



Strategy Execution Advisers

Masterplan for the Commercial Forestry Sector in South Africa: 2020 – 2025

Strategy Execution Advisers (Pty) Ltd

MASTERPLAN

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DEFF

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TebogoMAT@daff.gov.za

Prepared by:

Strategy Execution Advisers (Pty) Ltd

www.strategyexecutionsa.com

CONTENTS

CONTENTS	2
LIST OF ACCRONYMS	3
1. INTRODUCTION AND OVERVIEW	4
2. OVERVIEW OF RESEARCH	6
3. THE MASTERPLAN DELIVERABLES	8
4. CONCLUSION	44

LIST OF ACCRONYMS

CREST	Centre for Research on Evaluation Science and Technology
DALRRD	Department of Agriculture, land Reform and Rural Development
DEFF	Department of Forestry, Fisheries and Environment
DSI	Department of Science and Innovation
DTIC	Department of Trade, Industry and Competition
EC	Eastern Cape
FMU	Forest Management Unit
FSA	Forestry South Africa
KZN	KwaZulu Natal
MPU	Mpumalanga
NBC	National Building Council
PAMSA	Paper Manufacturing Association of SA
PPGI	Public Private Growth Initiative
PRU	Participatory Rural Assessment
R&D	Research and Development
RDI	Research, Development and Innovation
RIS	Re-imagined Industrial Strategy
SSA	Sawmilling South Africa
SEA	Strategy Execution Advisers
WUL	Water Use Licence

1. INTRODUCTION AND OVERVIEW

1.1. Introduction

The Forestry Sector Masterplan is in support of the Re-imagined Industrial Strategy (RIS) for South Africa (SA), approved by the Government in June 2019. Forestry is also one of the sectors that is being prioritised under the Public Private Growth Initiative (PPGI - a partnership between the National Government and the private sector to stimulate investment.

The Department of Trade, Industry and Competition (DTIC) put in place the Masterplan process, working together with the sector specific departments. For the forestry sector, the Department of Environment, Forestry and Fisheries (DEFF) is the lead department with oversight over both the Masterplan and its implementation.

As DTIC has noted:

*"The primary objective of the Masterplan process is to develop an agreed-upon set of actions, with time frames, that all stakeholders in a sector or value-chain commit to implementing for the benefit of the sector or value-chain. **The objectives of the Masterplan include encouraging sector growth, investment, job creation and competitiveness.**"*

1.2. Overview of Process

The Masterplan focuses on the following sub-sectors of the Forestry value chain: 1) Primary sector 2) Pulp and paper 3) Sawn timber 4) Board products 5) Utility poles and treated products.

The Forestry Sector Masterplan has been developed using available research and extensive consultations with industry, specialist entities, and the relevant government departments and agencies. The development of the Masterplan included the following steps:

Phase 1¹: Secondary data analysis and research which resulted in a Research and SWOT Analysis baseline report.

Phase 2²: Extensive stakeholder engagements to refine the Goal statement, priority focus areas and outcomes of the Forestry Sector Masterplan, documented in a separate report.

Phase 3³: Draft Masterplan report, with Focus Areas, outcomes and deliverables fully developed, with further stakeholder engagement.

Phase 4⁴: The Masterplan report completed. During this phase, the deliverables, key actions, Implementation Plan and Monitoring and Evaluation (M&E) Plan were finalised, with further engagement with those responsible for implementation.

¹ 22 January - 15 April 2020

² 16 April - 25 May 2020

³ 26 May - 25 June 2020

⁴ 26 June - 17 September 2020

The multi-stakeholder Working Group met and engaged extensively throughout the process, with the Executive Oversight Committee (EOC) responsible for the final approval of this Masterplan. The Masterplan addresses the governance and institutional arrangements and capacity requirements to take forward the Implementation Plan (Annexure A) and the M&E Plan (Annexure B). Institutional arrangements are in Annexure C.

The stakeholder engagement had to accommodate the restrictions of COVID-19, and involved Group VC meetings, interviews, and a survey, including government departments and agencies, labour, small growers and CPAs, industry, as well as development finance, education and skills institutions. Overall, there were more than 119 touch points, with more than 250 entities engaged.

The table below summaries the level of engagement:

Number of Stakeholder Engagements		
Group VC Meeting	Interview	Survey
31	43	45 respondents

2. OVERVIEW OF RESEARCH

2.1. Executive Summary

The Executive Summary of the research is provided below – the full Research and SWOT Analysis report is available as a separate document.

The forestry sector review found that there is a compelling case for prioritising the sector:

- Forestry products contribute at least 4.5% to total manufacturing – making it among the top five sectors within manufacturing.
- In less than 10 years, export earnings have almost trebled, with the sector providing a positive trade balance of close to R10 billion.
- The sector contributes almost 25% to Agricultural GDP.
- Much of forestry operations are rurally based, making it a significant contributor to rural economies and social well-being. It is estimated that the sector supports some 700 000 livelihoods.
- Land reform, if expedited and effectively implemented, could result in as much as 50% black and community ownership of land available for plantations – currently, 3.8% of production volume is provided by small and emerging growers.

The research report finds that there is a strong synergistic relationship between private sector growth and transformation, particularly within the rural context.

The report analyses the prioritised sub-sectors from the perspective of the opportunities they offer for growth and investment and the barriers to success. Pulp and paper far outweigh the other sub-sectors, with two dominant, listed companies, Sappi and Mondi. These companies are vertically integrated and therefore impact both the agricultural and manufacturing value chains. Their investment commitments far outweigh those of other sub-sectors, and it will be their actions that will significantly affect the achievement of the goal and targets that have been agreed for the Masterplan.

That said, the research highlights important opportunities in the smaller sub-sectors. It suggests that there are key inhibitors or barriers to growth that are common across the sub-sectors, and that by prioritising these, the benefits will be felt throughout the forestry sector.

The standout constraint is the lack of new afforestation and the need to remove the impediments to bringing more land under commercial forests. The full benefits of this will be felt in the medium to long term, when the plantations mature. This is the foundational constraint on which future growth of the sector pivots. As a Forest Sector Charter Council report notes, “one cannot benefit that which doesn’t exist”. As such, the research suggests that additional plantations and by implication, land reform are the leading priorities.

However, there are sub-sector specific inhibitors that can bring more immediate relief by addressing costs – in particular, transport, red tape and tax rebates – as well as efficiencies (within the sector itself and service providers, such as Transnet). There is a long list of specific constraints which were addressed in the subsequent phases of the Masterplan work.

2.2. Masterplan Goal statement and focus areas

The goal statement for the Forestry Masterplan has been formulated as follows:

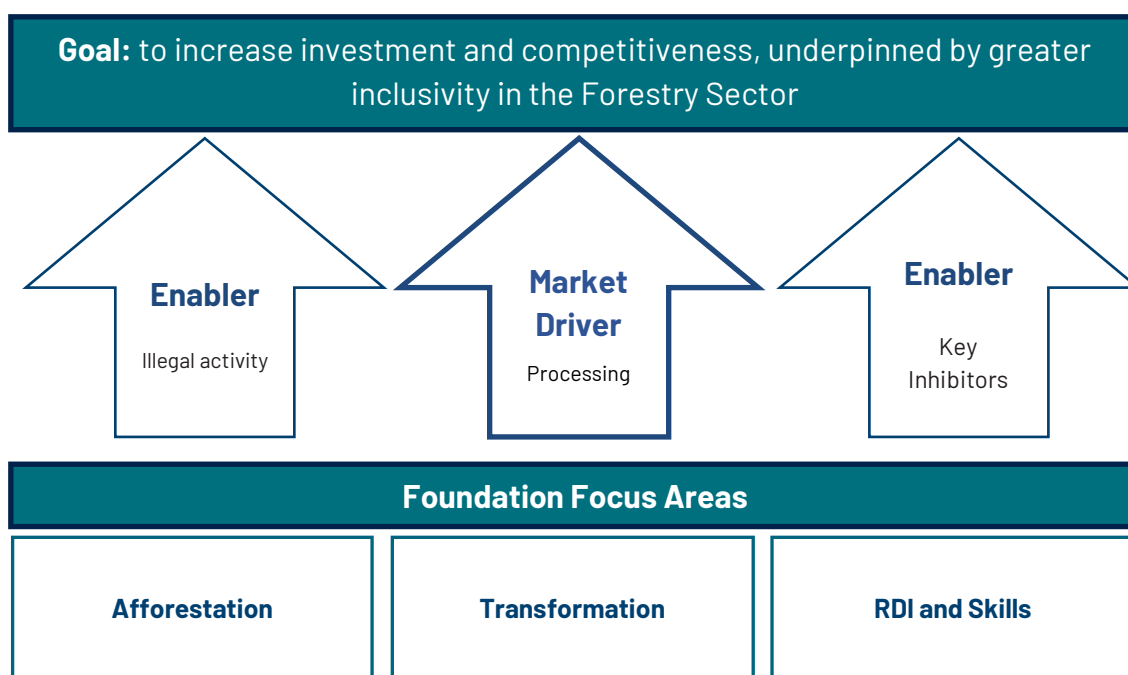
To increase investment, jobs and competitiveness, underpinned by greater inclusivity in the Forestry Sector

Seven key focus areas give effect to the achievement of the goal statement:

- Focus Area 1: Expanded Forestry Resource and Maintenance/ Protection
- Focus Area 2: Transformation
- Focus Area 3: Processing
- Focus Area 4: Illegal timber and crime-related activities
- Focus Area 5: Research, Development, Innovation and Skills Development
- Focus Area 6: Key Inhibitors
- Focus Area 7: Institutional Development

The focus areas play a different role in contributing to the goal statement. Afforestation, Transformation, RDI and Skills are foundational focus areas to the Masterplan. Without these focus areas, the growth and investment targets will not be realised, and Processing will not achieve its role as a market driver. The two enabling focus areas are Key Inhibitors and Illegal Activity – effectively addressing these will contribute to the growth of the sector. Excluded from the Key Inhibitors covered under Focus area 6 is the cost of utilities. The forestry industry is sensitive to the costs of water and energy and the sustained increases in these utility costs could derail the investment prospects of the Master plan. These inhibitors are however not specific to the Forestry sector and are dealt with through other platforms.

Figure 1: Graphic representation of the Masterplan focus areas



3. THE MASTERPLAN DELIVERABLES

This section addresses the six focus areas in detail – the success statements and the deliverables. The detailed Implementation Plan and the associated M&E Plan are attached as Annexures.

First, to note the top-level indicators and targets: the Goal expresses growth and improvement against a several factors (investment, jobs, competitiveness, and inclusiveness), and therefore, there are a number of indicators that speak to this – the full details are provided in the M&E plan. Below are the two headline targets:

- Investment target: R24,9 bn to be invested, of which R8.4bn had already been invested at the time of finalising the Masterplan. A further R14 billion could follow pending the removal of some inhibitors, bringing the total investment to R38,9 bn
- Jobs target: 100,549 additional jobs of which the bulk will come from new afforestation (a projected 60 265 jobs)

Competitiveness is measured by improved cost of production, the ratio of logistic cost to total cost of production, timber yields in the primary sector for various genuses, and improved recovery rate in processing. Competitiveness should be achieved by other factors, such as improved timber yield, improved recovery rates and investment in RDI (the competitiveness measures in the Masterplan. A reduction in employment and wages should be a last port of call – and if not the case, the Stakeholders recognise this would not be within the spirit of the Masterplan and would undermine the Masterplan achieving its objectives.

Inclusivity is measured by the increased share of procurement by SMEs that are part of the forestry value chain, tracking both black-owned company participation and overall SME performance, the latter of which is a good proxy of job creation potential within the sector. In addition, we track majority black ownership of commercial forestry plantations as well as the percentage of commercial forestry planted area that is in production by black owned timber growers.

The following commitments have been made by key stakeholders in the Masterplan. The detail on each commitment can be found in the Implementation and M&E plan.

Table 1: Key Commitments by Stakeholders

	Business	DEFF	DTIC	Other Govt/Agencies	Community small growers	Labour
Investment	<p>R24.96bn investment by the major companies, broken down by:</p> <ul style="list-style-type: none"> - R15.7bn (Pulp + Paper) - R1.5bn (New Afforestation) - R6.14bn (Sawmilling) - R1.62bn (York Timber) 	<p>Commits to recapitalisation of state land and facilitate communities to expedite investment opportunities for them. Total plantation opportunity is almost 200,000 ha consisting of:</p> <ul style="list-style-type: none"> - 68 820ha DEFF owned plantations - 151,000 ha earmarked for new afforestation 		<p>IDC to support community / small grower investment target</p> <p>Land Claims Commission to expedite claims to open up investment opportunities</p>	<p>Communities and small growers are committed to investing in productive forestry, conditional on the support measures being realised and the availability of finance (an initial R2bn) to support the development of and investment in their projects</p>	<p>Labour commits to supporting the sustainable supply of the primary resource</p>
Employment	<p>100,000 jobs linked to investment plans, broken down by:</p> <ul style="list-style-type: none"> - New Afforestation: 60,265 - Recapitalisation of state-owned plantations: 22, 610 - Pulp, paper & bio-refinery: 10,194 - Re-establishment of areas lost to 	<p>COVID-19 projects linked to Presidency's mass / social employment programme</p>		<p>IDC supporting and co-ordinating COVID-19 projects linked to Presidency's mass / social employment program - potentially 20,000 immediate employment opportunities, in event of Treasury approval of the projects</p>	<p>60 265 potential jobs linked to new afforestation target of 151,000 ha</p>	

	Business	DEFF	DTIC	Other Govt/Agencies	Community small growers	Labour
	<p>fires, pests & diseases: 7,480</p> <p>Co-ordinating and supporting COVID-19 projects linked to Presidency's mass / social employment program - potentially 20,000 immediate employment opportunities, in event of Treasury approval of the projects</p>					
Measures to open up new investment and job opportunities	Supports effective re-skilling programmes where jobs are at risk		Expand opportunities in the build environment	Educational programmes to support greater timber use in the built environment		<p>Support re-skilling to avoid net job losses in the sector</p> <p>Promote the built environment using more timber as a green building material</p>
Inclusivity	Commits to achieving the full Forest Sector Charter ratings for SME participation in supply chains, and in particular, for black	DEFF commits to coordinating efforts to achieve community / black ownership aspiration of productive plantations	Facilitate access to business support programmes and extension services for SME's in processing	Identified govt dept and agencies commitment to achieving the community / black ownership aspiration of productive plantations	50% of land under productive forestry to be black owned, as per the Forest Sector Charter commitment	Support the finalisation of land claims and removal of key inhibitors

	Business	DEFF	DTIC	Other Govt/Agencies	Community small growers	Labour
	<p>controlled companies, and to achieving the Charter aim to transfer equity ownership and sale of business assets to achieve 25% ownership by black people (including workers, designated groups and participants in broad-based ownership schemes) in existing forest enterprises</p> <p>Provide effective extension services to community / small grower partners</p> <p>Investment in a blended finance instrument, once agreed by the partners</p> <p>Substantially increasing the number of black people, including black women, in management as well</p>	<p>Facilitate access to business support programmes and extension services for SME's in processing</p> <p>Commits to the restructuring of state forest assets to support black ownership (including workers) in the forestry sub- sector and, through log supply, in the forest product sectors</p>	<p>Supports the development of a blended finance instrument proposal</p>	<p>IDC to development blended finance instrument proposal and potentially invest together with other DFIs, once agreed by partners</p>	<p>Hectares of commercial plantations produced by majority black owned entities/ small growers</p>	<p>Commits to promoting black and worker ownership within the primary and processing sectors, as well as black participation in the supply chains of forestry companies</p>

	Business	DEFF	DTIC	Other Govt/Agencies	Community small growers	Labour
	as professional and technically skilled positions in forest enterprises					
Competitiveness	<p>Forestry companies commit to improving their timber yield</p> <p>Processing companies commit to improving their recovery rates</p> <p>Forestry & Processing companies commit to continued investment into RDI - possibly in collaboration with government & academia</p>	<p>Commit to strengthening RDI efforts through efficient management of the National Research Forum</p> <p>Commit to continued investment into RDI</p>	<p>Commit to strengthening processing RDI efforts through efficient management of the Processing Research forum</p> <p>Commits to regulatory, funding and other measures that will improve modernisation & competitiveness</p>	<p>Stakeholders with RDI responsibilities commit to technological innovation and other R&D programmes</p> <p>Academia commit to continued participation in Government RDI forums, continued advocacy for RDI funding and co-development of RDI funding proposals</p> <p>Academia commit to Human Resource Development of the Forestry sector professionals</p>		

FOCUS AREA 1: Expansion of the Primary resources, Maintenance & Protection

The success of the forestry sector hinges on the ability of timber growers to supply sufficient raw material for present and future market demands. The expansion of the pulp sub-sector is currently constrained by an insufficient log supply. Should economic growth in South Africa be stimulated, the currently suppressed solid-wood processing sub-sectors will also not have sufficient log supply. In addition to this, if South Africa follows the global trend of promoting wood as a green building material, a source of energy and as an alternative to products currently produced from petroleum, the shortage of timber will be exacerbated further.

This first focus area encompasses new afforestation, the return of currently unproductive plantation land back to production, the protection of the plantation resource from pests and diseases, and the initiation of agroforestry as a tool for the overall sustainability of small and community-based growers.

To meet the current and future need, the following two critical aspects are required:

- The afforestation of new areas identified in the Eastern Cape and KwaZulu Natal. This will yield more than 100,000 ha of additional productive plantation land.
- The return of previously afforested land to its full productive potential. This includes areas such the DEFF category B and C plantations (63,000 ha), the Western Cape exit areas (22,000 ha) and other unproductive or poorly performing plantations such as those belonging to municipalities or damaged by pests and fire.

Focus area 1: Expanded forestry resource (Table 2) – investigates new afforestation, state owned plantations, KZN pest affected areas and fire affected areas in the Western Cape. The **new afforestation** earmarked for the Eastern Cape and KwaZulu Natal will take place on community land. This will require a prioritisation process to determine which parcels of land are most suitable for short term productive afforestation. New business models need to be agreed upon to determine how best to structure the ownership and management of these new plantations. Funding will need to be sourced, with both project development and project implementation funding needs met. Processes such as EIA's and water use licensing need to be carried out before afforestation can take place. Also, the new plantation owners and managers will require comprehensive extension services due to forestry being a new activity and the historically disadvantaged backgrounds of the business and technical skills levels of many of the communities.

State owned plantations (B&C and Exit) will be returned to being productive assets. Slightly different approaches to these areas are required, depending on whether they have gazetted land claims or not. Where there are **no current land claims**, the deliverables focus on finalising the management models for recapitalisation of these plantations, followed by the issuing of expressions of interest for B&C and Exit plantations. Grant and soft loan funding facilitation needs to be enabled to strengthen community participation in the recapitalisation process. Extension services will be provided by the strategic industry partners. **Where there are land claims**, the deliverables focus on settlement of land claims and enabling communities to agree the business model most suited to plantation development. Grant and soft loan funding need to be facilitated and extension services provided. Applicable to state land with and without land claims, is the parcelling

of plantations to ensure economies of scale. This will result in forest management units (FMU's) that are of sufficient size to realise a sustainable forestry business. These parcels could incorporate land with claims and land with no claims. The parcelling process needs to be completed before communities finalise their preferred business model.

The ownership or business structure of state land being returned to being a productive asset will require a **prioritisation process** to determine which FMU's can be actioned in the short term. The criteria for prioritisation will include factors such as the presence of an interested strategic partner, the current state of the plantations, organisation of communities and the status of the land claim finalisation process (if applicable).

There are also **cross-cutting deliverables** for new afforestation and state-owned plantations. DEFF will need to build capacity and make the required structural changes to support an increase in the primary resource and changes to its roles and responsibilities. To ensure that the requirements of communities are met, all plantation developments should be preceded by a Participatory Rural Assessment (PRA) process, that ideally also incorporates the valuation of the community / plantation assets (e.g. ABCD model). The communities will need to be supported in the establishment of governance and business structures to ensure sustainable businesses.

The World Forestry Congress (South Africa - 2015) legacy project entails financial support for small growers for the re-establishment of 13,800 ha of pest damaged trees in northern KZN (Beat Leptocybe). The State committed to playing the enabling role of accessing the finance for these growers. This project has been submitted for prioritisation under the special COVID-19 budget provision by National Treasury. The final sub-focus area is the fire affected areas in Western Cape, where the replanting of areas damaged by fire should be initiated, including MTO exit areas and privately owned land, with DEFF to coordinate funding efforts.

The alignment between the deliverables - most with high level action steps - and success (outcome) statements are summarised in Table 2.

Table 2: Focus area 1: Expanded Forestry resource

Objective statements:		
i. To establish 151 000 ha of productive new plantations in Eastern Cape, Limpopo, Mpumalanga and KwaZulu Natal by 2026 ii. To return 68 820 of DEFF owned plantations (B&C and EXIT) into production by 2026 iii. To return the KZN pest affected and Western Cape fire affected areas into production by 2026		
Sub focus area	Success statements	Deliverables
New Afforestation	Productive new plantations are established in the Eastern Cape and KwaZulu Natal	<p>Deliverable 1: Parcels of land prioritised in terms of readiness to bring into production</p> <p>Deliverable 2: Business Models agreed by communities most suited to plantation development: possible options include</p> <p>Deliverable 3: Funding /investment secured for project development and project implementation (see focus area 2, blended finance instrument)</p> <p>Deliverable 4: All authorisations in place (e.g. WUL, EIAs)</p> <p>Deliverable 5: Extension services are provided</p> <p>Deliverable 6: Undertake audit/ study to determine land and water availability for New Afforestation as per the PPGI target areas of 151000ha, while continuing to process new licence applications</p>
State owned plantations	DEFF owned plantations (B&C and EXIT) are returned to being productive assets	<p>Deliverable 7: Plantations parcelled into logical forest management units (FMUs)</p> <p>Plantations with no land claims</p> <p>Deliverable 8: Management models finalised for recapitalisation of B&C and Exit plantations</p> <p>Deliverable 9: Expressions of Interest issued for B&C and Exit plantations</p> <p>Deliverable 10: Access to grant and soft loan funding facilitated to strengthen community participation in recapitalisation process (see blended finance instrument, focus area 2)</p> <p>Deliverable 11: Extension services are provided by the strategic partners</p> <p>Plantations with land claims</p> <p>Deliverable 12: Business models agreed by communities most suited to plantation development</p> <p>Deliverable 13: Land Claims finalised</p> <p>Deliverable 14: Access to grant and soft loan funding facilitated to strengthen community participation in recapitalisation process (see blended finance instrument, focus area 2)</p> <p>Deliverable 15: Extension services are provided</p>
State owned & New Afforestation		<p>Other cross cutting deliverables for afforestation and State-Owned Plantations:</p> <p>Deliverable 16: DEFF capacity building and structural changes instituted to support</p>

Objective statements:

- i. To establish 151 000 ha of productive new plantations in Eastern Cape, Limpopo, Mpumalanga and KwaZulu Natal by 2026
- ii. To return 68 820 of DEFF owned plantations (B&C and EXIT) into production by 2026
- iii. To return the KZN pest affected and Western Cape fire affected areas into production by 2026

Sub focus area	Success statements	Deliverables
		<p>increases in primary resources (also listed in Skills focus area)</p> <p>Deliverable 17: PRA process implemented for all plantation developments that ideally incorporate the valuation of community/ plantation assets (e.g. the ABCD model)</p> <p>Deliverable 18: Communities are supported in the establishment of governance and business structures</p>
KZN pest affected areas	KZN small-scale growers receive financial support to replant 13 800ha of plantations lost to tree pests as part of the WFC legacy project (Beat Leptocybe) commitments	Deliverable 19: Funding support obtained for small growers as committed through the World Forestry Congress Legacy project. Funding potential through COVID-19 National Treasury budget provision (also see Deliverable 14 – COVID response)
Fire affected areas in WC	Replanting of WC areas damaged by fire gets underway including MTO exit areas and privately owned land	Deliverable 20: Funding efforts coordinated to enable replanting of WC fire affected area

Forestry is a long-term crop, with rotation ages ranging from 8 to nearly 30 years. If crop failures take place, it therefore takes many years for the replacement crop to reach maturity. This could result in further shortages of timber to exacerbate the current and future timber shortage situation. As such, the biggest risks to crop failures must be given huge focus if the industry is to be sustainable. These are fires, pests and diseases, and plantations need to be protected from these risks in a strategic and coordinated way. The Masterplan deals with these as separate sub-focus areas (Table 3).

Regarding **pests and diseases**, many of the problems enter from neighbouring countries via one of many transport nodes. Therefore, the starting point is to prevent or slow the spread of pests and diseases across borders. This requires bilateral agreements with neighbouring countries to ensure border security (Deliverable 1). Other problems include animals, in particular baboons, which have caused much damage to plantations in Mpumalanga

If a severe outbreak of pests or disease does occur, the effects on growers, especially small and community growers, can be severe as it can lead to crop failure. Forestry disaster relief funding is necessary to minimise the impact and to assist growers with crop re-establishment (Deliverable 2). Being organised and coordinated at a national level is critical to minimised outbreaks and ensure adequate impact prevention and reduction strategies and plans. A body is required that can represent the stakeholders and have a legislated mandate to implement risk reduction and disaster management. As Deliverable 3, the National Pest & Disease Committee is to be recognised as an Advisory body, with a clear ToR developed.

A database of relevant information is required to make informed decisions regarding pest and disease prevention strategies. Deliverable 4 entails the building and maintaining of a biosecurity digital platform. This will benefit multiple sectors (e.g. plantation forestry, natural forests and agriculture). A profile will be developed of existing pest and disease management data (across commodities and including various stakeholders). This will consist of the development of a centralised platform where all data will be stored (including the development of an App that enables stakeholders to input data and gain access to the data for strategic, research and management purposes). Monitoring for pests and diseases and recording outbreaks will all take place via the digital platform. Agreements will be concluded with all relevant stakeholders around the sharing of data and a champion will be identified to lead the development of this platform.

Capacity is needed in various organisations to ensure that the above deliverables can be implemented. Bodies such as the Tree Cooperative Research Programme (TCP) at the University of Pretoria and the DARDLR Directorate of Plant Health play important roles in pest and disease prevention, monitoring and control. They both have capacity constraints primarily linked to funding. Deliverable 5 addresses the capacity and expertise constraints in implementing pest and disease management, specifically in Plant Health Unit (DALRRD) and inspection services (bio control agents).

Many deliverables were developed regarding **fire prevention and suppression** and are listed in Table 3. Some priority deliverables are highlighted. The highest priority is providing support to Fire Protection Associations (FPA's). FPA's are the district structures responsible for the implementation of the National Veld and Forest Fire Act (NVFFA). An effective FPA can

collaboratively get landowners to comply with fire-related legislation and thereby significantly reduce the risk of fires. Deliverable 6 focusses on support to the FPA's in most need.

There is currently conflicting fire-related legislation which needs to be re-aligned to ensure effective fire risk management. Deliverable 7 reviews and aligns conflicting legislation in (for example) the NVFFA, the Fire Brigade Services Act and the Municipal Structures Act. A colloquium is to be established where areas of conflict will be mapped out and actioned, drawing on existing documents and blueprints that have been developed.

Table 3: Focus area 1 – Maintenance of Forestry resource

Objective statement:		
i. Pests and diseases: To reduce the annual losses from pests & diseases		
ii. Fires: To reduce the annual losses from fires		
Sub focus area	Success statements	Deliverables
Pest & Disease	Effective border control and quarantine mechanisms put in place to prevent the establishment and spread of pests & diseases	Deliverable 1: Bilateral agreements with neighbouring countries revitalised
	Disaster relief funding available for pests & disease outbreaks	Deliverable 2: Forestry disaster relief funding made available to deal with pests & disease
	The National Forest Act amended to incorporate the establishment of a National Pest & Disease Advisory body	Deliverable 3: National Pest & Disease Committee to be recognised as an Advisory body, with a clear ToR developed
	i. A user-friendly, easily accessible biosecurity digital platform built and maintained (to include a formal monitoring and surveillance programme, developed collaboratively between the private sector and government) ii. Use of data to enable enables appropriate risk assessment and management	Deliverable 4: Biosecurity digital platform developed and maintained that will benefit multiple sectors
	Capacity constraints are addressed through the appointment of staff in the Plant Health Directorate (including inspection services)	Deliverable 5: Capacity constraints in implementing pest & disease management addressed, specifically in Plant Health Unit (DALRRD) and inspection services (bio control agents) - covered under the RD
		Secure capacity and expertise through support of existing pests & disease management.

Objective statement:

- i. Pests and diseases: To reduce the annual losses from pests & diseases
- ii. Fires: To reduce the annual losses from fires

Sub focus area	Success statements	Deliverables
Fire Protection	Targeted FPAs provided with the required support to continue operations	Deliverable 6: Support provided to Fire Protection Associations (FPAs)
	Conflicts in legislation addressed	Deliverable 7: Review and align conflicting legislation in NVFF, the Fire Brigade Services Act and the Municipal Structures Act
	Finalisation of NVFF Act Amendments	Deliverable 8: Amendments to NVFF Act reviewed and signed off
	Organisational mandates clarified to ensure efficient management of fire prevention strategies/ functions	Deliverable 9: Alignment/ clarification of different organisational mandates - DEFF (Forestry Branch) vs WoF vs Disaster Management vs Municipalities
	Municipal Chief Fire Officers capacitated to fulfil their role as Fire Protection Officers	Deliverable 10: Chief Fire Officers capacitated to fulfil their legislated roles (including delegating the necessary powers to FPA's)
	The National Veld and Forest Fire Amendment Bill amended to incorporate the establishment of a National Fire Protection Advisory body	Deliverable 11: Fire protection management structures formalised with clear Terms of Reference developed
	Improved access to weather data	Deliverable 12: A weather data and national Fire Danger Rating programme implemented
	Develop a national fire database i. Greater awareness and information sharing among the general public in terms of high-risk fire area ii. Utilisation of the data by various stakeholders to ensure greater efficiencies in the deployment of fire resources	Deliverable 13: A centralised national fire database to better manage fire outbreaks developed and maintained Greater support for Fire R&D and Research Capacity <i>Covered by RDI forums (Focus area 5)</i>

In a transformed forestry landscape, new landowners, especially community owned and small growers, may also rely on diversified crops for income generation and food security during the times when their trees are not ready to be harvested, or as an additional land use strategy for areas not suitable for trees.

Therefore, Agroforestry is introduced into the Masterplan as an acknowledgement that a specific short-term solution is needed for new landowners to deal with the financial consequences of COVID-19 (Table 4).

The specific deliverables focus on the increased promotion and the wider adoption of appropriate agroforestry systems in South Africa. These deliverables build on the work undertaken in the Agroforestry draft strategy.

Table 4: Focus area 1 – AgroForestry

Objective Statement:	
i. To increase social employment	
ii. To improve food security of community growers	
Sub focus area	Deliverables
Job creation	Deliverable 14: Joint proposal developed containing delivery ready projects, as per National Treasury COVID-19 budget provision for FY 2020-21.
i. Wider adoption of agroforestry by small growers/ community growers ii. Improved food security	Deliverable 15: Implementation / wider adoption of Agroforestry <i>Note: funding dealt with through Blended finance instrument (Focus area: Deliverable 4-6)</i>

FOCUS AREA 2: Transformation and Labour Issues

The forestry sector offers a unique synergy between growth of the sector and transformation – through progress in land reform, recapitalisation of state plantations (B&C and Exit) and the provision of significantly enhanced extension services and other forms of support to community and black businesses throughout the value chain (including funding). This would go a long way to ensure secure and sufficient supplies of the primary resource as well as improve productive black and rural participation throughout the sector.

On the primary side, some 25,000 small growers, most in KwaZulu Natal, provide 3.8% of the plantation volumes. In the Eastern Cape, where community afforestation schemes are favoured, there is potential to bring an additional 100,000 ha under new afforestation. According to the ICFR, land claims will increase black ownership of forests to about 50%. Therefore, with land claim resolution together with expediting new and recapitalised plantations, significant opportunity exists to improve both transformation within the primary sector and growth.

As a result, the Masterplan has identified core elements that need to be addressed from the transformation perspective, notably resolution of outstanding land claims, improving the quality and reach of extension services, funding (that covers the full range from grant to soft to commercial finance) as well as advisory and business support.

The stakeholder engagements have highlighted the importance of transformation across the sector, and not solely within the primary sector. There is the challenge of giving coherence to a transformation response that needs to address very varied business needs and operations – from rural communities that are agriculturally-based to entrepreneurial businesses involved in processing. One response that has gained much favour is a blended finance instrument that could finance across the value chain, providing both project development and project implementation funding, together with the relevant business advice.

Against this backdrop, the transformation focus area has identified two broad objectives that support the goal for growth and inclusivity. The first is to increase community ownership and economic benefits related to the primary sub-sector; and the second is to expand community and black business opportunities throughout the sector with improved commercial viability.

To achieve this, the following sub-focus areas have been identified, with deliverables and key actions – see Table 5:

- Land claims & post settlement support
- Blended finance instrument
- Community and small enterprise advisory support

To consider these in more detail:

Sub-focus areas 1: Land claims & post settlement support

A striking feature here is the low rate of resolution of land claims, which has been partially resolved through alternative arrangements with claimants to ensure plantation development and forestry operations continue. However, the lack of resolution impacts on the well-being of communities and the relationships that are so important between all the role players in the sector. Therefore, while plantation development should not be postponed until claims are finalised, a sector commitment to helping to expedite land claims is an important priority.

The Land Claims Commission is instituting a process to speed up the finalisation of claims. It has provided data on the status of land claims over DEFF plantations, with a number close to finalisation. From experience, finalisation could still take some years, and therefore, DEFF will have to consider whether to await finalisation of any land claim (in line with the new streamlined process) or to institute alternative arrangements for plantation development.

The Commission has also indicated that post settlement support for forestry-related land claims should shift to DEFF as the responsible department, in line with the Forest Sector Charter. This introduces another aspect to the restructuring of the department in line with changed roles and responsibility going forward.

Given this, three deliverables have been identified:

- Expedite land claims (particularly those close to finalisation)
- Enable plantation development while land claims are in process
- Finalise and provide post-settlement support

Sub-focus area 2: Blended finance instrument

The Masterplan engagements have highlighted a grievance with regard to the funding support for the industry, particularly at the primary level, with exclusion from agricultural funding support mechanisms. In addition, on the processing side, SMEs in the forestry sector have not taken up funding opportunities offered by DTIC.

This has raised two issues on funding, notably that the sector needs its own finance instrument, and that there needs to be a special focus on small black businesses across the value chain, who find it difficult to get out of the starting blocks in terms of any application for finance.

There have been previous discussions on a blended finance instrument focused on the primary sector. The various discussion under the aegis of this Masterplan have highlighted the following:

- The target beneficiaries of a blended finance instrument should be communities and small growers, as well as small black businesses across the value chain.
- The instrument needs to encompass project development (grant funding) and project implementation (soft and commercial financing). The IDC, which has a forestry programme, has provided a benchmark for successful implementation, notably 60% grant and soft financing and 40% commercial. This implies an important role for government in the provision of grant and soft funding, with industry also required to provide soft funding where there are strategic partnerships.

- Given the strong role of strategic partners, particularly in terms of soft finance for community and small growers, discussions have highlighted the importance of such a funding instrument being a partnership between industry and government.

The DTIC and the IDC have established expertise and systems for blended finance instruments that also include project development. Also given that they are key stakeholders in the Masterplan, it is proposed that they are formally appointed to develop the proposal for a forestry sector blended finance instrument. Such a proposal would consider the various models in South Africa, including issues such as the manager of the fund (independent or government) and sources of funding (e.g. from DFIs like the National Empowerment Fund and international donors).

A consistent theme throughout the Masterplan engagements has been the need for effective business and transactional support for small growers and other small businesses. It is proposed therefore, that such support is provided as part of both the project development and project implementation components of the fund. That said, there will be many businesses, outside of the ambit of the fund, but which require grant funded support – hence the third sub-focus area.

Three deliverables have been identified for the blended finance instrument:

- Institute a blended finance instrument
- DEFF to determine and institute oversight and other responsibilities vis a vis the financing instrument
- Identify grant & soft funding providers available to the forestry sector

Sub-focus area 3: Community and small enterprise advisory support

This focus area addresses the needs of business enterprises that do not fall within the net of the blended finance instrument. The success statement notes that advisory support programmes should be available with two deliverables to enhance access. The first focuses on business enterprises across the value chain and the second addresses advisory support for communities to establish transparent governance/structures of community assets (where this is not part of the PRA process cited in Focus Area 1).

Sub-focus area 4: Certification of small growers

Small growers have raised the challenges of forest management certification, but it is required to ensure market access and premium prices for timber products. The key deliverable therefore is to provide support to ensure an increasing number of growers are certified.

Sub-focus area 5: COVID-19 Response

The stakeholders agreed that there needed to be a COVID-19 response, which would address the immediate to short-term needs of small and community growers and waste-pickers. As part of the engagements, the Presidency's Project Management Office (PMO) discussed the inclusion of forestry in a newly developed programme on mass / social employment, for which National Treasury made provision in the COVID-19 budget adjustment for 2020-21. The relevant parties agreed to the

immediate development of delivery-ready projects, including the World Forestry Congress legacy project and agro-forestry (see Focus Area 1).

Sub-focus area 6: Decent Work

The forestry sector commits itself to decent work including ensuring that all forestry workers are supplied with at least the minimum legislated protection by their employers.

To give effect to this, companies will not be assisted by Government in any way and cannot do business with Government if they do not pay the stipulated minimum wages and comply with stipulated minimum conditions.

Furthermore, upstream companies will not supply to and downstream companies will not purchase from companies that do not pay the stipulated minimum wages and comply with stipulated minimum conditions. In exceptional circumstances for emerging businesses, there will be a probation period of one year in the event of non-compliance, with contracting companies facilitating support to enable compliance and/or ending their [commercial relationship](#) in the event of non-compliance after the probation period.

Table 5: Transformation focus area

Objective statement for Focus area 2:		
i. To increase community ownership and economic benefits related to plantation activities		
ii. To expand community and black business opportunities with improved commercial viability		
Sub focus areas	Success statements	Deliverables
Land claims & post settlement support	i. Outstanding land claims finalised within agreed timeframes ii. A post-settlement support package is in place	Deliverable 1: Land claims expedited (particularly those close to finalisation) Deliverable 2: Enable plantation development while land claims are in process Deliverable 3: Provision of Post-settlement support
Blended Finance Instrument	A blended finance instrument developed for the Forestry Sector	Deliverable 4: Institute a blended finance instrument Deliverable 5: Funding information resource developed that include grant and soft funding schemes
Community and small enterprise advisory support	Advisory support programmes are available to community-based and small enterprises across the value chain (excluding extension services dealt with in Focus Area 1)	Deliverable 6: Business related advisory support programmes established for forestry sector enterprises across the value chain Deliverable 7: Governance related advisory support established for communities (where this is not part of the PRA process cited in Focus Area 1)
Certification of small growers	Increased certification of small-scale timber growers to ensure market access and premium prices for timber products	Deliverable 8: Small growers are supported with the process to achieve forest management certification
COVID-19 RESPONSE	The most marginalised within the sector, notably rural communities and waste pickers, have greater resilience in the face of crises	Deliverable 9: Delivery-ready projects are implemented, under the auspices of the mass / social employment programme developed by the Project Management Office in the Presidency.

FOCUS AREA 3: Processing

The South African forestry sector is only as strong as the processing sector which ultimately needs to convert relatively low value roundwood into forest products. It is imperative that the local timber processing sector remains competitive in the international markets to benefit local roundwood supply originating and providing livelihoods in the rural economies. The focus area is aimed at driving competitiveness and market access of the South African timber processing sectors which in turn drives investment and creates jobs.

This focus area consists of five sub-focus areas, reflecting the work to be done across the processing value chain:

- Cross cutting issues
- Pole Manufacturing
- Sawmilling
- Pulp & Paper manufacturing
- Board Manufacturing

Table 6 provides more detail on the **cross-cutting processing issues**, setting out the success statements and accompanying deliverables over the short to medium term. The sub-focus areas include:

- **Wood promotion:** three deliverables have been identified to improve the uptake of the use of timber in the built environment. Firstly, promotional activities will need to be undertaken. Given the cost associated with promotional activities it is suggested that efforts around this be well coordinated and targeted. It is therefore proposed that a well targeted wood promotion plan be developed which covers timber and wooden products. The second deliverable will address the public sector tender restrictions, and entails working with the National Treasury, the Department of Human Settlement, Department of Public Works, South Africa Sawmilling (SSA) as well as SALGA to unlock the public sector opportunities. Deliverable three deals with the broader awareness raising activities, at school level, by way of including wood promotion in existing environmental education initiatives such as Schools Environmental Education Programme (SEEP).
- **Developing a joint processing agenda:** deliverable 4 is informed by the disjointedness of processing sub-sectors, making it a challenge to achieve collaborative effort on cross cutting issues. For example, the poles sub-sector has two business associations, whereas some years back there was one. Therefore, the stakeholder engagements highlighted the need for all processing role players to come together to develop a few key priorities that they could collectively support to advance processing. This will include the promotion of the industry and timber products which have been addressed under Deliverable 1. The development of a priority plan can be preceded by a market study to identify additional key “products of the future” which include engineered wood products, Bio-refinery etc. This would link directly to the RDI deliverable which already tables a suggested RDI Agenda.
- **Lengthening of State primary resource supply contracts:** Investment into sawmilling is constrained by too short supply side contracts. This lack of longer-term security results in sawmillers not wanting to invest in technology upgrades which limits the competitiveness

of this sub sector. As an example, Safcol has accommodated this by making a firm commitment to lengthen the period for contracts for 50% of its supplies, while the remaining 50% is on short-term contracts to support new entrants.

- **Funding/ recapitalisation:** An incentive scheme - the Agro-Processing Support Scheme - was launched by DTIC in 2017 to support qualifying enterprises with a case grant when undertaking capital investment projects. There was not a huge uptake of this scheme. It is proposed that this incentive scheme be better promoted to support investment in the forestry value chain. Additionally, potential applicants should be supported with the application processes as this also prevents the uptake of the scheme. This support should be available not only to the formal processing sector but also to the SMME processing sector.

Utilities, and specifically the challenges surrounding Eskom and stability of supply have been raised throughout the engagements. Given that this is a cross cutting economic issue and dealt with elsewhere on a much bigger scale, it was agreed that this will not be addressed in the Forestry sector master plan. Another issue raised by several stakeholders are the opportunities offered by Biomass. Given that a renewable energy Masterplan is being developed, it was agreed that this be addressed as part of that Masterplan.

For some deliverables, more detailed steps have been provided, for example deliverable 1 and 2. The intent is to populate this level of detail for all projects, as well as show the organisation responsible and timelines. This will be done in the final phase of the project.

Table 6: Focus area 3 - cross-cutting issues

Cross cutting objective statements:		
i. To improve the uptake of the use of timber in the built environment		
ii. To improve access to industrial funding to drive competitiveness through modernisation of processing		
Sub focus area	Success statements	Deliverables
To improve the uptake of the use of timber in the built environment	Increased use of timber in the South African Built Environment	Deliverable 1: A variety of interventions implemented to promote the use of timber and engineered timber in the built environment (Including medium and high-rise buildings and products like Cross laminated Timber (CLT) Oriented Strength Board (OSB, Laminated Veneer Lumber and Glulam (Glued Laminated Timber)
	Increased use of timber and engineered timber products in the government and state-owned entities	Deliverable 2: Designation of Timber for construction and Timber for Housing
State primary resource supply contracts are lengthened	To lengthen the supply side of log contracts from the state plantations	Deliverable 3: Procurement processes of state primary resources changed to allow longer supply-side contracts

Cross cutting objective statements:

- i. **To improve the uptake of the use of timber in the built environment**
- ii. **To improve access to industrial funding to drive competitiveness through modernisation of processing**

Sub focus area	Success statements	Deliverables
Funding/ Industrial Financing/ Recapitalisation	Increased uptake of the APSS which funds the recapitalisation of machinery up to 30% grant	Deliverable 4: Enabling better uptake of Government Incentives

Table 7 contains the success statements and deliverables for the **four processing sub-sectors**: utility poles, sawmilling, pulp & paper and boards. The sub focus areas are further divided into sub-sub focus areas, providing a further categorisation of the issues that need to be addressed. The objective statements for the sub focus areas centres around greater market access (utility poles and sawmilling), improved competitiveness (sawmilling), removal of regulatory impediments (pulp and paper) and enhancing the technical infrastructure environment (boards). The deliverables in support of these objectives are as follow:

- **Utility poles:** With 95% electrification achieved locally, the industry now finds itself with significant spare production capacity - an oversupply of around 12 000 cubes a month of transmission poles. The African market offers high growth opportunities for the utility pole sector due to increased investment into electrification of African countries such as Tanzania, Kenya, Rwanda and Uganda. The main impediments to accessing these opportunities include quality, pricing and certification protocols of the buyer countries. Three actions/ steps have been listed in support of this deliverable: the DTIC to assist in facilitating trade missions (action 1) as well as setting up meetings with the donors that typically fund these power projects(action 2). The purpose of the meeting would be to raise awareness amongst donor organisations of the quality of poles produced locally, and to lobby for the inclusion of South African standards into international/ donor funded power projects. From there protocol agreements must be developed (action 3).
- **Forestry Regional Integration:** Deliverable 2 speaks to the promotion of investment in specific African countries, with a focus on Mozambique initially. This is combined with a need to engage funders to support this work.
- **Sawmilling:** Deliverable 3 covers the techno-economic benchmarking study to be commissioned to identify the technology gaps in the South African sawmilling sector with a view of improving the adoption of modern technologies. Once the benchmarking study is concluded a collaborative modernisation investment drive should be initiated. This drive will be done in conjunction with the DTIC incentives with the view to upscale and modernise mills to be more efficient and add value to their products. It is important that these modernisation imperatives are focussed on both the formal sawmilling sector as well as the informal / SMME sector (so called bushmills).

- **Pulp and Paper:** Regulations regarding the Control of the Import or Export of Waste were published on 21 January 2019. These regulations regulate the import and export of both hazardous and general waste and were promulgated to strengthen the oversight and control by DEFF to prevent import of waste for landfill disposal. It is recommended that a clear distinction is made between hazardous and general waste which includes wastepaper as it is a significant resource to the paper industry in South Africa. PAMSA is requesting that further engagement be held with the key stakeholders to develop exclusions / solutions regarding wastepaper that ensure that a sound balance amongst the three pillars of environmental management, economic and social development are promoted (Deliverable 4).
- **Boards:** South Africa is a net importer of plywood, veneer boards and fiberboard. Approximately 69% of the plywood and veneer board is imported from China and Asia and 31% is imported from Brazil. It has been suggested that substandard board is entering the country, mainly from Brazil. The magnitude and scale thereof is however not clear, and more information was therefore requested from the company that raised this particular concern. Should this be included in the Masterplan, the National Building Council with DTIC will need to develop, and enforce standards on imported wood products (Deliverable 5)

Table 7 provides a summary of the alignment between the success statements and accompanying deliverables. The various objective statements are shown at the top of the table. Apart from deliverable 1, more detailed actions still need to be developed for all the deliverables. This work will be undertaken during Phase 4 in addition to clarifying timelines and the organisation responsible.

Table 7: Focus area 3 – sub sector specific issues

Objective statement for sub-sectors:			
i. To promote export market access for utility poles ii. To improve sawmilling competitiveness through the adoption of modern technologies iii. To promote market access for solid wood products iv. To remove the prohibitive wastepaper regulations v. To enable an improved technical infrastructure environment which supports South African board products in the marketplace vi. To improve further beneficiation of the dissolved wood pulp to supply local industries			
Sub focus areas	Sub-sub focus area	Success statements	Deliverables
Utility poles	Market access	Utility pole producers are able to respond to export opportunities in Africa due to barriers being removed	Deliverable 5: Trade support provided to enable access specific African markets

Objective statement for sub-sectors:

- i. To promote export market access for utility poles
- ii. To improve sawmilling competitiveness through the adoption of modern technologies
- iii. To promote market access for solid wood products
- iv. To remove the prohibitive wastepaper regulations
- v. To enable an improved technical infrastructure environment which supports South African board products in the marketplace
- vi. To improve further beneficiation of the dissolved wood pulp to supply local industries

Sub focus areas	Sub-sub focus area	Success statements	Deliverables
Forestry regional integration	To promote investment in African countries		Deliverable 6: Promote Investment in specific African markets
Sawmilling modernisation	To improve sawmilling competitiveness through the adoption of modern technologies	Increased adoption of modern technologies in South African Sawmills	Deliverable 7: Study undertaken to inform next steps for the modernisation of timber processing
Pulp & Paper	Legislation	A supportive legislative/ regulatory environment created for waste	Deliverable 8: Wastepaper exclusions /solutions developed and submitted
Improving productivity of the forestry products industries	To extract the maximum value from wood biomass via biorefinery applications	Biorefinery technologies to enable development of new value chains from waste wood biomass	Deliverable 9: Biorefinery technologies for production of high value products and materials for use in various applications, e.g., chemicals and products to combat the COVID pandemic (new deliverable - links to RDI priorities)
Board Manufacturing	To enable an improved technical infrastructure environment which supports South African board products in the marketplace	Local market specifications are enforced on Imported board products	Deliverable 10: Enforce compliance and apply standards on imported Board products

FOCUS AREA 4: Illegal timber and crime-related activities

Illegal timber and crime-related activities is a growing concern for the forestry sector. The forestry land base is large, making it difficult to have sufficient resources to protect forestry assets. Processing locations are also often located outside of traditional industrial zones, often in rural areas, placing additional pressure on them to contain criminal activities. The justice system (from policing to sentencing) also does not appreciate the severity of the problem. Criminal activities encompasses a variety of illegal practices across the value chain: illegal harvesting, the presence of special interest group activities, stealing timber on the roadside in plantations and in depots, timber being stolen from trucks on route to the market, stealing of CCA chemicals from treating plants as well as illegally treated wooden poles entering the market. The crime problem is exacerbated by the increase of timber merchants, who persuade growers to sell their timber to them on the false pretence that the growers' strategic partners / processing mills have agreed. The profile of criminal activities in the forestry sector needs to be raised to ensure the risks are better mitigated.

The illegal timber and crime-related activities are divided into three sub focus areas, each with its own set of success statements and accompanying deliverables:

- **Plantation theft:** the establishment of a commercial forestry crime unit within SAPS is already being addressed through the broader PPGI initiative. Through this unit the limited cooperation from SAPS and the judiciary system will be addressed. Another deliverable under this sub-focus area is the appointment of Forest Officers. The National Forests Act assigns these Forestry Officers with very similar powers as that of a Police Officer - i.e. powers to enter and search, seize and arrest. These Forestry Officers can be viewed as an additional resource to curb the illegal and theft related activities in the Forestry sector. The processes involved to get these Forestry Officers appointed and working is quite extensive. It will entail getting corporate buy-in to fund these Forestry Officers. In addition, there are minimum entry requirements potential candidates need to adhere to. These Forest Officers will need to be trained in two modules which costs approximately R10 000 (excluding venue and catering costs). Once training is complete a vetting/ security clearance needs to be conducted, followed by the gazetting of these Forest Officers. The third deliverable in support of this sub focus area is the utilisation of the provincial 'Prov Joint' meetings to escalate timber theft and illegal activities. All these deliverables will require up to date information on timber losses and illegal activities. A robust data system will therefore be put in place to ensure the continuous recording, analysis and sharing of data in support of curbing illegal timber and theft related activities (Deliverable 4)
- **Illegal markets:** It is proposed that illegal markets are addressed through the introduction of a permit system for timber transport, as well as ensuring all trucks are fitted with basic satellite technology to track the routes of the trucks. Both these deliverables will be highly reliant on the cooperation of all processors.
- **Illegal activities in the treated timber & pole market:** A significant amount of illegally "treated" wooden poles are entering the market (i.e. they have not been treated according to specification). As a first deliverable it is recommended that the wording of the NRCS legislation be amended to encompass what was implied in the original regulations contained in the National Forestry Act on preservative treated timber (if it appears to or

avers to be preservative treated, then it must comply). In addition, a multi-stakeholder task team must be established to deal with the NRCS capacity constraints (human resources as well as ensuring access to the relevant equipment/ resources to fulfil their duties). The task team will also ensure a collective and coordinated response to illegal trade through expanded dissemination of information, developing a standard operating procedure to respond to illegal trading and ensuring “hot spots” are dealt with sufficiently.

The success statements and accompanying deliverables for each of the three sub focus areas are summarised in Table 8. This focus area is quite well advanced in that detailed steps have been developed for most of the deliverables. The detail on the entity/organisations responsible and timeframes where finalised have been added to the table below. Any outstanding information, relating to high level actions and timeframes will be obtained in the final phase of the project.

Table 8: Sub focus area 4

Objective statement: To reduce timber losses as a result of illegal timber and theft related activities from 0.42% to 0.2% by 2026		
Sub-focus areas	Success statements	Deliverables
Plantation theft	SAPS agrees to establish a specialised forestry crime unit as a Commercial Crimes initiative	Deliverable 1: Establishment of a Commercial Forestry Crime Unit
	FSA, plantation owners, DEFF and SAPS develop a coordinated response to theft incidents - and where community grievances are at the root of the problem, a coordinated response is developed to unblock problems	Deliverable 2: Recruitment, training, and appointment of Forest Officers Deliverable 3: Utilisation of the Provincial (Prov Joints) SAPS meetings to escalate forestry sector crime
	Availability of timeous, accurate theft related data, used to address timber issues	Deliverable 4: Forestry Sector crime data systems implemented
Illegal Markets	Industry-wide traceability (Origin) of timber instituted to curb sale of stolen timber	Deliverable 5: Establish a Log Transport Permit System (to allow policing by SAPS of timber being transported)
		Deliverable 6: Timber Theft self-regulation system instituted (similar to RTMS accreditation)
Illegal activities in the treated timber and pole market	Coordinated enforcement, and compliance to VC9092 in respect of illegal timber treatment	Deliverable 7: Amend the wording of the NRCS regulations
		Deliverable 8: Multi-stakeholder task team established that addresses the various compliance and enforcement challenges

FOCUS AREA 5: Research Development & Innovation (RDI), Human Resource Development and Skills

The South African forestry sector is based on a long and rich history of sound research and development practices. However, the industry is currently faced with several challenges related to existing levels of investment in RDI, as well as the development and retention of the necessary expertise and skills.

An investment in RDI is an investment in the production of cutting-edge knowledge, high-level human resources and skills, and appropriate technologies in forestry, with long lead times for realising value, RDI is critical to the protection and sustainability of the resource.

The diminishing R&D funding from the government was raised in the research phase for this Masterplan. Numerous policy documents have emphasized the urgent need for increased investment in RDI (NDP, White Paper on Science and Technology Innovation, Transformation Charter, APAP, Forestry Roadmap). Unfortunately, government RDI contributions have not materialized.

The perception also exists that the primary sector gets the bulk of RDI funding, with insufficient funding of research in timber processing, timber construction and the bio-economy sub sectors. Given existing constraints on public sector funding for RDI, there is an urgent need to ensure that RDI priorities are identified appropriately and funded accordingly. In addition, new ways to maintain and secure funding for the sector need to be developed.

Table 9 sets out the three sub-focus area for RDI as identified in our consultative process:

- The state of RDI in the Forestry Sector,
- Agenda setting for Forestry RDI
- Investment in RDI

For the state of RDI sub-focus area, a joint study between CREST (Centre for Evaluation, Science and Technology) and Forestry SA (as the lead for industry) will be undertaken. This proposed study will replicate and expand on the 2015 study in order to provide up-to-date information on themes such as expenditure, weighted analyses of research priorities, analyses of the human resources capabilities and transformation trends. In addition, the study will revisit the recommendations made in the 2015 report. The proposed review will aim to provide more granular data as well as including a bibliometric analysis of forestry science publications. The study will cover the primary and secondary sectors.

The third success statement refers to the **further articulation of the RDI agenda** – co-constructed between academia, government, and industry – for the sector which will enable greater coordination and collaboration between all stakeholders. Given the dire fiscal situation and constrained economic environment, RDI platforms should be used as the centralised mechanisms for identifying RDI priorities (basic and applied research) and take the necessary actions to advocate and lobby for funding. To this end, three potential priority setting forums/ clusters are proposed:

- The National Research Forum
- The Processing RDI forum
- DTI Forestry Cluster

The *primary sector* RDI agenda is dealt with through the National Research Forum, a body that has been in existence since 2017, whereas for *processing*, the RDI agenda-setting will be undertaken through the newly established Processing RDI forum. Priorities raised through the engagement for this Masterplan are listed in table 9 below for consideration by the forum.

Mary Scholes' 2019 review of the National Forest Sector Research and Development Strategy (NFS R&D) also warrants mention. This process involved a range of R&D stakeholders, including tertiary institutions, the forest and forest products sector and government. Through this review process, the relevance of the 10 themes identified in the NFSR&D strategy was assessed and resulted in specific recommendations regarding gaps in R&D. These included the following:

- The need for greater emphasis on threats such as climate change
- Greater emphasis on new RDI opportunities (i.e. bioeconomy, 4th industrial revolution, precision forestry, synthetic biology)
- More research addressing additional forest products especially from natural landscapes
- More research on economic development within the context of natural forests and woodlands, Category C plantations and urban forests

It is proposed that the respective forums take up the R&D gaps are not already being addressed.

In terms of the DSI Forestry Cluster, the DSI and the Technology Innovation Agency (TIA) are broadening the scope of the current Forest Molecular Genetics Cluster Programme to include downstream activities - to strengthen the value chain and increase productivity and competitiveness within the ecosystem. The proposed cluster model aims to craft more opportunities in the innovation (upstream) value chain which can be applied in the downstream elements. This will be accomplished via a multi-stakeholder vehicle that takes into consideration all applicable public and private players in the context of the forestry sector RDI, ranging from the small growers to large corporations. The objectives of the cluster include:

- Upstream
 - Utilising DNA technology to reduce timber theft (Wood forensic)
 - Improving quality of tree plantations through molecular breeding techniques
 - Developing pest and disease-resistant tree varieties and mitigating climate change
- Downstream
 - Improving efficiency of biomass feedstock processing through biorefineries approaches
 - Diversifying into new bio-based products market opportunities
 - Creating and supporting new business start-ups linked to new biomass product opportunities

The work of this cluster needs to be considered in relation to the other two RDI forums, to prevent duplication of RDI efforts.

In addressing **RDI investment**, a distinction is made between a) ensuring current levels of investment is maintained and b) securing new RDI investment. Deliverable 6 sets out the specific actions to be undertaken in support of **ensuring continued funding support of existing RDI initiatives**. This deliverable covers a number of existing projects, with the most pressing need being continued government funding for the Tree Protection Cooperative Programme (TPCP) at FABI. Without this funding, there is the risk of much-needed scarce skills and expertise being lost and having a knock-on effort on pest and disease management. The possible consequences for the industry could be disastrous - it is estimated that industry loses approximately 11.5% of their annual harvest to pests and diseases. In monetary terms, this translates into R392-million of roundwood lost annually and an additional opportunity cost of R2,05 billion in additional downstream processing. The problem is further exacerbated by the rising incidence of pests & diseases. With industry already providing a disproportionate amount of funding towards this programme, the Masterplan engagements underscored the imperative that the government increases its funding. Discussions with DEFF are underway around the outstanding MOU, but urgent clarity is required on the next steps and timelines for resolving the funding for the TPCP. The finalisation of the MOU is also tracked as part of the PPGI process.

On the DSI front, funding support for several highly strategic RDI instruments in applied research ceases after 2020/21. The Sector Innovation Fund (SIF) has enabled industry to develop their own research portfolios, filling a significant gap with a change in conditions of the THRIP programme. The RDI projects initiated under SIF addressed key challenges facing industry which includes tree breeding, pesticide and disease management, use of spatial technologies and site sustainability. The Biorefinery initiative is a consortium-based project that addresses the downstream value chain, specifically bio residue from processing. Although listed as a current RDI priority under Deliverable 3, further funding will be required to advance the market opportunities once the RDI related work is concluded - and hence its inclusion as part of Deliverable 6. The proposed Forestry Cluster (described as part of the RDI agenda setting focus area) will also require funding. Pending the strategic alignment between the imperatives of the Decadal Plan and the existing DSI funding instruments/ initiatives, the DSI plans to exploit its internal funding instruments to maintain these programmes.

Deliverable 7 and 8 addresses **the continued investment into RDI., some of it new funding but in other instances utilising existing instruments such as THRIP**. Possible new sources of funding include the co-ordinated lobbying for funding at the proposed national STI plenary (a high-level inter-ministerial body for the identification of RDI priorities). Another new RDI funding opportunity is the establishment of a dedicated NRF Research chair for Timber research. Research chairs are either funded directly by the government or through co-funding arrangements between university and industry (for example the sugar industry). A business case should set out the various options and proposals to fund such a chair, which could help to secure additional dedicated government funding.

Also included under deliverable 8 is the need for the revised THRIP guidelines to be published and for a forestry stakeholder workshop to be convened to discuss the revised guidelines. The THRIP programme was deemed to be a success in leveraging research funds from industry and it would therefore be important to have a full understanding of the amendments and how the forestry sector can continue to benefit from the THRIP funding. The projects included under this part of

the Masterplan must identify (a) current areas of unnecessary duplication and (b) opportunities to co-operate in project proposals, joint funding applications and execution of projects.

Table 9 provides a list of the RDI deliverables against the success statements

Table 9: Sub focus areas for Research, Development, and Innovation (RDI)

Objective statement: To strengthen and expand RDI in the forestry sector		
Sub-focus areas	Success statements	Deliverables
Enabling government conditions in support of RDI		Deliverable 1: Government RDI Capacity strengthened and RDI included in budgets
The state of RDI in forestry in SA	Detailed and up-to-date report on the state (strengths, weaknesses, and opportunities) of Forestry RDI	Deliverable 2: Joint study undertaken on state of RDI in Forestry (Aug 2020-March 2021)
The research and innovation agenda for Forestry	Co-constructed identification of RDI agenda for the sector with a view to greater coordination and collaboration between academia, government, and industry	Deliverable 3: RDI priority setting undertaken related to solid wood processing
		Deliverable 4: Primary R&D priority setting done through National Research Forum (<i>this is an existing forum with all activities ongoing</i>)
		Deliverable 5: Forestry Cluster put in place to address upstream and downstream RDI activities (An expansion of the FMG cluster)
Investment into RDI (Public & Private)	Current levels of investment in existing RDI initiatives are maintained (as a minimum)	Deliverable 6: Advocate and lobby for continuation of <u>existing</u> RDI projects coming to an end. <u>Project 1: Funding for the Tree Protection Cooperative Programme at FABI (DEFF portion)(FSA, DEFF and UP)</u> DSI Projects <u>Project 2:</u> Sector Innovation Fund (<i>DSI: Sector and Local Innovation</i>) <u>Project 3:</u> Forestry Cluster (expansion of current FMG programme)(<i>DSI-TIA</i>) <u>Project 4:</u> Biorefinery consortium (<i>DSI Industrial Bioeconomy Directorate</i>) <ul style="list-style-type: none"> • In conjunction with the development of the decadal plan, lobby for continued funding
	New investments in Forestry RDI are secured (ideal)	Deliverable 7: Advocacy and lobbying for additional investment to national bodies, e.g. National STI plenary (probably only functional in 2021)

Skills and Human Resource Development

There are several sub-focus areas. Firstly, the **retention of high level managerial and research skills and clear career paths and training programmes for lesser skilled workers to fill higher level positions** will be addressed through two studies that cover a skills audit to determine the critical skills gaps (Deliverable 1); and a current PhD Tracer study that CREST is conducting (under commission by the Water Research Commission and the Department of Science and Innovation) (Deliverable 2). This study will produce findings related to the employment profiles and career trajectories of Forestry graduates as well as the main causes for the loss of highly skilled individuals to the sector. These studies will also determine which positions in the sector may become redundant in future to allow the sector to start to re-skill workers occupying those positions.

The findings and recommendations from these studies will then be utilised to implement projects and programmes to address the skills and human resource gaps (Deliverable 3).

A critical skill shortage exists amongst landowners (from community to SMMEs and small growers) – in the primary sector and among small sawmillers, technical, entrepreneurial and financial skills. Short courses will be the starting point. A forum is proposed (Deliverable 4) to ensure the many relevant stakeholders convene regularly to the skills issues.

In support of **promoting a wood culture** (see focus area 3), there is a focus on training built environment professionals, starting with an established project for architects. This project has two objectives: i) to educate architects in the use of wood as a construction material through online CPD accredited courses on wood as a material, wood products, and wood construction; ii) to develop a South African wood website where the necessary information can be disseminated. It is also envisaged that other professionals in the building sector, tradespeople and the public will utilise the online courses and the wood website. Nelson Mandela University provides several courses aimed at expanding artisanal skills.

The forestry sector, like many others in the economy, is being and will be affected by technological advancements which could lead to job losses. While some of these changes may be unavoidable, the sector should plan for them to make sure workers, their families and communities are not negatively affected. Following the skills audit (Deliverable 3), plans will need to be introduced for career paths, training and re-skilling of workers as well as exploring other means to prevent large scale job losses or compensate for those whose jobs have been lost.

Table 10: Sub focus area for Human Resource Development and Skills

Objective statement: To develop, retain and expand skills for the Forestry sector		
Sub-focus areas	Success statements	Deliverables
Retention of high level managerial and research skills	<ul style="list-style-type: none"> i. Scarce skills gaps identified and addressed through critical interventions ii. Increased retention of graduates for the industry, government, and academia 	<p>Deliverable 1. Skills audit done to determine skills gaps as well as redundant skills in processing and primary sector</p> <p>Deliverable 2. CREST Tracer study done to establish the employment trajectories for Forestry graduates (September 2020- March 2021)</p> <p>Deliverable 3. Projects and Programmes implemented in response to skills audit and tracer study (Including career pathing, training and re-skilling of workers)</p>
Skills: Landowners	<ul style="list-style-type: none"> i. New (beneficiaries) and existing landowners (community, micro, small growers) equipped with financial, entrepreneurial, and technical skills (including fire protection) ii. New (beneficiaries) and existing landowners have access to mentoring support following training 	<p>Deliverable 4. Skills forum/ committee established to drive the development and delivery of short courses for landowners, SMME contractors and small sawmillers.</p>
Skills: SMME Contractors	<ul style="list-style-type: none"> i. SMME contractors equipped with financial and entrepreneurial skills ii. SMME contractors have access to mentoring support following training 	
Skills: small Processors	<ul style="list-style-type: none"> i. Small sawmillers equipped with business acumen skills and technical skills ii. Small sawmillers have access to mentoring support following training 	
Skills: Built environment	160 architects capacitated in the use of wood as a construction material per year (from year 2)	
DEFF Capacity	Sufficient skilled capacity assigned by DEFF to ensure Masterplan is successfully supported	DEFF capacity building in support of Masterplan projects

FOCUS AREA 6: Key Inhibitors

A variety of inhibitors facing the forestry sector emerged in both the research and stakeholder engagements. These included environmental authorisations such as EIA's, water use licensing and genus exchange as well as the diesel refund, all of which are being addressed in the PPGI process. The overall objective of focus area 6 is to create an enabling environment for the Forestry Sector, with the following included in the Masterplan.

- **Water:** Plantation forestry is recognised as a stream flow reduction activity and therefore requires a water use licence (WUL) to operate lawfully in South Africa. The license application process is an 11-step process that involves approximately 50 activities as well as the involvement of different departments at national and provincial level. Through the PPGI process, significant progress has been made with agreement reached for a new, more streamlined template to be utilised from 01 April 2020. As a first deliverable, the WUL licences issued between 1998 and 01 April 2020 will be amended to ensure that they are consistent with the contents of the new WUL.
- **Genus Exchange Legislation:** In 2016, the Department of Water and Sanitation (DWS) published draft regulations to regulate the exchange in general planted areas between the use of pine and *Eucalyptus*. The industry contested these regulations, arguing that the Department had miscalculated the water use differential between the two genera and that there appeared to be no basis for differentiating the amount of water use between pine spp. and *Eucalyptus* spp. when exchanging genera. The forestry industry wishes to have the flexibility to change between genres depending on market dynamics, but DWS maintains that the current conditions of the WUL/permits will be enforced or a reduced planting area when moving to *Eucalyptus* will apply. FSA is initiating legal action to challenge this, and therefore deliverable 2 reflects the resolution of the Genus Exchange court case.
- **Diesel refund:** In 2016, The South African Revenue Services (SARS) called for comments on the then current diesel refund system. In February 2017, SARS and the National Treasury jointly produced a discussion document in which they detailed proposed changes to the current refund system. Certain forestry activities were excluded from the proposed new refund system which would impact negatively on competitiveness of the industry and cost the industry tens of millions of Rands per year. Several submissions have been made to SARS, but no response or timeline for conclusion of this issue have been provided. Deliverable 3 addresses this by ensuring continued efforts to obtain a response from SARS. The SARS response will determine the next steps to be taken.
- **Ports:** The South African ports are a vital component of the South African forestry value chain. Industry engagements highlighted challenges around efficiencies, specifically the risk of product contamination and lack of maintenance of the conveyor route and ship loader as well as lengthy vessel turnaround times. In terms of cost, the National Ports Authority's (NPA's) below inflation tariff increase is seen as a positive step, but there is a lack of clarity on the composition of the Port Terminal Tariff which needs to be addressed. Several deliverables will be implemented to address these issues: firstly, quarterly industry forums are convened where the maintenance of Port terminal equipment and the performance of the conveyor route and ship loader are discussed (deliverable 4). Secondly, turnaround times will be improved through the implementation of a productivity tariff (deliverable 5) that links the tariff to the performance of the Port terminal and wood chip

companies. Thirdly, tariff negotiations, backed by a benchmarking study, will be undertaken (deliverable 6).

- **Road and rail:** Transportation costs are equivalent to approximately 50% of timber grower's operational costs (South Consulting, 2015). In South Africa, the only two modes of transport available to move the timber off the plantation are road or rail. Rail volumes significantly decreased between 2005 and 2010 following more than a 191% increase in rail tariffs. Coupled with issues around efficiency and reliability of the rail network, competitiveness of South African exporters is severely compromised. Deliverable 7a and 7b captures the solutions proposed by industry to address these concerns: No new projects were proposed - instead, the request is to ensure greater strategic alignment between industry and Transnet Freight. The lack of alignment results in great inefficiencies as industry is unable to plan sufficiently, which impacts on industry's ability and willingness to invest in rail infrastructure. The industry platform (by means of the existing FSA transport committee) will feed into the proposed "One Stop Shop", to be established by Transnet Freight. The One Stop Shop will ensure all relevant parties come together to address industry concerns.

In terms of roads: overloading is one of the key contributors to road damage. Deteriorated road infrastructure in turn has cost implication to vehicles operating on such roads. The timber industry is part of a collaborative effort between industries (sugar and timber) and the Department of Transport to self-regulate the incidence of overloading within the respective industries and thereby improve efficiencies, fulfil good governance responsibilities and unlock possible Government concessions. However, these new technology performance-based trucks (PBS) fall outside of the legislated specifications of the Department of Transport, thus requiring an abnormal load permit to be issued. The PBS trucks need to be incorporated into the road transport regulations to reduce the process required for PBS truck use (Deliverable 8).

- **Environmental Impact Assessment (EIAs):** The current EIA process is complex, takes much time and is expensive. For large commercial undertakings and development, the EIA process is valid in ensuring that all environmental aspects are considered. However, for small developments, such as community plantation projects, this becomes a major stumbling block to the community realising their lands potential. Fortunately, options exist for a more effective environmental authorisation process. Deliverable 9a deals with the finalisation of existing EIAs, while deliverable 9b proposes the development of a more streamlined approach appropriate to the scale of the development. This will make it more affordable for communities and ensure the processes are completed within a time scale that does not discourage them from planting. It is proposed that the Forestry branch in DEFF engage more intimately with the Environmental branch on this matter.

Table 11: Sub focus areas for Key Inhibitors

Objective statement: To create an enabling environment for the Forestry sector by addressing critical inhibitors related to water, transport, and land		
Sub-focus areas	Success statements	Deliverables
Water	Water use licences issued between 1998 and 1 April 2020 are revised to reflect the provisions of the new WUL process	Deliverable 1: Licenses amended that were issued between 1998 and 01 April 2020 (PPGI Initiative)
Genus Exchange	Genus Exchange Regulations permit a 1:1 exchange when converting from one genus to another (specifically to <i>Eucalyptus</i> on forest land)	Deliverable 2: Genus Exchange regulations resolved after court case (this also applies to the definition of existing lawful water)
Diesel refund	Agreement reached that forestry activities will not be excluded from the Diesel refund system	Deliverable 3: Response obtained on diesel refund
Ports	Reduced risk of product (chip) contamination at Richards Bay port due to multiple users of the conveyor systems	Deliverable 4: Continued monitoring of the performance of the conveyor system through quarterly industry forums
	TNPA and TPT have improved turnaround times for loading ships	Deliverable 5: Productivity tariff implemented from April 2020 whereby performance of port is linked to the tariff
	Lower loading costs negotiated for vessel loading function	Deliverable 6: Terminal Tariff cost issues addressed
Road & Rail	<p>Greater strategic alignment between Industry and Transnet Freight, as well as active resolution of rail related issues through the one stop shop. This can include, but is not limited to:</p> <ul style="list-style-type: none"> • Industry having access to maintenance and shutdown plans • Finding solutions to provinces' dealing with rail infrastructure in different ways • Transnet Freight improves reliability in collecting from depots/ Greater adherence to delivery schedules 	<p>Deliverable 7a. Consolidate industry rail issues for escalation to Transnet Freight</p> <p>Deliverable 7b. Set up One Stop Shop at Transnet to enable strategic alignment between government & industry on rail issues</p>

Objective statement: To create an enabling environment for the Forestry sector by addressing critical inhibitors related to water, transport, and land

Sub-focus areas	Success statements	Deliverables
	<ul style="list-style-type: none"> • Transnet Freight sharing investment / other plans that address capacity constraints and timeframes • Agreement reached between industry and Transnet Freight around rail costs for multiple years • Transnet Freight making available committed infrastructure investment and maintenance plans to industry timeously • Funding/ commitment obtained to improve and maintain rail infrastructure on critical routes • Consideration of PPP options for key lines, as a component of infrastructure investment • Re-open applicable branch lines that have been closed down 	
	PBS Integrated into the National Transport framework	Deliverable 8: Integration of PBS into National Transport Framework
EIAs	<p>EIA processes are optimised to ensure a simpler and quicker EIA process. This includes:</p> <ol style="list-style-type: none"> i. A strategic environmental assessment is commissioned by DEFF to cover community land identified for afforestation in the E Cape ii. The screening and scoping components are optimised for rural community forestry land use 	<p>Deliverable 9a. Existing outstanding EIAs finalised Deliverable 9b. Engage Environmental Directorate on optimised processes to make the system more effective for small growers and communities</p>

Objective statement: To create an enabling environment for the Forestry sector by addressing critical inhibitors related to water, transport, and land

Sub-focus areas	Success statements	Deliverables
	iii. Finalising outstanding EIAs of communally owned land	

4. CONCLUSION

The Forestry Sector Masterplan is one of a number that emerged from a call for action by President Cyril Ramaphosa to stimulate the economy. At the start of the new term of office, the President prioritised investment and more effective implementation of plans to support growth and jobs.

This Masterplan is a high-level action plan, that nevertheless provides detailed implementation and Monitoring and Evaluation (M&E) plans. As such, it provides a solid basis from which delivery can proceed. That said, it is important to take cognisance of the 90-10 principle in the public sector – policy invariably takes 90% of the effort, leaving just 10% for delivery, when the division of effort needs to be the other way round. While action-orientated, the Masterplan is still a plan, and constitutes just 10 percent of what needs to be done – provision still needs to be made for 90% of effort and resources for implementation.

Therefore, leadership and associated governance structures are a critical component of ensuring effective results and delivery. But more than that, those charged with oversight, tracking of progress and implementation need to be adequately capacitated and resourced. This is particularly important for DEFF, which as the overall lead department, has significant co-ordinating, convening and implementation responsibilities. Therefore, Annexure C, which addresses the institutional requirements is a fundamental accompaniment to the Masterplan that needs to be actioned as soon as possible. Successful delivery of the Masterplan also requires sufficient budget commitments from the government and business in particular, in a time of severe financial constraints in a post-COVID-19 environment. This too will need to be addressed going forward.