STATE OF THE FORESTS REPORT: 2021

forestry, fisheries & the environment

Department:
Forestry, Fisheries and the Environment
REPUBLIC OF SOUTH AFRICA

State of the Forests Report: 2021
South Africa

Contents

Minister Foreword

It is with great pleasure to present this report. The sixth edition of the State of Forests Report (2021) has been prepared to satisfy the requirements of the National Forests Act of 1998 (Act No. 84 of 1998). The mandate to prepare this report stems from section 6 of the NFA, this section mandates the Department to conduct forest monitoring, this is to monitor whether the country's forests are managed sustainably as per the principles of sustainable forest management enshrined in the NFA.

The Department has prepared this report for a period where the country was facing challenges caused by the COVID - 19 pandemic and electricity shortages. This reporting period of 2019-2021 was a very challenging period for our country. As these challenges has led to some players within the sector not coping due to unfavourable conditions to conduct business. Some entities were closed due to the impacts of these challenges and workers lost their jobs. However, it was not all doom for the forest sector as the sector showed resilience where it posted a positive trade balance for the year 2021. Our trade in forest products with our partners such as BRICS and SADC was important in obtaining the positive trade balance.

Globally , forests play an important role in the livelihoods of many communities. During the pandemic citizens resorted to different forest plants species such as lengana (*Artemisia afra)* and Eucalyptus spp to help relieve the symptoms of the COVID 19 virus It is for this reason that forest resources need to be protected and managed sustainably. there is need to protect forest resources through different mechanisms such as declaration protected areas and community-based conservation practices.

South Africa remains a key participant in achieving the Global Forest Goals (GFG). As a country we have implemented several projects that contribute to the global forest goal targets. During the reporting period the Department implemented different greening projects which are aimed at providing food, conservation of indigenous species as well as green house gas sequestration. The Department has been championing the 10 million trees presidential programme. This is another project where in government is collaborating with different stakeholders to achieve the 10 million trees target.

As part of contributing to the NDP 2030 (i.e. job creation and inclusive economic growth), the Commercial Forestry Masterplan was adopted and implementation commenced during the reporting period. The Masterplan and greening projects have shown the importance of collaboration between Government and private sector.

Monitoring the progress and contribution of forestry towards the different development goals is very critical, in ensuring that corrective steps are taken in case of poor performance. Data from assessments and monitoring is important for sound decision making and policy development.

I hope you enjoy reading this sixth state of the forest report and more importantly it will stimulate an interest for you to participate in ensuring that our forest resources are protected, managed and developed sustainably for the benefit of both current and future generations.

Executive Summary

The forestry sector plays an important socio-economic role in the country and the contribution of forestry resources towards ecosystem services is becoming more prominent in mitigating the effects of climate change. Evaluating how forestry resources are used and managed has a bearing to a sustainable forestry sector. During the reporting period, the revision and amendment of the National Forest Act (NFA), Act No.84 of 1998 commenced with the aim of improving, among other topics, clear definitions, public trusteeship of the nation's forestry resources, and promotion of and enforcement of sustainable forest management. Revising the NFA will certainly harness the forestry regulation, management and conservation of forestry resources in South Africa.

The NFA, makes a provision for declaring trees as protected trees, and protection of forests as a forest nature reserve, a forest wilderness area of any other type of protected area recognized in international law of practice. highlights of the reporting period (2019-2021) include the declaration of four additional protected tree species. The tree species are *Berchemia zeyheri, Diospyros mespiliformis, Schinziophyton rautenanii* and *Umtiza listeriana*. The Minister at the time also added to the protected area estate of the country by declaring five new forest nature reserves. These reserves are part of State forests located in the Mpumalanga province.

The forestry industry suffered the impacts of the Covid-19 pandemic which raided the country during the reporting period. Due to the lockdown which was imposed as one of the measures to minimize the spread of the pandemic, few forest workers were left to man plantations. As a result many forests estate were confronted with theft and invasion of state properties and the state forest land. In East London Grey Dell, a farm managed by the Department of Public Works was invaded by an informal settlement. Loadshedding was another national challenge impacting negatively to the productivity of the forestry sector. Loadshedding further reduced the production time in the sawmills, thereby reducing the productivity and revenue.

In response to the illegal settlement invasion of the forest resources, the then Minister declared over twenty properties around the Umtiza Forest Nature Reserve. to be covered by natural forest, the declaration was done in accordance with Section 7 (2) of the National Forest Act (NFA), 1998 (Act No 84 of 1998) with an intent of providing a recognized protection status and to halt further invasions. The natural forest declaration was followed by proclamation of a controlled forest area within the properties, in accordance with Section 17 of the NFA.

Forestry is one of the sectors that has been prioritised under the Public Private Growth initiative (PPGI) to stimulate investment. In 2019 Government approved the Re-Imagined Industrial Strategy (RIS). In response to the RIS the Masterplan for Commercial Forestry Sector in South Africa 2020-2025 was adopted in year 2020. The goal of the masterplan is to increase investment, jobs and competitiveness underpinned by Greater inclusivity in the forestry sector.

The country's forest industry continues to play a pivotal role in corporate social investment. Different companies have donated resources for the social upliftment of rural communities. The timber was donated for renovation of school classrooms, and other school furniture items such as desks. In support of the primary health care services, Mondi provided mobile clinics to rural communities in KwaZulu-Natal and Mpumalanga Provinces. The industry also participated in capacitating the youth in such as Information, Communication Technology skills. Some of the companies provided land for community members to plant crops.

As the custodian of greening activities in the country, the department led a number of greening programmes, such as the Arbor month celebration and Trees of the year. These were conducted in partnership with different stakeholders. Furthermore, the department launched special projects such as the Gardens of remembrance as well as the ten million trees programme. The department is also leading the National Arbor City Awards in partnership with TotalEnergies and The Institute of Environment and Recreation Management.

Acronyms

AET – Adult Education and Training

AMESD – African Monitoring of the Environment for Sustainable Development

AFOLU – Agriculture, Forestry and Other Land Use

AHEG – Ad Hoc Expert Group

AFC – Amathole Forestry Company

AFWC – African Forestry and Wildlife Commission

APFC – Asia-Pacific Forestry Commission

ARC – Agricultural Research Council

AU – African Union

AUC – African Union Commission

BBBEEA – Broad-based Black Economic Empowerment Act, 2003 (Act No. 53 of 2003)

BCM – Buffalo City Metropolitan Municipality

BRICS – Brazil, Russia, India , China and South Africa (grouping)

CBOs – Community Based Organisations

CCDP – Contractors Capacity Development Program

CFAs – Community Forest Associations

CGRFA – Commission on Genetic Resources for Food and Agriculture

C&I – Criteria and Indicators (for Sustainable Forest Management)

CIFFC – Canadian Interagency Forest Fire Centre

CITIES – Convention on International Trade in Endangered Species of Wild Fauna and Flora

COFO – Committee on Forestry

COP – Conference of the Parties

CPA – Community Property Association

CPF – Collaborative Partnership on Forests

CSI – Corporate Social Investment

CSIR – Council for Scientific and Industrial Research

CSR – Corporate Social Responsibility

CTRPRP – Commercial Timber Resources and Primary Roundwood Processing in South Africa (report)

DAFF – Department of Agriculture, Forestry and Fisheries

DALRRD – Department of Agriculture, Land Reform and Rural Development

DARDLEA – Department of Agriculture, Rural Development, Land and Environmental Affairs

DEA – Department of Environment Affairs

DFFE – Department of Forestry, Fisheries and the Environment

DIRCO – Department of International Relations and Cooperative Governance

DPE – Department of Public Enterprises

DRC – Democratic Republic of the Congo

DRDLR – Department of Rural Development and Land Reform

DWS – Department of Water and Sanitation

D:WIFM – Directorate Woodlands and Indigenous Forest Management

ECOSOC – Economic and Social Council of the United Nations

ECD — Early Childhood Development

EFC – European Forestry Commission

EME – Exempted Micro Enterprises

ENECE – United Nations Commission for Europe

ESD – Enterprise and Supplier Development

EPWP – Expanded Public Works Programme

EWG – Expert Working Group

NSDS – Educated Skilled and Capable Workforce for South Africa

FABI – Forestry and Agriculture Biotechnology Institute

FAO – Food and Agriculture Organization of the United Nations

FLEGT – Forest Law Enforcement, Governance and Trade

FMU – Farm Management Unit

FPAs – Fire Protection Associations

FPO – Fire Protection Officer

FRA – Global Forest Resources Assessment

FSA – Forestry South Africa

FSC – Forest Stewardship Council

FSCC – Forest Sector Charter Council

FST – Forestry Support Teams

FP&M – Fibre, Paper & Manufacturing Sector Education and Training Authority

FET – Further Education and Training

GDP – Gross Domestic Product

GFGs – Global Forest Goals

HLPF – High Level Political Forum

HAT – High-Altitude Teams

IAF – International Arrangement on Forests

ICT - Information, Communication and Technology

IERM – Institute for Environment and Recreation Management

ICS – Incident Command System

IDC – Industrial Development Corporation

ICFR –Institute for Commercial Forestry Research

IFF – International Forum on Forests

IFM – Integrated Fire Management

IPCC – International Panel on Climate Change

IPF – International Partnership on Forests

ITTO – International Tropical Timber Organization

ITWG-FGR - Intergovernmental Technical Working Group-Forest Genetic Resources

IUCN – International Union for Conservation of Nature

JICA – Japan International Cooperation Agency

KZN – KwaZulu-Natal

LAFC – Latin and the Caribbean Forestry Commission

LDARD – Limpopo Department of Agriculture and Rural development

LULUCF – Land Use, Land-Use Change and Forestry

MAI – Mean Annual Increment

MAR – Monitoring, Assessment and Reporting

MDGs – Millennium Development Goals

MESA – Monitoring for Environment and Security in Africa

MLE – Medium and Large Enterprises

MoU – Memorandum of Understanding

MTO – Mountain to Ocean (Forestry Company)

MTSF - Medium-Term Strategic Framework 2019-2024

NACA -– National Arbor City Awards

NAFC – North American Forest Commission

NCCRS – National Climate Change Response Strategy

NCOP – National Council of Provinces

NDC – Nationally Determined Contribution

NDP - National Development Plan

NEFRC – Near East Forestry and Range Commission

NEMBA – National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004)

NFA – National Forests Act, 1998 (Act No. 84 of 1998)

NFAC – National Forests Advisory Council

NFIS – National Forest Information System

NFMIS – National Forest Monitoring and Information System

NFRF – National Forest Research Forum

NFSRDS – National Forest Sector Research and Development Strategy

NGO – Non-Governmental Organisations

NQF – National Qualification Framework

NTFP – Non-timber Forest Product

NVFFA – National Veld and Forest Fire Act, 1998 (Act No. 101 of 1998)

NSA – National Skills Development Authority

NWA – National Water Act, 1998 (Act No. 36 of 1998)

OAU – Organisation of African Unity

OLI – Organization-led Initiative

SAFCA – South African Forestry Contractors Association,

PEFC –– Programme for Endorsement of Forest Certification

PFM – Participatory Forest Management

PSHB – Polyphagous Shot Pole Borer

PSP – Professional Service Provider

PPP – Private Public Partnership

PTT – Permanent Task Team

QSE – Qualifying and Small Enterprises

R&D – Research and Development

RECs – Regional Economic Communities

REDD+ – Reducing Deforestation and Forest Degradation

RoDs – Records of Decision

SA – South Africa

SADC – Southern African Development Community

SADT – Southern African Development Trust

SFA – State Forest Areas

SAFAS – South African Forestry Assurance Scheme

SAFCOL – South African Forestry Company Limited

SAFORGEN – Sub-Saharan Africa Forest Genetic Resources

SARS – South African Revenue Service

SASCP – South African *Sirex* Control Programme

SAQA – South African Qualifications Authority

SDGs – Sustainable Development Goals

SETA – Sector Education and Training

SFM – Sustainable Forest Management

SFP – Singisi Forestry Products

SFRA – Stream Flow Reduction Activity

SGP – Small Grants Programme

SMME – Small Medium and Micro Enterprises

SANParks – South African National Parks

SANBI – South African National Biodiversity Institute

SOFI – State of Food Security and Nutrition in the World

SOFO – State of the World's Forests

SoW-FGR – State of the World's-Forest Genetic Resources

SQF – SiyaQhubeka Forest Products

TIPWIG – Timber Industry Pesticide Working Group

TPCP – Tree Protection Co-operative Programme

TUP – Temporary Unplanted Areas

UFPA – Umbrella Fire Protection Association

UNCBD – United Nations Convention on Biological Diversity

UNCCD – United Nations Convention to Combat Desertification

UNDP – United Nations Development Programme

UNECE – United Nations Economic Commission for Europe

UNFCCC – United Nations Convention on Climate Change

UNFF – United Nations Forum on Forests

UNFI – United Nations Forest Instrument

UNGA – United Nations General Assembly

UNSPF – United Nations Strategic Plan for Forests: 2030

UP – University of Pretoria

USA – United States of America

VNCs – Voluntary National Contributions

WoF – Working on Fire Programme

WUL – Water Use Licence

Glossary of Terms

Natural forest – a generally multilayered vegetation unit dominated by trees (largely evergreen or semi-deciduous), whose crown combined strata have overlapping crowns (that is, the crown cover is 75% or more), and where grasses in the herbaceous stratum (if present) are generally rare.

Plantation – a group of trees (usually large farm or estate) cultivated for exploitation of the wood, bark, leaves or essential oils in the trees.

Woodland forest – a group of indigenous trees which are not natural forest, but whose crowns cover more than five percent of the area bounded by the trees forming the perimeter of the group.

Biome – a large region of earth that has certain climate and certain types of living organisms, large and small.

Silviculture – a practice of controlling the growth, composition/ structure, and quality of forests to meet values and needs, specifically timber production.

Recommissioning – means putting back to service, forestry land which was previously withdrawn from forestry operations.

Biodiversity – a variety of plant and animal life in the world or in a particular habitat, a high level of which is usually considered important and desirable.

Afforestation – the process of planting trees or sowing seeds, in a barren land devoid of any trees to create a forest.

Mean Annual Increment – refers to the average growth per year a tree or stand of trees has exhibited/ experienced to a specific age.

Alien Invasive Plants – refers to plants that are not native to a country and have been brought into a country from another. They are species whose introduction and/ or spread outside their natural distribution threaten biological diversity.

Agroforestry - Agroforestry is a land use management system in which trees or shrubs are grown around or among crops or pastureland.

Part 1
Why the State of the Forests Report

1. Introduction

The sixth edition for the State of the Forests (SoF) report intends to provide a status quo of the forestry sector in South Africa for the reporting period: 2019-2021. As mandated by the National Forest Act 1998 (Act No 84 of 1998), the Department of Forestry, Fisheries and the Environment (DFFE) produces the State of the Forest Report every three years. The SoF is an official tool used by the government to report to the Parliament on the social, economic and environmental contributions of the forests to the country.

The United Nations Food and Agriculture Organization (FAO) together with Member States conducts the Global Forests Resources Assessment (FRA), information gathered in the FRA feeds into the State of the Worlds Forest Report. South Africa, along with other countries, contributes to the FRA report. Their reporting is based on the principles of Sustainable Forest Management (SFM). In support of the SFM principles, the SoF report is reflecting on the trends of all forest types and further display how commercial forestry performed during the reviewed period (2019-2021), especially as the country grappled with the Covid-19 pandemic. Forests have always played an important role in people's livelihoods worldwide. The benefits derived from the forests range from providing formal to informal employment opportunities, generation of revenue, contribution to the country's Gross Domestic Product (GDP), social benefits such as recreation and cultural value, ecosystem services, mitigation and adaptation to climate change. In South Africa, forests consist of plantation natural forests, and woodlands. Although competing land demands are placing pressure on plantation forests, it remains the main source of formal employment among the three forest types. Informal trade of products from the natural forests and woodland continues to strive, although, the number of generated jobs remains undocumented.

The conversion of plantation forest land to agricultural land is posing a threat to the sustainable productivity of plantations and thereby threatening the sustainable supply of plantation forest products such as timber and pulp. While the development pressure for housing is undermining the conservation efforts of woodlands and natural forests. The Grey Dell illegal settlement invasion in Eastern Cape Province demonstrates the negative impact that the demand for housing developments has on forests and the environment as a whole. These highlighted challenges provide a justifiable reasoning for protecting natural forests in pursuit of sustainable forest management.

Furthermore, this report demonstrates other challenges threatening the resilient of the forestry sector in South Africa. The forestry sector is facing is that of pests and diseases. Pests and diseases continue affecting the country's plantation forests as well as the trees outside forests. The problem of the Polyphagous shot-hole borer reported on the State of Forest report (2018), continue to persist. . In response to this challenge, there has been collaboration between government departments with private institutions, research and higher education institutions to address the threat that the polyphagous shot-hole borer poses. In 2020 Government published the management measures for this pests for comments.

While fires play a major role for stimulating growth in grassland and woodlands, if not properly managed fires can destroy forests and livelihoods of communities. The National Veld and Forests Fires Act (NVFFA) of 1998 (Act no. 101 of 1998) aims to combat the veld, forest and mountain fires. In pursuit of its goal, the NVFFA supports integrated fire management through the development Fire Protection Associations (FPAs). A number of activities linked to integrated fire management were conducted during the reporting period such as awareness campaigns to ensure that communities understand the dangers of fires and know how to react to wild fires. The Working on Fire Programme continue to play an important role in preventing and fighting forest fires while also creating job opportunities to the youth of the country. Fire management is critical to the sustainable development and management of forests as well as the fight against poverty. In 2015 the United Nations General Assembly (UNGA) adopted the Sustainable Development Goals (SDGs). In response to the adoption of the SDGs by the UNGA the United Nations Forum on Forests (UNFF) forged the United Nations Strategic Plan for Forests 2030 (UNSPF 2030), which was adopted by UNGA in 2017. This plan

provides a global framework for sustainable management of all forest types and trees outside forests, as well as halting deforestation and forest degradation. The UNSPF 2030 is anchored by six Global Forest Goals (GFGs) with twenty-six targets that are to be achieved by 2030. The GFGs cut across different SDGs, therefore the targets feed into the work of the SDGs. While the FRA report plays a central part in monitoring SDG 15 as it includes forest protection on its targets.

The Department actively participates in the national reporting on Global Forest Goals. Data collected from the State of South Africa's Forests is utilized in reporting on the progress towards implementation of the GFGs and South Africa's National Development Plan 2030 (NDP) as well as the Medium-Term Strategic Framework 2019-2024 aims at sustainable development of the country. Some of the government priorities include poverty alleviation, economic transformation and job creation, education, skills and health, as well as a better Africa and World. The contributions made by the forestry sector towards the NDP is reported on the SoF report. In addition, the SoF report outlines the progress contributing to the Medium-Term Strategic Framework 2019-2024 (MTSF), NDP, GFGs as well as the SDGs by the forestry sector.

Forestry was identified as one of the sectors that can play an important role in the sustainable economic growth of the country. During the reporting period the Masterplan for Commercial Forestry Sector in South Africa was adopted. The overall goal of this Masterplan is to promote the competitiveness of the forestry sector as well as to promote inclusive growth of the sector. The Masterplan speaks to economic transformation, removal of inhibitors (i.e. factors hindering sector growth), as well as increasing forestry production land. The implementation of the masterplan as well as other sector plans were negatively affected by the global COVID-19 pandemic where to mitigate the impacts of the pandemic the country was in a State of Emergency and movement was restricted. This period presented challenges as movement within the Republic was restricted therefore economic, regulatory, transformation, as well as environmental activities were hampered.

2. Legislative Mandate and Objectives of the report

2.1 Legislative Mandate

The mandate for forestry in South Africa primarily emanates from the Constitution of the Republic of South Africa (1996), which is renowned globally as one of the most progressive legislative frameworks. The Constitution, the supreme law of the country requires of government to ensure and uphold the protection of South Africa's environmental assets for present and future generations. Article 24, one of the Bill of Rights in the Constitution in particular states that, "everyone has the right-

(a) To an environment that is not harmful to their health or wellbeing; and
(b) To have the environment protected for the benefit of present and future generations, through legislative and other measures that-
(i) Prevent pollution and ecological degradation;
(ii) Promote conservation; and
(iii) Secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development".

The White Paper on Sustainable Forest Development in South Africa (1996), a policy created to meet government obligations (the Bill of Rights) contained in the Constitution. The White Paper provides the broad aim of the policy direction aimed at welding together the three strains of commercial forestry (plantations), conservation forestry (indigenous forests) and community forestry (woodlands). The overall goal is to promote a thriving forestry sector, utilised to the lasting and sustained benefit of the total community, developed and managed to protect and improve the environment. Furthermore, it aims to redress the legacy of apartheid practices of the exclusion of certain categories of the population and moves towards fostering a spirit of stewardship of forest assets irrespective of whether they are owned publicly, privately or communally. The Policy defines the role of Government in dealing with the forest sector. It is set within a framework of overarching policies, including macroeconomic, trade, industrial development and human resources development policies. The forest policy directs, facilitates and regulates the actions of players in the sector, considering several factors. The policy articulates the role of Government as two-fold, namely, investing in infrastructure and provision of basic services and creating a conducive environment for local economic development that will encourage rural people to develop entrepreneurial skills and promote appropriate markets that will implement local economic development.

The National Forests Act (Act No.84 of 1998) and the National Veld and Forest Fire Act (Act No. 101 of 1998) are legislative instruments for achieving the Constitutional obligations. In passing the National Forests Act (NFA), Parliament recognised that:

(a) everyone has the constitutional right to have the environment protected for the benefit of present and future generations;
(b) natural forests and woodlands form an integral part of that environment and need to be conserved and developed according to the principles of sustainable management;
(c) plantation forests play an important role in the economy;
(d) plantation forests have an impact on the environment and need to be managed appropriately;
(e) the State's role in forestry needs to change; and
(f) that the economic, social and environmental benefits of forests have been distributed unfairly before the dawn of democracy in South Africa.

Considering the legacy of the past where the previously disadvantaged were denied access to the forests, the National Forests Act (NFA) 1998, (Act No 84 of 1998) seeks to balance protection and use of the forest assets in a sustainable manner. The NFA aim to:

(a) promote sustainable management and development of forests for the benefit of all;
(b) create the conditions necessary to restructure forestry in State forests;
(c) provide special measures for the protection of certain forests and trees;
(d) promote the sustainable use of forests for environmental, economic, educational, recreational, cultural, health and spiritual purposes;
(e) promote community forestry; and
(f) promote greater participation in all aspects of forestry and the forest products industry by persons disadvantaged by unfair discrimination prior to installation of a democratic state in 1994.

Forest monitoring and reporting is necessary to establish whether the objectives of the Act are realised through a variety of practices, policies and programmes. Section 6 of the NFA provides for duty to monitor forests and disseminate information on matters articulated in sub-section 4 (6) which deals with criteria and indicators for sustainable forest management (SFM). The Criteria and indicators for SFM include but not limited to those determining:

(a) the level of maintenance and development of:
(i) Forest resources;
(ii) Biological diversity in forests;
(iii) The health and biodiversity of forests
(iv) The productive functions of forests
(v) The protective and environmental functions of forests; and
(vi) The social functions of forests
(b) the level of provision of socio-economic benefits; and
(c) the status and appropriateness of the policy and the legislative and institutional framework for forest management in the country.

The reporting on these aspects or the part thereof is done through the State of the Forests as contemplated in section 6(3) of the NFA. The report, in terms of the forestry act, must provide facts and trends emerging from forest monitoring, indicate whether the trends are of national importance, the measures taken to mitigate and negative effects, as well as reporting on any other matter deemed significant or of national interest.

In passing the National Veld and Forest Fire Act (NVFFA), 1998, Parliament considered the negative effects veld and forest fires have on the economy of the country, risk to ecosystems and food security as well damage to property and loss of life. The Act further seeks to address the constitutional requirement of a clean and harmless environment. The main purpose of the fire law is to prevent and combat veld, forest and mountain fires throughout the Republic. It takes an integrated fire management approach thereby providing for a variety of institutions such as fire protection associations (FPAs) and Umbrella Fire Protection Associations (UFPAs), methods and practices for achieving the purpose.

Chapter 2 of the Act provides for formation and registration of fire protection associations (FPAs) which are community based voluntary organisations established to collaborate on matters of integrated fire management. Section 6 of the NVFFA provides for FPAs to appoint a fire protection officer (FPO), who serves as the Chief Executive Officer of the association. Regulation 17(1) of Chapter 2 of the NVFFA states that “a registered fire protection association must submit an annual report to the Minister by 30 June of every year on its activities and the achievement of its objectives, provided that the Minister may at any time request a registered fire protection association to report on any other matter as related to the Act”. Regulation 17(2) states that the Minister must make available within a reasonable time to any interested party the information about veld fire management, in accordance with the requirements of Promotion of Access to Information Act, 2000 (Act No. 2 of 2000).

2.2 Objectives of the report

South Africa's NFA is anchored by the principles of sustainable forest management. To ensure that there is sustainable forest management the Act provides for development of criteria, indicators and standards for sustainable forest management. To track that the principles of SFM are serving their objectives section 6(1) of the NFA gives mandate to the Minister to conduct monitoring based on the criteria, indicators and standards provided in the Act. Through section 6(3) of the Act, the Minister is required to report to Parliament and the public on the status of forest resource in the country at least every three years. This information is presented in the form of the State of the Forest report. The key objectives of this 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 they 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 SFM.
- Enable the country to meet its national (contribution to the NDP 2030) regional and international reporting obligations such as the Global Forest Resources Assessment led by FAO, *reporting* on progress towards achieving the Global Forest Goals led by UNFF, as well as the global report on Sustainable Development Goals 2030.

Part 2
Forestry Profile and Sector performance

1. The extent and location of forests resources in the country.

South Africa is located at the southernmost tip of the African continent, marked by several distinct ecosystems. Inland safari destination Kruger National Park is populated by big game including the big five. The Western Cape and KwaZulu-Natal provinces have plenty to offer with lush winelands found around Stellenbosch and Paarl, craggy cliffs at the Cape of Good Hope, forest and lagoons along the Garden Route, the Drakensberg Mountain stretching from KwaZulu-Natal right through to the Limpopo Province, commercial plantations predominantly in the Eastern Cape, Western Cape, KwaZulu-Natal, Mpumalanga and Limpopo Province. The North West Province has a minute share of about 300 ha of commercial forestry plantations, which are woodlots (figure 1).

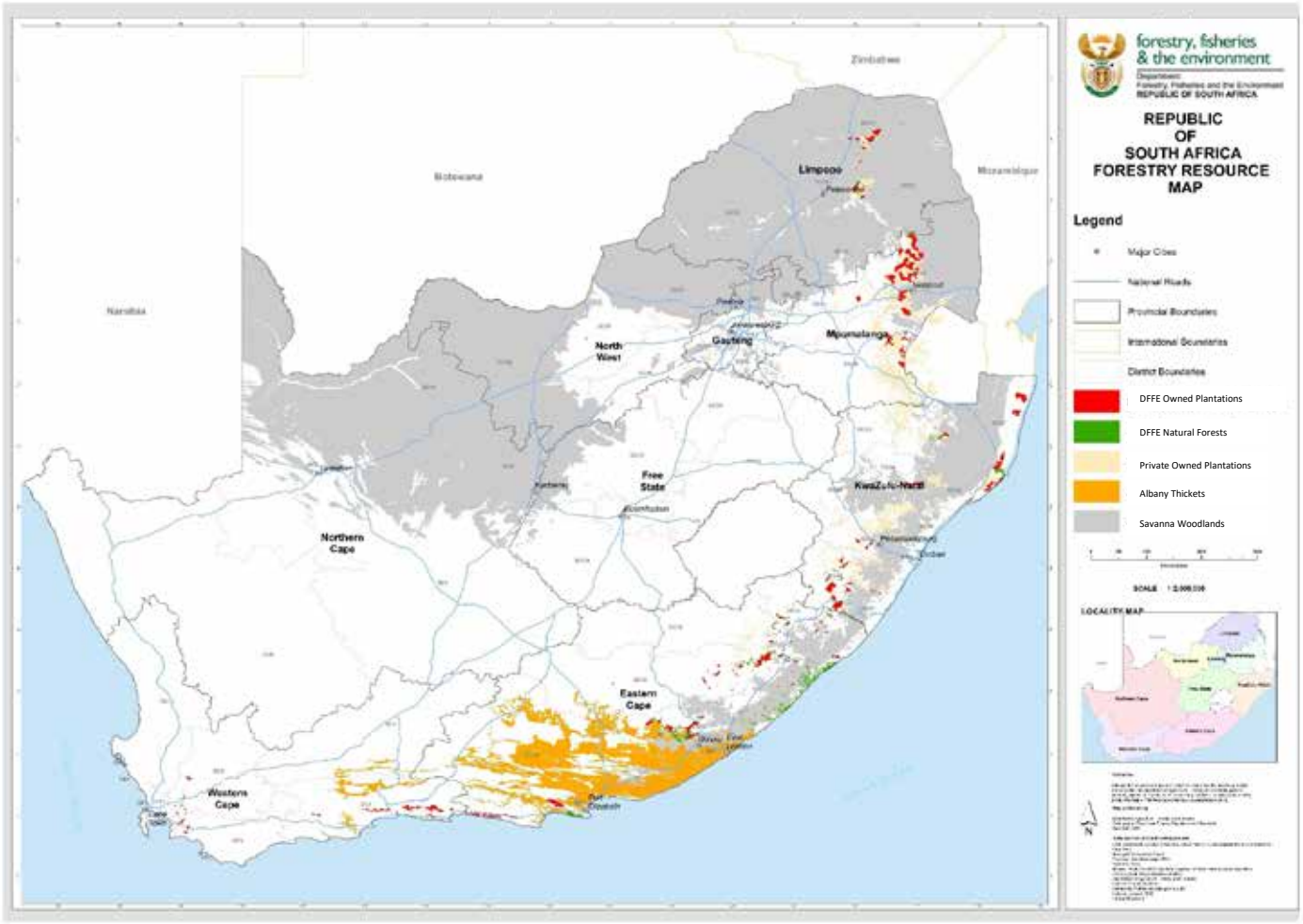


Figure 1: Locality map of South African forests

Source: Department of Forestry, Fisheries and the Environment

Legally there are three main classes of forests in South Africa, namely, woodlands (39 million ha), commercial plantations (1.19 million ha) and indigenous forests (492 700 ha). There is no commercial forestry plantation footprint in three of the nine provinces of South Africa. These three provinces include Gauteng, Free State and the Northern Cape.

The country has a population size of approximately 60.6 million (StatsSA, 2022), of which 51% is male and 49% female. South Africa has a surface area of 1 219 912 square kilometres (1.22 million km²). This is approximately 122 million hectares. Forests cover just over 40 million hectares (ha) of the country's land surface area of 122 million hectares (equivalent to about 32.7%). South Africa is generally regarded as a "low forest cover" country. However, wooded vegetation covers more than a third of the countries land surface area. Despite its "low forest cover" status, South Africa ranks as the third most biodiverse country in the world. The natural forest biome, although the smallest (covering less than 500 000 hectares) and most fragmented of all the seven biomes, has the highest plant diversity per hectare at 418 species.

1.1 Woodland forests

The Woodlands (wooded Savannas) constitute the bulk of the South African forests, about 39 million hectares (about 32% of the country's land). The legal definition of this forest type covers elements of the savanna biome as well as thicket. The forest biome is very heterogenous structurally. They include open savanna, bushveld, thicket as well as shrubland. This is because woodlands grow in different climatic zones with varying edaphic conditions.

Structurally the savanna biome (woodland) consists of a combination of grassy layer and woody plant cover. Due to the grass layer the structure of this biome is highly dependent on fire. Frequently burnt woodland tend to have fewer number of trees as those that are not exposed to burning. The woodlands are a habitat to impressive wildlife that forms the corner stone of game farming and eco-tourism. The biome is defined by a well develop grassy layer with a prominent woody layer of trees and shrubs. Figures 2A-C depicts a typical woodland forest.

Figures 2 A-C: Typical woodland forests across South Africa

1.1.1 Ownership, distribution and management objectives of Woodlands

Wooded savannas also referred to as woodlands form the bulk portion of South Africa's forestland covering some 39 million hectares, about one third of South Africa's total land area. They mainly occur in communal land and about 5.7 million hectares of woodlands are in protected areas. Woodlands or Savannahs are owned and managed by a diverse range of role players. Woodlands, covering over one-third of South Africa are well developed over the lowveld and Kalahari region of the country and they are the dominant vegetation in Botswana, Namibia and Zimbabwe.

Woodlands continue to provide for people living in and around the forests. Many people are involved in woodcarving and other wood-based ornamentals derived from woodland forests. They provide safety net for many communities, as they are the most accessible forest resource for poor communities. The most prominent benefits include fuelwood for energy and sterilization of water through boiling whereby more than 12 million people benefit. They also provide medicinal plants for health care with approximately 27 million people accessing products from them. Woodlands also provide fruits and other foods, wooden utensils, watershed protection and carbon storage. More than 800 000 people operate in the craft industry, which is heavily reliant on woodland resources and up to 100 000 households in South Africa engage in small-scale trade in forest products from woodlands. Due to their extent and vastness, woodlands are neither adequately managed nor protected. As a result, wooded savannahs are heavily exploited. The rate of deforestation and degradation is currently unknown since there are no recent studies conducted to determine their statuses.

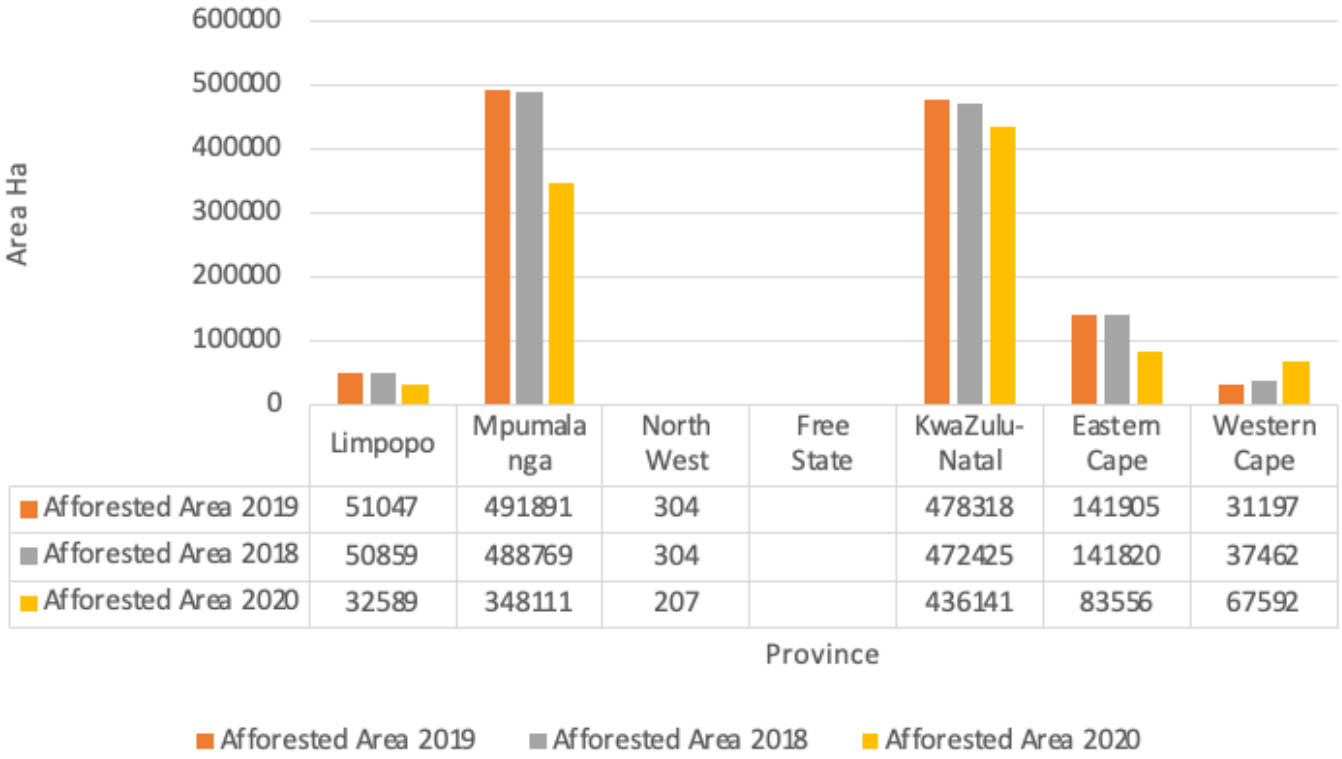
1.2 Plantation forests

South Africa's plantation forests play an important role in the provision of timber, pulp and paper needs of the country. These forests are man-made forests majority of South Africa's plantations are planted with exotic species, the main genus being Pinus, Eucalyptus and Acacia.

Figure 3: Images showing pine plantation forest in Mpumalanga.

Source: DFFE

The distribution of plantation forests in South Africa per Province as a percentage of land area by Province is depicted in the below graph. The bulk of the plantations are found in the Mpumalanga Province, followed by KwaZulu-Natal. In 2020 commercial plantation forests covered 968 196 hectares (Annual CTRPRP report, 2019/20) a decrease of 226 466 ha (-19 %) from 2018 when the area was recorded as 1 194 662 ha (Annual CTRPRP report, 2017/18) Figure shows the areas of commercial timber plantations by Province for the years 2018-20.



	Limpopo	Mpumalanga	North West	Free State	KwaZulu-Natal	Eastern Cape	Western Cape
Afforested Area 2019	51047	491891	304		478318	141905	31197
Afforested Area 2018	50859	488769	304		472425	141820	37462
Afforested Area 2020	32589	348111	207		436141	83556	67592

Figure 4: Graph showing area of afforested land in the different provinces.

Source: DFFE, Annual Reports on CTRPRP in South Africa

1.2.1. Plantation ownership

Of all data from reported on the CTRPRP 2019/20 report, 747 180 ha (77,2%) of forest plantations were under private sector ownership with the balance of 221 016 ha (22.8%) under public ownership. The plantations owned by individuals, family trusts or partnerships are included in the private sector ownership.

1.2.2. Distribution of commercial forestry plantations

The most planted softwood species in South Africa is *Pinus patula* comprising 207 958 ha of the total softwood area in 2020. It is planted mainly in the provinces of Mpumalanga, KwaZulu-Natal and the Eastern Cape. Hardwoods are mainly grown for pulpwood and mining timber production on an eight-to-twelve-year rotation. The dominant hardwood species in South Africa is *Eucalyptus grandis* accounting for 156 872 ha of the total hardwood area. Majority of hardwoods occur mainly in Mpumalanga and KwaZulu-Natal. The maps showing the distribution of plantations in different provinces is shown in the figure below.

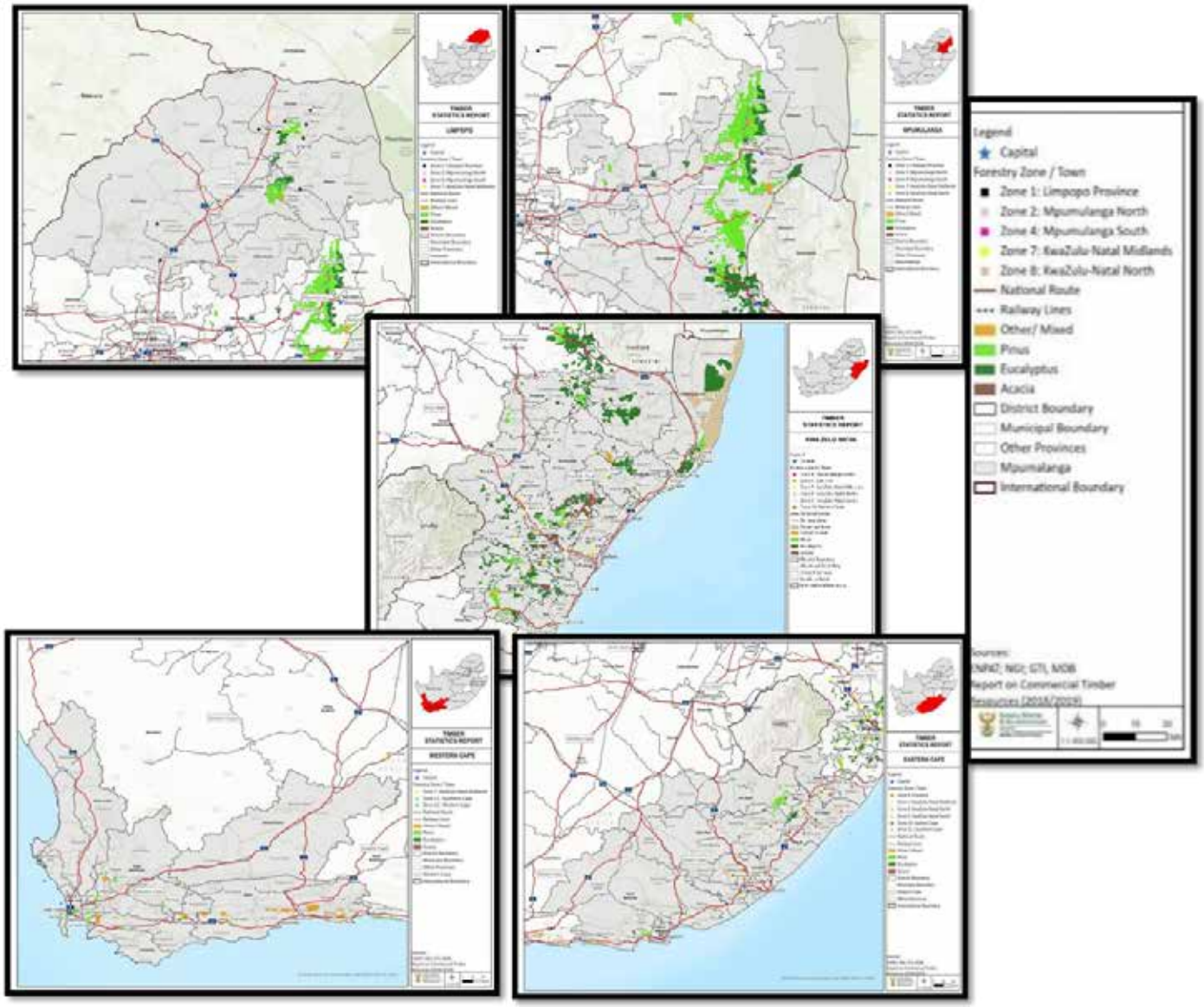


Figure 5: Maps of location of plantation forests in the different provinces.

Source: DFFE, Annual Reports on CTRPRP in South Africa

The forest plantation areas planted with different genera per province is shown in figure 6. Data presented indicates that most of the plantation area is planted with softwoods at 399 410 ha and these are mainly in the province of Mpumalanga. Hardwoods plantations occupy 373 5777 ha and are predominantly in the KwaZulu Natal Province.

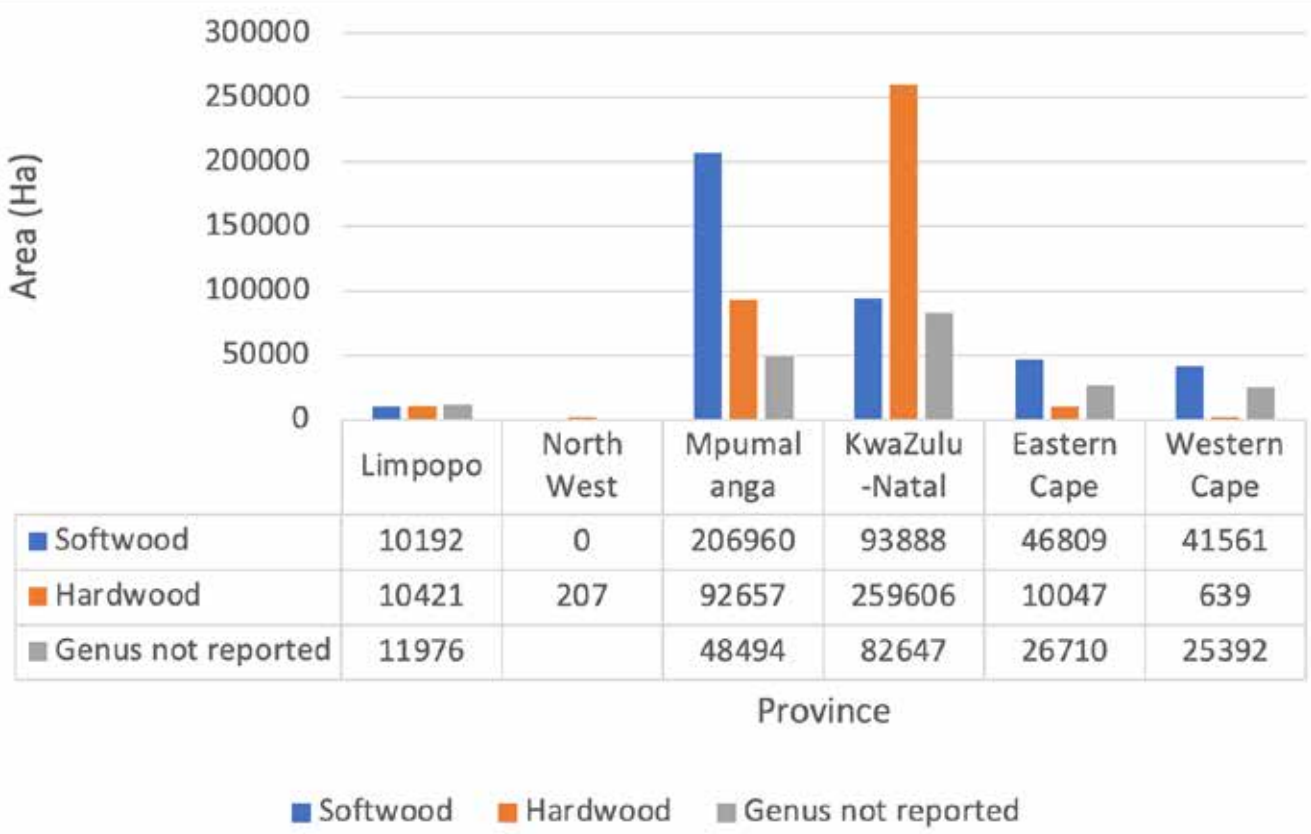


Figure 6: Forest plantation areas of different genera per provinces

Source: DFFE, Annual Reports on CTRPRP in South Africa

In 2018, the Northern Regions comprising Mpumalanga and Limpopo provinces accounted for 539 931 ha of commercial plantations in South Africa with 385 228 ha in private ownership and 154 701 ha under public ownership. The Middle Regions (KwaZulu-Natal) accounted for about 472 425 ha of which 436 503 was in private hands and 35 923 under public ownership. The Southern Regions (Eastern Cape and Western Cape) constituted 179 282 ha of the country's commercial timber plantations. In the same period (2018), 151 182 ha was owned by the private sector with the public having a share of 28 101 ha.

1.2.3. Plantation area by species

The most planted plantation species in South Africa are the softwoods (pines) followed by hardwoods (eucalyptus) and then wattle. A small portion of the commercial plantation area is comprised of a mix of other species. Table 1 indicates plantation area by species for the years 2016, 2017 and 2018. The table shows there has been a steady area change of 2.4% from 2016 to 2018, equivalent to a net loss of 29 088 ha over the period. However, this is based on the data received from plantation owners who participated in the survey.

Table 1: Plantation area by species (2016-2018)

Species	Area (in ha)			% change
	2017	2018	2019	
Softwood	607 815	601 176	584 338	-3.9
Eucalyptus	521 347	521 718	521 040	-0.1
Wattle	87 101	85 079	81 943	-3.7
Other hardwood	4 463	4 410	4 317	-3.3
Total	**1 220 726**	**1 212 383**	**1 191 638**	**-2.4**

Source: DFFE, Annual Reports on CTRPRP in South Africa

The plantation forests area has been steadily decimating over the years. A total of 54 000 ha has been lost from 2008 to 2018, equivalent to (-4.3%) as indicated in figure 8. However, it appears that all the main commodity land uses (maize, wheat and sugar) followed the same downward trend over the period.

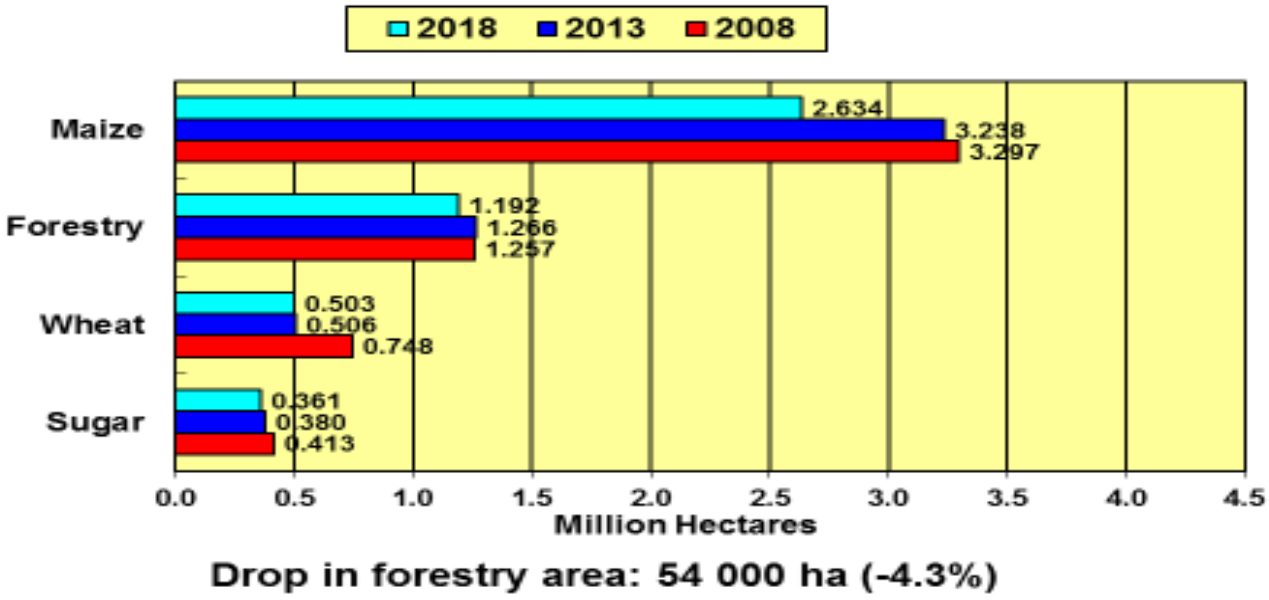


Figure 8: Land Use Comparisons 2008, 2013 and 2018

Source: Forestry South Africa, 2018

1.2.4. Management Objectives for plantation forests

The South African plantations are managed for four main objectives which are namely; sawlogs, mining timber, pulpwood and poles as shown in figure 9. As of 2018-2020, pulpwood accounts for the major share of commercial forestry management objectives, this is followed by sawlogs. In 2019/20 majority (62,4%) of softwoods was planted for sawlogs while 96,8% of hardwood was managed for pulpwood. Below is a graph showing the plantation area according to management purpose.

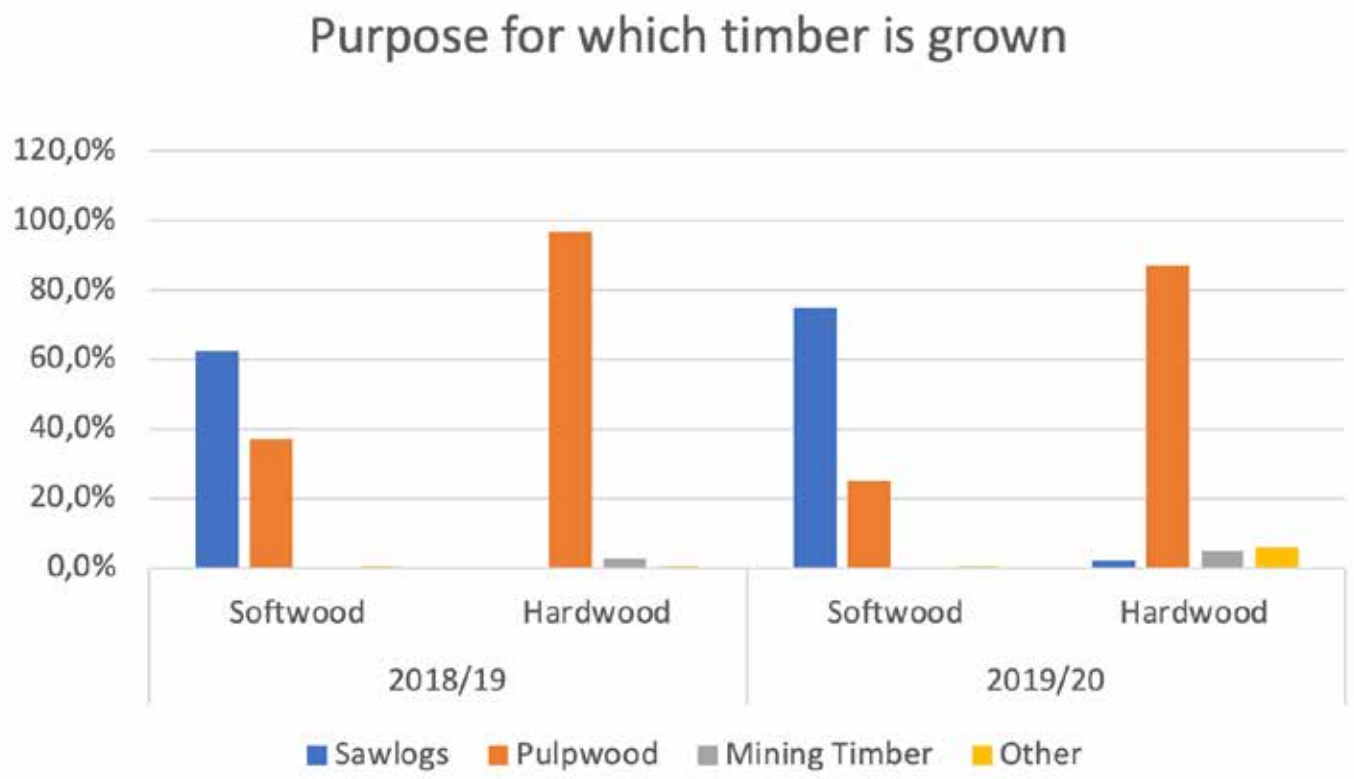


Figure 9: Plantation area by Management Objectives

Source: DFFE, Annual Reports on CTRPRP in South Africa

A total of 18.7 million cubic meters of roundwood was produced during 2018. This amounts to about 16.3 million tonnes. Eucalyptus accounted for the most products (51.3%), followed by pines at 43.2%. This was 2.14% up from the 18.3 million cubic meters (15.7 million tonnes) in 2017 and 12.4% of the 16,4 cubic meters (14.2 million tonnes) produced in 2016.

1.2.5 Conversion of existing plantations

Although plantations are established for a particular purpose (management objective), often the owners switch from one species to the other without necessarily making any significant changes on the land use, which is production forestry. The market and other conditions, which compel owners to convert portions of their plantation land to other uses, dictate the conversions. In the 2018 reporting conversions from one timber species to another was 9 413 ha (11 481 ha in 2017) and conversion from timber production to other uses amounted to 646 ha (613 ha in 2017). A large portion of the area converted from timber plantations to agricultural purposes and other land uses is triggered by environmental considerations, forest certification conditions that promote restoration on riverine and wetland areas within and around plantations.

1.3 Natural (Indigenous) Forests

Apart from the legal definition contained in the NFA there is a scientific definition for natural forest which reads as follows: natural forest is a generally multi-layered vegetation unit dominated by trees (largely evergreen of semi-deciduous), combined strata have overlapping crowns (75% or more) and where grasses are generally rare. The natural forest biome covers the smallest land within the Republic. Natural forest covers less than 500 000ha of land. Although being the smallest biome within the country natural forest has biodiversity per ha. Natural forests are restricted to frost-free areas with either high winter or summer rainfall. They occur from sea level to above 2 100m. They consist of many small, fragmented and widely distributed patches. The largest and most famous natural forests in South Africa are the Knysna and Tsitsikamma forests of the Southern Cape.

Fire does not normally play a major role in natural forest function or dynamics except at the fringes (Shackleton, 1999). Natural forests are also referred to as indigenous forests and figure 14 depicts typical natural forests.

South Africa has 26 national forest types. These types were declared through section 7 (2) of the NFA in the year 2017. Below is an image showing the typical structure of a natural forest.

Figure 10: Image showing the Tsitsikamma natural forests.

1.3.1 Ownership, distribution and management objectives of indigenous forests

The forest is highly fragmented and widely distributed patches. The largest and most famous natural forests in South Africa are the Knysna and Tsitsikamma forests of the Southern Cape. The Knysna forest is the largest forest complex not only in South Africa but in the Southern Africa and covers an area of about 60 500 ha and they survive largely unchanged for centuries. Most other forests in South Africa are very small and isolated and include dune forests in KwaZulu-Natal and mountain forests, for example, on the slopes of Table Mountain and the Drakensberg, the Eastern Cape, Limpopo and Mpumalanga. They are found from sea level to above 2 000 metres and they grow in areas with high rainfall and no frost.

Figure 11: Typical natural (indigenous) forests-lowveld riverine forest in Limpopo in a private property.

Source: DFFE

The land ownership of natural forests in South Africa is not known but can be inferred, to some extent, by level of protection. It is assumed forest patches that do not have some form of protection have either communal or private ownership. Almost half of all natural forests in South Africa are found on private property or land under communal tenure. The State, through the Department of Forestry, Fisheries and the Environment is managing about 189 696 ha of indigenous forests. The bulk of these are in the Eastern Cape with an area of 132 000 ha (46%), followed by KwaZulu-Natal at 32 611 ha (29%), Mpumalanga at 15 029 ha (7%) and Limpopo at 6000 ha (5%). Indigenous forests, although they are very small in South Africa have the highest biodiversity per unit area (418 species/ha). They are mainly managed for biodiversity conservation and protection of soil.

Natural forests also provide recreational outlets for all people to enjoy. The benefits provided by forest ecosystems include goods such as timber, fuel and bio-products; ecological functions such as carbon storage, nutrient cycling, water and air purification and maintenance of wildlife habitat (www.nrcan.gc.ca, 28 February 2018). Social and cultural benefits derived from natural forests include recreational and traditional uses. The use of natural forests as sources of building material, fuelwood, food and medicine is increasing with an estimated 80% of South Africa's population still using medicinal plants most of which are sourced from natural and woodland forests (DAFF, IGDP: 2011-2031).

1.3.2. Biological Diversity in the Forests

South Africa's forests are a home to several fauna and flora as well as plant and animal species (spp.) and their healthy functioning (biodiversity). The country boasts a diverse range of biomes, from forests to deserts, estuaries and marine systems. South Africa is one of the world's 17 mega-biodiverse nations (South Africa Environmental Performance Review, 2013). The country is ranked as the 3rd, most biodiverse country in the world and it is recognised for its high levels of endemism and a home to 95 000 known species. Endemism levels in South Africa can reach 56% for amphibians, 65% for plants and 70% for invertebrates. Although it occupies only 2% of the world's land surface area, SA is home to 10% of the world's plant spp and 7% of its reptile and mammal spp. Biological Diversity or Biodiversity underlies all the ecosystem processes that make life possible and is crucial to ecological stability of our planet. Diversity can be within species, between species and of ecosystems. Biodiversity boosts ecosystem productivity where each species, no matter how small, has an important role to play. Biodiversity and healthy ecosystems provide humankind with essential services- pollination of crops, supply of clean water and air, prevention of flooding and soil erosion.

1.4 Forests Health and Vitality

For forests to continue providing essential goods and services sustainably, it is important that their health and vitality remain intact. However, forests are constantly threatened by various factors both biotic and abiotic including fire, pests, insects, diseases, poor harvesting practices, poor management, uncontrolled grazing, invasive alien species, mining and development, air pollution and extreme climate events such as drought, storms, frost and floods. In South Africa, woodlands and natural forests seem to be more resilient to negative effects compared to the monoculture exotic commercial plantations.

Commercial forestry plantations are an important and valuable segment of the South African economy and forest owners are required to maximise and sustain forest productivity. Various damaging agents are constantly hampering forest health and thus decrease productivity. It is important therefore to detect the presence and spread of these agents within plantations. Remote Sensing is one form of detecting forest health and vitality in the country.

1.4.1 Veld and Forest Fires

Fires play a major role in certain ecosystems such as grasslands where the majority of plantations have been established. Farmers and foresters also use fires as a management tool. Fire is used to manage fuel loads as well as for integrated fire management purposes such as fire belt maintenance. However, uncontrolled veld and forest fires can be devastating to the economy, environment as well as the lives and livelihoods of communities. Fires can affect the health and vitality of forests posing a risk to sustainable forest management and development of resources. Fire damage may lead to opportunistic agents (such as pests and diseases). Fire damage may increase the susceptibility of trees to diseases and therefore may lead to catastrophic events whereby trees die in large numbers. Fire can also create favourable conditions for the growth of alien invasive species.

Fire Statistics 1 April 2021 – 31 March 2022

Every year thousands of hectares of land, animals, properties, and assets in rural farming communities are destroyed by veld fires. These fires resulted in a loss of lives, injuries, businesses closing and people losing their jobs. Fire statistics are shown in the table below and the information was provided by the Council of Scientific Research (CSIR) who manage a fire data base system.

Table 2: Summary of The 2021/2022 Fire Season

Province	Burned Area In Hectares	Province In Hectares	Percentage Of Province Burned
Eastern Cape	720 019	16 896 597	4,3%
Gauteng	136 540	1 817 831	7,5%
Free State	618 160	12 982 516	4,8%
KwaZulu Natal	793 898	9 436 132	8,4%
Limpopo	507 682	12 575 390	4,0 %
Western Cape	118 835	12 94 6219	0,9 %
Northern Cape	759 128	37 288 942	2,0 %
Northwest	646 923	10 488 168	6,2 %
Mpumalanga	822 975	7 649 469	10,7%
Total	**5 124 160**	**122 081 262**	**4,20**

Source: AFIS, CSIR

Four (4) provinces experienced veldfire exceeding 700 000 hectares, namely Eastern Cape, KwaZulu Natal, Northern Cape and North West.

1.4.2 Integrated Fire Management in South Africa.

Uncontrolled veld fires can and do have significant negative social, economic and environmental impacts. The combination of climate, vegetation and growing human exposure at the veld fire urban interface results in significant veld fire risk across the country.

Government has a constitutional imperative in term of Section 24 of the Constitution to ensure that everyone has the right to (a) to an environment that is not harmful to their health or wellbeing; and (b) to have the environment protected, for the benefit of present and future generations, through reasonable legislative other measures.

The National Veld and Forest Fire Act, 1998, (Act No. 101 of 1998) Amended (NVFFA) is a legal instrument for managing veld, forest and mountain fires within the republic. The objective of the NVFFA is to prevent and combat veld, forest and mountain fires throughout the republic as well as to provide for a variety of institutions, methods and practices for achieving the purpose.

The NVFFA promotes Integrated Fire Management (IFM). This strategy of fire management focuses on using a combination of techniques such as prescribed burning, fuel reduction, public education and monitoring to reduce the risks of wildland fires. It also helps to restore healthy ecosystems and promote fire-adapted communities. The success of IFM hinges on the engagement and participation of all stakeholders in fire management.

1.4.3 Fire Protection Associations

The NVFFA promotes the development of Fire Protection Associations (FPAs). FPAs are formed by landowners who own land within areas that experience regular veld fires, a relative uniform risk of veld fires and relative uniform climatic conditions who seek to cooperate in integrated fire management (IFM). IFM is built on the notion that wildfires can be managed, if dealt with proactively, rather than reactively and that quality resources (i.e. necessary equipment, vehicles, trained fire fighters) should be available should a fire occur. This approach drastically minimises the loss of life, property and the environment.

The NVFFA further encourages the FPAs to develop and present their veld fire management strategies to obtain registration status granted by the Minister for DFFE. Once registered, FPAs can perform duties as prescribed by the NVFFA. FPAs must also appoint a Fore Protection Officer who has the power to enter and search; power to seize and power to arrest under the NVFFA. The NVFFA also makes provision for offences and penalties where citizens transgress provisions of the NVFFA.

As at the end of June 2022 there were two hundred and seventeen (217) registered FPAs covering 50 158 504 hectares (ha); that is 41% of South Africa's land areas. Of the 217 registered FPAs, one hundred and eighty-five (185) are in high to extreme veld fire risk areas in terms of the National Veldfire Risk.

A number of the FPAs are not functioning, primarily due to lack of resources (funding), despite the legislation making provision for the Minister to provide assistance, particularly to those in indigent communities. More than two decades since the promulgation of the NVFFA, the Department is yet to make available the funding and the criteria for disbursement to needy FPAs and landowners. The department is in a process to develop a FPA Support Strategy to address this gab. Below is a table showing the number of FPAs per province as those that have submitted annual reports in the year 2021/22.

Table 3: Summary of FPAs per province and the number of annual reports submitted per province for 2021/22

Province	Registered FPA (2021/22)	No FPA submitted Annual Report	% annual report per province
Eastern Cape	34	12	35%
Limpopo	25	10	40%
Gauteng	22	11	50%
Free State	44	1	2%
Mpumalanga	15	7	47%
KwaZulu Natal	24	6	25%
Northern Cape	27	2	7%
Northwest	20	6	30%
Western Cape	6	5	83%
Total	**217**	**60**	**28%**

FPAs have an obligation to submit an annual report to the Minister in terms of Section 17 (1) of the Fire Protection Association Regulations. This commitment is hardly met as most FPAs fail to submit annual reports even after constant reminders through DFFE regional offices. This has been an ongoing problem in previous years. Compliance rate to the provision of the Regulation stands at 28%.

The major reasons for not submitting annual reports are:

- Functional FPAs refusal to submit as there is no consequence if they do not comply; and
- Number of FPAs are not functional, mainly because of lack of resources.

1.4.4 Working on Fire Programme

Working on Fire is a government-funded, job-creation programme which focuses on implementing Integrated Fire Management (IFM) in South Africa. It is an expanded Public Works Programme (EPWP) aimed at providing work opportunities to young men and women. The programme resides under the Department of Forestry, Fisheries and the Environment. This programme was launched in the year 2003 as part of South African Government's initiative to create jobs and to alleviate poverty.

Box 1: The Working on Fire Programme in Brief

- ✓ Working on Fire (WoF) is a national capacity to address integrated fire management in South Africa.
- ✓ It has 188 bases in eight Provinces (2 x bases in the Northern Cape managed by North West), with an employment of 4599 staff and Fire-fighters. It is also administering the 25 High-Altitude Teams (HATs) clearing invasive plants in water catchment areas (443 people), the 6 Forestry Support Teams (425 people) and the 6 Drought Relief Teams (185 people), as well as Value-Added Industries research (21 people).
- ✓ The prevention of fires (through firebreaks, block burns, clearing of invasive plants, and research on fire-prevention options through value-added industries) is a critical intervention that offsets the need to fight fires at the levels that might otherwise occur, and is a major component of WoF's various foci.
- ✓ WoF reports a 100% record in fighting fires (with aerial and ground capacities), when called out.
- ✓ WoF also assists with the use of fire for ecological functioning, and the productive use of land. Whilst this is successfully done, the service provided is only 31% of what is needed in the country.
- ✓ The High-Altitude Team (HAT) teams are doing essential work for both water security and fire management, in the clearing of invasives in mountains. The Drought Teams are similarly focused on priority catchments of dams. The Forestry Support Teams are protecting State plantations from wild fires. The VAI programme is researching and testing fire-proof structures (using 75% invasives, which are usually a threat for fires).
- ✓ WoF provides an essential service, as the devastating wild fires in Knysna, George, Somerset West and many other areas have shown over the past few years. Its excellence is internationally recognized.
- ✓ Whilst the returns on investment are difficult to quantify, an earlier assessment by Forestry South Africa was that the intervention by WoF in wild fires in the winter fire season areas could have saved the industry about R3.6 billion.

The Working on Fire Programme recruits and trains young men and women from across South Africa, with a strong focus on marginalized communities and people with disabilities. There are currently more than 5000 participants in the programme, 94% of whom are youth, 31% are women (the highest level in any comparable fire service in the world) and 3% disabled. WoF participants are trained in fire awareness and education, fire prevention and fire suppression skills. In addition, they are also trained in skills such as first aid, carpentry, cooking, health and safety and communications. A Working on Fire team typically consists of a crew of twenty-five firefighters, led by a crew leader and are stationed in more than 200 bases throughout South Africa.

The programme addresses the prevention and control of wildland fires to enhance the sustainability and protection of life, properties and the environment through the implementation of Integrated Fire Management solutions.

WOF participants are given the opportunity to progress within the programme, from firefighters to crew leaders, base managers and regional managers. There are also various other positions available within the programme that are most often filled by participants who have moved up the rank from firefighter level. The Working on Fire Crews are kept busy throughout the year. This is because South Africa has two fire seasons according to rainfall patterns, the dry summer months in the Western Cape, and the dry winter months in the rest of the country and the teams are deployed at these regions based on the fire season. Moreover, the programme has high altitude teams, which control alien invasive plants in mountainous areas of the country. These operations are particularly important as they contribute towards biodiversity

protection and conservation of natural resources such as water. Working on Fire has a Food Security Programme, which commenced in 2012 as a direct response to the socio-economic realities of participants, which included the challenge of food insecurity. During the 2018 WoF Social Development review and strategic planning the proposal was made for the expansion of the Food Security Programme. The focus of the expansion was on the set up and support of organic nurseries throughout South Africa.

The Working on Fire Programme has aviation (aerial) resources, which complement its ground resources in firefighting. Working on Fire Aviation is a trusted supplier of aerial firefighting services to key role players within the wildland firefighting industry in South Africa and elsewhere in the world. It flies an approximate 4,000 hours and responds to an average of 300 fires annually. WoF Aviation is most renowned for providing aerial support to the South African Government's Department of Forestry, Fisheries and the Environment's Working on Fire Programme. In so doing, WoF Aviation assists with combating life destructive and unwanted wildfires during fire seasons.

The Working on Fire Programme also assisted in fighting the Canada wildfires in May 2019. A group of 40 Working on fire fighters and five senior managers arrived at OR Tambo International on 30 July, after spending nearly 30 days fighting the huge Chuckegg Creek fire in the province of Alberta in Western Canada. The WoF Team was commended by the High Commissioner of Canada in South African, Sandra McCardell, who was also part of the committee welcoming the team back to the country. She said at the time: "On behalf of Canada, but also as a proud Albertan, I wish to thank you very much for the hard work that you've done over the past weeks in coming to the assistance of Canadians and responding to them in their time of need. We are very grateful, and thanks to your efforts this fire is now contained."

The deployment of the WoF Team followed a request by the Canadian Interagency Forest Fire Centre (CIFFC), which was made in terms of an existing memorandum of understanding (MoU) between the South African government and the Canadian Department of Natural Resources. The MoU allows either country to request urgent support from the other with regard to wildfire management.

The 40 firefighters, including 12 women (30%), came from all nine provinces in South Africa. The team left South Africa on 24 June to join firefighters from Canada, the United States of America (USA) and Mexico in the mammoth operation to combat the raging wildland fires. Former Minister Barbara Creecy said: "What is most heartening to hear is that because of your efforts, the boundary line remained unbreeched by the fire. You stood with 1,180 firefighters from all over Canada, Mexico and the USA and said, 'this far and no further'. The camaraderie built through your morning Working on Fire parade will stand you in good stead in years to come. Almost all of you have reported benefitting greatly from the exposure to new techniques, approaches, equipment and the novelty of fighting underground fires."

The deployment was the third successful WoF Programme dispatch to Canada, reflecting the importance of heightened cooperation, resource-sharing agreements put in place by the international firefighting community, and this proves beyond doubt, the significant role the WoF programme is playing in the field of wildland fire suppression and management. The Department provides support to FPAs through the Working on Fire Program (WoF). Under this program the department placed 76 teams at FPAs. The support includes 1, 950 trained participants, vehicles, equipment as well as aerial support to combat fire. The WoF program focus on the principles of IFM which includes prevention, combating veld fires as well as awareness.

Awareness is a critical element of integrated fire management as it addresses the prevention of veldfire and combatting of veldfires. The awareness programs are structured and presented in the main by the participants in the program and focus on rural communities. The awareness activity of WoF for the 2021/22 is shown in table 4 below.

Table 4: Community Awareness Programs

Community Fire Awareness Programmes	Total
Number of Schools	535
Number of Learners	23 856
Number of Educators	1 647
Number of Community Outreach	357
Number of People reached	13 532
Number of Community Firesafe Activities	444
No of People reached via Firesafe Activities	14 663

FPAs and Umbrella FPAs are also actively involved in awareness and has well developed campaigns to ensure it reached their members and the public in fire prone areas.

1.5 Pests and Diseases

Pests and diseases continue to threaten the vitally and health of forests and trees across the globe including South Africa. The country's commercial plantation area is very small at just over 1.2 mil hectares (about 3% of the country's forested area). This means that the forests, particularly industrial plantations need to be subjected to a vigorous research and development programme to maintain and sustain their competitiveness and more importantly to ensure that they continue to provide the necessary goods and services.

There are many pests and diseases attacking most plantation species such as the Eucalyptus gall wasp, Red gum lerp psyllid, the Bronze bug, Eucalyptus snout beetle, Cossid moth, the Pitch canker fungus and Phytophthora diseases. However, most of these are easy to control and manage. New pests and diseases continue to threaten forestry in South Africa and established pests continue to present challenges. During 2015, the damaging leaf and shoot pathogen *Teratosphaeria destructans* was recorded in the country for the first time. In addition, a new form of the Eucalyptus gall wasp*, Leptocybe invasa* was detected. The pine and eucalypt pests, *Sirex noctilio* is currently the recent pest ravaging commercial plantations, but significant progress is being made by the Tree Protection

Co-operative Programme (TPCP) to know more about it and to introduce integrated pest management solutions. This is currently the focus while several other pests and diseases are also under surveillance to mitigate any outbreak.

Commercial (plantation) forestry, based on non-native tree species has been pursued actively for more than 100 years to provide for the wood and wood products demand of the country and to ensure that native tree species are not overly exploited and driven to extinction. During the period, the focus of research has been strongly geared to improvement of growth and yield and South Africa is renowned worldwide of its world-class forestry research and development. However, with the introduction of new and emerging pests and diseases in plantations, the focus has expanded to managing these threats.

The Tree Protection Co-operation Programme (TPCP) was established in 1990 and is currently accommodated in the Forestry and Agricultural Biotechnology Institute (FABI) at the University of Pretoria has a universal reputation and is a single largest global project focused specifically on tree health. It is a multi-stakeholder Programme constituted by the Forestry industry, Government, Select Universities and other partners responsible for serving the forestry pest and diseases needs which include knowledge generation, training of specialists, development and support for integrated pest management solutions for pest challenges facing South Africa and the globe.

1.5.1 The South African Sirex Control Programme

The core focus for the research of the Tree Protection Co-operative Programme is to contribute to the development of integrated management options for major tree pests and pathogens for the South African forestry industry. The TPCP also actively engages in and pursues new global research collaborations since tree pest problems are not confined to a specific geographic location. Several parallel interventions are in place to understand and manage pests that were introduced to South Africa in the recent past such as the highly threatening leaf and shoot pathogen *Teratospharia destructans*. Prior to its detection in South Africa, the pathogen was known only in Asia where it was first found in Indonesia, and it is now one of the greatest threat to eucalyptus forestry in that region. However, the focus in South Africa is the *Sirex* pest which was first detected in the country in 1994. Under the auspices of the TPCP, the South African Sirex Control Programme (SASCP) has been developed and is being implemented throughout the country.

Sirex noctilio is one of the most serious invasive insect pests of *Pinus* species globally. It is a wood boring wasp native to Eurasia and northern Africa regions where it is little known since in those regions it attacks dead or dying trees only. The *Sirex* wood wasp was accidentally spread to several regions globally and in many of these regions, together with its fungal symbiont *Amylostereum areolum*, it kills living trees.

Sirex wasp was first detected in Cape Town, South Africa in 1994. Over the past two decades, the *Sirex* wasp has spread across all pine plantation areas from Cape Town to the Louis Trichardt area in the Limpopo Province. In 2007, Forestry South Africa assessed the damage caused by the *Sirex* wasp and estimated the risk to pine plantation loss at R153 m. Figure 12 indicates the mortality of *Pinus patula* trees in the Kwazulu-Natal in 2005 caused by *Sirex noctilio.*

Figure 12: Mortality of *Pinus patula* trees in the KwaZulu-Natal Province in 2005 caused by *Sirex noctilio* (Photo: BP Hurley, FABI, UP).

Source: Department of Forestry, Fisheries and the Environment

Through the interventions of the South African Sirex Control Programme (SASCP), the potential risk of *Sirex noctilio* has been substantially reduced through the proactive monitoring and deployment of two biological control agents, namely, the nematode *Deladenus siridicola* and the wasp *Ibalia leucospoides*. There are still plantations within the pine growing area that have recorded little or no *Sirex noctilio* damage. Tress older than 10 years and drought stressed trees are more susceptible to the Sirex wasp attack. Although significant progressed has been made with management of the wasp, it was concerning that increased numbers of *Sirex noctilio* females per log were observed in several regions, namely, KwaZulu-Natal Midlands, Southern KwaZulu-Natal and Eastern Cape. The risk posed by the Sirex wasp remains high and continued monitoring and the acquisition and deployment of biological control agents need to continue.

1.5.2 Polyphagous shot hole borer

The Polyphagous shot hole borer (PSHB) is one of the recent tree pest to be detected in South Africa. In 2017, the Polyphagous shot hole borer was detected on London Plane trees in the KwaZulu-Natal National Botanical Gardens in Pietermaritzburg for the first time. The beetle is native to Southeast Asia and California, is about 2mm in size and it has a symbiotic relationship with the fungus *Fusarium euwallaceae* which serves as a food source for the adults and their larvae. The beetles can attack a wide range of living exotic and indigenous trees including avocado, macadamia nut, peach, orange, grapevine and pecan trees. PBHB has not been spotted in exotic timber plantations yet, but it is more prevalent in exotic tree species planted as ornamentals (maple, holly, wisteria, oak and camellia), crops and trees outside forests.

The pest was again detected in early 2018 in Gauteng Province near Sandton, Johannesburg. The adult female pest bores the stem creating tunnels beyond the cambium of the tree where it inoculates the living wood with the fungus. The fungus then spreads along these tunnels and becomes food source for the larvae and the beetles. In susceptible trees, the fungus slowly kills the tree whereby the tree's vascular system begins to fail; leaves begin to thin on the ends of the branches, eventually tuning brown leading to the branch and eventually the tree dying. The PSHB infestation in South Africa has reached Johannesburg, Durban, Richard's Bay, George, Knysna and Hartswater with Johannesburg been hit particularly hard because of its dense urban forests. The recent study on the pest by Paap T *et al*., 2018 showed that the PSHB is an important invasive pest killing avocados and other trees in Israel and the United States. In the same paper, it has been recommended that the pest be listed invasive species under South Africa's National Environmental Management Biodiversity Act: Alien and Invasive Species (NEMBA:AIS) Regulations, and that immediate surveys to determine the extent of PSHB presence in South Africa should be undertaken to assist in the development of management actions to mitigate the risk posed by the pest. In 2018/19, there was no chemical products registered for use against PSHB in the country and there were media queries on what government was doing to address the emergency.

In response to the detection of the PSHB, the Invasive Shot Hole Borer Steering Committee was established in 2019. This committee was established by the DALRRD. The composition of the PSHB Steering Committee includes representation from the DALRRD, DFFE, provincial departments of agriculture, municipalities, researchers, academic institutions, grower associations, the private sector and other relevant stakeholders.

In the year 2020 the management measures in respect of the Shot hole borer beetle, *Euwallacea fornicates* was published for comments. The DFFE is working with SA research institutions to find natural enemies of the PSHB. Currently management recommendations are to cut and chip infested trees, and to avoid moving and transporting infested wood.

The control measures relating to PSHB were approved by the Minister Agriculture, Land Reform and Rural Development. The control measures have been published for implementation.

1.5.3 The Timber Industry Pesticide Working Group (TIPWIG)

The TIPWG of Forestry South Africa exists to promote responsible and effective use of pesticides in South African commercial timber plantations. This working group has four main roles namely: technical support; industry collaboration; compliance; as well as provision of guidelines.

- The TIPWG provides technical support and recommendations to Forestry South Africa, its Environmental Management Committee and the forestry industry. The technical support includes adoption of new pesticides as well as removal of older, less effective formulations and ingredients. The technical support also includes coordinating industry registration applications, pesticide research and integrated pest management practices.
- The TIPWG manages the list of approved pesticides, collaborates needs analysis for new pesticides, collaborates research regarding new pesticides for registration or label extensions as well as communicating the industry's voice to external bodies.
- TIPWG seeks to achieve industry compliance with local legislation as well as international conventions and standards (such as the Forest Stewardship Council).
- TIPWG facilitates collaboration on socially acceptable, environmentally responsible and economically viable pesticide use across the forestry industry.

Government participates in this working group. The Forestry Scientific Services of the department participates in the in the TIPWG. This working group meets once annually.

2. Forest expansion in South Africa

Global Forest Goal 1 seeks to reduce deforestation and promote reforestation. One of the specific targets of this goal is to increase forest cover by 3% globally. In the South African context forest expansion is taking place through natural expansion of woodlands and natural forests as well as the new afforestation which is conducted by the commercial forestry industry. Expansion of plantation forestry in the country is important in ensuring the continued sustainable supply of fibre.

2.1 Afforestation/ New afforestation

Afforestation refers to the establishment of industrial plantations on the land that was never planted before (virgin land). Feasibility studies conducted throughout the country in the recent years indicated that there were no more areas for potential expansion of the commercial forestry estate except in the Eastern Cape and KwaZulu-Natal. In Limpopo, the areas that were identified as having the potential for afforestation were found to be very small and in patches which would not be economically viable. New afforestation in South Africa has declined considerably in the recent years due to various factors. These include unavailability of suitable forestry land, the tightening of the procedures for acquiring the necessary water use licences for afforestation, proximity of suitable land to the market and inadequate funding to conduct environmental impact assessments.

2.1.1. Water Use Licences

The National Water Act (Act No, 36 of 1998) requires the licencing of Stream Flow Reduction Activities (SFRA). A SFRA is any activity including cultivation of any crop or vegetation that is likely to reduce the availability of water in a watercourse. The control of afforestation and forestry practices to protect water through has been in place since 1972. This was achieved through the Afforestation Permit System (APS). For commercial forestry, SFRA licencing has replaced the APS, the instrument for controlling land-based water use under the old Forest Act (No, 122 of 1984).

Licences Issued, Monitored and Planted

According to DWS records, commercial forestry licences have mostly been issued in the KwaZulu Natal Province (99%), with only 1% in the Eastern Cape. As it is widely known, South Africa is a water scarce country, hence there haven't been new forestry applications in other provinces; either there is no allocatable water for new forestry development, or the limited available water has been set aside for Historically Disadvantaged Individuals (HDIs) applications.

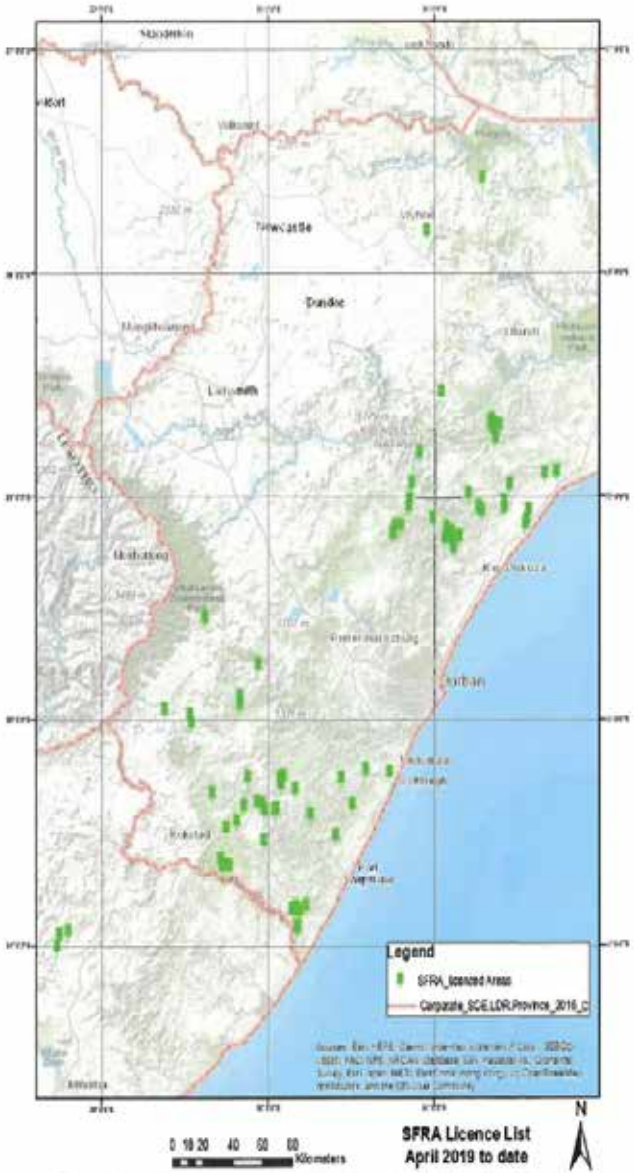


Figure 13: Map showing location of the issued Water Use Licences during the period from April 2019 to March 2022.

Water use licences were issued for 4 305,15 ha of land to be planted during the reporting period. Approximately 50.6% of those have been planted thus far (this was assessed using the latest imagery and mapping tools i.e. ArcMap 10.6.1 and Google Earth Pro). Close to half of the issued licences run the risk of forfeiting their allocation if they are not planted within five years of issuance.

Table.5: Summary of Forestry Activities Licenced and Planted between April 2019 and March 2022

Financial Year	Number of Issued Forestry Water Use Licence	Area authorised (ha)	Number of Licences Planted thus far
2019-2020	13	1 977.1	2
2020-2021	29	1 606.8	17
2021-2022	45	721.25	25
Total	**87**	**4 305.2**	**44**
Percent Planted			**50.6%**

3. Management of State plantations

In 2019, the public sector ownership of forestry plantation area in South Africa was 214 258 (18%) of the total 1 191 638 ha land for commercial forestry production. These commercial forestry plantations are under the management of various public authorities including the South African Forestry Company Limited (SAFCOL), Government departments and municipalities (local authorities).

The State, through the Department of Forestry, Fisheries and the Environment directly owns and manages about 64 350 ha of plantation forestry occurring in the Provinces of Limpopo (3 938 ha), Mpumalanga (4 091 ha), KwaZulu-Natal (29 292 ha), Eastern Cape (27 957 ha) and the North West (206ha). These are plantations which were not leased to third party companies during the restricting of the first batches of plantations in the early 2000's and are referred to as category B's and C's. Figure 19 indicates the distribution of State's Category B and C plantations.

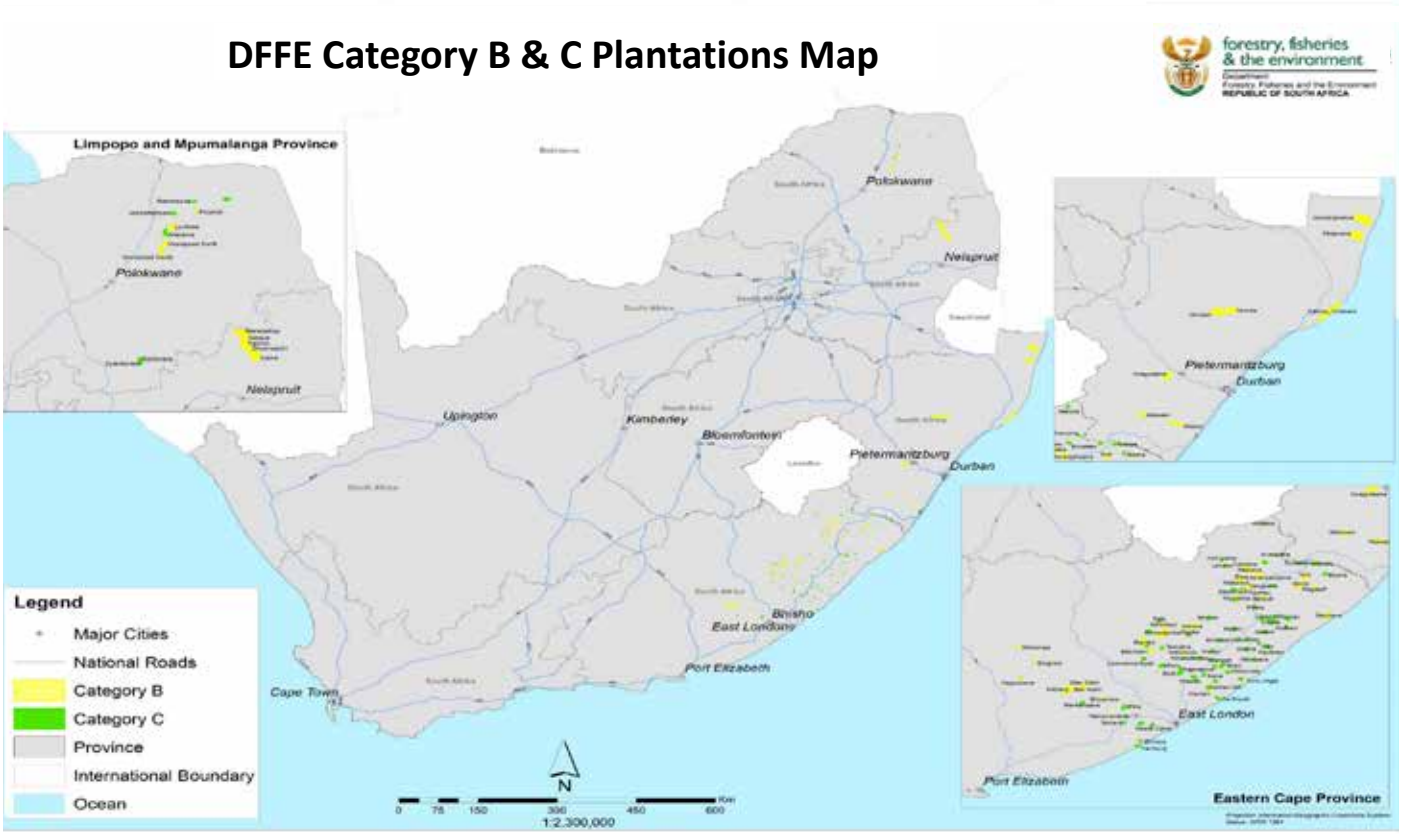


Figure 14: Locality map of State (Category B and C) Plantations

Source: Department of Forestry, Fisheries and the Environment

The intention then was to refurbish them and make them economically viable before devolving them to other management authorities or communities. However, an assessment of these plantations indicates that they are poorly managed and pose a serious liability to the state due to various reasons. These include lack of adequate resources for operations, ageing workforce which is unable to complete their daily task, procurement processes and lack of protection of the forest estates due to contracted number of security personnel. It was also reported that the average age of workers in state plantations was 54 years in 2019. Due to lack of adequate budget, there has been a moratorium on appointment of personnel in the department (former Department of Agriculture, Forestry and Fisheries) in the past five or so years, and this exacerbated the situation. The Temporary Unplanted areas (TUP) in these plantations was 19 955 ha in 2019 (31.0%), whereas the industry norm for TUP is 3%. Table 6 shows the list of DFFE managed plantations and their stocking statuses: The living conditions of forestry workers have deteriorated in the past few without any sign of improvement, leading to some workers, particularly in the Eastern Cape vacating the forestry quarters (forestry villages) to seek alternative accommodation in the adjacent communities.

Table 6: DFFE Commercial (Plantation) Forestry Areas 2018/19

Province	Commercial Area (ha)	Non-Commercial Area (ha)	Total Area (ha)	TUP (ha)
Eastern Cape	27 956.54	22 657.00	50 613.54	6 471.12
KwaZulu-Natal	28 291.72	18 266.97	46 558.69	9 741.87
Mpumalanga	4 090.88	2 408.82	6 499.70	2 937.45
Limpopo	3 937.61	2 629.26	6 567.04	780.12
North West	206.13	261.67	467.80	24.08
TOTAL	**64 349.89**	**46 356.72**	**110 706.77**	**19 954.64**

Source: DFFE

4. Restructuring of State Forestry Plantations

4.1 Public Private Partnership

Public Private Partnership (PPP) is a contract between a public sector institution/ municipality and a private party, in which the private party assumes substantial financial, technical and operational risk in the design, financing building and operation of a project. PPPs are known to enable the public sector to harness the expertise and efficiencies that the private sector can bring to the delivery of certain goods and services traditionally procured and delivered by the public sector. In this arrangement, specialist skills are developed and transferred to the public sector.

4.2 Management by the South African Forestry Company Limited

SAFCOL is a 100% state owned company with the government of South Africa's Department of Public Enterprises being the sole shareholder. The company manages 189 747 hectares of land. 120 644 hectares is classified as plantable land area. In the year 2020/21 the company had 116 695 ha planted and 3 949 ha under TUP. The State-owned company is also managing 69 103 ha of conservation land.

Within the ecotourism business unit SAFCOL manages hiking trails, picnic sites, waterfall sites, Lakenvlei Forest Lodge as well as the forest industry museum in Sabie. The ecotourism units are in the Limpopo and Mpumalanga provinces.

The state company has one sawmill processing located in the Limpopo province (Timbadola Sawmill). Breakdowns and loadshedding affected the operations at the sawmill. The average selling price of lumber in 2020/21 was above budget, this was due to the production of high value timber products. The demand for lumber remained high during the 2020/21 year, however the breakdowns at Timbadola sawmill due to ageing equipment and power outages from loadshedding led to SAFCOL being unable to take full advantage of market demand. This led to budget revenue for the year 2021/22 not being achieved.

4.3 Community Forestry Agreement

Community Forestry Agreements (CFAs) are entered into in terms of section 29 to 31 of the National Forests Act, 1998. Section 29 (1) of the forest Act allows communities that wish to engage in community forestry to make an offer to the Minister to enter into a Community Forestry Agreement with him or her whereas on the other hand section 29 (2) allows the Minister to invite communities to submit offers to enter into such agreements in respect of a particular state forest or forests.

4.4 Management Contract

A management contract is an arrangement under which operational control of an enterprise is vested by a contract in a separate enterprise that performs the necessary managerial functions in return for a fee. The feasibility study conducted recognises that various models are required for various forest assets, for example, the study by Louis Heyl and Associates, commissioned by DFFE and the Industrial Development Corporation (IDC) in 2014 on the recommissioning of the state plantations in the Western Cape recommended the following factors should be considered in designing packages for the disposal of the state plantation assets:

- suitable size and regionally representative to allow participation of local communities and small and medium enterprise.
- combining poor and good plantation areas into one package to make it a feasible business unit.
- location of plantation areas.
- manageable business unit and economies of scale.
- possible interest in plantation areas as expressed by local, small and medium forestry or timber processing players in a particular region.

The objectives of the models are to:

(a) promote sustainable forest management;
(b) contribute to rural development and improve livelihoods;
(c) improve production and economic viability in the plantations by reducing TUPs;
(d) job creation and contribution to the GDP; and
(e) contribute to the transformation of the sector.

5. Protection and Conservation of Forests and Trees

5.1 Protected trees

Trees play an important role in our lives, they serve as a source of food, building materials, medication, as well as carbon storage which is important for climate change mitigation. Due to certain characteristics of some tree species as well as their location, they are exposed to different threats. The threats include but not limited to over harvesting (for example Matumi trees and *Combretum imberbe* are threatened due to their wood qualities) for different uses as well as land use change for mining, agriculture as well as settlement development (example of such species is *Boscia albitrunca* and *Vachellia erioloba).* To mitigate the loss of tree species section 12 of the NFA gives the Minister powers to declare protected tree species. Below is an image captured during a site inspection regarding a collapsed Matumi tree in Magoebaskool (Limpopo). The applicant was applying for cutting and removal of a collapsed protected tree.

Figure 15: Image showing a collapsed large Matumi tree (protected tree) in Magoebaskloof, Limpopo.

Source: DFFE

The process of getting a tree species in the protected tree species list, is achieved through nominations which are forwarded to the protected tree panel. This panel consists of specialists in the subject of forestry and botany.

The protected tree species declared through the NFA are divided into two main groups: Abundant species and vulnerable species. Abundant species are tree species that occur over a large area and in relatively large numbers. Abundant species are mainly listed based on keystone species (example is Adansonia digitata) as well as socio-economic value (example is *Sclerocarya birrea*). Whereas vulnerable species are species that are relatively rare or have fragmented distribution, and therefore vulnerable to harvesting or land-use change (examples are *Lydenburgia cassinoides* and *Prunus africana*).

5.1.1. Prohibitions on Protected trees

The following prohibitions apply to protected tree species: the NFA prohibits any person from cutting, disturbing, damaging or destroying any protected tree, or possessing, collecting, removing, transporting, exporting, purchasing, selling, donating or in any other manner acquiring or disposing of any protected tree, or any forest product derived from protected trees; except under a licence granted by the Minister.

5.1.2. New protected species

In 2021 the protected tree species panel recommended the protection of four tree species. The species are:
Berchemia zeyheri (red ivory), the distribution of this species is North West, Limpopo, Mpumalanga and KwaZulu-Natal. This is a common species however its distribution is patchy as it is habitat specific. Large specimens are disappearing from some parts of the country due to the increase in demand.

Diospyros mespiliformis (Jackal berry), large specimens of the tree species were overharvested for furniture making. The leaves, and bark of the species are used for medicinal purposes. The medicinal harvesting does not pose a threat to the species as it is not destructive. This species is slow growing. Timber from this species is often found with other protected trees in consignments. Large specimens of the species are being cut as a substitution of Matumi tree (a protected tree species).

Schinziophyton rautanenii (manketti tree), within the republic, populations of the species have been observed only in Limpopo. The trees are not targeted for use but are a small population with high keystone and landscape value. The small population falls in an area with high underground resource value with mineral rights which may be exploited.

Umtiza listeriana (Umtiza). This tree species is endemic to the Eastern Cape province. It grows in natural forests and thicket vegetation. Due to Umtiza's limited distribution it is classified as vulnerable in the IUCN RED list. The species is not protected by another legislation. Harvesting of the species is not a threat. However, land use change has already resulted in the loss of specimens.

After the public consultation processes the above-mentioned tree species were declared protected trees species under section 12 of the National Forests Act of 1998 on 25 March 2022.

5.2 Champion Trees of South Africa

The DFFE is the custodian of the Champion Tree project. This project was initiated in the year 2002. In 2003, the Sophiatown Oak (Gauteng) became the first tree to be declared protected under the National Forest Act (NFA).The Champion Tree project aims at identifying and protecting trees worthy of special protection. The champion trees are declared using section 12 together with section 15(1) of the NFA. There are restrictions on trees declared champion trees. These trees cannot be cut, disturbed, damaged, destroyed, transported, exported, purchased, sold, donated, destroyed or pruned without a licence granted by the Minister.

Champion Trees are trees of exceptional importance that deserve national protection because of their remarkable size, age, aesthetic, cultural, historic or tourism value. A touch on the background history about the tree is as follows: the Sophiatown Oak historic importance relates to the forceful removals of the 1950's. The tree became a hotspot for meeting between activists and religious leaders to deal with forced removals. It is also reported that two people hanged themselves from the tree's branches during that time. The protection was an intervention to stop the destruction of the remnants of the tree. Although the tree was protected it succumbed to the pruning and later died off.

Any person or institution may nominate a tree for champion tree status. Nominations are submitted to the DFFE's Forestry Management branch. The nomination is forwarded to the Champion Tree Panel to investigate the merits of the nominated tree or group of trees. Nominations may include both exotic and indigenous tree species.

An evaluation committee (Champion Tree Panel) was established to process the nominations of Champion tree status. The Panel consists of members from departmental staff, academia, civil society, other government departments as well as NGOs. Over the years the Champion Tree Panel has been conducting annual meetings to review nominated trees. A total of 93 Champion Trees has been declared to date. The declaration of Champion Trees is facilitated by the Directorate: Forest Resource Protection. The champion trees do not have to be native species, as mentioned above. Below is a photograph of historic declared champion trees located in Grootvaderbosch Nature Reserve (Western Cape)

.

Figure 16: Image of champion grove of *Sequoia sempervirens* (California redwood) at Grootvaderbosch Nature Reserve

Source: DFFE

The Magoebaskloof giants (Limpopo) of *Eucalytus saligna* (Saligna gum) measure a record of 81.5m, which makes them the tallest trees in South Africa and Africa. The record measurement is followed by the *Eucalyptus grandis* (rose gum) in Satico plantation near the Louis Creek in Mpumalanga at 72.3 m, the third position is occupied by *Eucalyptus saligna* (Saligna gum) in the Woodbush State Forest, Magoebaskloof Limpopo measuring at 71 m with *Eucalyptus paniculata* in Middelkop plantation, Magoebaskloof area, Limpopo occupying the fourth spot at the height of 70 m.

The Champion Tree with the biggest stem diameter is found in the Limpopo Province. The Sagole baobab (*Adonsinia digitata*) measuring at 10.8m making the tree with the biggest stem diameter in the country,

The tree with the biggest crown diameter in South Africa is *Ficus salicifolia* (Wonderboom fig) in the Wonderboom Nature Reserve, Tshwane (Pretoria), Gauteng at 56.0m. The second spot is occupied by *Ficus macrophylla* (Moreton Bay fig) at measuring at 45.5m located in Fernwood Avenue, Western Cape, the third spot is occupied by the same specimen of *Ficus macrophylla* measuring at 45.1 located at Ardene Garden, Western Cape. The final spot is occupied by the Zoo Giant (*Ficus macrophylla*), found in the National Zoological Garden in Pretoria, Gauteng. Standing with a crown diameter of 41.1m.

2019 Champion panel meeting

The Champion Tree Evaluation Panel meeting takes place annually. However, due to the COVID-19 pandemic and its lockdown restrictions, the 2020 meeting could not take place.

From 29 of July to 01 August 2019 the Champion Tree Panel had a meeting. The panel consists of DFFE's current and former officials as well as external stakeholders. The Champion Tree Evaluation Panel evaluated 25 nominations for champion tree status and conducted site visits in Tshipise (Limpopo), where they visited one of the Champion Trees.

As mentioned above, out of 25 nominations received during 2018/19 period only two nominations met the criteria of the champion tree status. The two nominations included one *Adansonia digitata* and one *Ficus cotinifolia* were to trees that will be declared as champions after being recommended by the panel and added on the champion tree list after necessary processes had followed.

5.3 Forestry protected areas.

Documented formal forestry conservation in South Africa began in the mid1800s. This was a result of uncontrolled harvesting of timber from natural forests in the Southern Cape region. Through the years forest conservation areas were declared through different legislations and given different titles such as Forest reserve (example is the Wolkberg forest reserve declared in 1916) and trust forests (example is the Tate Vondo Forest declared as a trust forest in 1947).

The 1967 forest Act introduces terms such as forest nature reserve and wilderness areas. An example of the first forestry conservation areas to be declared nature reserves is the Nelshoogte Nature Reserve declared in 1972. Wilderness areas such as the Sederberg wilderness area and Wolkberg wilderness areas were declared in 1976-1977.

Section 8 of the National Forests Act empowers the Minister to declare certain forests as protected forest areas. This section gives the Minister the power to declare a state forest or part of it as a specially protected area in one of the following categories: a forest nature reserve; a forest wilderness area; or any other type of protected area which is recognised in international law or practice. The Minister may declare such an area only if he or she is of the opinion that it is not already adequately protected in terms of other legislation.

The Forestry Management branch of the DFFE has continued participating in the protected area expansion. In 2021 five forest nature reserves were declared. These forest reserves are located within different state forests in the Mpumalanga province. The names of the forest nature reserves are Tweefontein Forest Nature Reserve, Berlin Forest Nature Reserve, Blyde Forest Nature Reserve, Uitshoek Forest Nature Reserve and the Morgenzone Forest Nature Reserve. The total combined land area of these reserves is 4 847,89 hectares.

Figure 17 is an image of one of the newly declared forest nature reserves.

Figure 17: A photograph of the Morgenzone Forest Nature Reserve (covered with pristine grassland and forest patches)

Source: DFFE

5.4 Management of State Indigenous Forests by Directorate Woodlands and Indigenous Forest Management

The management of woodlands and indigenous forests is the mandate of the Directorate: Woodlands and Indigenous Forest Management(DWIFM) within the DFFE. This includes the management of State indigenous forests which cover about 189 696 ha. The forest resources in South Africa are divided into three main types, namely, natural forests, woodlands, and commercial plantations. Depending on how woodlands are classified, the forest area in South Africa ranges between 29 million and 46 million ha. Natural forests are predominantly located in Eastern Cape (46%), KwaZulu-Natal (29%), Western Cape (13%), Mpumalanga (7%), and Limpopo provinces (5%). They total cover of South Africa's natural (indigenous) forests is about 492 700 ha, which is less than 0.4% of South Africa's land area, but they have the highest biodiversity per unit area (418 species/ha).

5.4.1. Rehabilitation by D: WIFM

Rehabilitation/restoration refers to the process of recovery or reparation of an ecosystem that has been damaged, degraded, or destroyed due to abiotic or anthropogenic factors, to improve or maintain ecological processes, services, and productivity. Rehabilitation can be carried out on a range of locations, from severely degraded sites to slightly disturbed; the condition of an area determines the action to be taken. The purpose of this intervention is to provide functional benefits (such as soil and water conservation) and to ensure that the ecosystem continues to provide goods and services in a sustainable manner. The extent of degradation at these sites may require planting of specialised/native species that are able to tolerate the prevailing conditions. The area may be infested with alien invasive species; this will warrant mechanical, biological, or chemical induced actions to eradicate such. The number of hectares rehabilitated refers to hectares that were cleared of alien invasive plants and/ or planted, where applicable.

Currently the Directorate: WIFM, as embedded in the DFFE strategic plan/ APP, rehabilitates 200 ha annually of state indigenous forests, this is primarily clearing of alien invasive species, the figure is relatively low because the aging staff and rate at which new posts are filled and created. To address this, the Directorate is currently recruiting temporary Expanded Public Works Programme (EPWP) workers to assist in rehabilitation and also to cover larger areas.

5.4.2. Mapping by D: WIFM

The demarcation of most state forest areas (SFAs) was carried in the early 1900s through beaconing-off using monoliths on which FD and beacon number was marked in white. These beacons were then described, and the demarcated forest gazetted. Since the 1900s no subsequent attempts have been made to update the information or define the true legal cadastral boundaries of the indigenous forests within these SFAs to meet requirements of the new Land Survey Act (Act 8 of 1997).

Although map base data is an integral part of planning, regulating and management of the indigenous forests, for more than a century in South Africa indigenous forest management (Thompson, 1996) has evolved around rudimentary spatial information at best – in many areas no maps exist at all. The National Forest Inventory serves to rectify these problems but cannot give accurate information on beacons and boundaries as most beacons do not have latitude and longitude co-ordinates or survey details and many of the SFAs proclamation files have been lost or misplaced in different regional offices.

Illegal forest logging, resort, and holiday cottage development along the coastal forest zone, as well land expansion for agriculture and housing by communities. The lack of accurate legal spatial and non-spatial information, particularly cadastral information, creates difficulties in carrying out of judicial functions if an offence has been committed according to the National Forest Act. Also, the imminent delegation/assignment or devolution of indigenous forests and woodlots to other agencies will also require accurate legal survey maps and land registration.

In the light of the above, the Department of Forestry, Fisheries, and the Environment decided to re-establish/re-map the extent of the state forests through GPSing Forest beacons. Currently the directorate with the assistance of the GIS unit within Forestry Branch is re-mapping 5 indigenous forest areas annually.

5.5 Conservation of Forest Genetic Resources in South Africa

People depend on forests for survival, from the air we breathe to the wood we use. Trees provide habitats for animals and livelihoods for humans; they further offer watershed protection, prevent soil erosion and mitigate climate change. For forests to continue to provide these goods and services, they need to be conserved. Paradoxically, forests are over-exploited, and their biodiversity continues to decline rapidly, while millions of people living around biodiversity-rich forests continue to suffer from poverty, inequality and unemployment. Many important but vulnerable tree species are not conserved in protected areas, and it is essential that viable populations be maintained in production forests.

Silviculture and harvesting of timber must consider long-term productivity. The availability of non-timber forest products (NTFPs) is threatened due to loss of forest cover. Research is needed to understand why accepted principles and practices such as sustainable forests management are either not implemented or do not produce the expected outcomes when applied. It is equally important to explore new management approaches at multiple scales to achieve sustainable production from forest and tree resources to benefit the poor people of the world.

There are three ways of conserving forest and tree resources, namely, (a) resorting to alternative sources of energy that are renewable, (b) recycling of unwanted and waste products and (c) by passing laws and abiding by it (including awareness raising on conservation of natural resources).

Conservation of forest genetic resources is particularly important for South Africa as a dry country and having a very small forest biome. South Africa has forest reserves, national parks and game reserves, which serve to conserve the forest genetic resources in situ. Forest genetic resources (FGR) in the country are conserved in three main forest types,

namely: natural (indigenous) forests, woodlands and commercial plantations. The Natural Forest is the smallest biome making up approximately 0,4% of the land surface area of the republic. However, the biome contains valuable resources and has the highest biodiversity of any temperate forested region in the world. South Africa is home to more than 1 700 indigenous species of trees and shrubs. Some of the species are threatened due to their rarity as well as the pressure of commercial and subsistence use.

5.5.1. South Africa's arboreta

Arboreta is a botanical garden with a collection of tree species. The development of arboreta in South Africa began in the 19th century. The programme was linked to the establishment of plantation forestry in the country. The focus was to import commercial forestry species (Richardson et. Al 2003).

South Africa is rich in tree species diversity. However, the indigenous tree species were not suitable for meeting the country's timber demand. This was due to the slow growing nature of the indigenous species. Due to long rotation cycles utilisation of indigenous species would not be as profitable as that of exotic species such as Eucalyptus spp. Some of the arboreta were established as forestry trial stands with the aim of being able to research the suitability of the different species in various areas with different environmental conditions. With the rich history of arboreta in the country the government recognised their important role. Some of the arboreta have been declared as national monuments.

Figure 18: Image showing the Jessievale arboretum in Mpumalanga.

Source: DFFE

Ownership of arboreta

Arboreta in South Africa are managed by different institutions. The institutions that manage arboreta are government (both spheres national, provincial as well as local government), state entities such as SANParks and SANBI, Private companies (private landowners, private forestry companies as well as private forestry companies managing through lease of State Forest land), training institutions as well as two arboreta managed by Public Private Community partnership. The below table shows the ownership of arboreta in different provinces of the country.

Table 7: The number arboreta per management class in different provinces.

Province	Management Authority							
	National government	Provincial government	Local government	State Entity	Private company	Training institutions	Private Public Community	Total
Gauteng			9	3	2	5		19
Northwest					1	3		4
Limpopo		1	4	9	3			17
Mpumalanga			1	6	2			9
Kwa Zulu Natal	1	2	6	3	11	2	2	27
Eastern Cape	1		4		7	1		13
Western Cape	3	1	5	8	5	3		25
Free State			3	1	1			5
Northern Cape			2					2
Total	5	4	34	30	32	14	2	121

Data from: MD Cheek, et al.,2022

The role of arboreta

Arboreta play different roles to different communities. Arboreta are an ex-situ conservation of tree genetic material mechanism. Arboreta were established for different reasons. Most of the arboreta in the country were established as research trials for plantation forestry, for conservation of genetic material, as gardens or parks. Arboreta also serve as seed source for different needs of the forestry sector. The arboreta in South Africa also serve as research sites. Arboreta are also used by training institutions for tree identification practicals. Arboreta such as the Tokai, the Pietermaritzburg national botanical garden and Pretoria National Botanical gardens are tourist attraction areas whereas arboreta's such as Palm Park (Makhado Municipality) and Burgers Park (City of Tshwane) are managed as public parks for leisure. The Austin Roberts Bird Sanctuary (City of Tshwane) is a national monument, this arboretum is also a protected area for bird conservation.

Location of Arboreta in South Africa

Arboreta are widely distributed across South Africa. The distribution is not constant, this is related to the varying climatic conditions of the country. The climate played a critical role in the establishment of arboreta. Majority of arboreta are in the regions that experience high rainfall. Majority (75%) of arboreta are in provinces that have a presence of commercial forestry. Although Gauteng is not a plantation forestry province the province has the third highest number of arboreta in the country. The graph below indicates the distribution of arboreta per province.

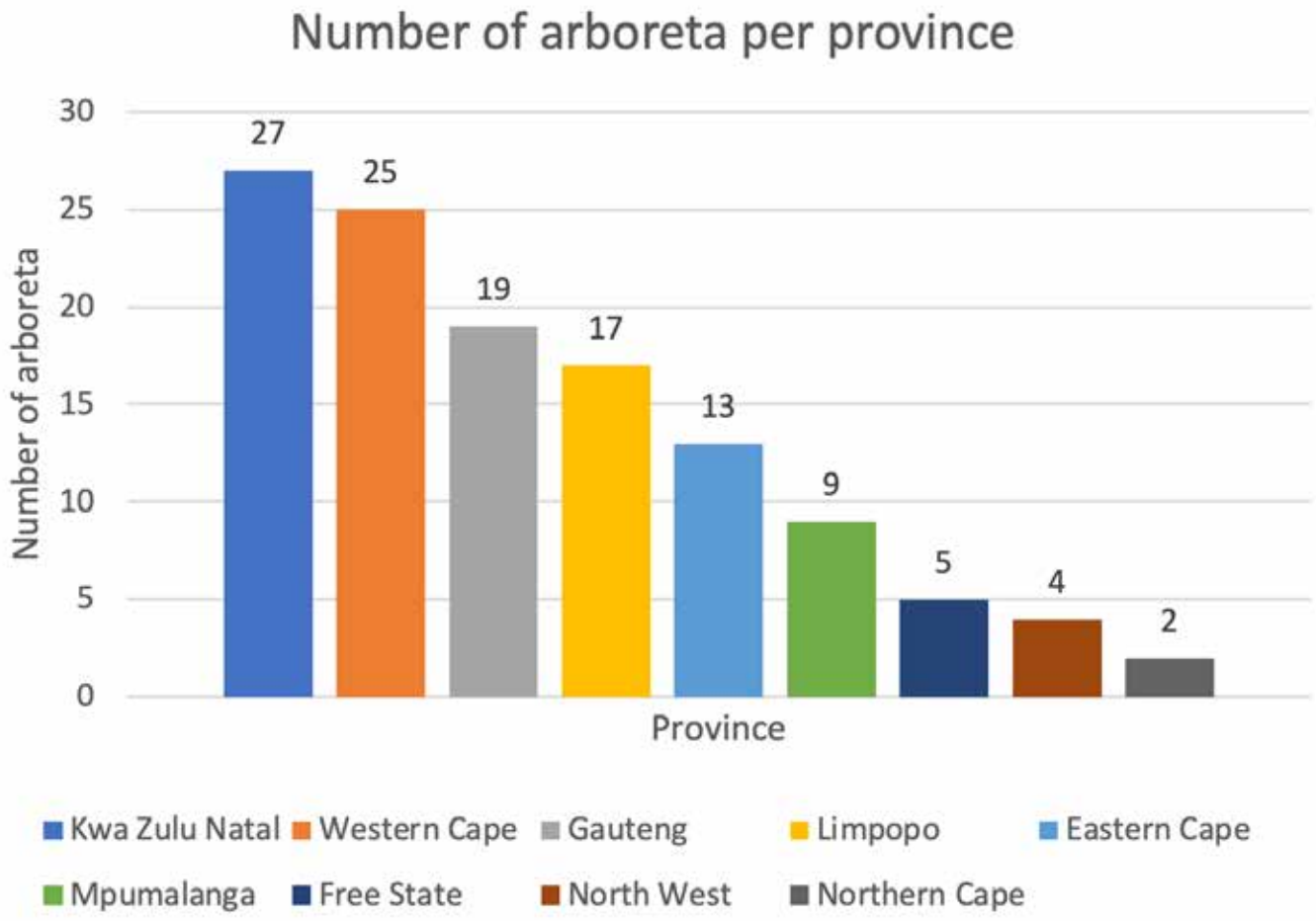


Figure 19: Graph showing number of arboreta per province.

5.6 Declaration of controlled forest area

Access to land for settlement is a challenge in most urban areas within South Africa. The evidence is the number of informal settlements within the republic. During the year 2020 the world experienced the COVID-19 pandemic. As a mitigation strategy the government declared a State of National Disaster. The State of Natural Disaster imposed restrictions to what can and cannot be done during the time. During the time a number of properties were illegally occupied by people requiring land for residential purposes. State owned land was also affected by the land invasions. Properties such as Greydell 871 in Buffalo City Metro experienced illegal occupation. Due to the vegetation covering the property natural forest together with protected trees were destroyed.

In response to the illegal forest destruction the Minister declared over twenty properties including the Umtiza Forest Nature Reserve to be natural forest through section 7(2) of the NFA. The declaration was followed by the declaration of the properties as Controlled Forest Area. The Controlled Forest Area declaration had prohibitions such as controlled access to the properties, illegal waste dumping as well as no cutting of trees within the declared area. The Controlled Forest Area declaration is a temporary measure of protection and will lapse five years post declaration. Figure 20 shows the map of the properties declared as Controlled Forest Area.

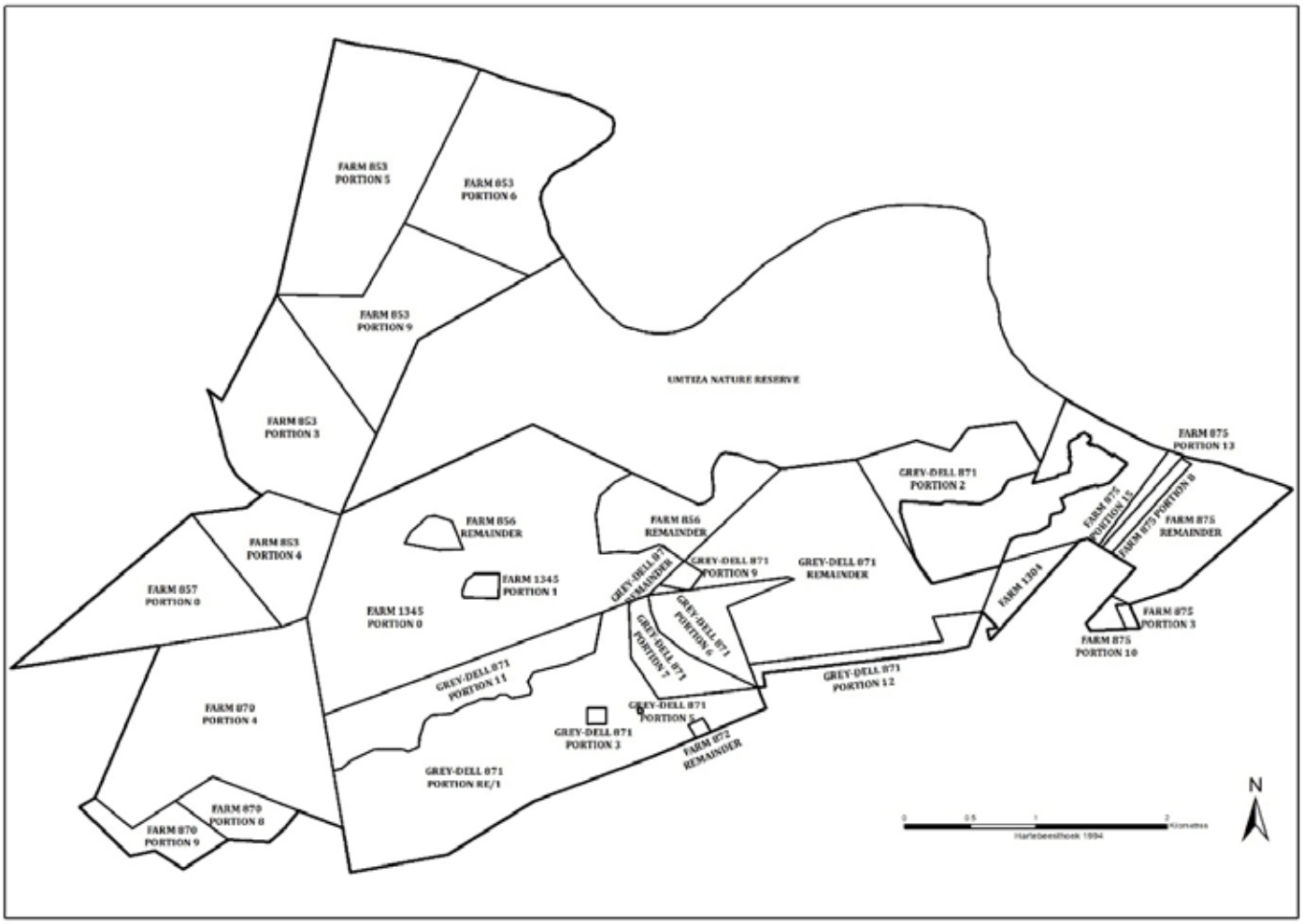


Figure 20: Map showing properties declared as Controlled Forest Area Source: DFFE

Post declaration the illegal occupation of the land continued. In response to the continued illegal occupation of land and forest degradation together with the Department of Public Works and DEDEAT, DFFE conducted joint enforcement operations. The joint enforcement operations resulted in the arrest of perpetrators who were caught cutting natural forests within the Greydell property.

6. Tree cover expansion in South Africa: National Greening Programme

The Department of Forestry, Fisheries and the Environment is the custodian of the greening function in South Africa. This function takes place at local government level; therefore, it is undertaken in partnership with local government institutions, Non-Governmental Organisations (NGOs) and Community Based Organisations (CBOs) in general. It is undertaken in line with Chapter 4 of the National Forest Act of 1996 and the National Greening Strategy.

The National Arbor Month campaign is aimed at sensitising South Africans about the need to conserve, protect and plant trees for environmental and human related ideals. The idea is to highlight the value and importance of trees and forests to South Africans in general. As the custodian of the greening function, the department is responsible for the co-ordination of National Arbor Month Campaign, celebrated annually from 1-30 September.

6.1 Purpose of greening and arbor month campaign in the country

Greening refers to an integrated approach to the planting, care and management of all vegetation in urban and rural areas to secure multiple benefits for communities. Greening in the South African context takes place in towns, townships, informal settlements and rural settlements specifically because in the past the latter mentioned areas were disadvantaged in terms of planning for recreational parks as well as tree planting in streets and open spaces.

The National Arbor Month Campaign affords the department and other stakeholders the opportunity to undertake a major national awareness programme re-iterating the value of trees and creating awareness of tree species that are threatened by extinction. The campaign promotes awareness for the need to plant and maintain indigenous trees throughout South Africa, especially for the many disadvantaged communities who often live in barren and water stressed areas. It further intends to:

- Raise awareness of South Africa's urban and rural greening initiatives.
- Promote a better understanding of trees, particularly indigenous trees and fruit trees.
- Highlight the important role trees play in sustainable development and the livelihoods of people and their environment.
- Encourage communities to participate in various greening activities within their own surroundings.

Table 8: Number of trees planted during the Arbor month campaign from 2019 to 2021.

Year	Ministerial Arbor Month Campaign Events	Focus Theme	No of Trees Planted (Ministerial Event)	No of Trees Planted Nationally (1-30 September)
2019	Nelson Mandela Metropolitan – Eastern Cape	Forests and Sustainable Cities	3500	36801
2020	Mangaung Metropolitan Municipality -Free State Sol Plaatje Municipality-Northern Cape	Forests and Biodiversity	4500	13398
2021	City of uMhlathuze Municipality – KwaZulu Natal Naledi Local Municipality-Northwest	Forest Restoration: A path to recovery and well-being	2780	24774

6.2 Trees of the Year

Some areas of our country still experience drought that has been persisting for some time now. In promoting tree planting, it is important to note that South Africa is a water scarce country. For this reason, the department promotes the planting of indigenous trees that do not consume a lot of water. To promote greening, especially the planting of indigenous trees whose occurrence has become scarce, the concept of the trees of the year was born some years ago. Previously, two or three trees were selected as trees of the year comprising of rare and common species. However, from the year 2021 the department has promulgated those three or more trees be celebrated each year under the categories of common tree; tree for promotion and tree for appreciation. Promotional material for the trees below was developed and distributed to the public. The table below shows the different trees of the year for the reporting period.

Table 9: Trees of the year for period 2019-2021

Year	Common Tree	Rare Tree	
2019	SCIENTIFIC NAME: *Sclerocarya birrea* COMMON NAME: Marula SIZE : Medium to large tree of 9-18 m WATER REQUIREMENTS: Drought tolerant LEAVES/FLOWERS: Leaves are alternate, compound with sharply pointed leaflets, mostly crowded at the end of the branches. Female and male flowers are borne on separate trees. FEATURE: A prolific fruit bearer, single tree can produce up to 500kg of fruit per year. MAINTENANCE: Low maintenance	SCIENTIFIC NAME: *Philenoptera violacea* COMMON NAME: Apple-leaf SIZE: Medium to large tree- up to 15m WATER REQUIREMENTS: Drought tolerant LEAVES/FLOWERS: Leaves are large, hard with a rough texture, shiny above and grey-green underneath. Flowers are white and pink to deep violet, scattered and sweet scented. FEATURE: It is also known as a rain tree, as the ground around the tree is often damp, a result of falling secretions from spittlebugs that thrive on the tree MAINTENANCE: Low maintenance	
2020	SCIENTIFIC NAME: *Ekebergia capensis* COMMON NAME: Cape ash SIZE: Large tree, grows up to 15 m WATER REQUIREMENTS: Drought tolerant LEAVES/FLOWERS: Leaves are large and glossy green. Flowers are white and sweetly scented, occasionally with pink tinge. FEATURE: Evergreen tree with a roundish crown MAINTENANCE: Low maintenance	SCIENTIFIC NAME: *Adansonia digitata* COMMON NAME: Baobab SIZE: Medium to large tree- up to 15m WATER REQUIREMENTS: Drought tolerant LEAVES/FLOWERS: Leaves are large, hard with a rough texture, shiny above and grey-green underneath. Flowers are white and pink to deep violet, scattered and sweet scented. FEATURE: It is also known as a rain tree, as the ground around the tree is often damp, a result of falling secretions from spittle- bugs that thrive on the tree MAINTENANCE: Low maintenance	

2021	Common Tree	Tree for Promotion	Tree for Appreciation
	SCIENTIFIC NAME: *Vachellia karoo* COMMON NAME: Sweet thorn SIZE: small to medium tree, grows up to 12 metres WATER REQUIREMENTS: Drought tolerant LEAVES/FLOWERS: Leaves are finely textured and dark green; Flowers appear in early summer in a mass of yellow pompom. FEATURE: Semi-deciduous tree with a round crown MAINTENANCE: Low maintenance	SCIENTIFIC NAME: *Portulacaria afra* COMMON NAME: Porkbush SIZE: shrub, grows up to 2-5 metres WATER REQUIREMENTS: Drought tolerant LEAVES/FLOWERS: Leaves are small, rounded and succulent. Flowers are pink and star- shaped. FEATURE: evergreen with small round succulent leaves and red stems. MAINTENANCE: Low maintenance	SCIENTIFIC NAME: *Warbugia salutaris* COMMON NAME: Pepperbark tree SIZE: slender tree, grows up to 10 metres WATER REQUIREMENTS: Drought tolerant LEAVES/FLOWERS: Leaves are dark green and glossy; Flowers are small, white to greenish in colour. FEATURE: Stem is covered by a rich brown bark marked with corky lenticels. Thick canopy. MAINTENANCE: Low maintenance

6.3 Special Projects

6.3.1 Gardens of Remembrance

The concept of creating green remembrance plots or remembrance gardens is a creative way of having green legacy projects in the country. During the 2010 FIFA World Cup hosted in South Africa, the country benefited from the green legacies that were created. These were trees planted around stadia precincts, trees planted on arterial roads leading to the stadia, trees planted at memorial areas and at parks created as viewing areas for the tournament games. Some remembrance plantings were also established to celebrate international events such as the 15th World Forestry Congress held in eThekwini in 2015. Some were established to celebrate some of the country's fallen heroes and heroines.

During 2020 and 2021 Arbor Month Campaigns, gardens of remembrance were established to commemorate people who had fallen to the Corona Virus Pandemic and those who were in the frontline to protect and save lives. The gardens of remembrance were promoted as green legacies that will stand out to commemorate the lives of citizens lost through the pandemic and remind South Africans to always work together to prepare for any unforeseen and similar pandemics. Gardens of remembrance were established in the Free State, Gauteng, Mpumalanga, Northern Cape, Western Cape, North West and KwaZulu-Natal.

6.4 The Ten Million Trees Programme

The introduction of the Million Trees Programme in 2007 commenced as an initiative that brought different stakeholders in the greening space to collaborate and plant at least one million trees annually. This collaboration has ensured that over the years the target has been exceeded on an annual basis. In 2021, the office of the Presidency of the Republic of South Africa directed the DFFE, specifically the Forestry Management branch to lead the initiative of planting ten million trees over a period of five years. In 2021, the Forestry Management branch issued a clarion call to all South African citizens, including private and public organizations to collaborate in attaining a target of planting at least two million trees per annum. During the reporting period the global pandemic restricted a lot of activities, this led to certain targets not being achieved. Table 10 presents the statistics of the ten million trees programme.

Table 10: The Ten Million Trees Programme Tree Planting Stats

Year	Term	Trees Planted by Forestry Management Branch	Trees Planted by Greening Partners	Trees planted by Clarion Call Participants	SUB TOTAL
2021	Quarter 1	13243	18814		32057
	Quarter 2	24774	24124		48898
	Quarter 3	13892	2830	90502	107224
TOTAL					**188 179**

6.5 The National Arbor City Awards

The National Arbor City Awards (NACA) are a partnership programme between the Department of Forestry, Fisheries and the Environment , TotalEnergies and the Institute for Environment and Recreation Management (IERM). The competition is sponsored by TotalEnergies. The purpose of the competition is to encourage municipalities to green their areas of jurisdiction. The awards are a quest to promote environmental conservation and development thereby securing a healthy living environment for residents in all settlement areas. The NACA provides incentives and rewards to municipalities who are doing their best in terms of greening, especially in the townships and new settlement areas. Most municipalities made great strides in the past years to expand the greening and other landscape developments from the past focus on towns and suburbs to also include townships and new settlements areas.

The NACA are conducted in line with the DFFE greening strategy which defines greening as an integrated approach to the planting, care and management of all vegetation in urban and rural areas, to secure multiple benefits for communities and the citizens in general. Greening is a task that requires multi-disciplinary approaches that include precise scientific knowledge and skills, socio - economic balancing and planning. In order to achieve the objective of greening, a combination of technical expertise, socio-economic balance and capacity building skills are required, and this is what the awards aim to achieve.

The National Arbor City Awards have four categories namely; The Metropolitan Municipality, The Local Municipality Category (Category B Municipalities), The Small Rural Local Municipality Category and the Youth Participation in Greening Category. The competition prizes are aligned with the categories. The Metropolitan Category has one prize; The Local Municipality Category – (Category B Municipalities) has first and second prize; The Small Rural Local Municipality has one prize, and the Youth Participation in Greening Category has one prize. The prizes comprise of a cash amount, a certificate and a trophy.

The competition is advertised each year in April along with guiding documents on the DFFE website and closes in May for entry forms and June for portfolios of evidence.

Table 11: Winners of arbor city awards

Year	No of Entrants	Winners			
2019		Metropolitan Category	Local Municipality Category	Small Rural Local Municipality	Youth Participation in Greening
	40	City of Johannesburg Metropolitan Municipality- Gauteng	1st Prize -Mbombela Municipality - Mpumalanga 2nd Prize – Sol Plaatje Municipality- Northern Cape	Ulundi Municipality- KwaZulu Natal	City of uMhlathuze Municipality – KwaZulu Natal
2020	The Competition was not held in 2020 due to Covid-19 Restrictions.				
2021	20	City of Cape Town – Western Cape	1st Prize -Polokwane Municipality – Limpopo 2nd Prize – Steve Tshwete Municipality - Mpumalanga	City of uMhlathuze Municipality –KwaZulu Natal	uLundi Municipality – KwaZulu Natal

7. Agroforestry and its Benefits

Agroforestry is a sustainable land management system that deliberately includes woody plants with crops and/ or animals within the same land management system resulting in positive socio-economic and/ or ecological interactions between woody and non woody components; and is applied in a manner and scale that is compatible with the local cultural, socio-economic and agro-ecological context (DAFF, 2017).

7.1 Agroforestry in South Africa

The Department has in the past few years decided to explore intensification of the concept of agroforestry in the country. In the year 2018 the Agroforestry Strategy Framework for South Africa was approved. The implementation plan for the strategy has been developed. However, due to capacity constraints, the project had to be piloted. Pilot projects were implemented in the Limpopo and Mpumalanga provinces. The land used for the pilot studies is owned or managed by Mountain to Oceans (MTO), South African Forestry Company SOC Limited (SAFCOL) as well as HansMeresky. These pilot projects were for the agrosilvicultural systems. The agrosilvicultural system is an agroforestry system where in crops are integrated with trees. The Agricultural Research Council (ARC) conducted the data collection as well as analysis. The reports generated from the studies will be used in future implementation processes. Below is the breakdown of the individual projects conducted during the reporting period.

7.1.1 Limpopo Province Projects

There are three agroforestry projects, which were implemented in the Limpopo Province. These are the Bana Ba Makgea in Sekhukhune District Municipality, Dimani Village Project in Thohoyandou and the JMD Keet Project in Tzaneen.

7.1.1.1 "Bana ba Makgea Project," Sekhukhune District Municipality

The Agroforestry system called "Bana Ba Makgea Project" was initiated at the Leeukraal village, Sekhukhune District in Limpopo. The project is an initiative linked to land care and at *Peltoforum africanum* trees were introduced to stabilise soils in the area. Previously no crops were introduced in between the trees. This allowed the trees to be well established before the crop were introduced. Beans and maize were introduced in between the trees through a system of intercropping and five local farmers are the beneficiaries of the project. The number of beneficiaries in the project amounts.

A fire destroyed several trees that were planted in the past few years. 50 local jobs were created at the project to replace the approximately 200 trees that were destroyed by the fires. The employment was created under the EPWP. The department provided extension service work to the farmers thereby advising them on the creation of firebreaks to protect their crops from external fires.

The DFFE and the Limpopo Department of Agriculture and Rural Development (LDARD) supported the project. The University of Limpopo and the Agricultural Research Council (ARC) are supporting the project with research to identify possible opportunities.

7.1.1.2 "Dimani Village Project", Thohoyandou.

The Dimani Agroforestry pilot project is a continuation from the previous year (2018). Initially, groundnuts and vegetables were intercropped with Moringa trees. However, the intercropping of Moringa trees with ground nuts proved not successful. Sequential planting was subsequently recommended and implemented for the year 2019. Intercropping with vegetables continued as it proved to be successful. The Department donated some 216 trees to be planted in the project wheras the ARC distributed vegetable seedlings. It was anticipated that as the Moringa trees grow, the project members will be assisted with various options of accessing the markets because Moringa is a tree that has been proven to have quite a number of benefits ranging from medicinal products as well as food and other uses. At the point in time, the Dimani project has 39 beneficiaries, and 80 job opportunities were created in 2019 through the EPWP. The DFFE, LDARD, University of Limpopo and the ARC project provide support to the project.

7.1.1.3 JDM Keet Plantation Project, Tzaneen.

The project is implemented in partnership with the SAFCOL. The trial was introduced in 2019 to test intercropping of Eucalyptus trees with maize, sweet potatoes, and ground nuts. It has 10 beneficiaries who are local women from the surrounding village. The project created 36 jobs through the Expanded Public Works Programme, and it enjoys support from the DFFE, SAFCOL, student researchers linked to the ARC and the University of Pretoria.

7.1.2 Mpumalanga Province Projects

The Mpumalanga Province also has three Agroforestry Projects namely MTO plantations (White River) and two Jabulani Agri-village Projects, in the Mkhondo Local Municipality one dealing with intercropping and the other with animals.

7.1.2.1 MTO Plantations, White River.

The project, involving the intercropping of Eucalyptus trees with ground nuts is a continuation of a previous trial. There are about 10 beneficiaries from the villages around the Mountain to Ocean (MTO) plantations in the White River area of Mpumalanga Province. The initiative created 36 jobs through the Expanded Public Works Programme. The department, MTO, and the ARC support the trial. Students from various Institutions of higher learning were involved during establishment of the project.

7.1.2.2 Jabulani Agri-village Project 1, Mkhondo Local Municipality.

This Pilot Project is an Intercropping initiative to empower the Jabulani Agri-village Communal Property Association (CPA), which has an estimated 110 beneficiaries. The plan was to intercrop eucalyptus trees with a suitable crop for the area, in this case, dry. DFFE supplied seedlings of Eucalyptus trees to the CPA. The total area earmarked for the purpose 13 ha. The intention is planting the trees first and allow them to grow before the beans are integrated at a later stage when climatic conditions are conducive for the system.

The DFFE, Mondi Forestry Company Limited, Department of Agriculture, Rural Development, Land and Environmental Affairs (DARDLEA) support the project. The Agricultural Research Council assisted in identifying the suitable crop for intercropping for this project.

7.1.2.3 Jabulani Agri-Village Project 2, Mkhondo Local Municipality.

This Project is one of the complex systems of Agroforestry. It involves integrating natural pastures in plantations with animals. Even in countries where it is being practised fully, there are challenges with social dynamics. DARDLEA (pasture scientists), Mondi Forests, DFFE and the ARC support the trial. There is about 100 ha of grazing land that has plantations and grassland. About 230 animals are allowed to graze at the site. The pasture scientists will undertake veld condition assessments periodically to assess whether there is no deterioration of the veld condition.

8. Forests Benefits and Uses

8.1 Socio-economic contribution of forests to South Africa's development

Consumption benefits relating to energy, shelter, food security and health are recognised as more significant socio-economic benefits, although it is also more difficult to obtain the relevant data (SOFO, 2014). Despite frequent references to social or socio-economic benefits in many disciplines, there is no clear and commonly agreed definition of what exactly this means, universally. For example, these benefits no doubt include some economic benefits, but they may also include more fundamental social benefits, such as: social justice; the preservation of culture; social harmony; freedom; and public security (SOFO, 2014). Socio-economic benefits from forests in SOFO, 2014 are defined as "*the basic human needs and improvements in quality of life (higher order needs) that are satisfied by the consumption of goods and services from forests and trees or are supported indirectly by income and employment in the forest sector*" (SOFO, 2014). Forestry, and its value chains in South Africa, play a significant role in the economy of the Republic. It creates the much-needed jobs and contributes towards poverty alleviation and mitigating hunger. Forests serve as a social buffer by providing food to the needy, particularly the poor people residing adjacent to the resources. Figure 21 shows the main value chains that play a role directly and indirectly in the economy of the country and the upliftment of the living conditions of its people.

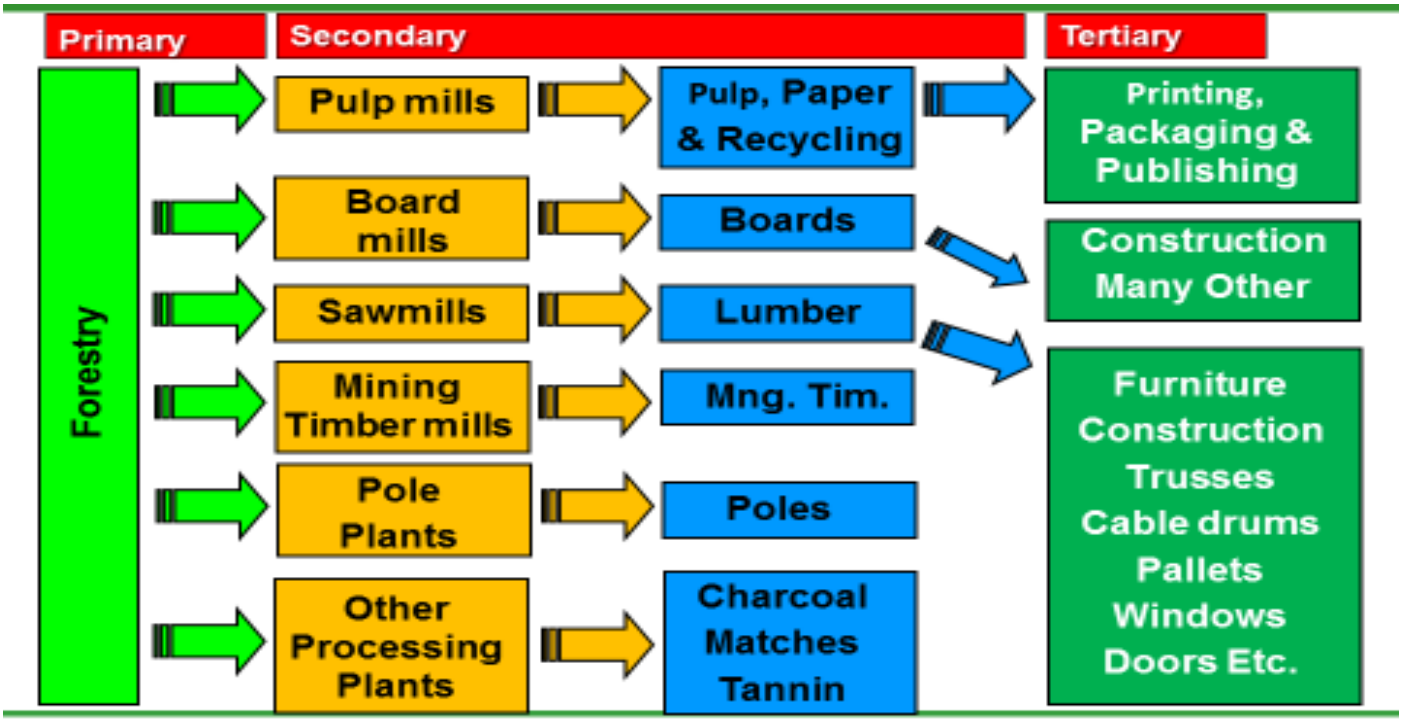


Figure 21: Schematic representation of the Forest Sector Value-Chain in South Africa

Source: Forestry South Africa

8.1.1 Forestry Employment

In 2019, the timber industry employed a total of 117,885 people, which decreased to 110,330 in 2020,representing a 6.4% decline year-on-year. The table below shows the average number of employees over the reporting period (2019/20), which stands at 114,108. Of these employees, 77% were employed in formal positions, while 23% were employed as temporary, casual, or seasonal workers.

Table 12: Forestry employment by type (2019/20 average)

Type of Employment	Number of Employees	% of Employees
Formal	87,626	76.8%
Informal	26,482	23.2%
Total	**114,108**	**100%**

Source: Quantec Standardised Regional Data, 2019/20 as cited in CTRPRP 2019/20

The CTRPRP 2019/20 reports that, in 2020, men made up 65.7% of the workforce in forestry and related services and 75.7% in logging and related services, (StatsSA data). There has been a slight increase in female employment, with women's representation rising from 32.6% in 2019 to 34.3% in 2020 in forestry, and from 24.1% to 24.3% in logging-related services. Below is a table showing forestry employment by gender within the Republic.

Table 13: Forestry employment by gender (2019, 2020)

Types of Employment	Male Employees		Female Employees	
	2019	2020	2019	2020
Forestry and related services	67.4%	65.7%	32.6%	34.3%
Logging and related services	75.9%	75.7%	24.1%	24.3%

Source: Quantec Standardised Regional Data, 2019/20 as cited in CTRPRP 2019/20

Participation of previously disadvantaged populations within the forestry sector is important for redressing the past injustices. Table 14 shows the representation of different races within the various job types in the round wood production sub-sector and indicates a very high representation of black workers in roles such as seasonal workers. Black workers dominate most job types, the coloured workers dominate the support staff and planning and research.

Table 14: Round wood production: Employment by population group (2019/20)

Job Type	White (%)	Black (%)	Colored (5)	India/Asian (%)
Temporary/ seasonal workers	3%	94%	2%	1%
Labourers	13%	65%	18%	4%
Supevisors, operators', drivers, etc	8%	78%	10%	4%
Foresters	21%	66%	11%	2%
Area managers	36%	56%	6%	2%
Planning and Research	26%	31%	36%	6%
Support staff	23%	16%	51%	10%
Senior managers	35%	40%	17%	9%
Others	12%	10%	19%	60%

Within the processing sub-sector black workers dominate most the different job types. However, white population dominates Senior management positions within this sub-sector. The below table shows the employment by population as per the CTRPRP 2019/20 report.

Table 15: Processors: Employment by population group (2019/20)

Job Type	White (%)	Black (%)	Coloured (%)	Indian/ Asian (%)
Temporary workers	3%	84%	8%	4%
Labourers	0%	93%	5%	2%
Supervisors, operators, drivers, etc.	1%	87%	9%	3%
Planning & Research	12%	78%	2%	8%
Support Staff	3%	84%	11%	3%
Senior Managers	60%	23%	9%	9%

8.1.2 Investment and GDP

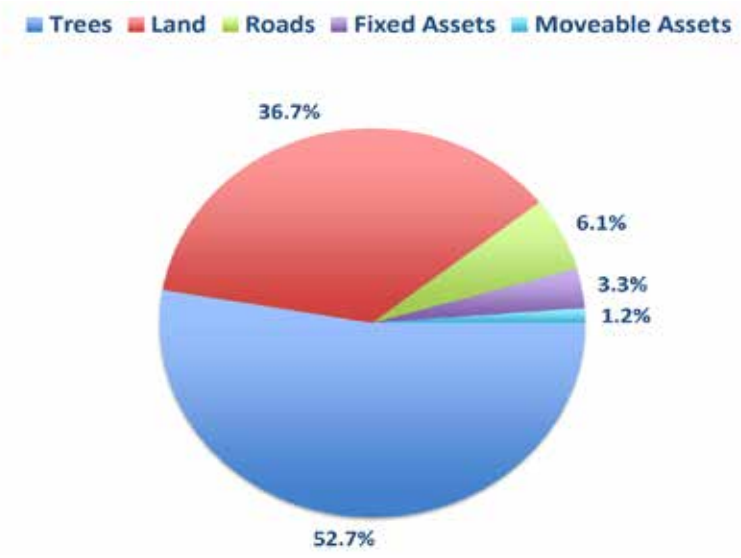


Figure 22: Forestry Industry Investment in RSA, 2019

The total investment in Forestry in 2019 was R49.9billion (figure) with 52.7% of this going to trees and 32.7% directed to land. Roads accounted for 6.1% of the investment, 3.3 % to fixed assets and 1.2% to moveable assets. Forestry contribution to GDP was 0.6% in 2018 and 2019. Figure 23 indicates Forestry contribution to GDP over the past 39 years (1980-2019). The Forestry contribution to Agriculture GDP over the period varied from 4.5% to 10.4%. There has been a steady decrease from forestry production to manufacturing over the period from 6.3% to 4.5%

Source: Forestry South Africa

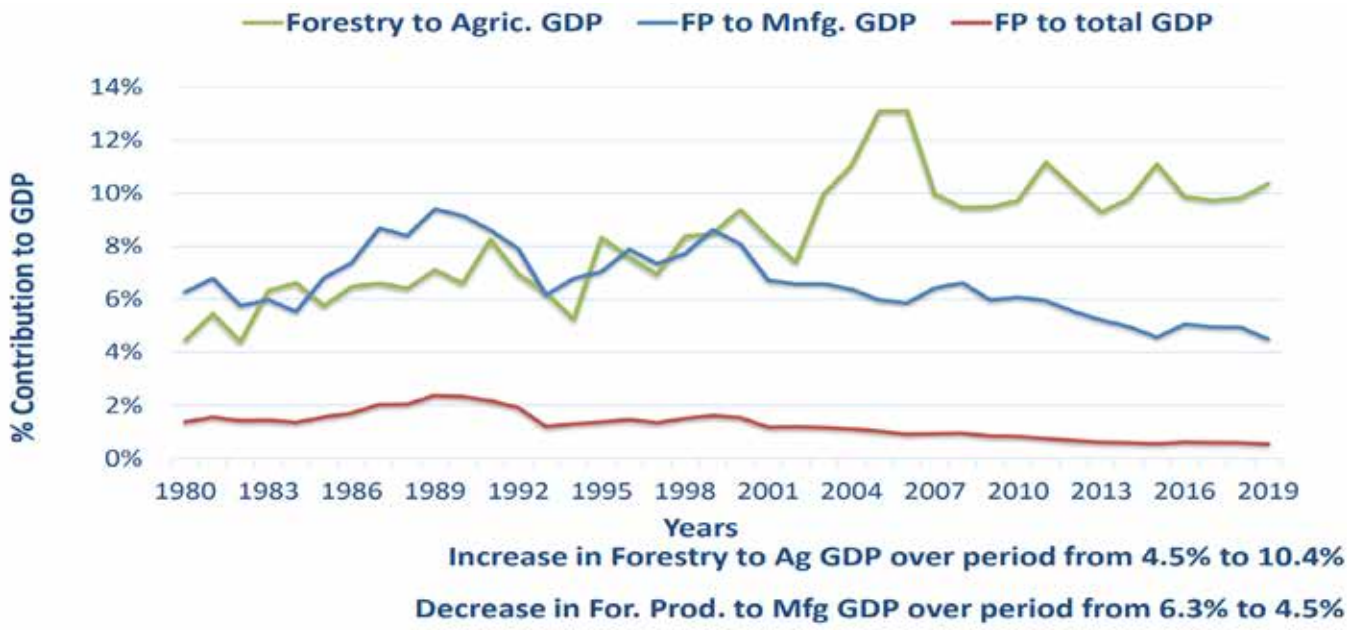


Figure 23: Forestry Contribution to GDP 1980 to 2019

Source: Forestry South Africa

9. Forestry Trade

The Forest Sector (Forestry and Forest products) contributed about 0.6% to the GDP, a considerable decline from the usual average of 1.2% to the GDP in the previous few years. terms of regional GGP, forestry in Mpumalanga contributes 3.0%; Kwazulu-Natal 2.7%; Eastern Cape 0.7%; Limpopo 0.5% and Western Cape about 0.2%.

9.1 Imports and Exports

South Africa's trade surplus on forest products declined by 50.0 percentages from R5.4 billion in 2018 to reach R2, 7 billion in 2019, However, the trade surplus in the year 2021 increased to almost R8 billion

Exports of forestry products increased to R29.9 billion in 2021 while imports rose to R21.9 billion in the same year. In addition, Pulp exports experienced a boom in 2018 after recording the highest figures which boosted the total export of forestry products by contributing up to R12.03 billion but declined significantly in 2019 to R 8.10 billion. More importantly, the figure (5) above depicts that over the last many years export of forestry products has been dominating its import. This trend shows that the country continues to be a net exporter as exports of forest products significantly exceed imports. On the other hand, a reduced 2019 trade surplus of R2.7 billion can be attributed to an improvement in imports (R22.0 billion) as compared to declining exports during the same year. Exports decreased significantly by 16.9% in 2019 hitting R24.87 billion compared to R29.7 billion in 2018. It is important to note that the value of exports increased in the year 2021 to R29.9 billion with the country importing forest products to the value of R21.9 billion in the same year.

In 2019 paper products were the most imported exports after recording R8.5 billion, followed by pulp and solid wood products R8.1 billion and R8.1 billion, respectively.

9.2 Forestry Products Trading Partners

South Africa is a member of different trade partners. The trade blocs include limited to SADC and BRICS. The country also has trade agreements with different countries within the African continent and other continents.

9.1.2. Trade with SADC countries

South Africa is a signatory of the SADC protocol on forestry. One of the objectives of the protocol is to promote the trade in forestry products within the SADC region. The 2021 trade data from SARS indicates that South Africa had a positive net trade balance with the SADC countries. Within the SADC region the below table shows the forestry trade value between South Africa and other SADC countries. The total export with SADC countries was R10,7 billion in the year 2021 with imports of R2,6 billion. Table 13 presents the forestry trade value between South Africa and members of SADC region.

Table.16: Trade with SADC countries 2021.

Country	Export value	Import value	Net Trade value
Angola	R 161 048 864,00	R 7 134 424,00	R 153 914 440,00
Botswana	R 1 824 648 592,00	R 31 374 599,00	R 1 793 273 993,00
Comoros	R 12 048 818,00		R 12 048 818,00
Democratic Republic of Congo	R 134 241 806,00	R 1 854 063,00	R 132 387 743,00
Eswatini	R 924 411 821,00	R 1 954 894 861,00	-R 1 030 483 040,00
Lesotho	R 584 528 969,00	R 85 908 167,00	R 498 620 802,00
Madagascar	R 143 603 715,00	R 28 163,00	R 143 575 552,00
Malawi	R 364 328 684,00	R 38 054 255,00	R 326 274 429,00
Country	**Export value**	**Import value**	**Net Trade value**
Mauritius	R 208 054 926,00	R 466 670,00	R 207 588 256,00
Mozambique	R 1 204 402 443,00	R 24 695 961,00	R 1 179 706 482,00
Namibia	R 1 777 422 644,00	R 362 237 261,00	R 1 415 185 383,00
Seychelles	R 83 916 155,00	R 2 858,00	R 83 913 297,00
Tanzania	R 303 382 910,00	R 272 597,00	R 303 110 313,00
Zambia	R 1 158 841 355,00	R 9 357 666,00	R 1 149 483 689,00
Zimbabwe	R 1 810 915 701,00	R 55 559 592,00	R 1 755 356 109,00
Sub Total	**R 10 695 797 403,00**	**R 2 571 841 137,00**	**R 8 123 956 266,00**

9.2.2. Trade with BRICS countries

The year 2021 came with many challenges due to the global COVID 19 pandemic, however the forestry sector played an important role in the economy of the country. Forestry trade data obtained from SARS indicate that South Africa's forestry sector obtained a positive net trade when trading with members of the BRICS bloc. India was the highest export partner within the trading bloc in the year followed by the People's Republic of China. Table 14 shows the trade value of forestry products between South Africa and BRICS partners.

Country	Export Value	Import Value	Net Trade
Brazil	R 9 658 247,00	R 2 862 857,00	R 6 795 390,00
China	R 3 842 333 004,00	R 25 807 973,00	R 3 816 525 031,00
India	R 6 302 696 467,00	R 2 693 086,00	R 6 300 003 381,00
Russian Federation	R 691 592,00	R 329 034 504,00	-R 328 342 912,00
Total	**R 10 155 379 310,00**	**R 360 398 420,00**	**R 9 794 980 890,00**

10. Forests and Climate Change in South Africa

South Africa has taken a progressive approach in its response to climate change. Following early ratification of the Kyoto Protocol, the country published a National Climate Change Response Strategy (NCCRP) (DEA 2011) and has gradually developed a substantial foundation on which to base future policy and measures. A particular opportunity that has been identified is the implementation of a national programme aimed at reducing emissions from deforestation and forest degradation (REDD+). South Africa's National REDD+ programme is also supported by several United Nations Framework Convention on Climate Change (UNFCCC) decisions, the current Paris Agreement (Article 5), the Katowice Paris Rulebook, and subsequently South Africa's Nationally Determined Contribution.

In 2017, then Department of Agriculture, Forestry and Fisheries published the Country's REDD+ Readiness Assessment Report for South Africa to assess the country's readiness in developing and implementing the REDD+ activities. The Readiness Assessment Report was funded by GIZ. The outcomes of the study identified the clear need to progress with the development of several key elements as well as pilot areas, to be able to move towards the development and implementation of a national programme in an effective, pragmatic and efficient manner. DFFE has in 2020 published a policy document titled: - Addressing Specific Elements of REDD+ in South Africa - Component I: Comprehensive Assessment of the Definition and Scope of Implementation of REDD+ in South Africa; - Component 2: Potential Institutional Arrangements for REDD+ in South Africa as well as: Component 3: Assessment of REDD+ Activities in Three Selected Pilot Project Sites. Future planned REDD+ projects are Assessment of the scope of implementation of REDD+ in SA.

Component 2: Potential Institutional Arrangements for REDD+ in South Africa.

The component 2 report revealed a complex set of drivers that will have an impact on the REDD+ institutional arrangements. The drivers influencing the institutional arrangements encompass a broad range of existing policies and measures; national programmes, commitments to international and national climate agreements as well as Nationally Determined Contributions; a diverse range of government and non-government stakeholders; as well as interested and affected parties. The study suggested that the existing structures within DFFE are adequate to manage the REDD+ programme. According to this report there is no need to establish another REDD+ entity within Government.

Component 3: Assessment of REDD+ Activities in Three Selected Pilot Project Sites.

The goal of this component is to understand the long-term cost of halting, reducing and reversing forest degradation and deforestation across diverse landscapes. This study only considered the cost of field implementation not the cost of supporting servicers (compliance, monitoring and governance).

Three pilot studies were conducted namely: Mariepskop to Blyde (located in the Bushbuckridge Local Municipality of Mpumalanga province); Kokstad to Underberg (Kwa Zulu Natal); as well as The Great Kei to Mtamvuma Rivers (Eastern Cape). The studies were to assess the changes in forest cover, carbon stock over time drivers of deforestation and forest degradation. The image below is a map showing the location of the different pilot studies that were conducted.

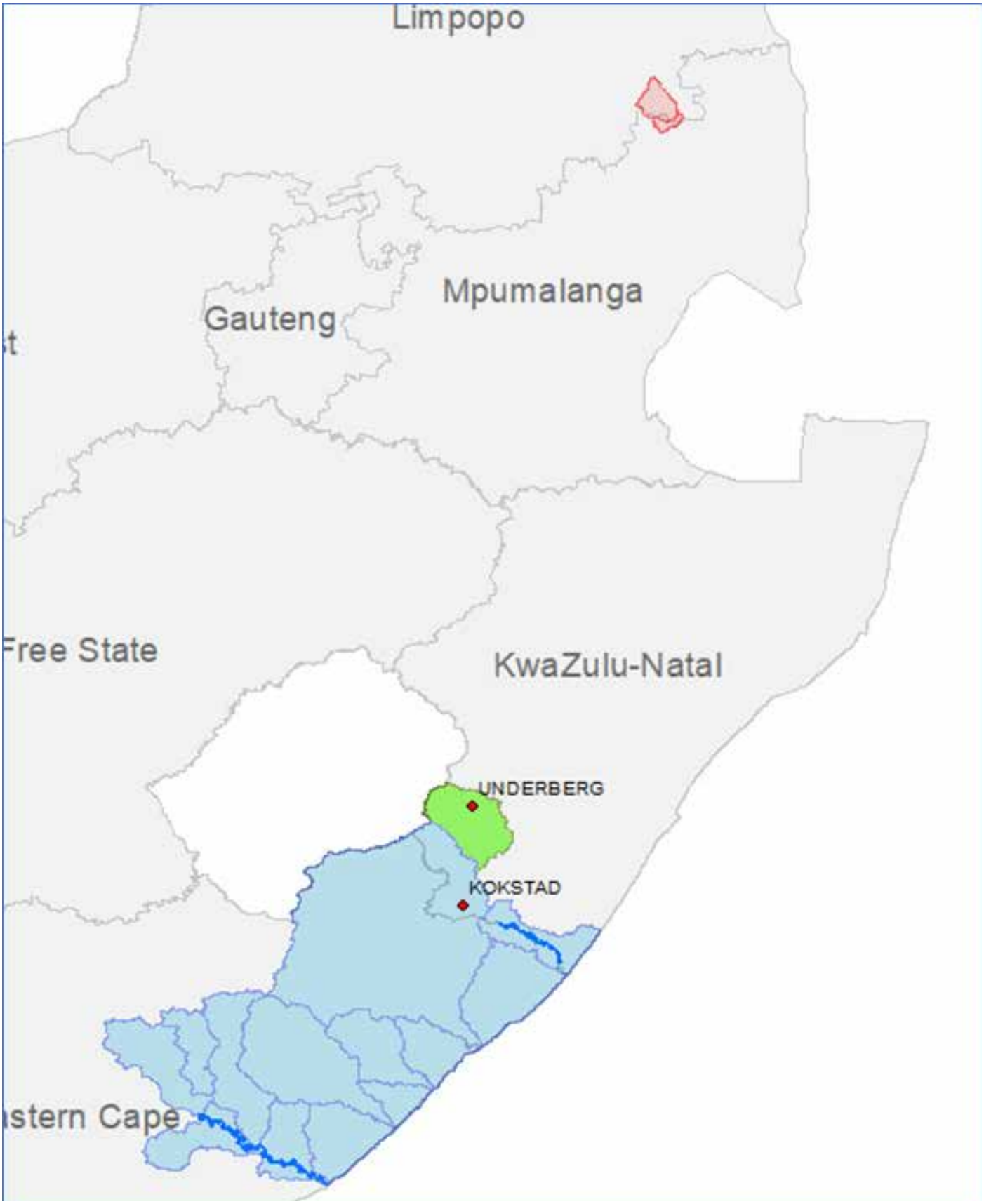


Figure 24: Image showing the locations of the pilot studies source DFFE.

The results of the studies were that over the period 1990-2018 there has been a net increase in Indigenous Forest cover within the Mariepskop and Underberg pilot areas, 0,5% and 2,3% annual increase respectively. In contrast, there has been a decrease in the extent of indigenous forest in the Eastern Cape pilot area (-1,2% per year). However, over the more recent period of 2014-2018 there is a clear decrease in Indigenous Forest cover in the Eastern Cape pilot area (2,6%), in the Mariepskop pilot area there has been a (0,1% per year) and a slight increase in the Underberg pilot area.

11. National Forest Sector Research and Development Strategy

Forestry research is very critical to the forestry sector. Research in forestry varies from field, social as well as experimental research. Historically, research mostly focused on site matching as well as increasing growth yield for timber production. Over the years, research has evolved based on the needs of the forestry sector. Currently there is social, stand trials, tree breeding, agroforestry and forest ecology research. Forestry research in South Africa is funded by both the public and private sector.

National Forest Sector Research and Development Strategy

Together with its key stakeholders, DFFE has made progress by introducing the National Forest Sector Research and Development Strategy to improve the coordination of forest science and technology in South Africa. This was because of inefficient coordination of forestry research and development within the republic, challenges of pests and diseases, forest fires, the poor state of research facilities such as arboreta, socio-economic issues affecting forests and the supply of fibre.

The strategy identified ten key strategic research and development themes that the country should prioritise as well as recommended the establishment of the National Forestry Research Forum and the Department's internal forestry research committee.

The Department as established the National Forestry Research Forum in 2015. The membership of the forum consists of representatives from the forestry industry, other government departments, research institutions, tertiary education institutions, as well as the forestry management branch providing secretariat role. During the reporting period the work of the NFRF was affected negatively by the COVID-19 pandemic. As a form of mitigation, the Government of the Republic introduced travel restrictions.

12. Forestry Skills Development and Capacity Building

12.1 FP & M Seta Forestry Skills Development and Capacity Building

Key trends and skills development initiatives in forest-related sub-sectors

On the 7th of March 2019, Former Minister of Education, Dr Naledi Pandor announced that after consultation with the National Skills Development Authority (NSA) she promulgates the National Skills Development Plan to improve skills development in terms of Section (9)4 of the Skills Development Act.

During the same year, the government, industry, and labour were working towards finalizing the Forestry Sector Masterplan which was later formally endorsed by the Executive Oversight Committee and the former Deputy Minister of DFFE, Ms. Makhotso Sotyu. One of the key aims of the Masterplan is skills development; which aims at ensuring that the sector has well skilled professionals in the field of forestry. It is essentially a growth, transformation, and investment plan for the forestry sector. Additionally, the focus area on skills development will ensure that entrepreneurs are created in the sector who can create employment opportunities and grow the economy.

The National Skills Development Strategy, 2030: An Educated Skilled and Capable Workforce for South Africa (NSDS) also encourages the training of employed workers, to improve overall productivity and to address skills imbalances within the workforce and the labour market. Skills development is not just for young people starting their first jobs, the skills of people already in jobs must also be enhanced.

It is therefore the responsibility of the FP&M SETA to oversee the development of occupational qualifications linked to career pathways, in partnership with industry and educational institutions. This process must be focused on the progression of learners (both existing employees and new entrants) through the ranks and must prepare them to take responsibility for the future growth and sustainability of the FP&M sector in the medium to long term.

12.2 The Fibre Processing & Manufacturing (FP&M) SETA

Under the Forestry Sector Masterplan, which emphasises forestry skills development. About 80 students were identified for participation in the programme at the Fibre Processing and Manufacturing Sector Education and Training Authority (FPM Seta) as well as the Universities of the Witwatersrand and Pretoria. This ideal can be achieved if institutions that provide training are strengthened to produce graduates that can adapt to the dynamic and changing environment; skilled people who have an entrepreneurial spirit leading to them creating SMMEs and contributing to job opportunities; and, above all, products that will be resilient. Another role of the FP&M SETA is to build relationships between the educational institutions in the post-schooling arena (such as Higher Education Training as well as Further Education and Training (FET) institutions) as well as potential employers in order to facilitate the placement and appointment of students and graduates for experiential training as well as internships. Therefore, according to its mission statement**,** the FP&M SETA continues to:

- identify skills priorities and needs based on collaborative input from all key stakeholder groups within the FP&M sector.
- develop quality occupationally directed learning programmes.
- implement an integrated skills development qualification
- framework to promote skills acquisition, career planning and access to the world of work; and provide opportunities for all, including the latent demands of SMMEs and the unemployed, in satisfying the national skills development need.

12.2.1 Learning Opportunities in the FP&M Sector

Learning opportunities geared towards careers in the FP&M sector lie primarily in the FET and HET education bands. Individuals who meet the entry requirements may register for one of the many FET and HET qualifications that focus on scarce skills within the sector. Many public and private learning institutions and workplace training provider institutions also provide skills programmes and short courses addressing the critical skills and specializations within specific organisations. Learnerships are demand-led and cover technical and non-technical occupations. A person who successfully completes a learnership will have a qualification that signifies occupational competence and is recognised throughout all sectors of the economy

12.2.2 Scarce and critical skills

Scarce skills refer to an insufficient number of qualified and experienced people in specific occupations and scarce skills shortages are usually addressed by the provision of full (occupational) qualifications offered at HETs or FETs and include programmes such as diploma and certificate programmes, vocational qualifications, apprenticeships and learnerships. Critical skills refer to the skills gaps within organisations which limit the organisation's effectiveness and efficiency, thereby hindering business growth. Critical skills are addressed through short courses, skills programmes, workshops, seminars, and in-house training.

12.3 Linking Education and the Workplace

The Forest 21 initiative seeks to inculcate climate-smart forestry and entrepreneurial innovativeness in forestry education. The initial Forest Industrialisation Conference resulted in the partnership between Forestry South Africa and HAMK University, in Finland. This was followed by a visit of South African forestry personnel to Finland. These initiatives have resulted in the collaboration between the Department of Higher Education, Science and Innovation; the DFFE; the South African Qualifications Authority; the Council on Higher Education; the FPM Seta; the universities of Witwatersrand and Pretoria; the Mpumalanga province; and the forestry industries in South Africa, Norway and Finland.

The Department of Forestry, Fisheries, and the Environment supports the initiative and will cooperate with counterparts in other departments to ensure its success. In her address, the Former Deputy Minister of Forestry Fisheries and the

Environment indicated that the department is looking forward to brighter prospects with Finland and Norway, as the partners in the joint project to strengthen capacity within higher education institutions offering forestry in South Africa. She emphasised that the project would run for three years to improve the efforts of the forestry sector to mitigate and adapt to climate change. In hopes that the initiative will also improve the entrepreneurial innovativeness of the sector to create more sustainable, high-technology, lucrative product and service-oriented businesses, which will assist the country to curb unemployment, inequality and poverty. The Department of Forestry, Fisheries, and the Environment (DFFE) supports the initiative and will cooperate with counterparts in other departments to ensure its success.

12.4 Skills development initiatives conducted.

- Forestry joins hands for training provision in the contracting field. The forestry sub-sector has launched a combined training programme mainly targeting forestry contractors, known as the Contractors Capacity Development Program (CCDP). CCDP is being implemented by The South African Forestry Contractors Association, SAFCA. The Program assists forestry contracting businesses with planning, implementation, and management of employee training programmes. This initiative focuses on the following services:
- Preparation of training needs assessments, and training plans
- Planning, arranging, and monitoring of training courses provided by accredited training providers

Training administration including records to verify expenditure on training provision for BEE verification

At present, the CCDP is being used mainly by forestry contractors working for the big corporate growers. The programme is however open to any grower or forestry contractor.

12.5 Forestry Training, Skills Development and Capacity Building Interventions

Between the years 2019-2021 DFFE, capacitated a total of 234 trainees including forestry communities in the following skills: Occupational Health & Safety, Fire Fighting, Harvesting, Business & Entrepreneurship, NVC, Silviculture Production, First Aid, Chainsaw Machine and other Forestry Essential skills.

South African Universities offer a range of forestry related qualifications and offer bursaries to deserving students within the field. Universities offered a total of 146 bursaries across all NQF Levels between the years 2019 and 2021.

13. Compliance and Enforcement

Full implementation of forestry legislation, like with many other legislations remain a challenge for various reasons, ranging from a lack of understanding of legislative requirements and of lack of capacity to meet the legislative requirements, resource constraints, lack of dedicated enforcement personnel, the extent and distribution of forests to inadequate knowledge of forestry laws by law enforcement practitioners including magistrates and prosecutors. The department administers two legislations, namely, the National Forests of 1998 and the National Veld and Forest Fire Act of 1998.

DFFE has in place various intervention measures aimed at ensuring compliance and enforcement with the laws. These include the National Forests Act and the National Veld and Forest Fire Act, 1998 Compliance and Enforcement Strategy; licensing guidelines; and the Policy, Principles and Guidelines for Control of Development affecting Natural Forests.

To ensure compliance and enforcement with the provisions of the two-forestry legislation, the department rolls out various awareness programmes although funding is posing a serious challenge, inhibiting wider coverage. The branch implements awareness raising, through capacity building (internal and external stakeholders of the department and institutions of higher learning and the Judiciary), meetings with traditional leaders at various communities throughout the country, annual publication of National list of Protected Trees and Champion Trees. Part of the development of enforcement strategies is to prioritise enforcement through a body of forest officers and fire protection officers, employed

by the department, working in close cooperation with the South African Police Service, the courts, as well chief fire officers (in terms of the Fire Brigade Services Act) in the case of veldfires. DFFE's role is to ensure that each forest officer and fire protection officer is competent to exercise his or her particular duties but recognises that officers' abilities vary, and the powers delegated to each officer must be appropriate to his or her level of competence.

The National Forests Act makes provision for accessing forests for various activities through the licence system. The licences are issued in terms of sections 7, 15 and 23 of the legislation. Section 7 deals with the activities of the cutting, disturbing, damaging or destruction of any indigenous tree in a natural forest. Section 15 licences are issued for activities involving the cutting, damaging or removal of any protected tree and the collection, removal, transporting, exporting, purchasing, selling or donating or acquiring in any other manner or disposing of a product derived from a protected tree. Section 23 on the other hand deals with all activities that may be carried out in a state forest with the guidance of forestry tariffs, where applicable. In terms of the national forestry legislation, all indigenous forests are protected and therefore no person may cut, damage, destroy, remove or transport a tree or the product thereof without a licence.

Despite these compliance measures put in place, there are still several non-compliance from individuals and organisations. The department uses various means of enforcement, for some minor instance of non-compliance may warrant nothing more than an informal responses such as a warning or a negotiated compliance schedule, administrative enforcement measure such as which includes issuing of notices or orders, spot fines, civil measures and cooperative enforcement usually referred to as joint operations. Below is an image of DFFE officials participating in one of the joint enforcement operations.

The total investment in Forestry in 2019 was R49.9billion (figure) with 52.7% of this going to trees and 32.7% directed to land. Roads accounted for 6.1% of the investment, 3.3 % to fixed assets and 1.2% to moveable assets. Forestry contribution to GDP was 0.6% in 2018 and 2019. Figure 25 indicates Forestry contribution to GDP over the past 39 years (1980-2019). The Forestry contribution to Agriculture GDP over the period varied from 4.5% to 10.4%. There has been a steady decrease from forestry production to manufacturing over the period from 6.3% to 4.5%

Negotiations: the department discusses failure to comply with the legislation and agree on an arrangement to resolve any infringements.

Warnings: various caution notices were issued in the Northern Cape and in Limpopo for failure to comply with the legislation. Warnings are issued depending on the level of the transgression and the services of the South African Police Services are solicited if the transgression has a huge negative impact.

Spot fines/ J 534: spot fines are issued when the offence is considered major, but the offender admits the guilt and is willing to pay a fine. Spot fines were issued in Limpopo and Northern Cape.

Joint Operations: the department engages with other sector departments and conservation boards to conduct operations such as the Phakisa. Joint Operations were conducted in areas such as Tzaneen, (Limpopo); Magaliseburg, (North West) and East London (Eastern Cape). Arrests, warnings, and fines are issued during the joint operations.

Prosecution: prosecution is chosen as an option if the impact of the transgression is huge in monetary or environmentally.

Figure 25: Photograph of officers preparing for a joint enforcement operation.

14. Special Programmes: Corporate Social Investments

The Corporate Social Investment (CSI) made by the Sector evolve from being "charity" based giving when they have a little extra – to become intentional efforts to create value and sustainability for broader communities in the rural areas where forestry plantations are situated.

Over and above the traditional eight core areas of Corporate Social Responsibility (CSR) programmes: Education, Health and Welfare, Community Engagement and Upliftment, Food Security, Enterprise and Supplier Development, Community Infrastructure, Environment and Recreation. In 2021 they added Disaster Response to the core themes, in response to the Covid-19 pandemic and the civil unrests experienced during that time. Below are some of the social investments made by the forestry industry.

14.1 Education

The industry understands the importance of nurturing the future talent pool. They invest heavily in promoting education – particularly mathematics and science skills - as well as prioritizing funding at Early Childhood Development (ECD), which has been proven to be the most effective means of building capacity in youth from their communities. They also place huge value on developing the many artisan skills too.

14.1.1 MTO: Edunova Initiative: Eastern Cape, Tsitsikamma area

Project objectives: Empowering learners through Information, Communication and Technology (ICT) skills.

In 2019, MTO partnered with a non-governmental organisation (NGO), Edunova, in offering training to members of the school management teams at eight Tsitsikamma primary schools. Edunova trains teachers in Information, Communication and Technology (ICT) skills. The teachers in turn use the skills in the classroom when they interact with the learners, thus empowering them to use technology and improve their performance. Since the beginning of the programme 120 teachers have been trained and more than 1 000 learners have benefitted.

In 2020 the programme attracted funding from another partner, the YES programme, which is a joint initiative by the private sector and government. It signifies huge progress towards assisting South Africa's youth to gain work experience through employment placement. The funding enabled the recruitment of eight young people from the Tsitsikamma communities who were deployed to the eight schools. The young people were trained in ICT skills to support the teachers and the learners after school. Four out of the eight youth have received permanent job offers and others have been inspired to further their education.

In 2021, an additional 45 young people have been recruited into the programme, which means 53 job opportunities have been created for the unemployed youth of Tsitsikamma over two years.

Figure 26: Image showing some of the beneficiaries from the project.

Source: FSA

14.2 Health and Welfare

Mondi: Mobile Clinics: KwaZulu-Natal and Mpumalanga.

External Stakeholders: Department of Health, KwaZulu-Natal and Department of Health, Mpumalanga and Tholuwazi Thol'impilo.

Project objectives: To increase access to quality health care services for remote rural communities as well as to hire contract employees.

Project deliverables: Primary Health Care Services provided by the nine mobile clinics to communities living on and around Mondi land as well as Mondi contractor employees. The clinics follow a route that ensures that each community and contractor site will be visited at least once a month. Services provided by the mobile clinic include: Maternal, Child and Women Health Care; Antenatal Care; Post Natal Care; Well Baby Clinic and Immunizations; Prevention of mother to child HIV Transmission; Family Planning including Emergency Contraception; Information on Choice of Termination of Pregnancy; Cervical Cancer Screening; Integrated Management of Childhood Illnesses; HIV and Aids, TB and STI services; HIV Counselling and Testing; Provision of ARVs; Management of TB; Management of STIs; Information on Medical Male Circumcision; Treatment of minor ailment; Management of non-communicable diseases; Diabetes

Mellitus; Hypertension; Epilepsy, Asthma; Mental Health; Management of non-communicable diseases; Management of casualties and other emergencies; Health promotion; as well as Covid-19 screening.

The past 11 years, 726 233 visits were recorded to our mobile clinics averaging over 66 000 visits per year. The programme has clear systems determined by the public-private partnership that underpins the intervention.

Figure 27: Image showing mobile clinic.

Source: FSA

14.3 Community Engagement and Upliftment

14.3.1 PG Bison Safe-Hub: Western Cape, Knysna

Project objectives: Safe-Hub Model has been designed to disrupt the intergenerational cycles of poverty, unemployment and inequality that trap young people growing up in disadvantaged communities.
Through healthy, strong relationships with well-trained role models (coaches and facilitators), young people are encouraged to explore their independence and individuality, build a core set of values, and strengthen their ability to deal with the challenges they face in everyday life.

As a platform for youth development, a Safe-Hub is a campus for local NGOs, government and service providers to offer holistic support for young people, their families and the community. At its core the Safe-Hubs' infrastructure includes an Artificial Turf Sports Field connected to a Youth Centre, which enable the following core model versions:

14.3.2 Edu Football Curriculum

The Edu Football Curriculum guides the core programme Safe-Hubs which is aimed at young people aged five to 18 years old. The curriculum provides age-appropriate, structured play and sporting activities to develop active youth with positive attitudes and values; strong resilience and social competencies; and a good quality of life. It is a cradle-to-career pipeline intentionally designed to complement a young person's journey to adulthood.

14.3.2.1 Digital Lab

The digital lab is run in partnership with R-Labs, including 40 workstations. The Safe-Hub's Digital Lab creates an enabling environment that supports youth on a weekly basis with building their digital skills for the 21st Century.

14.3.2.2 Career Development Café

A youth café designed by young people, offering webbing, learning, networking, and exchange space with access to free WIFI Internet and further education, training and employment opportunities.

14.3.2.3 Multi-Purpose Sports, Arts & Culture Facilities

Offering a broad range of high-quality youth focused activities at the Safe-Hub, including cricket, netball, karate, chess, aerobics, athletics, board games as well as arts and culture (dance, visual arts, choir, drama).

14.4 Food Security

Food security is a major issue in rural South Africa with adults and children still going to bed hungry at night. Hunger negatively impacts performance both at work and at school, quality of life and long-term health. Many FSA members run a variety of initiatives that look to address food security in rural communities.

14.4.1 Sappi Forests: Agri-business Pilot Projects: KwaZulu-Natal, Mpophomeni, Pinewoods, Mphithini and Shikishela

Resources employed: Sappi's Forestry managers, Community Services officers and ESD department specialists all work together with partners (contactors, government departments and agencies) in training, development, guidance and advice regarding administrative and operational support and assistance.

Given the limited work opportunities for the rural youth and women (in particular), Sappi has been seeking opportunities to provide access to land to emerging farmers, to not only start with subsistence farming, but to extend the reach into competitive agri-business ventures.

14.4.2 Pinewoods/ Mpophomeni area

Sappi has provided a young man Nhlanipho Nzimande, owner of Ikhuze Farmer Pty Ltd. With access to just over 2 ha of land. The size of the plot allows him to plant enough produce to be competitive in the market and with no restrictions on the type of produce.

14.4.3 The Mphithini Cooperative near Bulwer

The Cooperative operates with 11 members, focusing on agriculture production specialising in sugar beans and maize production. These crops are seasonal, so the co-op members wanted to venture into vegetable production.

14.4.4 Shikishela in Mtubatuba

In 2018, Ms Ntombiyenkosi Mbuyazi and four other women started planting peanuts on a newly planted Sappi compartment close to her community at Shikishela in Mtubatuba. Since then, Sappi has made more land available and sponsored seeds and there are currently 20 participants in the Palm Ridge project area.

Through Sappi's Enterprise and Supplier Development (ESD) Unit, the project participants are being assisted to register the business as a Co-operative, with the main goal to ensure sustainability of the project through taking advantage of opportunities including funding and securing the market so that it may grow and contribute to financial gains for the participants and their families.

14.5 Enterprise and Supplier Development

The forestry industry was one of the few industries to quickly embrace the mutual benefits of enterprise and supplier development, realizing that remaining healthy in business required a deliberate investment in smaller suppliers. As early as 1983, well before the promulgation of the B-BBEE Act in 2005 which led to the development of the Forestry Sector Transformation Charter, forestry companies started assisting communities to establish their tree-farming businesses. This was done mainly to increase the timber basket feeding the processing plants. Up to today, the process continues and has evolved to create all forms of enterprises ranging from silviculture, harvesting and transport contractors servicing timber growers, to enterprises that deliver numerous products and services to forestry companies and neighbouring communities.

14.5.1 Merensky Timber: KwaZulu-Natal Mkomasi Woodwork Centre

Since October 2018, Singisi Forests Products (SFP) has been running a woodwork training centre as part of an initiative to empower unskilled and unemployed community members in the areas surrounding its operations. The purpose of this programme is to assist community members with the skills to become entrepreneurs or to enter the formal employment sector as carpenters. The centre provides basic woodwork training and entrepreneurship skills. The training programme runs for a period of 6 weeks. Over the last three years that the centre has been in operation, 116 learners have been successfully trained.

Two graduates who were trained at the centre have gained formal employment with Singisi Forests Products as carpenters. Four previous learners have also been employed by the company for woodwork-related projects for the school. Some learners are earning a reliable income as entrepreneurs by manufacturing and selling wooden items to their communities. Some learners are manufacturing items for their households and own consumption.

14.6 Community Infrastructure

Forestry is associated with the maintenance of public roads, the construction and maintenance of low-profile bridges in the rural landscape, a service offered at no cost to local municipalities. The construction of educational facilities like classrooms, laboratories and libraries in the deep rural spaces and afforested areas is normally accepted as the role played by corporate forestry. However, even private timber farmers support the development of community and residential infrastructure like permanent housing and churches.

14.6.1 NCT Forestry: Water for Mtunzini

Project duration: December 2020 – May 2021

Project objectives: To provide cost-effective sanitation for the Mtunzini Community. Project deliverables: A gravity-fed water source, with 13 outlet points and two quick-fill overhead points for firefighting.

The need for sanitation was further necessitated by Covid-19 protocols of regular hygiene and washing. Government intervention proved to be a slow process so to solve their water problem, NCT intervened. Baynesfield Estate took on the project management. This allowed NCT to continue with the project by reducing the need to appoint a consultant for a project of this calibre and to deliver close to budget parameters.

There are 13 water points from which the community can collect water. In addition, two quick-fill overhead points were added to the system for fire protection and other farm uses, making this project, in terms of water delivery, a win/win situation for NCT and the community. NCT and Joseph Baynes Estate employ labour from the Mtunzini community.

14.7 Environment

The forestry landscape is a patchwork in nature, with approximately 30% of forestry planted and the remaining permanently unplanted. This includes great swathes of natural and semi-natural ecosystems, including over 61 000 hectares of indigenous forests, 171 000 hectares of grassland and just under 60 000 hectares of waterbodies that

are all managed, monitored and maintained by the forestry industry. Properly developed and managed, these natural areas in the heart of our plantations could have a central role in the protection and conservation of ecological services and biodiversity. FSA members realise this and have put in place strategic partnerships with government departments, environmental NGOs and research institutes to ensure these natural spaces in their landholdings are managed correctly for the benefit of future generations.

14.7.1 Sappi Forests: Sappi/WWF-SA Water Stewardship Collaboration: KwaZulu-Natal, uMkhomazi Catchment Area

Project objectives: Sappi has entered a water stewardship collaboration with WWF-SA which aims to protect, conserve and manage the water needs and usage in the uMkhomazi catchment area. This partnership with WWF-SA enables us to improve our understanding of the water resource needs in the catchment and through proactively partnering with stakeholders in the catchment, we can address the changing water needs of businesses and communities of the uMkhomazi.

15. Management of leased plantations

Leasing of forestry land, otherwise referred to as benefit sharing occurs where some of the income from the production of forest products is transferred to others (usually people living in or around production areas), (SOFO, 2014). This can include revenue sharing (where some forest charges collected by government are transferred to others) or agreements where companies working in the sector provide payments or benefits in kind to the local communities where they are working (SOFO, 2014). Benefit sharing is a redistribution of income in the sector rather than income from a separate economic activity, so it could only be used to assess the level of benefits derived from the forests. However, in the South African context, it is difficult to precisely quantify the number of beneficiaries on leased land since no comprehensive studies have been conducted to determine the levels of benefits derived from leased forestry land. The challenge is equally the same with the rest of the globe. As part of the government decision to refrain from business as informed by the white paper on Sustainable Forests Development in South Africa (1996), a bulk of State Forest Plantations were grouped into packages and leased several companies commencing in 2001. These companies, which all have a 70-year lease agreement (renewable) with government are the Amathole Forestry Company (AFC), Singisi Forestry Products (SFP), Mountain to Ocean (MTO) Forestry, SiyaQhubeka Forest (SQF) and the state-owned company, the South African Forestry Company Limited (SAFCOL). The companies jointly manage a plantation area of about 372 799 ha.

Table 15: Companies managing State Forest land

Forestry Company	Plantable area		Other area		Conservation area		Total (ha)
	(ha)	%	(ha)	%	(ha)	%	
Amathole Forestry Company	14551.42	57.3	5444.20	21.4	5409.149	21.3	**25404.778**
Singisi Forest Products	57358.03	74.9	14398.27	18.8	4806.69	6.3	**76562**
MTO Forestry	34135.37	59.8	7423.86	13.0	15501.99	27.2	**57061.22**
SiyaQhubeka Forests	20756.80	78.5	1199.30	4.5	4494.77	17.0	**26450.87**
SAFCOL	121698.10	65.0	17271.86	9.2	48350.29	25.8	**187320.27**
Grand Total	**248499.72**	**66.7**	**45737.49**	**12.3**	**78562.889**	**21.1**	**372799.138**

Source: DFFE

The Lease Agreements with these companies have certain conditions agreed between the Lessee (Tenant) and the Lessor (Government). The latter has to monitor, assess and report on compliance of the Agreement. The clauses (conditions), which put obligations on both parties, include *inter alia*, the following:

a) period and termination of agreement.
b) payment of annual rentals by lessees.
c) disbursement of rental monies to land beneficiaries by the lessor.
d) review of rent rental rates every five years.
e) granting of lease licences by the Minister to the lessee.
f) land use change, if warranted.
g) clear-cutting of exit areas.
h) sustainable forest management practices.
i) access for research purposes.
j) right of inspection.
k) transfer of land-to-land claimants;
l) monitoring of compliance with payment of rates and taxes.
m) maintenance and improvements to fixed assets.
n) sub-letting.
o) asset insurance cover; and
p) and third-party rights

Government, through the Department of Forestry, Fisheries and the Environment (the custodian of the forests) is continually monitoring implementation of the agreements and equally working towards achievement of its obligations.

The department has leased some of the state forests to five companies namely: Siyaqhubeka forestry company, MTO Forestry Company, Amathole Forestry Company, Singisi Forestry Company as well as SAFCOL. These companies pay lease fees to DFFE. The revenue collected from leases was R 100 918 991,39 (2019); R 107 486 298,31 (2020); and R 109 788 002,41 (2021). This brings the total amount generated from leases to R 318 193 292,11. Table 16 presents the revenue collected from the different leases for the period between 2019 and 2021.

Table 16: Revenue collected from forestry leases 2019-2021

Company Name	2019	2020	2021	Total Received
Siyaqhubeka Forestry Company	R14 600 359,25	R15 803 051,16	R16 059 870,74	**R46 463 281,15**
MTO Forestry Company	R4 870 502,31	R4 970 731,19	R5 133 862,90	**R14 975 096,40**
Amathole Forestry Company	R3 407 867,70	R3 520 732,28	R3 530 251,60	**R10 458 851,58**
Singisi Forestry Company	R10 842 258,67	R13 722 205,62	R14 465 558,47	**R39 030 022,76**
SAFCOL	R67 198 003,46	R69 469 578,06	R70 598 458,70	**R207 266 040,22**
Total	**R100 918 991,39**	**R107 486 298,31**	**R109 788 002,41**	**R318 193 292,11**

During the reporting period six claimants were paid for leases. The claimants are Ndzimankulu CPA, St Paul CPA, Qolombana, Mbolompo CPA, Mbonambi Trust as well as Mkhwanazi Trust. A total amount of R 78 369 734,71 was paid to the claimants during the reporting period (2019-2021). These figures are better illustrated in table 17.

Table 17: Funds paid to claimants/ beneficiaries 2019-2021.

Community Name	2019	2020	2021	Total Paid
Ndzimankulu CPA	R231 500,00	R11 000,00	R18 000,00	**R260 500,00**
St Paul CPA	R0,00	R0,00	R3 216 913,85	**R3 216 913,85**
Ngunjini CPA	R0,00	R0,00	R0,00	**R0,00**
Qolombana	R86 750,00	R60 000,00	R1 083 102,50	**R1 229 852,50**
Qelana CPA	R0,00	R0,00	R0,00	**R0,00**
Gqogqorha CPA	R0,00	R0,00	R0,00	**R0,00**
Mbolompo CPA	R0,00	R867 345,73	R3 187 674,15	**R4 055 019,88**
Mbonambi Trust	R0,00	R34 609 444,48	R34 154 004,00	**R68 763 448,48**
Mkhwanazi Trust	R0,00	R0,00	R844 000.00	**R844 000,00**
Western Shores Trust	R0,00	R0,00	R0,00	**R0,00**
Total	**R318 250,00**	**R35 547 790,21**	**R42 503 694,50**	**R78 369 734,71**

17. Forest Monitoring and Reporting: National Forest Resources Assessment

National forest monitoring, carried out by many countries in the world, provides a means of communicating with specialists and the public about forest characteristics and change (FRA, 2015). Detecting and understanding forest resource change depends entirely on continuous or repeated forest inventory and monitoring activities. Without monitoring, the nature and direction of forest change would be based on guesswork (FRA, 2015) this is particularly true for South Africa as it relates to deforestation and forest degradation. While data is available regarding the extent and distribution of plantation forestry and indigenous forests in the republic, data on the latest status of woodlands is not available. The data used to estimate the extent of woodlands is based on studies or inventories carried out some decades back without any ground trothing done. DFFE has the responsibility of administering the Act across South Africa. The department is mandated to conduct forest monitoring in terms of Section 6 of the National Forests Act (No. 84 of 1998). Among others, it is legally required to monitor the maintenance and development of forests with reference to:

a) forest resources;
b) biological diversity in forests;
c) health and vitality of forests;
d) productive functions of forests;
e) protective and environmental functions; and
f) social functions of forests

In response to the legal mandate to monitor forests, and in response to several other national and international reporting requirements, the department developed a conceptual framework for a national forest resource assessment. The department piloted two studies, through the CSIR in Bushbuckridge, Mpumalanga (2018) and another in the Buffalo City Metropolitan Municipality, Eastern Cape (2018). The CSIR study was primarily meant to test feasibility of the framework developed by the department. The department appointed Southern Mapping Geospatial in 2018 to conduct a Forest Resource Assessment Pilot Study over the Buffalo City Metropolitan Municipality (BCM) as stated. The BCM study was completed in 2019. The department had planned on conducting another pilot study, the plan was to conduct the FRA for the Mopane District Municipality in Limpopo. However, due to institutional challenges and insufficient capacity the project was put on hold.

18. Forestry Certification

Forestry certification is a tool used to promote sustainable forest management globally. The Global Forest goal speaks to sustainable forest management one of the targets speaks to increasing the forest land with long-term management plans. The forest certification schemes use the availability of long-term management plans as one of their criteria for certification. In South Africa there are two certification organisations operating i.e. FSC (Forest Stewardship Council) and Sustainable African Forest Assurance Scheme (SAFAS).

18.1 FSC Certification

The South African forestry sector joined the Forest Stewardship Council (FSC) certification over 20 years ago. The FSC aims to improve forest management worldwide. The FSC certification is an incentive for ensuring sustainable forest management. For an organisation to be granted FSC certification, it should first meet all the FSC principles. As of January 2022, South African organisations held two types of certifications namely: Forest Management certification and Chain of Custody certification.

The forest management certification is to show that the logging operations are socially beneficial, carried out in an environmental perspective and economical viable manner.

The Chain of custody certification ensures that all branded products through the chain are from certified forests. It verifies the rigorous monitoring traceability of FSC wood, from certified forests to the finished products. The certification is for manufacturing companies that want to show their customers that the products are made from raw materials produced in a responsible manner.

The first forest management and chain of custody certificates to a South African organisation were issued in 1997. As of January 2022, South Africa has 20 forest management certificates and 190 chain of custody certificates.

18.2 SAFAS CERTIFICATION

The Sustainable African Forest Assurance Scheme (SAFAS) is a national certification agency. This agency was officially endorsed by the Programme for Endorsement of Forest Certification (PEFC) in November 2018. The SAFAS sustainable forest management standard is based on the department's principles criteria, indicators and standards for sustainable forest management. The Department was involved in the development of the SAFAS standards.

The SAFAS was established to address the concern that small-scale timber growers and family run forestry participants were being left behind in respect to certification. SAFAS also has similar certification as the FSC.

19. Commercial Forestry Master Plan

In September 2020 the Masterplan for the Commercial Forestry Sector in South Africa 2020-2025 was adopted. The masterplan is in support of the re-imagined Industrial Strategy (RIS) for South Africa that was approved in 2019. Forestry is one of the sectors that has been prioritised under the Public Private Growth Initiative (PPGI) to stimulate investment.

The goal of the masterplan is to increase investment, jobs and competitiveness, underpinned by greater inclusivity in the forestry sector. This masterplan focuses on five subsectors of the forestry value chain namely: Primary sector, pulp and paper, sawn timber, board products, utility poles and treated products. In order to achieve the above-mentioned goal seven key focus areas were adopted:

a. **Focus area 1:** Expanded forestry resource and maintenance/ protection.
b. **Focus area 2:** Transformation.
c. **Focus area 3:** Processing.
d. **Focus area 4:** Illegal timber and crime-related activities.
e. **Focus area 5:** Research, development, innovation and skills development.
f. **Focus area 6:** Key inhibitors.
g. **Focus area 7:** Institutional development.

The Masterplan has the following headline targets that should be achieved by 2025:

- The target on investment is R24,9 billion to be invested, of which R8 billion had already been invested by the year 2020. A further R14 billion expected pending removal of some inhibitors, this would bring the investment to R38,9bn. There is also a target of 100 549 jobs of which the bulk will come from new afforestation.
- To meet the current and future needs from forests, afforestation of new areas identified in the Eastern Cape and KwaZulu-Natal is required (a total of 100 000 hectares of additional plantation land).
- The return of previously afforested land to its full productive potential. This includes category B&C plantations (63 000 ha) and the Western Cape exit areas (22 000 ha) as well as poor performing plantations.

Part 3
Forest Policy, Governance and Legislative Framework

1. Policy and Legislation

1.1 The Constitution of the Republic

The Constitution of the Republic of South Africa (1996) is the supreme law of the country. It is based on certain rights and responsibilities conferred to all the people who live in the country. Institutions of government are encouraged to uphold the constitution; thus, they have to develop, implement and monitor policies, strategies and programmes for ensuring that the spirit of the constitution is always upheld. Section 24 of the constitution aspires that everyone in the country should not be exposed to the environment, which is harmful to their well-being. The section deals with the environment and states that "Everyone has the right-

(a) to an environment that is not harmful to their health or wellbeing; and
(b) to have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that-

(i) prevent pollution and ecological degradation;
(ii) promote conservation; and secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development".

The law is driven by the quest to ensure development and sustainable management of the country's natural/ renewable resources for the current and future generations while ensuring that these continue to provide their ecological functions. The National Development Plan (NDP): 2030 recognises the importance of natural resources in the development and growth of the country's economy. The NDP identifies forestry and agriculture as the sectors with the potential to create some one million jobs over the duration of the plan (a period leading to 2030). This is very significant in addressing the country's triple challenges of unemployment, poverty and inequality, which are pitting the lives of the poor people of the country in abject conditions. The constitution directs the forestry mandate in the country, thereby indicating in Schedule 4, Part A that forestry is the competence of national government. However, natural forests are a concurrent competence of both the national and provincial spheres of government. This means national government may use various instruments or mechanisms to devolve the responsibilities of indigenous forests management to other authorities in the provincial or local spheres or any other competent management agency.

1.2 Forestry White Paper

The White Paper on Sustainable Development in South Africa (1996) is a policy document that guides forests ownership and management in the country. Prior to the adoption of the White Paper in 1996, the State was intensively involved in the business of commercial forestry plantation, which is inevitably profit orientated. Considering that the State is primarily responsible for creating the environment conducive for business to develop and thrive, this brought a clear conflict of interest whereby the state was simultaneously, a player and a referee in the commercial forestry sector. The White Paper on Sustainable Development in South Africa took a divergent approach that government should withdraw from direct management of commercial (plantation) forestry operations and repurpose itself as a sector leader thereby focusing on the core functions of policy development and sector regulation. Accordingly, the government commenced with the process of disposing or withdrawing from the business of plantation forestry through lease agreements. However, government, through the department of Forestry, Fisheries and the Environment is still managing the remaining over 61 000 hectares referred to as the category B and C plantations, depending on their viability and management objectives. Processes are underway to devolve or transfer these plantations to other recipients.

1.3 Forestry legislation

The laws governing forestry management and the sustainability of the forest resources in South Africa are the National Forests Act (NFA) and the National Veld and Forest Fire Act (NVFFA).

The purpose of the National Forests Act (No. 84 of 1998) is to promote sustainable management and development of forests for the benefit of all. It provides special measures for the protection of certain forests and trees while also promoting the use of forests for environmental, economic, educational, recreational, and cultural and health purposes. The Act also provides for the Minister to monitor forests and report on any facts and trends derived from the monitoring.

The purpose of the National Veld and Forest Fire Act (No. 101 of 1998) on the other hand is to prevent, and combat veld, forest and mountain fires throughout the republic. It provides for the establishment of voluntary fire management institutions in the form of fire protection associations, establishment of an early warning system and reasonable actions required for fire prevention and firefighting to mitigate the impacts of wildfires in the country. The act also has reporting obligations in that it requires fire protection associations to report to the Minister on annual basis on their activities including reporting on fire occurrences statistics.

Other legislation: Several other legislations influencing forestry in South Africa includes laws pertaining to Water (water use licensing for afforestation), Agriculture (Conservation of Agricultural Resources Act prohibits planting of commercial tree species on virgin land), Land (tenure and land rights), Environment (need for biodiversity protection and conservation) and Labour (remuneration of forestry workers)

2. Forest Governance

2.1 Forestry Management Branch

The forestry branch of the national Department of Forestry, Fisheries and the Environment, led by Deputy Director-General. The branch strives to create a conducive environment for plantation forestry to operate as sustainable businesses, administers and implements the two-forestry legislations, namely: the National Forests Act (1998) and the national Veld and Forest Act (1998). It develops policies and strategies, and implements programmes geared towards sustainable management and development of natural resources including awareness raising resources as well as compliance and enforcement of the legislation. It achieves these by working closely with all relevant stakeholders involved in the sector and its value chains. The department is still involved in direct management of over 61 000 ha of commercial plantations located in the Eastern Cape, KwaZulu-Natal, Mpumalanga, Limpopo and the North West. It also manages indigenous forests with an area of about 189 000 ha found in the regions of the Eastern Cape, KwaZulu-Natal, Limpopo and Mpumalanga. 82% of commercial plantations in South Africa are owned and managed by the private sector while 18% are publicly owned. Most woodlands forests occur in communal land and ownership of these is not clear. Some are in the National Parks and nature reserves cross the country. The department directly manages some 189 696 ha of indigenous forests, and the remainder occurs on private land. The branch establishes and chairs or co-chairs several forums based on thematic areas of work. These for a include the National Forestry research Forum (Research and Development), Forestry Liaison Forum (commercial forestry matters), the National Veld and Forest Fore Working Group (integrated fire management) and other internal/ departmental structures.

2.2 National Forests Advisory Council

The National Forests Advisory Council (NFAC) is a forestry statutory body established in terms of the NFA. The term of office for the NFAC is three years and its main function is to advice the Minister and the department on all matters pertaining to forestry in the country. The council has two committees, namely, Committee on Access and the Committee on Sustainable Forest Management which both report to the Chairperson of the Council. The department provides Secretariat services to the NFAC.

The National Forests Advisory Council (NFAC) is appointed in terms of Chapter 5, section 33 of the National Forests Act. The main objective of the NFAC is to advice the Minister on all forestry related matters in the republic. The council for this reporting period was appointed on 14 February 2019. According to section 34 of the NFA the council consists of a maximum of 20 members and a minimum of 14 members appointed by the Minister. In making the appointments to the council, the Minister must balance the interests of:

- Categories of persons disadvantaged by unfair discrimination.
- Communities involved in community forestry.
- Environmental interest groups.
- Persons who are involved in small scale- plantation forestry.
- Persons who are involved in small scale-timber processing.
- Persons with expertise who can assist the council in achieving its objectives.
- The forestry industry.
- The forest products industry.
- Trade unions representing employees in the forest and forest products industry.

The council has different committees. These committees are established through section 36 of the NFA. The NFAC has the following committees:

- The Executive committee.
- Committee on Sustainable Forest Management.
- Committee on Forest Access.

The Minister appointed 19 members, and the term of the membership lapsed on 14 February 2022.
The council's highlights during the reporting period:

- 2019-2020

Stemming from advice submitted, the department provided the council with the response to some issues. On high vacancy rate matter, the department has done some work to address it. This included the advertisement of funded posts as soon as the merger with the Department of Environmental Affairs was concluded. Regarding woodland access, the department reported that there were studies done and a draft woodland strategy framework developed but more some work needs to be done on the woodland strategy. Some additional work needs to be done with regards to the forestlands lost due to land conversion in the case of natural forests and woodlands. For plantation, it was raised that the Forestry Master Plan is underway to deal with the 100 000 hectares identified for afforestation in the Eastern Cape and KwaZulu-Natal. Funding for state forests to comply with the National Veld and Forest Fire Act, one of the interventions to mitigate the risk, the department deployed the Working on Fire teams from Mpumalanga Province to assist in the Western Cape Province with the assistance acquired from environmental programmes. This deployment is an interim mitigation measure since Western Cape was severely affected. The department is also in the process of employing a Working on Fire team for the Western Cape Province.

- 2020-2021

Stemming from advice submitted by the Council, the department provided the council with responses to some issues as follows:

Forestry village matters are vital to the department, the Ministry has discussed with the Deputy Minister of Human Settlement the challenges the department is experiencing in the different parts of the country on this matter. The Deputy Minister of Human Settlement has been engaged and has agreed to collaborate with DFFE. They will work together and have a concrete programme that will assist in bringing together municipalities, landowners and the affected communities to resolve the issue. The team planned to start visiting the Western Cape villages as a pilot, but the plan has been delayed by the Covid-19 pandemic. As soon as it is possible for the visit to take place, the team will attend to this. In the meantime, the department is engaging with the relevant stakeholders such as municipalities to find solutions.

Concerning the advice on Forest Sector Transformation, the Deputy Minister met with the Chairperson and the CEO of the FSCC to discuss some of the issues raised. The department has invited the Deputy Ministers of the different departments for a meeting to discuss the matters of concern raised that affect the improvement in the overall B-BBEE performance in the Forest Sector. The department is waiting for their responses, once the meeting takes place; there will be some guidance on how these matters can be addressed. It is important that the Forest Sector Charter Council is empowered so that it can execute its mandate.

The Deputy Minister raised the importance of utilizing the National Forest Recreation and Access Trust efficiently within the prescripts of the act. The branch is liaising with Legal Services on the best practices that are within the National Treasury guidelines and other applicable legal frameworks. But the council was requested to focus on ways to implement and ensure the sustainability of the fund, as there is currently no income, except from the interest accruing from the capital investment to balance the use and sustainability of the fund.

2.3 Forest Sector Charter Council

The Forest Sector Research Council (FSCC) was established to monitor compliance with the obligations of the social partners on the Broad-based Black Economic Empowerment (B-BBEE) Forest Sector Transformation Charter including government. The social partners to the forest charter include government, labour and business and they have all committed to certain commitments / responsibilities aimed at ensuring transformation and development in the forest sector. The FSCC is the custodian of the Charter, and its primary responsibility is to ensure compliance with the charter obligations and to report on the performance of the sector.

2019-2021

To support the implementation of the amended charter, government and industry are expected to deliver certain undertakings to support effective and sustainable B-BBEE in the forest sector. The following instruments were adopted:

- Instrument to support ownership targets.
    i. Leveraging of State Forests ownership
    The amended forest sector charter has allowed SAFCOL to apply for B-BBEE facilitator status. The state entity has made an application to the Department of Trade, Industry and Competition. The outcome of SAFCOL's application was awaited. This outcome influences the entities procuring timber from SAFCOL in relation to the procurement points.
    During this period two plantations were prioritised for restructuring of State Assets namely Rambuda and Nebo plantations. In the Rambuda plantation, a CFA was endorsed by Legal services while the Nebo plantation a memorandum detailing the donation of Nebo biological assets was submitted to the CFO.

- Instrument to support skills development targets.
    The sector skill plan for forestry is renewed annually. Both government and industry provide input into the process.

- Instrument to support enterprise and supplier development.

    In terms of this instrument the following was achieved during the 2019-2020 reporting period:
    i. Access to funds and financial services for Emerging Black Enterprise.
    The industry continued to offer a broad range of ownership and financing models throughout the vale chain. Fire insurance schemes were made available for small-scale growers through SAFIRE in terms of developing cost effective and accessible fire insurance for emerging growers.
    A programme composed of 27 projects was brought before the Presidency for R447million that would potentially create 20 000 jobs. The industry (through FSA) and Industrial Development Corporation (IDC) proposal to the presidential employment stimulus for this programme was unsuccessful.

ii. Capacity building and business support for Emerging Black Entrepreneurs.
The local industry has developed a timber winch for extraction of harvested timber from steep compartments. A total of 21 people employed by small scale community-based contractors received the first training session on using the winch. The industry through FSA gave three small scale growers or harvesters winches to use for a period of two years.
During this period Industry secured R1.3 million from FP&MSETA for industry-led training initiatives. However, due to COVID 19 pandemic these were put on hold.
The FSA further secured ±R17million from the European Union to support the five forestry-based institutions of higher learning in South Africa. The institutions are Fort Cox College of Agriculture &Forestry, Nelson Mandela University, University of Venda, Stellenbosch University as well as the Tshwane University of Technology.

iii. Expedite the authorisation process for afforestation and paper & sawmilling facilities.
In 2020-21 only five new water use licence applications were received by the DWS. However, 21 applications were processed of which 19 were approved.

iv. Small-grower certification.

v. Secure land rights and holding structures on communal land for afforestation.
The Communal Land Tenure Amendment Bill was approved for public comment.

vi. Framework agreements with banks and other funding institutions.
During the year 2020 land bank was piloting six projects submitted by the industry through FSA to test a new funding model.

- Instruments to support industry specific initiatives.
  i. Integrated Forest Sector Development in Provincial and Municipal Planning
  During this period the industry (through FSA) and DFFE, assisted the Mpumalanga provincial government in the development of the Forest Sector Development Plan Phase 1. The Kwa Zulu-Natal government was also assisted in the inclusion of forestry in the Provincial Agricultural Masterplan.

  ii. Forestry Protection services.

  iii. Strengthening representative industry structures.
  During the 2019-20 period the industry collaborated with all associations to produce a detailed five-year business plan for the entire forest value chain. This plan was presented to the President of the republic and many members of Cabinet.
  Due to hard lockdowns, most meetings were held through diverse virtual platforms. FSA managed to train all small-scale growers representatives across the country to use virtual meeting platforms.

2.4. Private Sector

The private sector, comprising of individuals, corporations, families and big companies play a major role mainly on commercial plantations businesses. The private sector's role is very important in that it creates the much needed jobs, invests significantly in research and development, corporate responsibilities for the upliftment of poor communities in rural areas and plug the wood/ fibre demand. This is particularly important in that their efforts assist in safeguarding our indigenous forests.

2.5 National Forest Research Forum

The National Forestry Research Forum (NFRF) was established recently in 2015 with the objective of guiding the implementation of the National Forests Sector Research and Development Strategy. In 2019, the Forum began the process of reviewing the Research and Development strategy to align it to emerging issues and challenges faced by the sector.

3. Legislative review

The President of the republic signed the National Forests Amendment Act of 2022 on 26 June 2022. The department had been working on the process of amending the principal National `Forests Act of 1998 for over 3 years prior to the date of enactment. The amendment of the act went through a rigorous consultation process to ensure compliance with the PAJA. The amendment of the principal act is vital to ensuring that the NFA addresses the current issues.

The amendment of the NFA was to provide for clear definitions of natural forests and woodlands; to provide for public trusteeship of the nation's forestry resources; to increase the promotion and enforcement of sustainable forest management; to increase the measures provided for in the act to control and remedy deforestation; to provide for appeals against decisions taken under delegated powers and duties; as well as to reinforce offences and penalties.

The principal act did not address the definitions for phrases such as destruction of natural forest. The absence of a clear definition for destruction of natural forest resulted caused difficulty in administering the parts of the act that refers to destruction of natural forest. Section 3(3)(a) of the principal act refers to new land use, the amendment act has definitions for both new land use and destruction of natural forest.

A new section on public trusteeship of the nation's forestry resources has been inserted. Section 2 A states that, "The National Government, as the public trustee of the nation's forestry resources, acting through the Minister, must ensure that these resources, together with the land and related ecosystems which they inhabit, are protected, conserved, developed, regulated, managed, controlled and utilised in a sustainable and equitable manner, for the benefit of all persons and in accordance with constitutional and developmental mandate of government".

Section 8 of the principal act has been amended by the insertion of sub-section (3). The subsection prohibits any person from conduction any activity that is inconsistent with the management objectives of a protected area, except under a licence.

A subsection (4) has been inserted to section 23 of the principal act. The subsection prohibits prospecting and mining activities in a state forest, except in terms of an existing lease agreement to mine, gravel or sand for road maintenance.

A full chapter has been inserted into the Act. The chapter outlines the process of appealing administration action taken. The principal act did not clearly address mechanisms of appealing. The chapter provides for the establishment of an appeal committee as well as vacancies in the appeal committee.

Due to inflation the fines in the principal act were outdated or ineffective. Therefore section 58 was amended to strengthen the penalties for contravention of the act. The maximum fine has been increased from R 50 000 to R 10 000 000.

Part 4
International and Regional Cooperation and Processes

1. International Cooperation and Processes

1.1 Food and Agriculture Organization of the United Nations

The Food and Agriculture Organization of the United Nations (FAO) is a specialised agency of the United Nations that leads international efforts to defeat hunger and improve nutrition and food security. Its latin motto, fiat panis, translates to "let there be bread", hence its main objective is to end hunger and poverty in the world. The FAO was founded in October 1945, making it the oldest existing agency of the United Nations and it is operating in over 130 countries.

It helps governments and development agencies coordinate their activities to improve and develop agriculture, forestry, fisheries, and land and water resources and conducts research, provides technical assistance to projects, operates educational and training programs, and collects data on agricultural output, production, and development.

The FAO is composed of 197 member states and is governed by a biennial conference representing each member country and the European Union, which elects a 49-member executive council. There are various committees governing matters such as finance, programs, agriculture and fisheries.

1.2 FAO Forestry Commissions

FAO has a number of commissions related to forestry. The commissions are based in the different regions of the world. They include the African Forestry and Wildlife Commission, Asia-Pacific Forestry Commission and many more.

1.2.1 African Forestry and Wildlife Commission

The African Forestry and Wildlife Commission (AFWC) of the Food and Agriculture Organization of the United Nations (FAO) was created in 1959 as one of six Regional Forestry Commissions established by FAO to provide a policy and technical forum for countries to discuss and address forest issues on a regional basis. The FAO Conferences between 1947 and 1959 established these six Regional Commissions. 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 their region. The commissions meet every two years and FAO encourages wide participation of government officials from forestry, wildlife management and other sectors as well as representatives of international, regional and sub-regional organizations that deal with forestry and wildlife-related issues in the region, including Non-Governmental Organisations (NGOs), and the private sector.

The AFWC held its 21st session in Dakar, Senegal from 19-23 June 2018. Two delegates from South Africa participated in the meeting along with more than 200 other participants including heads of states, government officials from 30 African countries, heads of forestry and wildlife institutions, officials and experts of regional and international organisations as well as development partners of the FAO. The meeting discussed how to manage and develop Africa's forests and wildlife resources in a sustainable manner, including restoration of forests where these have been degraded or over exploited. The meeting further discussed the support required for the African Forest Landscape Restoration Initiative (AFR100), including the Great Green Wall activities. Participants also called for an increase in investment for forest and wildlife conservation programmes and projects across the region. It was in this meeting that South Africa was nominated to host the 22nd Session of the AFWC in late 2019.

At the 21st Session, the African Forestry and Wildlife Commission noted the low number of country reports to the secretariat, called on countries to submit their reports for the next session of the commission, and sought to approach FAO to assist with mechanisms to help countries in the reporting process. The meeting further encouraged countries to participate actively in the Global Forest Resources Assessment (FRA) 2020 reporting process. South Africa participated and submitted the country report to the FRA Secretariat in 2018. The 21st session further encouraged countries to fully integrate wildlife into national forest-related policies and strategies, for a better conservation and sustainable management of the resources. The meeting further recommended member countries to expand the implementation of the Action Against Desertification project and promote the Great Green Wall concept and related large-scale restoration efforts in all dryland countries including in North Africa and sub-Saharan Africa. The Great Green Wall or Great Green Wall of the Sahara and the Sahel is Africa's flagship initiative to combat the effects of desertification. Led by the African Union, the initiative aims to transform the lives of millions of people by creating a mosaic of green and productive landscapes across North Africa and sub-Saharan Africa. Once complete, the Great Green Wall will be the largest living structure on the planet, 3 times the size of the Great Barrier Reef.

1.2.2 Other Commissions of the FAO

The other five Commissions of the Food and Agriculture Organizations of the United Nations, based on the continents of the globe include the following:

1.2.2.1 Asia-Pacific Forestry Commission

Created in 1949, the Asia-Pacific Forestry Commission (APFC) is one of six Regional Forestry Commissions established by FAO to provide a policy and technical forum for countries in the region to discuss and address forest issues. It meets every two years and involves a variety of stakeholders in the meetings.
FAO encourages wide participation of government officials from forestry and other sectors as well as representatives of international, regional and sub-regional organisations that deal with forest-related issues in the region, including NGOs, and the private sector in all its six Commissions.

1.2.2.2 Europe

Created in 1947, the European Forestry Commission (EFC) is one of six Regional Forestry Commissions established by FAO to provide a policy and technical forum for countries to discuss and address forest issues on a regional basis. It meets every two years.
The EFC has several associated subsidiary bodies, including the Working Party on the Management of Mountain Watersheds; the United Nations Economic Commission for Europe (UNECE)/ FAO Working Party on Forest Statistics, Economics and Management; and seven UNECE/FAO Teams of Specialists.

1.2.2.3 Latin America and Caribbean

The Latin and the Caribbean Forestry Commission (LACFC) was established in 1948 as an FAO Statutory Body to provide Member Nations with a technical and political forum to discuss and analyse issues related to forests, as well as their contribution to food security, sustainable food production in the region and the conservation of natural forest resources. Like with the other five commissions, it meets every two years and serves as a forum for issues and to exchange knowledge and experiences. This includes the formulation of policies for the sustainable management of forest and wildlife, monitoring forest resources, exchange of information, fight against deforestation and assessment of national and regional experiences.

1.2.2.4 North East

The Near East Forestry and Range Commission (NEFRC) was established in 1953 as one of the six Regional Forestry Commissions established by FAO to provide a policy and technical forum for countries to discuss and address forest issues on a regional basis. It also meets every two years.

1.2.2.5 North America

Established in 1958, the North American Forest Commission (NAFC) is one of six Regional Forestry Commissions established by FAO to provide a policy and technical forum for countries to discuss and address forest issues on a regional basis and meets every two years, and participation is like that of the other five commissions.

1.3 Committee on Forestry

The Committee on Forestry (COFO) is the highest FAO Forestry statutory body. As a global Technical Committee and one of FAO's governing bodies, it reports to the FAO Council on programme and budget matters and to the FAO Conference on policy and regulatory matters. The biennial sessions of COFO bring together heads of forest services and other senior government officials to identify emerging policy and technical issues, to seek solutions and to advise FAO and others on appropriate action. Other international organizations and, increasingly, non-governmental groups participate in COFO. Participation in COFO is open to all FAO Member Nations.

The Committee's tasks include:

a) Periodic reviews of forestry problems of an international character and appraise such problems with a view to concerted action which could be undertaken by member nations and the organization to resolve such problems.

b) Reviewing the programmes of work of the organization in the field of forestry and their implementation.

c) Advising the Director-General on the future programmes of work of the organization in the field of forestry and on their implementation.

d) Reviewing of specific matters relating to forestry referred to the committee by the council or the Director-General or placed by the committee on its agenda at the request of a member nation in accordance with the rules of procedure of the committee and make recommendations as may be appropriate.

e) Reporting to the council and conference and tender advice to the Director-General, as appropriate, on matters considered by the committee.

Congress on Forestry 25th Session (COFO 25)

The COFO 25 was held in Rome, Italy on 5-6 October 2020. The agenda of this session included the following topics: the world's forests in 2020; forests and biodiversity; forests-nature based solutions for climate change as well as forests and their role in transforming food systems.

During the session the committee recommended that an open, transparent and member-led consultation process be convened to finalize the draft Action Plan to implement the Strategy for Mainstreaming Biodiversity across Agricultural Sectors. In the process the comments and inputs from all technical commitments as well as the group of national focal points for Biodiversity for Food and Agriculture of the Commission on Genetic Resources for Food and Agriculture (CGRFA) be considered. The committee recommended that in future any papers dealing with inter-related issues between agriculture and forests be presented to both COFO and COAG. The committee approved the revised rules of procedure (of the COFO Working Group on Dryland Forests and Agrosilvopastoral Systems), with adjustments made to gender-neutral language, as proposed by the first session of the working group. Guidance was provided on the strategy for FAO's work in nutrition, from the perspective of forestry. This was to ensure the fulfilment of FOA's mandate and to support countries in their efforts to reach their Sustainable Development Goal (SDG) targets.

1.4 United Nations Forum on Forests

The United Nations Forum on Forests was established in the year 2000. This was following a five-year period of forest policy dialogue within the Intergovernmental Panel on Forests (IPF) and Intergovernmental Forum on Forests (IFF). Together with the Inter Arrangement on Forests (IAF), the UNFF was established in resolution 2000/35 as a subsidiary body of United Nations Economic and Social Council (ECOSOC). The main objectives of the UNFF are to promote the management, conservation, as well as sustainable development of all forest types.

1.4.1. UNFF14

The fourteenth session of the United Nations Forum on Forests (UNFF14) held discussions on implementation of the Strategic Plan for Forests 2017-2030 (UNSPF). The UNFF14 was held at the United Nations Headquarters in New York. The Forum was attended by 300 participants from Member States, international organisations, the Collaborative Partnership on Forests and major groups participated in three thematic technical panel discussions on links between Global Forest Goals and Sustainable Development Goals under review by the HLPF:

- Forests and Climate Change, which focused on forests in the context of SDGs13 and 17, as well as the Paris Agreement on climate change.
- Forests, Inclusive and Sustainable Economic Growth and Employment, this panel focused on links between forests and SDGs 8 and 17.
- Forests, Peaceful and Inclusive Societies, Reduced Inequality, Education and Inclusive Institutions at all levels, which discussed links between forests with SDGs 4, 10, 16 and 17.

During the Forum South Africa highlighted the vulnerability of Southern Africa to the effects of climate change, drawing attention to the impacts of the recent cyclones Idai and Kenneth on livelihoods and infrastructure.

1.4.2. UNFF15

The 15th session of the United Nations Forum on Forests was scheduled to convene from 4-8 May 2020 at the United Nations Headquarters in New York. However, due to the COVID-19 pandemic the physical meeting was cancelled. The Forum held virtual informal consultations with the aim of adopting an omnibus resolution.
The UNFF 15 session should have focused on policy dialogue, development, and decision-making. UNFF 15 was expected to adopt a resolution on several important issues including the Quadrennial Programme of Work (4POW) for 2021-2024 and hold a high-level segment to adopt a ministerial declaration.

The bureau prepared the UNFF 15 draft resolution through a transparent and consultative process involving submission of inputs by members and stakeholders and circulation of three revisions by email. UNFF Member States held virtual informal consultations on 4 and 19 June 2020 to reach consensus and tackle pending issues.

On 25 June 2020, UNFF15 chair put the resulting decision under silence procedure until 30 June 2020 4pm New York time. The silence procedure provides UN Member States with at least 72 hours to raise objections on a draft resolution or decision and allows for explanation of position.

The UNFF 15 omnibus resolution, which covers six out of 13 UNFF agenda items:

- Adopted the programme of work for UNFF 16 in 2021 and requested the Forum to decide on the programme of work for 2022-2024.
- Requested the Secretariat to continue to develop the Forum's concise flagship publication on progress towards achieving the Global Forest Goals and targets.
- Requested the Secretariat to propose refinements to the format for reporting on voluntary national contributions based on lessons learned.

- Requested the secretariat to continue work on designing the Global Forests Financing Facilitation Network Clearing House, and report progress at UNFF 17.
- The omnibus resolution invited the Forum to provide concise targeted inputs to annual sessions of the High-Level Political Forum on Sustainable Development (HLPF).
- The omnibus resolution welcomed the agreement of the General Assembly to retain the sub-programme on sustainable forest management of the UN Department of Economic and Social Affairs, as well as maintaining the classification of post of Director of UNFF. The UNFF 15 requested the UN Secretary General to expedite the recruitment and appointment process for the post of UNFF director.

1.4.3. UNFF 16

The sixteenth session of the United Nations Forum on Forests was held between 26-29 April 2021. Due to the Covid-19 pandemic, the Forum was held virtually. During the time of the event the world's focus was on the pandemic, the global economic crisis, and climate change. The UNFF16 reminded the international community that forests provide multiple socio-economic and environmental services as well as the potential of forests to address these global crises.

Over the course of the virtual meeting the UNFF16 focused on the United Nations Strategic Plan for Forests 2017-2039 (UNSPF); implementation of the communication and outreach strategy; thematic priorities for 2021-2022 in support of the UNSPF; monitoring, assessment, and reporting; as well as means of implementation.

The meeting also considered the review of the 2021 HLPF and the theme of the 2021 International Day of Forests, "Forest Restoration: A path to recovery and wellbeing". The Forum used this meeting to stress the importance of the health of the world's forests, noting an estimated 23% of the total anthropogenic Green House Gases (2007-2016) derive from agriculture, forestry and other land use. Furthermore, 2,4 billion people (one third of the world's population) still rely on wood fuel to meet their basic energy needs.

1.4.4. The Global Forest Goals

The UN Strategic Plan for Forests was adopted at a special session of the UN Forum on Forests held in 2017. The plan contains six Global Forest Goals and associated targets to be reached by 2030. These targets are voluntary in nature and universally applicable. One of the targets is to increase forest area by 3% globally by 2030.

The six Global Forest Goals:

- Goal 1: **Reverse Forest Cover Loss**: Reverse the loss of forest cover worldwide through sustainable forest management, including protection, restoration, afforestation and reforestation, and increase efforts to prevent forest degradation and contribute to the global effort of addressing climate change.
- Goal 2: **Improve Forest Benefits and Livelihoods**: Enhance forest-based economic, social and environmental benefits, including by improving the livelihoods of forest-dependent people.
- Goal 3: **Protect Forests and Use Sustainable Forest Products**: Increase significantly the area of protected forests worldwide and other areas of sustainably managed forests, as well as the proportion of forest products from sustainably managed forests. In response to Goal 3, South Africa has successfully amended the National Forest Act of 1998. The amendment aims at further protecting forests and ensuring sustainable forest management within the republic.
- Goal 4: **Mobilize Resources**: Mobilize significantly increased, new and additional financial resources from all sources for the implementation of sustainable forest management and strengthen scientific and technical cooperation and partnerships. In response to this Goal, the Republic has adopted the Commercial Forestry Masterplan, which advocated for mobilization of financial resources as well as strengthening the research within the forestry sector.

- Goal 5: **Promote Inclusive Forest Governance**: Promote governance frameworks to implement sustainable forest management, including through the United Nations Forest instrument, and enhance the contribution of forests to the 2030 Agenda for Sustainable Development.
- Goal 6: **Cooperate and Work Across Sectors**: Enhance cooperation, coordination, coherence and synergies of forest-related issues at all levels, including within the UN system and across member organisations of the Collaborative Partnership on Forests, as well as across sectors and relevant stakeholders.

1.4.5 The Global Forest Resource Assessment

The Global Forest Resource assessment is a program that reports on the status and trends of the world's forests. This program is led by the FAO of the United Nations. Data collection is based on two primary sources of date namely: country reports prepared by national correspondents; as well as remote sensing data that is compiled in cooperation with a network of national experts.

South Africa is an active participant in the Global Forest Resource Assessment program. The last project for the program was the FRA 2020.

Key findings of the FRA 2020 are as follows:

- More than half (54%) of the world's forests are in only 5 countries namely: the Russian Federation 815 million ha (20%), Brazil 497 million ha (12%), Canada 345 million ha (9%), United States of America 310 million ha (8%), and China 220 million ha (5%).
- Globally plantations account for about 3% of the world's forests.
- The Global annual net change in area of natural regenerating forests (in South African terms including woodland and natural forest) is minus 8 million ha per year and plus 3 million ha per year for planted forests. The loss of natural regenerating forests has slowed down as compared to 10 million ha per year for the period 2000-2010. The afforestation rate has also reduced from 5 million to 3 million ha per year.
- Africa had the largest annual rate of net loss in 2020-2020 at 3,9 million ha per year.
- Asia, Oceania and Europe had gain in forest cover.
- Forests face many disturbances that can adversely affect their health and vitality, these disturbances can reduce the forest's ability to provide a full range of goods and ecosystem services.
- Globally about 98 million ha of forest were affected by fire in 2015; this was mainly in the tropical domain.
- Insects, diseases and severe weather events damaged about 40 million ha of forest in 2015; this was mainly in temperate and boreal domains.

1.4.6. Global Forest Assessment Report 2020: South Africa country report

South Africa participated in the 2020 data generation for the Global Forest Resource Assessment 2020 through its nominated correspondents.

The following classifications was used for the study:

Forest: Land spanning more than 0.5 hectares with trees higher than 5 meters and a canopy cover of more than 10 percent, or trees able to reach these thresholds in situ. It does not include land that is predominantly under agricultural land or urban land use.

Other wooded land: Land not classified as "Forest", spanning more than 0.5 hectares; with trees higher than 5 meters and a canopy cover of 5 -10 percent, or trees able to reach these thresholds in situ; or with a combined cover of shrubs, bushes and trees above 10 percent. It does not include land that is predominantly under agricultural or urban land use.

Other land: All land that is not classified as “Forest” or “Other wooded land”.

Natural regenerating forest: Forest predominantly composed of trees established through natural regeneration.

Planted Forest: Forest predominantly composed of trees established through planting and/or deliberate seeding.

Plantation Forest: Planted Forest that is intensively managed and meet all the following criteria at planting and **stand maturity**: one or two species, even age class, and regular spacing.

The findings of the country’s study are as follows:

For the period between 1990-2020, the country’s forest cover has decreased from 18 142 090 ha to 17 050 090 ha. The other wooded land has remained constant at 49 682 430 ha. It is important to note that these figures are not consistent with the country’s classification of forest as this study classifies some of the forests (South African classification) as part of other wooded land as well as other land.

The report further states that from the country’s 14 998 470 ha of natural regenerating forests 14 088 470 ha remained in 2015. In 2020 the country remained with 13 906 470 ha of natural regenerating forests. The study assumed that planted forest remained constant at 3 143 620 ha from 1990 -2020.

1.5 United Nations Framework Convention on Climate Change

The United Nations Framework Convention on Climate Change (UNFCCC) is an international environmental treaty adopted on 09 May 1992 and opened for signature at the Earth Summit in Rio de Janeiro from 03 to 14 June 1992. It then entered into force on 21 March 1994, after a minimum required number of countries had ratified it. The UNFCCC objective is to «stabilise greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system». The framework sets non-binding limits on greenhouse gas emissions for individual countries and contains no enforcement mechanisms.

1.6 United Nations Convention on Biological Diversity

The UN Convention on Biological Diversity (UNCBD) is an international legally binding treaty with three main goals, namely, conservation of biodiversity; sustainable use of biodiversity; fair and equitable sharing of the benefits arising from the use of genetic resources. The Conference of the Parties (COP) is the governing body of the Convention on Biological Diversity (CBD) and advances implementation of the Convention through the decisions it takes at its periodic meetings, currently held every two years. To date, the Conference of the Parties (COP) has held twelve ordinary meetings and one extraordinary meeting, the latter specifically for the adoption of the Biosafety Protocol.

The Convention on Biodiversity (CBD) is an international treaty that has 193 parties including South Africa. Since its inception, the CBD has adopted three protocols in its framework, namely (a) Cartagena Protocol; (b) Nagoya-Kuala Lumpur Supplementary Protocol on Liability and Redress to the Cartagena Protocol on Biosafety to the CBD, and (c) Nagoya Protocol on Access and Benefit Sharing.

The Convention was signed by 150 government leaders at the 1992 Rio Earth Summit in Johannesburg and is dedicated to promoting sustainable development. It was conceived as a practical tool for translating the principles of Agenda 21 into reality. The convention recognises that biological diversity is about more than species of fauna and flora and micro-organisms and their systems that it is about the peoples of the world and their quest for food security, shelter, medicines, fresh air and water, and a clean and healthy environment in which to live.

The importance of South Africa's participation through agriculture forestry and fisheries sectors and other related sectors is a necessity to ensure food security and poverty alleviation; and enhancing the socio-economic benefits of forests to people. These sectors are being negotiated under various themes in numerous platforms as they are part of the most vulnerable sectors that are likely to be significantly impacted by both natural and man-made phenomena which inevitably, negatively compromises global food security, rural development and poverty alleviation.

1.7 CITES

The Convention on International Trade in Endangered Species of Wild Fauna and Flora is an international agreement between governments. The aim of this convention is to ensure that trade in specimen of wild animals and plants does not threaten the survival of the species. South Africa has been involved in CITES from the early stages of its inception. There are two indigenous tree species that are listed in the CITES appendices namely *Prunus africana* (also a protected tree species in terms of section 12 of the NFA) and *Dalbergia melanoxylon*.

1.7.1. CITES CoP 18

The CITES CoP 18 was scheduled for 23 May 2019 in Sri Lanka, however it was postponed and moved to Switzerland. Representatives from DFFE participated in the 18th meeting of the Conference of Parties. The meeting was held in Geneva, Switzerland on 17-28 August 2019.

During this meeting there were no outcomes that affected tree species indigenous to South Africa. However, a species indigenous to other Southern African countries was added to appendix II. The *Pterocarpus tinctorius* (Mukula tree) grows in the Miombo woodlands of Southern Africa. South Africa was a transit country for trade to other continents.

1.8 African Union Commission

The African Union Commission (AUC) is the Secretariat of the African Union (AU) and undertakes the day-to-day activities of the Union. The African Union is a continental union consisting of 55 Member States. It was founded on 9 July 2002 in Durban, South Africa, replacing the Organisation of African Unity (OAU). The main objectives of the AU were to rid the continent of the remnants of colonialism and apartheid, promote unity and solidarity among African States bar Morocco (which is not a member), coordinate and intensify cooperation for development and safeguard the sovereignty and territorial integrity of Member States.

The AUC, AU's Secretariat is entrusted with executive/ administrative functions and is somewhat analogous to the European Commission. The African Union Commission's functions include amongst others (a) representing the AU and defending its interests under the guidance of and as mandated by the Assembly and the Executive Council; (b) initiating proposals to be submitted to the AU's organs as well as implementing decisions taken by them; (c) acting as the custodian of the Union's Constitutive Act; and (d) assisting the 55 Member States in implementing agreed programmes.

1.9 Southern African Development Community

The Southern African Development Community (SADC) is one of the continent's Regional Economic Communities comprising 15 Member States; Angola, Botswana, Democratic Republic of Congo, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Seychelles, South Africa, Swaziland, Tanzania, Zambia and Zimbabwe. Established in 1992, 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 including the SADC Forestry Protocol. Eight primary Institutions, two of which have offices in Gaborone and Windhoek, coordinate the work of SADC. The rest of the 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 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 was developed, adopted and gradually implemented. The SADC

Forestry Strategy is ending in 2020, and it was being reviewed. Memorandums of Understanding (MoUs) on Integrated Fire Management and forestry issues were signed with the Kingdom of eSwatini, the Kingdom of Lesotho and Namibia some years back but these were never materially implemented. Processes for concluding MoUs with other adjoining countries were at different stages but these too were left unattended for quite a long time.

1.10 SADC Forest Law Enforcement, Governance and Trade

The SADC Forest Law Enforcement, Governance and Trade (FLEGT), following on other similar regional bodies, is a programme initiated to address illegal logging and the social, economic and environmental harm it causes in the SADC region. The SADC Forest Law Enforcement, Governance and Trade (FLEGT) Programme was approved by the Ministers in October 2013 in Maputo, Mozambique. The primary 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 and with the participation of all stakeholders including communities and with strong independent and transparent law enforcement agencies. In its effort to support the implementing of the SADC-FLEGT programme.

Part 5
Challenges in the South African Forests Sector

The South African National Development Plan: 2030 identified forestry as one of the key sectors in the country with the potential to contribute significantly towards the development of the country's economy and the creation of decent jobs. The document developed in 2016 by the then Department of Environmental Affairs, which was initially intended for the Operation Phakisa lab indicated that the commercial forest estate could be increased by 147 000 ha if the 100 000 ha identified in the Eastern Cape and KwaZulu-Natal for afforestation, the 25 000 ha identified in the Western Cape and Mpumalanga for recommissioning and the 22 000 ha TUPs under the department could be brought to forestry production. The total area 147 000ha, if all the area was to be planted in the first year of operation it will create approximately 18 000 jobs. Approximately 42 000 jobs could be created with down-stream processing industries. This totals approximately 60 000 jobs, and this could add to the existing jobs of 58 900 currently in the forest sub-sector.

However, there are several challenges which hinders the sector from realising its full potential of contribution to job 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; low afforestation uptake due to cumbersome licensing processes within government; the forestry industry is vertically integrated and concentrated in few companies prohibiting new entrants; Underinvestment in long-rotation timber, for example, sawlogs, which are not attractive to investors and developers; decreased forest land cover due to competing land uses, land claims, crime as well as fires and pests and diseases and climate change that results in varying temperatures and unreliable rainfall. The unprecedented timber theft, particularly in the state-owned plantations is an emerging threat to commercial forestry in South Africa, which may escalate to private plantations if not attended to decisively.

1. Regulatory Environment for Commercial Forestry

Commercial (plantation) forestry is regarded as a Steam Flow Reduction Activity (SFRA) in terms of the regulations under the National Water Act, 1998. Under these regulations, all activities classified as SFRA require licences before they could be undertaken, and the requirement seeks to ensure that water resources are conserved.

The forestry private sector characterised the measures government put in place as a hostile regulatory environment, which (according to them) halts investment. The private sector alleges that the current environment is not conducive to investment, blaming it for the low uptake of new afforestation, which led to the decimating forestry area.

It is widely believed that forestry development and growth in South Africa, other than the licence conditions and other environmental requirements, is hampered by the turnaround time deciding of whether to issue or not issue licenses, which is unacceptably high according to the industry. There are perceived delays in issuing of licenses since the process involves several government departments including the Ministry of Forestry, Fisheries and the Environment regarding authorisations of environmental impact assessment projects and the Ministry of Water and Sanitation, which administers the National Water legislation in terms of which Water Use Licences are issued or declined. The Department of Water and Sanitation has decided that it will take 300 days to issue a water licence. However, this excludes the time it takes to get other authorisations from other institutions before afforestation can take place. Environmental Impact Assessment studies usually take longer to complete and finalise, making the process even longer. There have been engagements between stakeholders, which led to the DWS committing to halving the turnaround time for processing the WULs applications.

South Africa is also a water scarce country thus there is inadequate water for forestry development, which makes it even more important that stringent measures are put in place to sustainably manage the water resources in the national interest. However, there seems to be accusations and counteraccusations between the industry and the DWS as the administrators of Water Use Licences. The department reported that while the industry raises concerns about low rate of afforestation in the country, they have noted that the industry is not planting on areas that were issued with licences to plant, particularly in the borders of KwaZulu-Natal and the Eastern Cape.

Challenges raised by the industry include changes in the license conditions, which they consider a regulatory burden due to Genus exchange. National Environmental Biodiversity Act (NEMBA) regulations coming into force in the Eastern Cape and Western Cape. This is viewed as an additional regulatory burden, a barrier and an additional cost to do business in the sector, especially for the small enterprises. The sector, through Forestry South Africa believes the industry was already innovative and diversifying, but that the regulatory environment is prohibitive for the sector to grow and realise its optimal potential in creating jobs and economic opportunities.

The industry views the current allocation of water in South Africa as skewed in that 62% of the water resources are allocated to agriculture while 3% is allocated to forestry. Currently, forestry is the only Stream Flow Reduction Activity in terms of the National Water Act, 1998 and the current drought conditions are putting severe pressure on the country's water resources.

2. Transformation in Forestry

South Africa comes from a painful system of apartheid whereby African people, particularly black women and youth were excluded from participating in the mainstream economy including in the commercial forestry business. The Broad-based Black Economic Empowerment Act (BBBEE Act) and its sector-based charters signed between social partners (government, labour and business) are mechanisms aimed at ensuring transformation in all sectors of the economy. The Forest Sector Broad-based Black Economic Empowerment Transformation Charter seeks to expedite transformation and growth of the sector thereby bringing on-board, previously disadvantaged groups such as women, youth and other racial groups, which were excluded prior to the attainment of democracy in 1994. The annual reports for the years 2015/16; 2016/17; 2017/18 and 2018/19, prepared by the Forestry Sector charter Council (FSCC) indicated that transformation is taking place at a slow pace. While the industry (private sector) is making some inroads in certain areas of transformation, much work still needs to be done to realise meaningful transformation in the industry, The Forest Sector Code was amended recently. In terms of the amended code, forest owners or managers, when reporting, need to provide clarity on how women benefit in terms of ownership. It is expected of them to come up with innovation to attract youth. The ownership element of the forest sector code provides for target points for voting rights and economic interests in the hands of black women. It also incentivises for measured entities that exceed their target weightings on these sub-elements. The implementation of the amended code commenced on 21 April 2017 and compliance and monitoring need to be conducted to ensure compliance by forestry companies.

Government, through the Forestry Sector Charter Council has observed limited participation of companies in the Charter. An Understanding of Forestry Association membership and those not aligned need to be established.

Currently, there is no clarity about the number of companies in the sector due to unavailability of data and there is poor reporting in the sector against the elements of the BBBEE scorecard. An analysis of reports does not paint a good picture regarding transformation in the forest sector. A community outreach and consultation process that was conducted by the FSCC highlighted the following issues as concerns, namely, skills shortage, funding, contracting by companies, beneficiation from the long-term leases, non-compliance with the elements of the charter, slow processing of afforestation licensing and lack of assistance with fire insurance for communities.

3.Recommissioning and Refurbishment of State plantations

Post 1994 when government decided to withdraw from plantation forestry, state plantations have seen accelerated decline over the past two decades. At some point, a cabinet decision was taken to withdraw plantation forestry operations in the Western Cape and Mpumalanga as the areas were deemed not to be economically viable or suitable for commercial forestry. This resulted in the withdrawal and halting of silvicultural operations, such as weeding, planting, pruning and thinning which made the plantations serious fire hazards. Government has since decided to recommission some of these areas amounting to about 25 000 ha in Mpumalanga (4 000 ha) and the Western Cape (21 000 ha). A study was commissioned in 2015 to determine how best to undertake the re-commissioning of the 21 000 ha in the Western Cape. The Covid-19 pandemic affected forestry as state forest land was invaded and vandalised during the lockdown period. In the Mpumalanga Lowveld there was a lot of vandalism to state forest property, to a point where forest management activities were halted. Western Cape (Knoflokskraal) saw reports of land invasion in some of the areas that were earmarked for recommissioning.

After the disposal of other state forest assets to other management entities, the state through DFFE, continued to manage some 65 948 ha of plantation areas referred to as Category B's and C's. Poor management and low productivity levels are prevalent in these state-owned plantations. High Temporary Unplanted Areas (TUPs) are common and are currently at more than 21.3% while the industry norm is 3%. Although some work has been done to improve or refurbish them, the progress made to date is insignificant. Various reasons have been attributed to the status quo ranging from ageing workforce, lack of adequate budget for infrastructure maintenance, high vacancy rate, cumbersome procurement processes (rigid supply chain management procedures that do not take into consideration, seasonal operations) and inadequate protection services. These plantations are destined for disposal or transfer to other recipients but need to be restored to economically viable levels before they could be restructured. The department has since developed a model for the future management of state plantations, which present various options. Future management / refurbishment initiative; partnership arrangements - including integration of new afforestation and existing assets have been explored as a way of overcoming these challenges.

The former DAFF's Integrated Growth and Development Plan (IGDP): 2011-2031 noted the two decades of shrinkage of the country's plantation resources and the increasing pressure posed by the decrease on natural forests and woodlands. The plan thus sought to ensure renewed growth, transformation and sustainability throughout the value chain, in economic, social and environmental terms in ways, which will continue to improve the lives of the poor, particularly, the rural communities. Implementation of recommissioning, refurbishment and subsequent restructuring of state plantation assets need to consider, the aspirations articulated in the 2011 IDGP. The plan further noted that only 68% of area covered by plantation estates in South Africa was planted with exotic tree species, which necessitates the need to plant more or reinvigorate forestry production and the state has a huge role to play in this regard. Moreover, the situation, as articulated in the IGDP was exacerbated by the fact that a conversion of about 85 839 ha of commercial timber production happened between 1980 to 2008.

4. High Levels of Timber Theft and Criminal Activities in State Plantations

The DFFE used to give tenders to communities as standing timber and later halted this approach. It was alleged that the illegal harvesters (syndicates) wanted the state to continue selling them the standing timber, this was their reason for harvesting without permission. The second reason was their claim to being the rightful owners of the land, hence the sense of entitlement to the resources. It was alleged that they were armed and that they threatened foresters with firearms, this led to the foresters avoiding confronting them in an effort to save their lives and those of their families. The illegal harvesters have all the harvesting equipment ranging from chainsaws, three-wheel bell loaders right through to articulated short haul and long-haul trucks. It was reported that cases were opened with SAPS in various regions including Bushbuckridge and the engagements between them and DFFE management failed to bear fruits as there was no decision taken on whether or not the state will revive the programme of selling timber to the harvesters, therefore the operations continued unabated. At Onverwacht plantation, it was reported that illegal harvesting started late in 2019, and operations continued even during the festive season with operations running day and night. The timber in the Lowveld (Bushbuckridge) plantations gets sold to nearby small Sawmills in the Mkhuhlu area of Bushbuckridge and Hazyview in Mpumalanga. In Kwazulu-Natal, it was reported that a forester who opened a case with the local SAPS in the KwaZulu-Natal province was allegedly attacked by a mob from the local community. The group from the community went to the house of the forester and demanded him to withdraw the charges laid against the illegal harvesters and threatened him with death. The illegal harvesting is spread throughout the country where the department has plantations in the provinces of the Eastern Cape, KwaZulu-Natal, Limpopo and Mpumalanga.

Commercial forestry in South Africa has many threats. These threats include forest fires and theft. Below are reported cases of theft and fires in plantations managed by the DFFE in Limpopo and Kwa Zulu Natal:

Limpopo region

- During the period from 2020 April to 2022 March, 43 cases of theft were reported to the South African Police Service. These cases were mainly for pole theft (the number of poles from these reported cases ranged from 10-300 poles per case). Most of the cases have not been concluded to date.
- During the same period a total of 26 plantation fires were reported.

KwaZulu Natal region

- During the 2019/2020 reporting period a total of 219 fires were reported and of these fires, 71% of the fires reported in the Msunduzi district were reported as arson.
- 2020/2021 reporting period there was a total number of 100 fires (1588,8 ha affected by fires). The Msunduzi area had 34 fires (all reported as arson).
- 2021/2022 reporting period 170 fires were reported. These fires affected 2805,64 ha of plantation forest in the region.

5. Electricity cuts

Energy in the form of electricity is important for the economy of the country to grow. The processing sub-sector i.e. pulp and sawmilling requires electricity for production. South Africa experienced unprecedented power shortages during the reporting period. The electricity challenges resulted in working hours being lost in the forestry processing sub-sector (e.g. sawmilling). This resulted in missed opportunities as the demand and price for timber was high during the reporting period.

6. Loss of forestry land

It is undisputed that commercial forestry areas have been decreasing steadily over the past few years from about 1.5 million hectares in 1997 to about 0.968 million hectares in 2020. This is a 36% decline in plantation forest between 1997 and 2020. The bulk of the forestry areas were lost because of delineation emanating from environmental regulations whereby previously planted areas were not replanted after harvesting. Although there is no data available to substantiate this, it is widely believed that some areas were lost because of land-use changes within forestry farms. The industry on the other hand is attributing some of the losses to the “hostile” regulatory climate.

During the reporting period there were reports of land invasion as well as illegal forest clearance. Reports of illegal forest clearance are documented in the media however, there is no official data to quantify the extent of forest lost during the period.

7. Closure of Plantation forestry enterprises

Although the plantation forestry sector managed to recover to the challenges created by the pandemic. There are companies that could not survive the challenges caused by the pandemic. Data from the CTRPRP report indicates that there has been a decline in the number of forestry companies. This is because some companies were liquidated post the COVID-19 pandemic. Closure of such companies threatens the sustainable provision of timber products within the countries. For example, data from the mentioned report indicates a 36% decline in forest plantation land for the Limpopo province. This can be attributed to liquidation of a major plantation company and non-responsiveness to the survey within the province.

The CTRPRP report also reported that the area of small and medium-scale plantations (<500 ha) has declined by 96%. This however is as a result of non-responsiveness to the survey questionnaires and lack of a proper data base.

Part 6
Analysis of Priority Challenges in the Forestry Sector

1. Timber Theft and Criminality in Plantations

Fire and theft remain a threat to the sustainable supply of fibre by the plantations managed by DFFE. Arson and robbing bees for honey were the major contributor to the fires in the plantations.

Prior to the State of emergency declaration, the lowveld plantations were under threat from illegal harvesting. However, the threat was increased once the declaration of state of emergency was announced. The visibility of forestry employees was hampered by the state of emergency (COVID-19 lockdown regulations). During the lockdown forestry employees had to leave their posts as a mitigation measure for the pandemic.

The lack of efficient security officers in state managed plantations influences the ongoing timber theft and vandalizing of state-owned assets. For example, in the Bushbuckridge (lowveld plantations) area, activities in state plantations were disrupted due to increased criminal activities in the plantations. Illegal sawmills have been developed in some areas. These illegal sawmills process timber that has been illegally harvested in the plantations. There has been reports of vandalising of state assets/ property in the lowveld of Mpumalanga.

2. Regulatory Environment for Forestry Challenges and Recommendations

Most of the Stream Flow Reduction Activities (SFRA) Water Use Licence Applications (WULAs) in KZN or EC are for small-scale growers or HDIs. These emerging growers are typically resource-poor and may require assistance in terms of completing the application forms and funding to conduct the required environmental and specialist studies (delineation of watercourses).

The industry may be frustrated with turnaround times for licences to be finalised and issued. This is mostly due to incomplete information or lack of critical environmental assessments when users apply. Since April 2021, the Department of Water and Sanitation has committed to a maximum of 90 days turnaround time to process an application. This period kickstarts after the completion of the pre-application enquiry where there would have been engagements on the application process, ensuring that application forms are correctly filled, and relevant studies and supporting documents (e.g. technical reports) are submitted.

3. Sector Transformation and Restructuring

Driving forces: Transformation in forestry should be non-negotiable. The quest for transformation in forestry, like with many other economic sectors of the sectors in South Africa is motivated by the history of the country. During the apartheid era, the majority of the population of the republic were deliberately excluded from the mainstream economic activities. The country is sitting on a time bomb and if transformation is not taken seriously, it has the potential of creating instability between the poor and the rich. Instability will inevitably result in unsustainable exploitation of natural resources as already observed in some parts of the country with land invasions and illegal harvesting of timber whereby some community members take the law into their own hands.

Pressures: It is anticipated that failure to involve the previously disadvantaged groups such as Africans, women and youth would lead to over exploitation or unsustainable use of forests and other natural resources. Rampant criminal activities have been observed in certain parts of the country where communities feel they are side-lined, for example, in leased planation areas. Unsustainable use of forests will result in pressures on the already scarce resources as South Africa is a low forest area with only about 1.2 million hectares of plantation forests, which need to serve the needs of about 60 million people.

States: Currently, the plantation forestry structure is white male dominated and vertically integrated, structurally prohibiting new entrants. This will have to change if meaningful transformation is to be achieved. Transformation in forestry, particularly on ownership and top management is non-existent or slow and this poses future risk although at the moment there is no evidence that the lack or slow transformation has caused any negative impact to sustainable forest management.

Impacts: Although there is no sign of negative impact to forests as a direct result of lack of transformation in forestry, there is a general feeling that this will in the near future cause instability. There is also a potential risk for sustainability as well as perpetual inequality that may exacerbate poverty and unemployment among the previously disadvantaged groups of the South African population, particularly in the rural areas where many people are poor and rely on forests for their livelihoods.

Responses: (a) In 2016 a database of forestry companies was developed to establish level of compliance regarding transformation; during the 2021/22 reporting period there was an increase in the number of reporting entities from 38 2020/21 to 113 reporting entities. The industry maintained a level 4. MLEs overall performance declined with the exception of Management Control. Good scores were still achieved in Ownership, Enterprise & Supplier Development and Socio-Economic Development. There has been a decline in Black ownership in MLEs. In terms of women in junior, middle and senior management positions there were improvements. However, there has been in a decline in board participation and executive management.

In terms of transformation, SAFCOL is performing well though disadvantaged by low representation of women in the board.

(b) To support the implementation of the amended charter, government and industry are expected to deliver certain undertakings to support effective and sustainable B-BBEE in the forest sector. The following instruments were adopted:Instrument to support ownership targets.

i. Instrument to support skills development targets.
ii. Instrument to support enterprise and supplier development.
iii. Instruments to support industry specific initiatives.

Through these instruments there were gains in terms of transformation. The gains include but not limited to training of small-scale growers, development of funding models as well as sharing of forestry equipment with the small-scale growers.

Part 7
Conclusion and Recommendations

1. Halting timber theft and criminal activities

Forest protection is at the heart of sustainable forest management, particularly in South Africa whereby the bulk of the population's timber needs are met by the 1.19 million hectares of commercial timber plantations. The industry has seen illegal logging of unprecedented magnitude in the recent years. State plantations are the epicentre of this brazen criminality, with KwaZulu-Natal, Limpopo and Mpumalanga being the hardest hit provinces. Stopping this type of criminal act is not only important to the Department but to the industry as a whole because this poses a serious threat to sustainability of the sector and the development of the country.

This is therefore the most important threat that needs urgent attention from government and key stakeholders. The department needs to consider procuring on an urgent basis, the services of armed security forces to secure the plantations in which illegal timber harvesting (theft) is taking place noting that the syndicates may take their modus operandi to other plantations, which are currently not under attack. The department and the industry may need to consider developing area specific forest protection plans which consider all key stakeholders and resources in the respective areas. It is important that the South African Police Service and the Justice Department be brought on board to assist with possible arrests and prosecutions of the perpetrators of these heinous crimes, which can also be characterised as economic sabotage.

The DFFE should invest in increasing the number of appointed forest officers. The forest officers should be equipped with knowledge of enforcing the National Forest Act as well as conducting investigations related to forestry crimes. The awareness campaigns with the SAPS and NPA officials should continue as they assist in making the police and prosecutors understand that forestry crimes should be prioritised.

It is recommended that new forest guards be appointed. The forest guards should be fit enough to patrol the state forests. These forest guards should also be trained on enforcement of the forest laws.

Fibre from plantation forestry is a strategic resource used in construction, mining, printing paper and packaging industry. Forestry crime should be treated as high priority due to its impact on forestry sustainability and economic impact. If not addressed the supply of fibre will be threatened. A low supply of timber will lead to the increase in the cost for consumers.

2. Transformation and Restructuring

South Africa has gone through a difficult apartheid regime in the past, wherein the majority of the citizens were excluded from certain economic activities. Transformation is a sensitive topic; however, it should be prioritised to address the negative impacts of the apartheid era. Information from the 2021/22 report of the FSCC indicates a decline in black ownership of medium to large entities within the sector. This is a worrying observation that should be investigated and corrected to ensure greater participation in the sector. During the period there has been improvements in terms of black people occupying junior, middle and senior management positions within the sector. A decline in board participation was observed. To ensure sustainable stability, it is important that restructuring and transformation within the sector be fast tracked.

3. The Regulatory Environment

The DWS recommends that applicants familiarise themselves with the requirements of SFRA WULAs as well as the 90 days WULA business process so that they can understand the process better to reduce delays and the confusion around turnaround times.

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Annexure 1: Table of illegal incidents in State forests managed by WIFM.

Date	Incident	Estate	Case Number
10/01/2022	Illegal debarking of *Harpephyllum caffrum*	Dukuduku: Futululu Forest, KwaZulu Natal	None
10/01/2022	Illegal harvesting of weaving grass	Dukuduku: Futululu Forest, KwaZulu Natal	None
17/01/2022	Remains of carcasses of fauna depicting illegal hunting	Dukuduku: Futululu Forest, KwaZulu Natal	None
18/01/2022	Illegal cultivation of banana within the forest	Dukuduku: Futululu Forest, KwaZulu Natal	None
24/01/2022	Illegal debarking of *Syzygium cordatum*	Dukuduku: Futululu Forest, KwaZulu Natal	None
24/01/2022	Fence destruction by *Ficus sur* Forssk	Dukuduku: Futululu Forest, KwaZulu Natal	None
24/01/2022	Illegal debarking *Albizia adianthifolia*	Dukuduku: Futululu Forest, KwaZulu Natal	None
11/01/2022	Illegal debarking of Glossy white ash (*Bersama lucent*)	Ngome:Ngome Forest, KwaZulu Natal	None
12/01/2022	Illegal debarking of Pigeon wood (*Trema orientalism*)	Ngome:Ngome Forest, KwaZulu Natal	None
14/01/2022	Illegal debarking of *Erythrophleum isianthum*	Ngome:Ngome Forest, KwaZulu Natal	None
18, 19, 20/01/2022	Illegal debarking of Cape Beech (*Rapanea melanophloeos*)	Ngome:Ngome Forest, KwaZulu Natal	None
11/01/2022	Snaring	Roodewal A&B, Limpopo/ Mpumalanga	None
19/01/2022	Deforestation	Thathe Vondo Limpopo/ Mpumalanga	None
01/02/2022	Illegal building of structures within the forest	Dukuduku: Futululu Forest, KwaZulu Natal	None
03/02/2022	Illegal harvesting of weaving grass	Dukuduku: Futululu Forest, KwaZulu Natal	None
15/02/2022	Illegal hunting using snares (Found 10 snares)	Dukuduku: Futululu Forest, KwaZulu Natal	None
18/02/2022	Illegal hunting using snares (Found 04 snares)	Dukuduku: Futululu Forest, KwaZulu Natal	None
01,03,16/02/2022	Illegal debarking of *Erythrophleum lasianthum*	Ngome: Ngome Forest, KwaZulu Natal	None
03,16,17,18/02/2022	Illegal debarking of Cape Beech (*Rapanea melanophloeos*)	Ngome: Ngome Forest, KwaZulu Natal	None
10/02/2022	Confiscated bag full of *Ocotea bullata* bark in the forest	Ngome: Ngome Forest, KwaZulu Natal	None
08/02/2022	Vandalization of Nyaka State Houses and Stolen water tank	UMzimkhulu: Nyaka Forest, KwaZulu Natal	341/02/2022
10/02/2022	Illegal cutting of indigenous trees	UMzimkhulu: Straalhoek Forest, KwaZulu Natal	None
02/03/2022	Illegal trimming of *Sclerocarya birrea*	Dukuduku: Futululu Forest, KwaZulu Natal	None

03/03/2022	Illegal cutting of *Vachellia karoo*	Dukuduku: Futululu Forest, KwaZulu Natal	None
07/03/2022	Illegal trimming of *Brachylaena discolor* trees	Dukuduku: Futululu Forest, KwaZulu Natal	None
07/03/2022	Illegal trimming of *Vachellia robusta* trees	Dukuduku: Futululu Forest, KwaZulu Natal	None
10/03/2022	Illegal trimming of *Gardenia cornuta* trees	Dukuduku: Futululu Forest, KwaZulu Natal	None
11/03/2022	Illegal trimming of *Syzygium cordatum* tree	Dukuduku: Futululu Forest, KwaZulu Natal	None
15/03/2022	Illegal cutting of *Sapium ellipticum* trees	Dukuduku: Futululu Forest, KwaZulu Natal	None
22/03/2022	Illegal trimming of *Strychnos spinosa* tree	Dukuduku: Futululu Forest, KwaZulu Natal	None
23/03/2022	Illegal state land invasion by community members	Dukuduku: Futululu Forest, KwaZulu Natal	Could not open a case without proof that DFFE is the landowner
01/03/2022	Break-in into the stores at Ngome state forest	Ngome: Ngome Forest, KwaZulu Natal	01/03/2022
09/03/2022	Illegal access and hunting in the State Forest with dogs	Ngome: Ngome Forest, KwaZulu Natal	None
11,22,24/03/2022	Illegal debarking of *Rapanea melanophloes* tree	Ngome: Ngome Forest, KwaZulu Natal	None
14,22/03/2022	Illegal debarking of *Ocotea bullata* bark in the forest	Ngome: Ngome Forest, KwaZulu Natal	None
19/03/2022	Illegal debarking of *Cassipoure agerrardii* and chopped *Rapanea melanophloes* trees	Ngome: Ngome Forest, KwaZulu Natal	None
09/03/2022	Deforestation	Tshitangani, Limpopo/ Mpumalanga	None
17/03/2022	Snaring	Goedehoop, Limpopo/ Mpumalanga	None
25/03/2022	Deforestation	Thathe Vondo, Limpopo/ Mpumalanga	None
2022/04/05	Deforestation	New Agatha, Limpopo/ Mpumalanga	None
04/04/2022	Illegal felling of *Vachelia karoo* tree	Dukuduku: Futululu Forest, KwaZulu Natal	None
04/04/2022	Illegal felling of *Gardenia cornuta* tree	Dukuduku: Futululu Forest, KwaZulu Natal	None
05/04/2022	Illegal felling of pigeonwood tree	Dukuduku: Futululu Forest, KwaZulu Natal	None
05/04/2022	Illegal destruction of the fence	Dukuduku: Futululu Forest, KwaZulu Natal	None
05/04/2022	Illegal felling of *Rauvolfa caffra* tree	Dukuduku: Futululu Forest, KwaZulu Natal	None
06/04/2022	Illegal debarking of Glossy white ash (*Bersama lucens*)	Ngome: Ngome Forest, KwaZulu Natal	None
07/04/2022	Illegal debarking of Pigeon wood (*Trema orientalis*)	Ngome: Ngome Forest, KwaZulu Natal	None

12/04/2022	Illegal debarking of *Erythrophylum isianthum*	Ngome: Ngome Forest, KwaZulu Natal	None
20/04/2022	Illegal debarking of Cape Beech (*Rapanea melanophloeos*)	Ngome: Ngome Forest, KwaZulu Natal	None
06/07/2021	Illegal hunting with snares	Dukuduku: Futululu Forest, KwaZulu Natal	None
07/07/2021	Illegal cultivation of banana in the forest	Dukuduku: Futululu Forest, KwaZulu Natal	None
07/07/2021	Illegal hunting with dogs in the forest	Dukuduku: Futululu Forest, KwaZulu Natal	None
10/07/2021	Illegal debarking of *Rapanea melanophloes* trees	Ngome: Ngome Forest, KwaZulu Natal	None
14/07/2021	Illegal debarking of *Erythrophleum lasianthum* trees	Ngome: Ngome Forest, KwaZulu Natal	None
22/07/2021	Illegal debarking of *Erythrophleum lasianthum* trees	Ngome: Ngome Forest, KwaZulu Natal	None
24/07/2021	Found 15 bags of bark debarked from various indigenous trees	Ngome: Ngome Forest, KwaZulu Natal	None
26/07/2021	Illegal debarking of *Erythrophleum lasianthum* trees	Ngome: Ngome Forest, KwaZulu Natal	None
05/10/2021	0.1 km fence stolen at Nyaka forest	UMzimkhulu: Nyaka Forest, KwaZulu Natal	208/10/2021
12/10/2021	Illegal poacher from Madakeni village found. Verbal warning was issued	UMzimkhulu: Nyaka Forest, KwaZulu Natal	None
01/10/2021	Illegal felling of buffalo thorn	Dukuduku: Futululu Forest, KwaZulu Natal	None
04/10/2021	Illegal felling of Silver Oak	Dukuduku: Futululu Forest, KwaZulu Natal	None
04/10/2021	Illegal harvesting of weaving grass	Dukuduku: Futululu Forest, KwaZulu Natal	None
05, 07, 08, 12, 15, 20/10/2021	Illegal felling of uMhlahle (*Gardenia cornuta*)	Dukuduku: Futululu Forest, KwaZulu Natal	None
11/10/2021	Feeding livestock without license	Dukuduku: Futululu Forest, KwaZulu Natal	None
15/10/2021	Illegal harvesting of bees	Dukuduku: Sokhulu Forest, KwaZulu Natal	None
22/10/2021	Illegal setting of fire within the forest	Dukuduku: Futululu Forest, KwaZulu Natal	None
22/10/2021	Illegal felling of head load poles in the forest	Dukuduku: Futululu Forest, KwaZulu Natal	None
01/10/2021	Illegal debarking of *Ocotea bullata* trees	Ngome: Ngome Forest	None
3 & 8/10/2021	Illegal access and hunting in the State Forest with dogs	Ngome: Ngome Forest, KwaZulu Natal	None
06, 18 & 22/10/2021	Illegal debarking of *Rapanea melanophloes* tree	Ngome: Ngome Forest, KwaZulu Natal	None
19/10/2021	Illegal debarking of *Cassipourea gerrardii* and chopped *Rapanea melanophloes* trees	Ngome: Ngome Forest, KwaZulu Natal	None
05/11/2021	Illegal debarking of Marula tree (uMganu) in the forest	Dukuduku: Futululu Forest, KwaZulu Natal	None

12/11/2021	illegal debarking of Marula Tree (uMganu) in the forest	Dukuduku: Futululu Forest, KwaZulu Natal	None
15/11/2021	Illegal harvesting of weaving grass	Dukuduku: Futululu Forest, KwaZulu Natal	None
15/11/2021	Illegal felling of *Scutia myrtina*	Dukuduku: Futululu Forest, KwaZulu Natal	None
22/11/2021	Attempted harvesting of *Callilepis laureola* (Impila), *Rothmannia globosa*, uVuka shrub, uMahlanganisa bulb trees	Dukuduku: Futululu Forest, KwaZulu Natal	None
22/11/2021	Illegal debarking of *Albizia adianthifolia*	Dukuduku: Sokhulu Forest, KwaZulu Natal	None
19/11/2021	Illegal debarking of a protected white Milkwood tree	Dukuduku: Mthunzini Forest, KwaZulu Natal	None
01/11/2021	Illegal debarking of *Ocotea bullata* trees	Ngome: Ngome Forest, KwaZulu Natal	None
12/11/2021	Illegal debarking of *Cassipourea gerrardii* tree	Ngome: Ngome Forest, KwaZulu Natal	None
12/11/2021	Illegal debarking of *Rapanea melanophloes* tree	Ngome: Ngome Forest, KwaZulu Natal	None
15/11/2021	Illegal debarking of *Ocotea bullata* trees	Ngome: Ngome Forest, KwaZulu Natal	None
16/11/2021	Illegal debarking of *Rapanea melanophloes* tree	Ngome: Ngome Forest, KwaZulu Natal	None
16/11/2021	Illegal debarking of *Erythrophleum lasianthum* tree	Ngome: Ngome Forest, KwaZulu Natal	None
05/11/2021	The patrol team found 2ton of firewood unpossessed S32° 35,923 E28°30,274, Illegal sand mining is continuing S32°35,716 E28°30,018	Centane, Eastern Cape	None
09/11/2021	During patrols the team found 10 bags of Indigenous barks unpossessed near beacon FD-4	Centane, Eastern Cape	None
03/11/2021	Patrol was conducted at Mbtotyi, and we found 11 abandoned Sneezwood poles	Ntsubane, Eastern Cape	None
05/11/2021	Patrol was conducted at Lukhethe, and we found abandoned gum laths	Ntsubane, Eastern Cape	None
09/11/2021	Law enforcement patrol was conducted at Mqaba, and we found abandoned indigenous laths	Ntsubane, Eastern Cape	None
15/11/2021	Law enforcement patrol was conducted at Bumbane, and 18 abandoned indigenous poles were found.	Ntsubane, Eastern Cape	None
17/11/2021	Law enforcement patrol was conducted at Nyamalala, and 10 abandoned poles were found	Ntsubane, Eastern Cape	None
30/11/2021	Law enforcement conducted at Nitrophenol and Luphoko. Indigenous tree was found cut down with a chain saw at Ntlopheni	Ntsubane, Eastern Cape	None
05/11/2021	Forest patrols were conducted at Nyando	PSJ, Eastern Cape	NO: 644/11/2021

12/11/2021	Snaring	Roodewal, Limpopo/ Mpumalanga	None
15/11/2021	Snaring	Songozwi, Limpopo/ Mpumalanga	None
16/11/2021	Deforestation	Gaba, Limpopo/ Mpumalanga	None
19/11/2021	Deforestation	Muklumbani, Limpopo/ Mpumalanga	None
11/11/2021	Illegal hunting	Letaba, Limpopo/ Mpumalanga	None
01/12/2021	Cutting indigenous trees	Mariepskop, Limpopo/ Mpumalanga	None
02/12/2021	Illegal dumping	Mariepskop, Limpopo/ Mpumalanga	None
06/12/2021	Snaring	Roodewal, Limpopo/ Mpumalanga	None
06/12/2021	Illegal hunting	Mariepskop, Limpopo/ Mpumalanga	None
11/12/2021	Cutting of indigenous trees	Mariepskop, Limpopo/ Mpumalanga	None
14/12/2021	Deforestation	Thathe Vondo, Limpopo/ Mpumalanga	None
15/12/2021	Snaring	Roodewal, Limpopo/ Mpumalanga	None
07/12/2021	Forest patrols were conducted at Isinuka	PSJ, Eastern Cape	NO: 275/12/2021
02/12/2021	Illegal felling of uMhlahle (Gardenia cornuta)	Dukuduku: Futululu Forest, KwaZulu Natal	None
02/12/2021	Illegal harvesting of Umnuku plants	Dukuduku: Futululu Forest, KwaZulu Natal	None
06/12/2021	Illegal debarking of uMhlahle (Gardenia cornuta)	Dukuduku: Futululu Forest, KwaZulu Natal	None
06/12/2021	Illegal felling of Umvuthwamini in the forest	Dukuduku: Futululu Forest, KwaZulu Natal	None
07/12/2021	Illegal digging of hole for ritual activities in the forest	Dukuduku: Futululu Forest, KwaZulu Natal	None
09/12/2021	Illegal debarking of Pigeonwood	Dukuduku: Futululu Forest, KwaZulu Natal	None

Annexure 2: List of South Africa's national forest types

I: SOUTHERN AFROTEMPERATE FOREST GROUP (VEGMAP CODE FOz I)

I1: Western Cape Talus Forests (VEGMAP CODE FOz I1)

I2: Western Cape Afrotemperate Forests (VEGMAP CODE FOz I2)

I3: Southern Cape Afrotemperate Forests (VEGMAP CODE FOz I3)

II: NORTHERN AFROTEMPERATE FOREST GROUP (VEGMAP CODE FOz II)

II1: Marekele Afromontane Forests (VEGMAP CODE FOz II1)

II2: Northern Highveld Forests (VEGMAP CODE FOz II2)

II3: Drakensberg Montane Forests (VEGMAP CODE FOz II3)

II4: Low Escarpment Mistbelt Forests (VEGMAP CODE FOz II4)

III: SOUTHERN MISTBELT FOREST GROUP (VEGMAP CODE FOz III)

III1: Eastern Mistbelt Forests (VEGMAP CODE FOz III1)

III2: Transkei Mistbelt Forests (VEGMAP CODE FOz III2)

III3: Amatole Mistbelt Forests (VEGMAP CODE FOz III4)

IV: NORTHERN MISTBELT FOREST GROUP (VEGMAP CODE FOz IV)

IV1: Northern Mistbelt Forests (VEGMAP CODE FOz IV1)

IV2: Mpumalanga Mistbelt Forests (VEGMAP CODE FOz IV2)

V: SCARP FOREST GROUP (VEGMAP CODE FOz V)

V1: Eastern Scarp Forests (VEGMAP CODE FOz V1)

V2: Pondoland Scarp Forests (VEGMAP CODE FOz V2)

V3: Transkei Coastal Scarp Forests (VEGMAP CODE FOz V3) (previously Transkei Coastal Forests)

VI: SOUTHERN COASTAL FOREST GROUP (VEGMAP CODE FOz VI)

VI1: Eastern Cape Dune Forests (VEGMAP CODE FOz VI1)

VI2: Albany Coastal Forests (VEGMAP CODE FOz VI2)

VI3: Western Cape Milkwood Forests (VEGMAP CODE FOz VI3)

VII: NORTHERN COASTAL FOREST GROUP (VEGMAP CODE FOz VII)

VII1: KwaZulu-Natal Coastal Forests (VEGMAP CODE FOz VII1)

VII2: KwaZulu-Natal Dune Forests (VEGMAP CODE FOz VII2)

VIII: TROPICAL DRY FOREST GROUP (VEGMAP CODE FOz VIII)

VIII1: Licuati Sand Forests (VEGMAP CODE FOz VIII1)

VIII2: Nwambyia Sand Forests (VEGMAP CODE FOz VIII2) – New Forest Type

VIII3: Ironwood Dry Forests (VEGMAP CODE FOz VIII3)

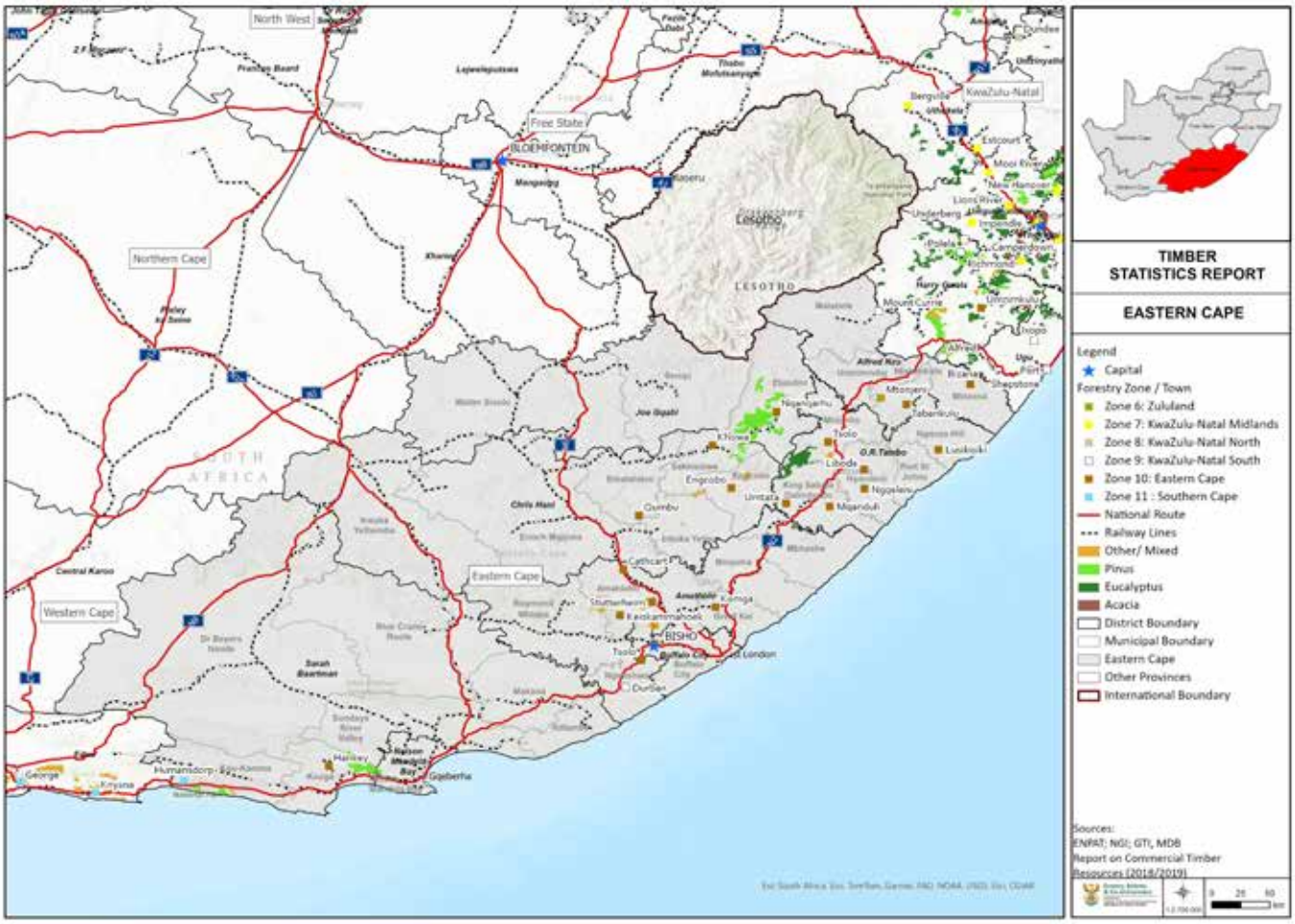
A: AZONAL FOREST TYPES

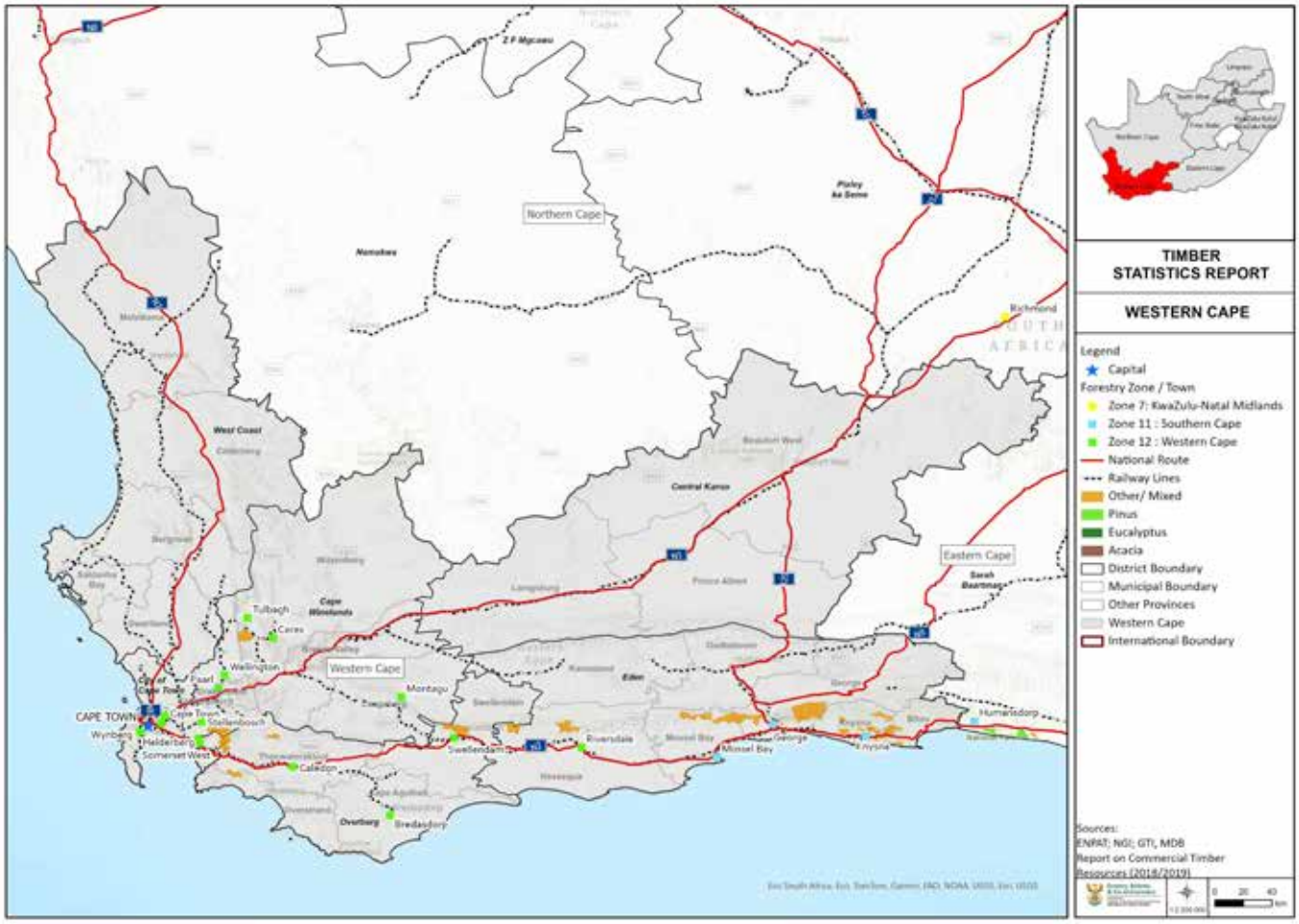
A1: Lowveld Riverine Forests (VEGMAP CODE FOa 1)

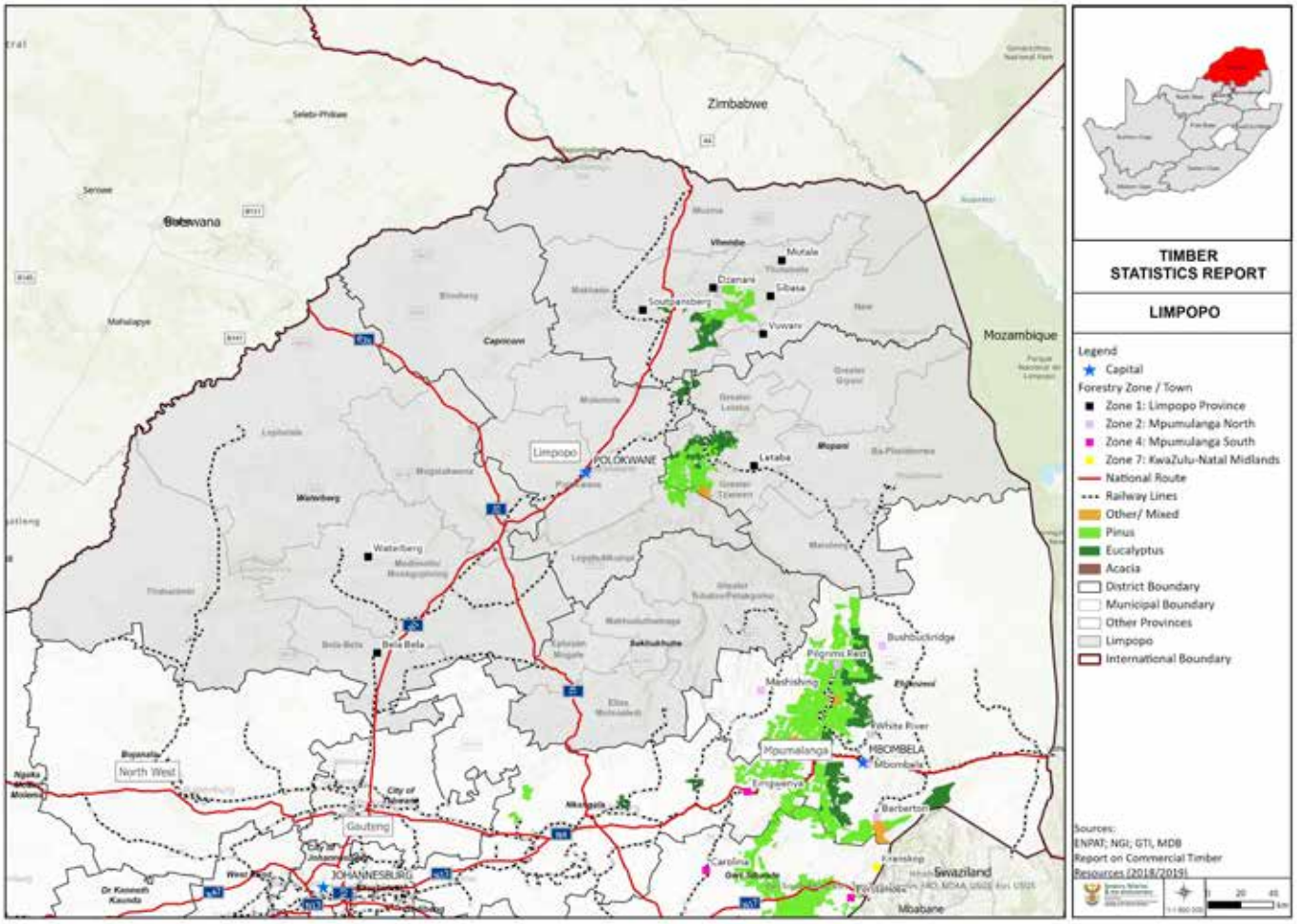
A2: Swamp Forests (VEGMAP CODE FOa 2)

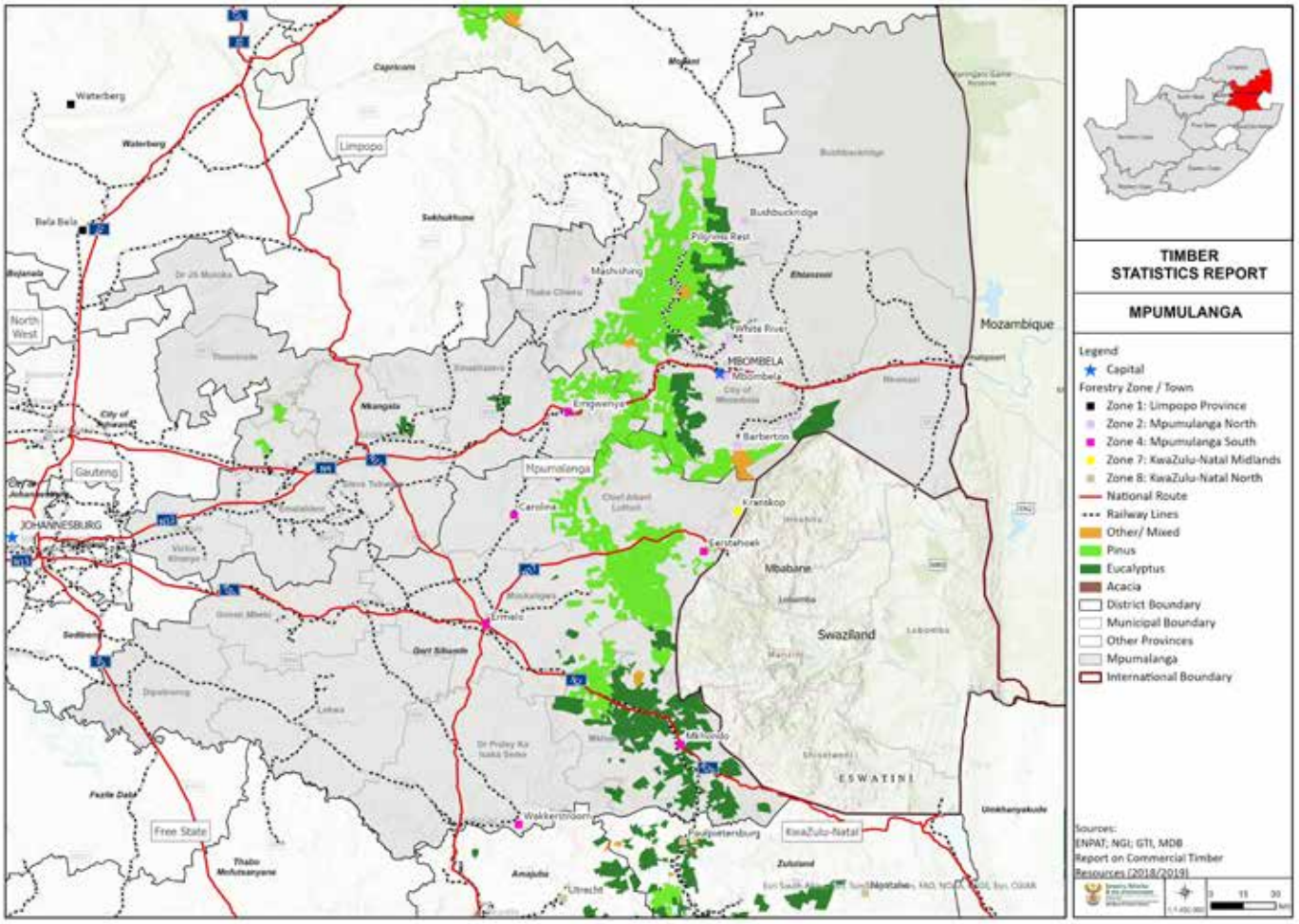
A3: Mangrove Forests (VEGMAP CODE FOa 3)

Annexure 3: Locations of plantation forests






Zimbabwe
Botswana
Mozambique
Limpopo
POLOKWANE
North West
Gauteng
JOHANNESBURG
Mpumalanga
MBOMBELA
Swaziland
Mbabane
TIMBER
STATISTICS REPORT
LIMPOPO
Legend
Capital
Forestry Zone / Town
Zone 1: Limpopo Province
Zone 2: Mpumalanga North
Zone 4: Mpumalanga South
Zone 7: KwaZulu-Natal Midlands
National Route
Railway Lines
Other/ Mixed
Pinus
Eucalyptus
Acacia
District Boundary
Municipal Boundary
Other Provinces
Limpopo
International Boundary
Sources:
ENPAT; NGI; GTI, MDB
Report on Commercial Timber
Resources (2018/2019)


Limpopo
North West
Gauteng
JOHANNESBURG
Mpumalanga
MBOMBELA
Mozambique
Swaziland
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Mbabane
Free State
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District Boundary
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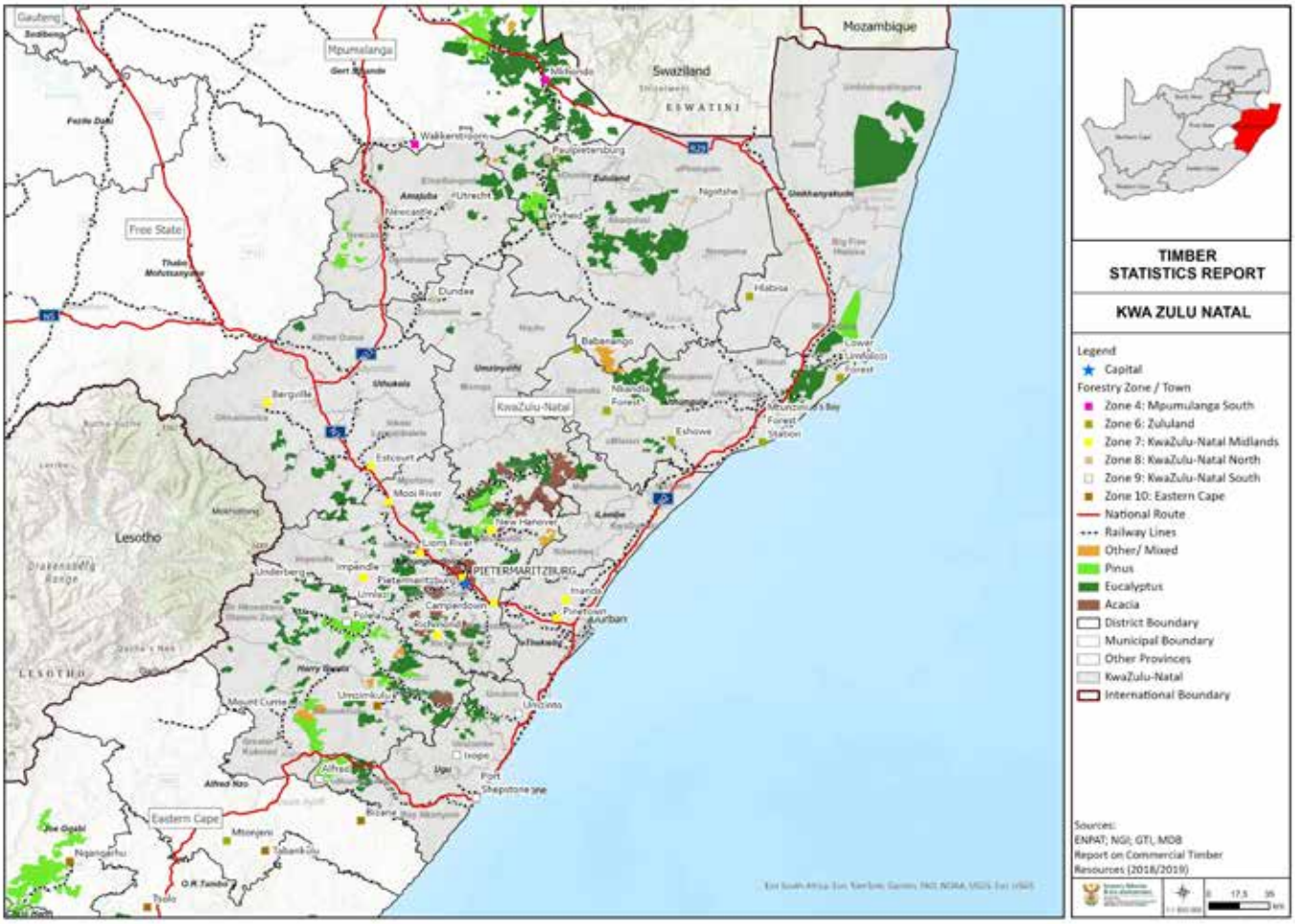
Mozambique
Swaziland
ESWATINI
Lesotho
Free State
Mpumalanga
Eastern Cape
KwaZulu-Natal
PIETERMARITZBURG
Durban
Pietermaritzburg
Newcastle
Dundee
Ladysmith
Estcourt
Port Shepstone
Richards Bay
Umtata
Mount Currie
Harry Gwala
Alfred Nzo
O.R.Tambo
Ukhahlamba
Umzinyathi
Umgungundlovu
Sisonke
Zululand
Amajuba
Uthukela
Umkhanyakude
Thabo Mofutsanyane
Fezile Dabi
Gert Sibande
Ehlanzeni
Nkangala
Gauteng
TIMBER
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0
17.5
35
kms

Notes:

Notes:

Notes:

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