant	An imposing giant forest tree	35	3.71	22	316	Kurisa Moya,  Magoebaskloof,  Limpopo
6 8	<i>Eucalyptus camaldulensis</i> (river red gum)  The Waterkloof Giant	Largest landmark tree of the eastern Pretoria suburbs. Remnant of a century-old tree plantation destroyed by suburban development	34	2,15	34,27	292	Waterkloof Primary School, Pretoria,  Gauteng
6 9	<i>Adansonia digitata</i> (baobab)  Buffelsdrift baobab /	One of the five largest baobabs in the country	22	7,71	30,2	336	The farm Buffelsdrift, near Lephalale,



Tree Species		Description	Height (m)	Stem diameter at breast height (m)	Crown diameter (m)	Index figure	Location/site
	Swartwater baobab						Limpopo
7 0	<i>Afrocarpus falcatus</i> (Outeniqua yellowwood)  The Blouberg Big Trees	Among the tallest indigenous forest trees in the country	41	1,65	31	293	<b>Blouberg, near Polokwane,</b> Limpopo
7 1	<i>Ficus macrophylla</i> (Moreton bay fig)  The Kindergarten Giant	Large landmark tree at the University of Cape Town campus	25	5,09	41	361	University of Cape Town  Cape Town  Western Cape
7 2	<i>Ficus thoningii</i> (Common wild fig)  The Vygekraal Trees	A scenic grove of large trees growing on the walls of a cattle kraal built in the late nineteenth century	23	1,6	28,6	155	The farm Vygekraal near Pretoria,  Gauteng
7 3	<i>Eucalyptus grandis</i> (rose gum)  The Satico Giants	Stand of second tallest trees in the country, planted in 1938	72,3	1,05	16,5	301	Satico Plantation,  near Louw's Creek,  Mpumalanga
7 4	<i>Eucalyptus globulus</i> (blue gum)  The Radyn Tree	Exceptionally large gum tree	40,2	1,14	27,5	225	The farm Radyn near Villiersdorp,  Western Cape
7 5	<i>Ficus macrophylla</i> (Moreton Bay fig)  The Fernwood Trees	Landmark trees of the same vintage as the Arderne Garden trees (about 160 years	27,5	3,02	45,5	322	Fernwood Avenue, Newlands, Cape Town,

Tree Species		Description	Height (m)	Stem diameter at breast height (m)	Crown diameter (m)	Index figure	Location/site
		old)					Western Cape
76	<i>Cinnamomum camphora</i> (camphor tree) The Hohenhort Grove	Grove of camphor trees of about 250 years old growing behind cellars on a historic farmyard	24	2,1	18,9	151	Cellar Hohenort Hotel,  Brommesvlei road, Constantia,  Cape Town  Western Cape
77	<i>Eucalyptus globulus</i> (blue red gum) The Welbedacht Tree	Landmark tree on private nature reserve	37,5	2,6	29,8	330	Welbedacht Reserve,  Tulbagh  Western Cape
78	<i>Sequoia sempervirens</i> (Californian redwood) Hogsback Redwood Giant	Grove of large redwood trees planted almost a century ago	55	2,4	13,2	309	Hogsback,  Eastern Cape
79	<i>Quercus suber</i> (cork oak) Ina Paarman Oak	Tree on the property of Mrs Ina Paarman of food condiments fame, planted in the mid nineteenth century	22,7	1,4	32,6	157	Constantia Main Road, Constantia  Western Cape
80	<i>Eucalyptus globulus</i> (blue gum) Houwhoek Inn Tree	Large tree planted in the mid nineteenth century at the oldest hotel	27	3,2	26,8	250	Off the N2 road, Grabouw,

Tree Species		Description	Height (m)	Stem diameter at breast height (m)	Crown diameter (m)	Index figure	Location/site
		in the country					Western Cape
8 1	<i>Eucalyptus saligna</i> (saligna gum) Merensky Lane	Scenic lane of trees planted by the eminent Dr Hans Merensky on the Westfalia Estate in the 1930s	69	1,6	21,5	404	Westfalia Estate, Modjadjiskloof, Limpopo
8 2	<i>Eucalyptus diversicolor</i> (Karri) Boschendal Lane	Lane of exceptionally large trees planted more than two centuries ago	50,4	2,7	33,6	483	Boschendal Estate, Helshoogte Road, Western Cape



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