



# Addressing Specific Elements of REDD+ in South Africa

## Component 2 Potential Institutional Arrangements for REDD+ in South Africa



environment, forestry  
& fisheries

Department:  
Environment, Forestry and Fisheries  
REPUBLIC OF SOUTH AFRICA

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### **Prepared by**

Tony Knowles, Stuart Christie, Derek Berliner, Coert Geldenhuys and Mark Thompson

### **Submitted by**

*The Cirrus Group (Lead)*  
Ground Floor  
Brookside Office Park,  
11 Imam Haron Road,  
Claremont, 7708

### **In consortium with**

*GeoTerra Image (Pty) Ltd*  
477 Witherite Street  
Die Wilgers  
Pretoria

### **Layout & Design by**

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### **REDD+ Project Steering Committee**

Churchill Mkwalo – Department of Environment, Forestry and Fisheries (DEFF)

Itchell Guiney – Department of Environment, Forestry and Fisheries (DEFF)

Matiga Motsepe – Department of Environment, Forestry and Fisheries (DEFF)

Hlengiwe Mbatha – Department of Environment, Forestry and Fisheries (DEFF)

Karabo Mokoena – Department of Environment, Forestry and Fisheries (DEFF)

### **Interviewees**

Dr. Tshifhiwa Ramatshimbila - DEFF

Ms Deborah Ramalope - DEFF

Ms Olga Chauke - DEFF

Mr Masilo Mashatole - DEFF

Mr. Renny Madula - DEFF

Mr Richard Green - DEFF

Mr Andrew Whitley - Wild Trust

Dr Jan Graf - AWARD

Mr Nicholas Theron - Kruger 2 Canyon

Mr Ian Rushworth - Ezemvelo KZN Wildlife

Mr Michael Powell- Rhodes University

Prof Charlie Shackleton - Rhodes University

Prof Coert Geldenhuys - ForestWood

Mr. Leon-Jacques Theron - Xylem Enviro Worx

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Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH



## FOREWORD

The process towards the National Reduction of emissions from Deforestation and forest Degradation (REDD+) Programme, started in July 2015 with the establishment of an Informal REDD+ Consultative Task Team (IRCTT). During the inaugural meeting the IRCTT proposed that instead of following the conventional stepwise approach (Phase 1-3) of REDD+ (as outlined in UNFCCC Decision 1/CP.16, paragraph 73), South Africa should follow a more innovative approach, by having a Phase 0 (Readiness Phase). This led to the commissioning of the South African REDD+ Readiness Study, which was funded by the GIZ, led by the DAFF in collaboration with the DEA. REDD+ was initially identified as part of the suite of eight principle mitigation options in the agriculture, forestry and Other Land use (AFOLU) sector in the National Terrestrial Carbon Sinks Assessment. However, at present, it has been included in South Africa's Land-

Based mitigation programme, which is also built into the country's Nationally Determined Contribution under the United Nations Framework Convention on Climate Change and its Paris Agreement.

Since 2015, several pieces of work has been commissioned, which links to the initial set of elements of the REDD+ mechanism. This study explored effective and efficient institutional arrangements for the REDD+ process for South Africa on a national level. This assessment, inter alia, considered the appropriate institutional location for the REDD+ process as preliminary outlined in the REDD+ Readiness Study. However, substantial work still needs to be done, but this will strongly depend on the extent and scope of the implementation of REDD+ in the country and related elements.



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## ACRONYMS

AFOLU	Agriculture, Forestry and Other Land Use
AI	Artificial intelligence
AIP	Alien Invasive Plants
AWARD	Association for Water and Rural Development
BSM	Benefit sharing mechanism
CBD	United Nations Convention on Biological Diversity,
CFM	Community Forest Management
DAFF	Department of Agriculture, Forestry and Fisheries
DALRRD	Department of Agriculture, Land Reform and Rural Development
DEA	Department of Environmental Affairs
DEFF	Department of Environment, Forestry and Fisheries
DMR	Department of Mineral Resources
DHEST	Department of Higher Education, Science and Technology
DHSWS	Department of Human Settlement, Water and Sanitation
DPSA	Department of Public Service and Administration
EPWP	Expanded Public Works Programme
GHG	Greenhouse Gas Emission
GIS	Geographical Information System
ICFR	Institute for Commercial Forestry Research
IPCC	Intergovernmental Panel on Climate Change
IRCTT	Informal REDD+ Consultative Task Team
LTAS	Long term Adaptation Scenarios
MRV	Monitoring, Reporting and Verification
NCCRP	National Climate Change Response Policy
NDC	Nationally Determined Contribution
NDP	National Development Plan
NRM	Natural Resource Management
NTCSA	South African National Terrestrial Carbon Sink Assessment
PAMs	Policies and measures
PDD	Project Design Documentation
PFMC	Participatory Forest Management committees
PIN	Project Identification Number
RBP	Results based payment
REDD	Reduced emissions from deforestation and forest degradation (through planning and regulation)



REDD+	Reducing emissions from deforestation and forest degradation in developing countries; and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries
R&D	Research and development
SANBI	South African National Botanical Institute
SAN Parks	South African National Parks
SD	Sustainable development
SFM	Sustainable Forest Management
SIS	Safeguard Information System
SPLUMA	Spatial Planning and Land Use Management Act, 2013 (Act No. 16 of 2013)
TOR	Terms of Reference
UN	United Nations
UNCCD	United Nations Convention to Combat Desertification
UNFCCC	United Nations Framework Convention on Climate Change
UN-REDD	United Nations Redd Programme
WAM	With additional measures
WEM	With existing measures
WESSA	Wildlife and Environment Society of South Africa
WOM	Without measures
ZAR	South African Rand



## I. INTRODUCTION

Climate change has been identified as a clear threat to South Africa, and the country has decided to address it in a proactive and progressive manner. Following early publication of a National Climate Change Response Policy (NCCRP) (DEA 2011), a substantial foundation on which to base future policy and measures has been developed. A particular opportunity that has been identified is the implementation of a national programme aimed at reducing emissions from deforestation and forest degradation (REDD+). South Africa's National REDD+ programme is also supported by the Rio Conventions – the United Nations Convention on Biological Diversity (CBD), the United Nations Convention to Combat Desertification (UNCCD), and the United Nations Framework Convention on Climate Change (UNFCCC). Article 5 of the Paris Agreement also invites countries to take action to conserve and enhance carbon sinks, including forests. Article 5 also encourages actions to implement and support, including through results-based payments, the existing Warsaw Framework for REDD+ adopted at COP 19, and alternative policy approaches such as the sustainable management of forests. The Paris Agreement (Article 5) and the associated Katowice Rule-book package sets out the essential procedures and mechanisms that will make the Paris Agreement operational. Furthermore, South Africa's forests, form an integral part of the strategic framework for the management and enhancement of carbon sinks in the agriculture, forestry and other land-use (AFOLU) sector in South Africa which is currently being developed.

To explore the opportunity, an Informal REDD+ Consultative Task Team (IRCTT) was established between the Department of Agriculture, Forestry and Fisheries (DAFF) and the Department of Environmental Affairs (DEA) in 2015. After review of the UN-REDD programme and further international examples, the IRCTT commissioned an initial REDD+ Readiness Study (DAFF 2017b). The outcomes of the study and subsequent

expert consultative workshop identified the need to develop a number of key elements as well as pilot areas, to be able to move towards the creation of an effective and efficient national programme.

A crucial element is identifying an appropriate institutional home and champion for REDD+ in South Africa. A successful REDD+ programme not only requires the implementation of on-the-ground sustainable forestry management (SFM) activities, but the joint consideration and management of a number of supporting elements that include addressing primary drivers of deforestation, monitoring and reporting, verification, compliance and the administration of potential offsets. Furthermore, each of these elements need to be considered in the current South African context where indigenous forests, woodlands and thicket fall under the custodianship and management of a range of public and private entities, and where established institutions could take care of required supporting operational, research, monitoring and incentive elements in an efficient manner. An appropriate lead entity will not only need to be able to work with and coordinate each of these elements and supporting institutions, but also have the mandate and ability to secure engagements with other government departments and meetings with international funders.

A systems approach was used to disaggregate this topic and identify overarching objectives for a successful REDD+ initiative over the long-term before providing initial advice on a potential institutional arrangement. These objectives are:

- Understand and realise the magnitude of REDD+ opportunities.
- Implementation models and activities to address REDD+ opportunities and sustain implementation over the long-term.
- Establish and manage monitoring, reporting and verification protocols and systems for REDD+.

- Develop policy frameworks to sustain and enhance REDD+ activities.
- Develop long-term funding and finance frameworks to sustain and enhance mitigation activities.

Figure 1 illustrates such a system and associated interrelationships for the establishment and long-term sustainability of a national REDD+ programme in South Africa.

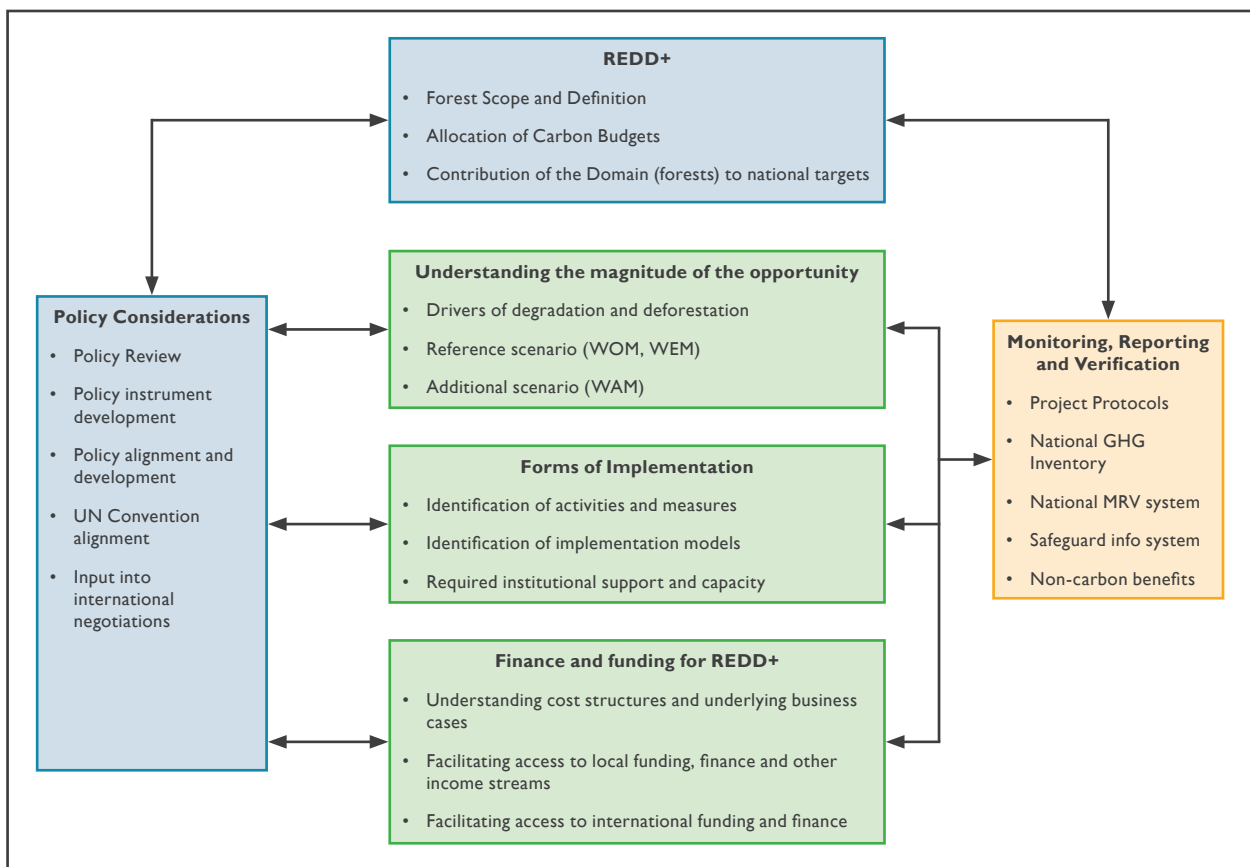


Figure 1: The overarching objectives defining a potential institutional arrangement for a REDD+ programme.

## 2. APPROACH AND METHODOLOGY

### 2.1 OBJECTIVE

The REDD+ Assessment Report of 2016 identified three possible models for the location of the South African REDD+ programme; namely it could be housed in DAFF, DEA or as an independent unit.

*However, during May 2019, national government departments were restructured and DEA and the forestry and fisheries component of DAFF were merged to create a new Department of Environment, Forestry and Fisheries (DEFF). Reorganisation within DEFF is currently taking place and the exact structure, directorates and roles and responsibilities remain uncertain. Consequently, the three options initially envisaged have been reduced to two.*

- Third, to define what is required of a lead institution in terms of legal mandate and ability to secure adequate support from other national departments, all spheres of government as well as international funders.
- Last, to explore an initial intermediate phase where a potential institutional arrangement is trialled and tested during the development of the three pilot projects described in the third component of this commission.

### 2.2 METHODOLOGY

The initial REDD+ Assessment Report described how a national programme may be positioned within national policies and departmental mandates. The intention of this analysis is to build on this early work. It starts with an exploration of the magnitude and nature of REDD+ tasks that will need to be managed or coordinated, before attempting to identify an institution that could undertake the task. The assessment is structured in four broad steps:

- First, to provide the reader with an understanding of the scope and depth of a national REDD+ programme in terms of its principle elements, for example, strategic oversight and national management, field implementation, monitoring and evaluation, integration into spatial planning, enforcement of regulations and creation of incentives.
- Second, to describe the current context in South Africa in which an institution will need to lead and sustain the national REDD+ programme elements described in Step 1.





## 3. THE SCOPE AND DEPTH OF A NATIONAL REDD+ PROGRAMME

### 3.1 INTRODUCTION

The implementation of a REDD+ programme in South Africa will be characterised by a complex set of drivers including a network of stakeholders ranging from private sector, tertiary institutions, non-government organisations as well as a number of government departments. The complexity of the REDD+ environment is illustrated in Figure 2.

Private-sector stakeholders include emerging farmers and foresters, formal agriculture and forestry as well as rural communities, all of whose livelihoods are related to and highly dependent on the forests landscape and their consequent impact on carbon sources and sinks. Furthermore, peri-urban and urban communities often rely upon forests for firewood, construction material, food and supplementary grazing. A good example of this is the Bushbuckridge peri-urban and urban areas in Mpumalanga.

Tertiary institutions include universities and research institutes. Many of these are actively involved in climate change mitigation and adaptation research and development, e.g. The Global Change Institute at the University of Witwatersrand and the African Climate Development Group at the University of Cape Town. Other universities are involved in activities directly associated with reducing land degradation for example, the Rhodes Restoration Group at Rhodes University.

The government departments directly and indirectly involved in REDD+ development and implementation include, the Department of Environment, Forestry and Fisheries, the Department of Agriculture, Land Reform and Rural Development (DALRRD), the Department of Science and Innovation (DSI) and the Department of Public Works (DPW), and in some cases the Department of Trade and Industry (DTI) and the National Treasury. Furthermore, measures on the ground aimed at

halting, reducing and reversing deforestation and forest degradation are often implemented by provincial and local municipalities, including the implementation of spatial planning and zoning (according to the Spatial Planning and Land Use Management Act, 2013 (Act No. 16 of 2013), (SPLUMA).

The institutional arrangements to achieve the implementation of REDD+ will be extremely important. Phase I of the REDD+ process is the development of a National REDD+ Strategy and Action Plan. Determining the roles and responsibilities of various government departments will need to be carefully considered. Resources in terms of skills and experience need to be determined against concerns about institutional capacity within Government. Extension services are critical for knowledge transfer and data collection to support REDD+ activities. The financing of capacity as well as operational implementation of REDD+ is a critical success factor in ensuring successful strategy implementation.

### 3.2 SCOPE AND DEPTH

The identification of a suitable institution to lead REDD+, requires an understanding of the magnitude and nature of the strategic and operational tasks that the entity will need to perform over time. A national REDD+ programme includes both the initial development of a formal national REDD+ strategy and action plan as well as the long-term, sustainable management of forests and the other REDD+ activities that halt, reduce and reverse deforestation and forest degradation.

The required technical and non-technical elements that form a national REDD+ framework were initially explored in the National REDD+ Readiness Assessment Report (DAFF 2017b). They include a considerable range of policy, strategy and operational elements, ranging from



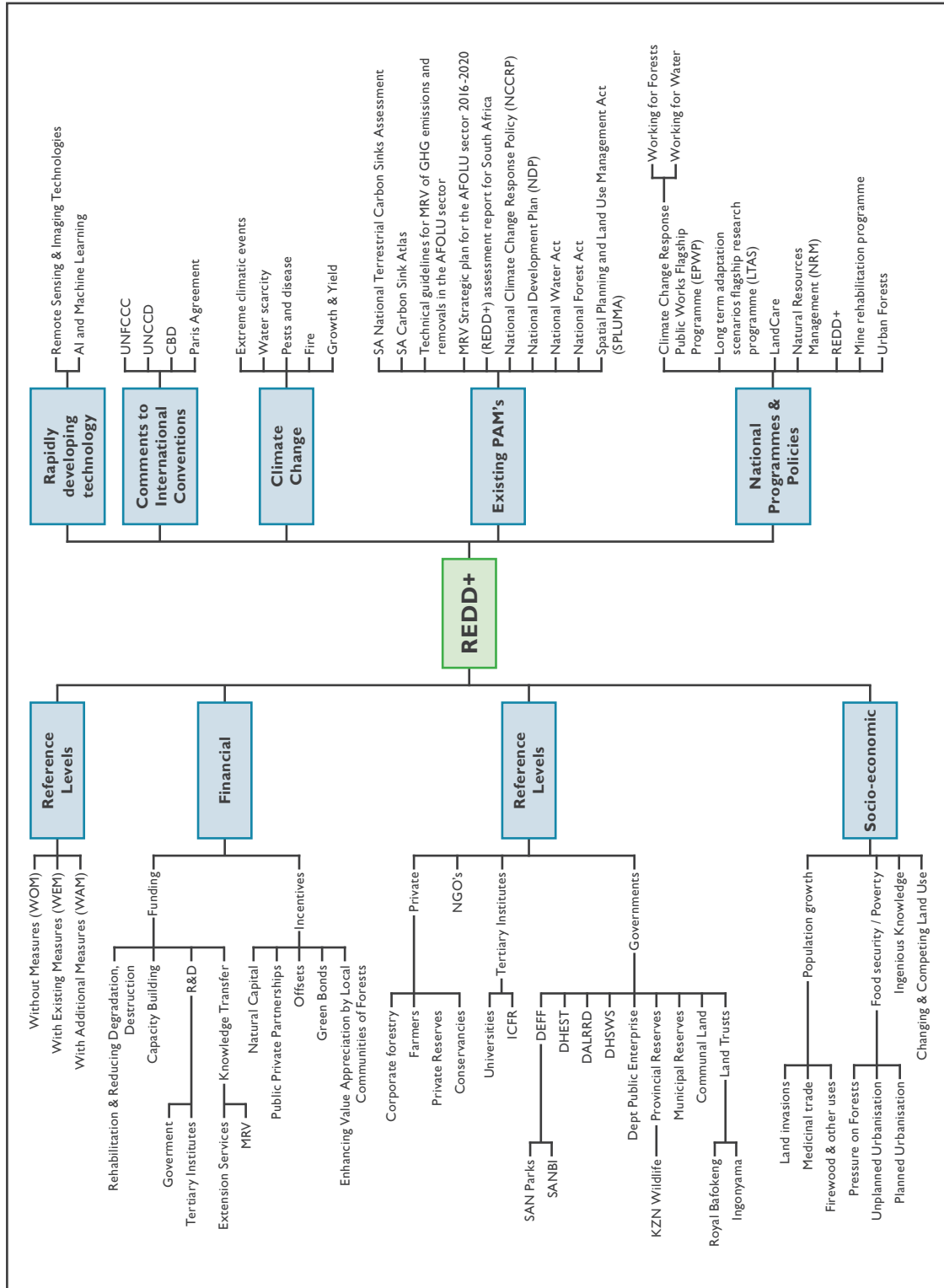


Figure 2: Mind map illustrating the key elements related to the development and implementation of a REDD+ programme.



the identification and mapping of drivers of deforestation, to securing international funding and finance, to the development of a national forest monitoring system, including a Safeguard Information System. A lead entity will either need to develop all these elements in-house or have the ability to proactively coordinate and commission their development by other organisations. This will include both their initial creation and long term management.

This document is an initial framework aimed at identifying a lead institution through engagement with DEFF and other stakeholders. A proposed early step in the process is to systematically consider which entity is best positioned to undertake and lead the development of each element listed in Table 1. The outcome of this process will provide an understanding of prominent existing institutions, required levels of coordination, management and associated capacity, and which entity may be potentially suitable to lead a national REDD+ programme.

A similar consideration is required for each of the components of long-term implementation, both on-

the-ground and supporting functions. Within the list of technical and non-technical elements is the development of implementation models, institutional arrangements and the identification and creation of required capacity where necessary (Table 1).

To illustrate the potential scope and depth of these essential elements, Figure 3 and Table 2 provide a summary of the activities described in the REDD+ Readiness Assessment Report that are necessary to halt, reduce and reverse deforestation and degradation in South African natural forests, woodlands and sub-tropical thickets. On a local, regional and national scale these cross-cutting activities are encapsulated within the five REDD+ activities globally agreed upon to contribute to mitigation actions in the forest sector namely:

- reducing emissions from deforestation;
- reducing emissions from forest degradation;
- conservation of forest-carbon stocks;
- enhancement of forest-carbon stocks;
- sustainable management of forests.

Table 1: The technical and non-technical elements required within a national REDD+ framework (as listed in the initial national REDD+ Assessment Report (DAFF 2017b)).

Activities	Carbon Pools
Defining Drivers of deforestation and forest reference levels	<ul style="list-style-type: none"> <li>• Drivers of deforestation and forest degradation</li> <li>• Forest reference levels</li> </ul>
Securing finance and funding <i>(This includes both ex ante support and ex post payments)</i>	<ul style="list-style-type: none"> <li>• REDD+ Potential Assessment</li> <li>• REDD+ Support</li> </ul>
Developing forms of implementation	<ul style="list-style-type: none"> <li>• Institutional arrangements</li> <li>• Implementation models</li> <li>• Required capacities</li> </ul>
Policies and measures	<ul style="list-style-type: none"> <li>• Policy and measures review</li> <li>• UN convention alignment</li> <li>• Alternative policy approaches</li> </ul>
Monitoring, reporting and verification	<ul style="list-style-type: none"> <li>• Development of MRV system</li> <li>• National Forest Monitoring System</li> <li>• Safeguard Information System</li> <li>• Non-carbon benefits</li> </ul>



Non-carbon activities associated with community engagement and upliftment including active participation in the stewardship of forests, conservation of water and biodiversity will have direct and positive consequences for a resilient REDD+ programme.

During the development of the REDD+ Readiness Assessment Report, the authors identified a large set of activities that would need to occur in a coordinated manner to deliver a comprehensive and effective national climate change mitigation strategy for the South African AFOLU sector. These range from national strategy and coordination, to engagement with communities, to the roll-out of erosion control measures, among others (Figure 3, Table 2). However, within this broad suite of

activities, it was noted that there tends to be a group of actions that are done at a local scale on-the-ground, a set of activities that need to occur at a regional or provincial scale, and a number of measures that should be undertaken at a national scale and most often by a national government department. Furthermore, it should be noted that implementation would follow a stepwise approach initially focusing on the pilot areas in order to test the resilience of institutional frameworks and capacity before being expanded to indigenous forests and thereafter to woodlands and sub-tropical thickets. Consequently, local, regional and national levels were created to provide structure and communicate the typical level of resolution and scale at which a task would occur (DAFF 2017b).

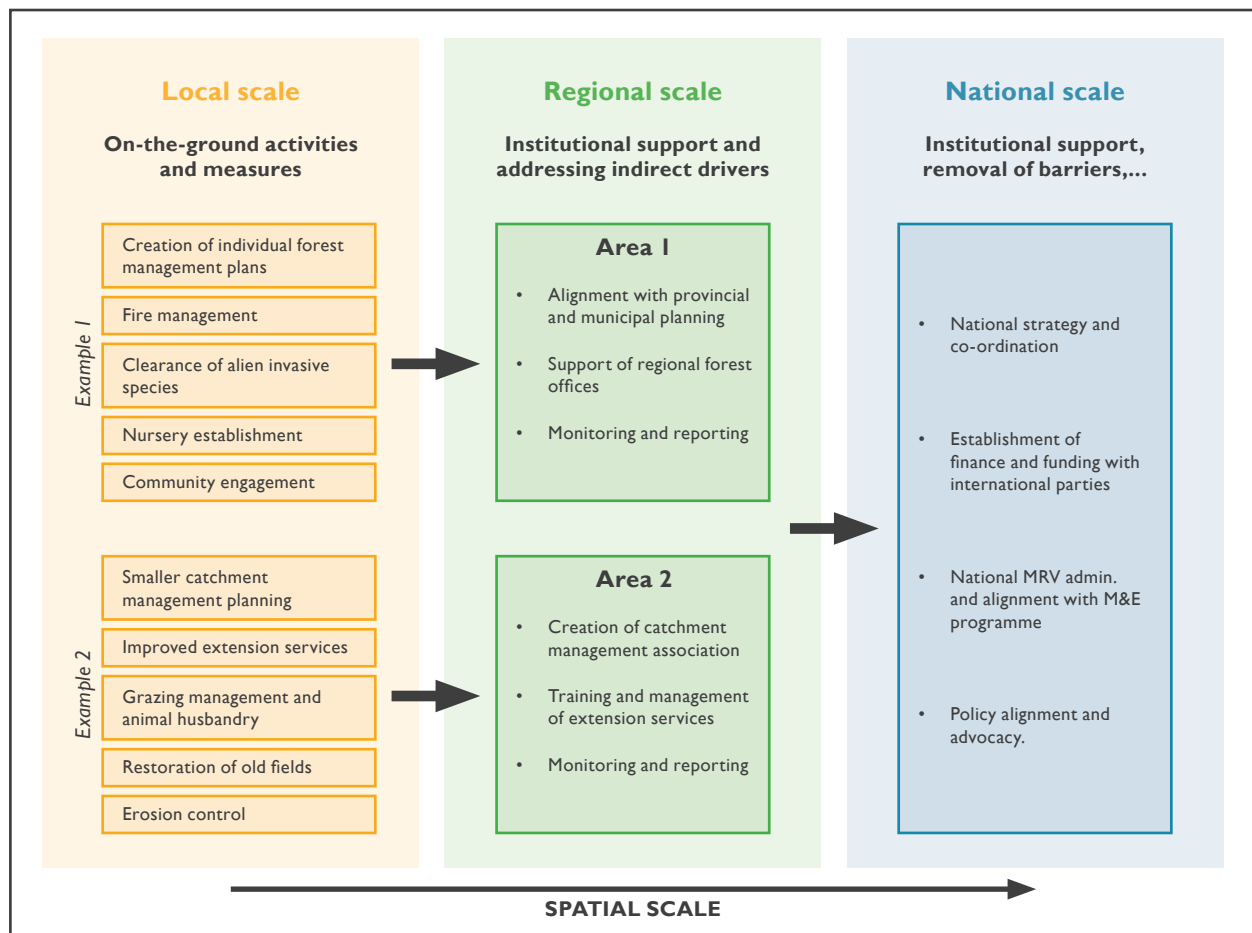



Figure 3: Two examples of some of the required REDD+ activities and measures at local, regional and national scales.



Table 2: An example description of required activities to effect REDD+ across national, regional and local scales (REDD+ Assessment Report (DAFF 2017b))

National scale
<ul style="list-style-type: none"> <li>• National coordination and management.</li> <li>• Strategy development.</li> <li>• Facilitating roll-out – area identification and early area development team.</li> <li>• The implementation of a cost efficient national MRV system.</li> <li>• Establishment of funding, and incentive mechanisms and disbursements.</li> <li>• Alignment with national and international policy.</li> <li>• Applied research development.</li> </ul>
Regional or provincial scale
<p><b>The provision of institutional and operational support required to initiate, manage and sustain local scale operations</b></p> <ul style="list-style-type: none"> <li>• Extension support to parties implementing activities at a local scale.</li> <li>• Coordination of monitoring and reporting operations.</li> </ul> <p><b>Measures required to address the larger-scale indirect drivers associated with landscape degradation</b></p> <ul style="list-style-type: none"> <li>• Regulation and law enforcement with regard to land-use and land conversions.</li> <li>• Integration of activities in land-use planning (SPLUMA).</li> </ul>
Local scale
<p><b>Forest Biome -</b></p> <ul style="list-style-type: none"> <li>• Operational development – establish forest and fire management plans, forest zonation, identify potential buffer zones and create community forestry management (CFM) plans, if necessary.</li> <li>• Resource use control – enforce laws and management plans, control grazing (cattle) and the collection of medicinal plants, firewood, poles and structural timber.</li> <li>• Forest management (this may require extended implementation capacity) – control alien invasive plants (AIP), implement fire management plans, implement erosion control measures.</li> <li>• Reforestation – establish nurseries, and forest management over time. This may include establishing high-production buffer zones.</li> <li>• Engage Communities to promote local level forest stewardship – an integral part of the forest management plan including a Community Needs Assessment and Community Action Plan</li> </ul> <p><b>Woodlands –</b></p> <p><i>In addition, to forest biome activities</i></p> <ul style="list-style-type: none"> <li>• Integrate fire and grazing management.</li> <li>• Implement anti-erosion structures.</li> </ul> <p><b>Sub-tropical thicket –</b></p> <ul style="list-style-type: none"> <li>• Control herbivore pressure.</li> <li>• Reforestation through loosening soils, brush packing, nursery propagation of saplings and planting.</li> <li>• Conservation agriculture.</li> </ul>



In a similar manner to the consideration of the national REDD+ framework elements listed in Table 1, the components in Table 2 may be undertaken by a variety of public and private entities. These need to be identified and understood sufficiently to identify a suitable lead institution that can coordinate and if necessary, manage each component over the long term.

Within South Africa, one is certainly not starting with a 'clean slate', but rather with a rich diversity of land

custodians, land tenure types, forest and conservation management agencies, research and monitoring institutions, and social and economic contexts, which need to be taken into consideration when identifying the appropriate management structures of a national REDD+ programme. The next section explores this diversity of existing forest management with a view to informing a lead institution and appropriate management structures and capacity.

## 4. THE CURRENT SOUTH AFRICAN CONTEXT: MANAGEMENT AND INSTITUTIONS

It's important to visit the definition of REDD+ and then consider it within the context of South Africa. **REDD+** refers to 'reducing emissions from deforestation and forest degradation in developing countries, and the role of conservation, sustainable management of forests, and enhancement of forest carbon stocks in developing countries' (UNFCCC 2011). The definition and scope of REDD+ in South Africa is addressed in the Comprehensive Assessment of the scope of Implementation of REDD+ in South Africa. This section describes the indigenous forests and woodlands from an institutional perspective and demonstrates the complexity of existing protection status, ownership and management.

Key to this definition of REDD+ is firstly **sustainable management of forests** and secondly defining it within the context of **developing countries**. Therefore, to provide recommendations for potential institutional arrangements for implementing REDD+ for South Africa it is important to understand the current state of sustainable forest management and how well developed

and resourced the South African forest and woodlands sector is. There are some key questions in this respect:

- What is the biogeographical status of the forests?
- Does the current legislative framework protect these forests and woodlands?
- What institutional frameworks currently exist for managing our forests and woodlands?
- How are these institutional frameworks currently implementing REDD+ activities?
- What is the ultimate objective of a REDD+ programme in South Africa?

In addition, in terms of the location and management of particular forests and woodlands:

- What is the extent of each forest and woodland type?
- Where do these forests and woodlands occur?
- Who owns these forests and woodlands?
- What is their conservation status?

Answering these questions is an important step in understanding how to formulate the institutional arrangements for REDD+.

### 4.1 INDIGENOUS FORESTS

South Africa's indigenous forests form an archipelago of scattered forest patches of varying sizes arranged in several longitudinal belts running either parallel to the coast or following the main escarpment or some of its lower-lying steps, or arching mountain ranges. These have been classified in a hierarchical system of eight Forest Groups comprising 23 zonal and 3 intrazonal types. Figure 4 illustrates the different forests in South Africa and clearly portrays the widespread distribution from the Western Cape to the Limpopo Provinces.



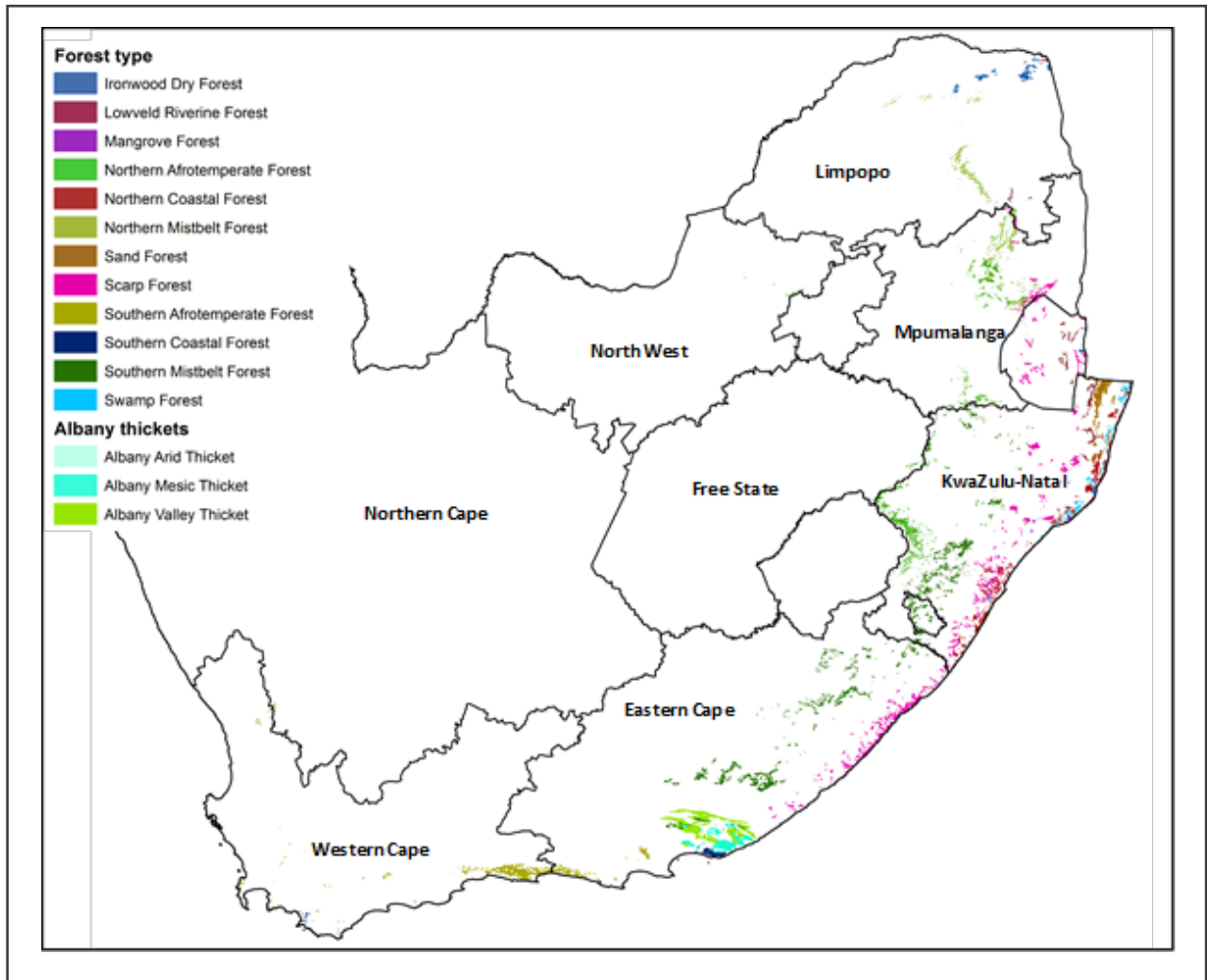


Figure 4: Forest types in South Africa (SANBI 2018)

Table 3 provides a breakdown of forest groups and interzonal types derived from the 2018 Vegetation Map of South Africa, Lesotho and Swaziland (SANBI 2018). Forests account for approximately 5.1 Mha of South Africa. **Total extent** represents the sum of the forest cover fraction of a particular biome as well as the forest cover fraction which has been transformed to plantations, AIP, bush encroachment or other land use. For example, approximately 193 000 ha (43%) of zonal and intrazonal forests have been transformed. This represents the potential REDD+ opportunity and

one of the considerations with respect to institutional arrangements.

Approximately 51% of the forest cover in zonal and intrazonal forests is under some form of formal protection. This ranges from the highest level of protection such as national parks to those of lower protection status such as private nature reserves. However, many of these areas that have been afforded protection status may also have varying levels of bush encroachment and AIP or in circumstances be completely transformed.

Table 3: Forest groups and associated forest types and protection status of the South African evergreen forests. The bioregions are identified, described and mapped in Mucina and Rutherford (2011).

Biome / Bioregion	Total extent (ha) <sup>a</sup>	Woody cover fraction		Plantation (ha)	AIP cover (ha)	Bush encroach. (ha)	Trans-formed (ha)	Formal protection (ha)	% Protec-ted <sup>b</sup>	Type of protection	
		> 75%	35%-75% < 35%								
<b>Scarp and coastal forests, tall woodland and thicket</b>											
<b>Zonal and intrazonal forests</b>											
FOz 1 Southern Afrotemperate Forest	77 536	37 842	367	229	1 460	20 674	0	16 927	65 402	84	FNR, FWA, MCA, NP, PE, WHS
FOz 2 Northern Afrotemperate Forest	19 383	6 456	468	45	736	1 116	1 826	8 706	8 355	43	FNR, MCA, NP, PE, WHS
FOz 3 Southern Mistbelt Forest	106 197	49 492	638	25	2 125	23 389	10 965	19 525	21 295	20	FNR, NP, NP, PE, PE, PE
FOz 4 Northern Mistbelt Forest	37 910	28 878	522	184	1 779	1 600	780	4 159	25 497	67	FNR, FWA, MCA, NR
FOz 5 Scarp Forest	83 582	45 982	397	44	452	17 846	6 066	12 730	27 249	33	FNR, FWA, MPA, NR
FOz 6 Southern Coastal Forest	18 511	13 377	52	6	2	299	0	4 773	16 649	90	FNR, NP, NP, PE, PE
FOz 7 Northern Coastal Forest	67 879	46 869	135	43	384	6 275	1 634	12 510	46 968	69	MPA, WHS, NR
FOz 8 Sand Forest	26 547	17 929	350	10	19	986	258	6 987	13 388	50	NR, WHS
FOz 9 Ironwood Dry Forest	6 869	247	295	657	-	184	358	5 127	3 281	48	NP, NR, PE
<i>Sub-total</i>	444 414	247 071	3 223	1 242	7 287	72 368	21 886	91 446	228 084		
<b>All Azonal Forests</b>											
FOa 1 Lowveld Riverine Forest	13 266	5 591	97	95	2	614	235	620	8 287	62	NR, NP, WHS
FOa 2 Swamp Forest	10 044	7 483	34	5	328	508	126	510	5 987	60	NR, WHS
FOa 3 Mangrove Forest	4 294	2 747	10	10	-	29	32	29	3 617	84	MPA, WHS, NR
<i>Sub-total</i>	27 604	15 820	141	110		1 151	393		17 891		
<b>Indian Ocean Coastal Belt</b>											
<b>All coastal belt bioregions</b>	1 169 280	163 448	22 989	333	12 5380	43 977	31 238	43 953			
<b>Albany thicket</b>											
<b>All Albany Thicket Types</b>	3 530 690	176 882	460 841	19 045	5 812	135 957	7 333	135 980			
<b>TOTAL</b>	<b>5 171 988</b>	<b>603 221</b>	<b>487 194</b>	<b>20 730</b>		<b>253 453</b>	<b>60 849</b>		<b>245 975</b>		

FNR Forest: Nature Reserve; FWA Forest Wilderness Area, MCA Mountain Catchment Area; NP National Park; PE Protected Area; WHS World Heritage Site; NR Nature Reserve; MPA Marine Protected Area

a Total extent represents the sum of the theoretical forest cover fraction of a particular biome as well as the forest cover fraction which has been transformed to plantations, AIP, bush encroachment or other land use. This represents the REDD+ opportunity.

b. % Protected represents the percentage of the Total extent that is afforded some form of protection status.

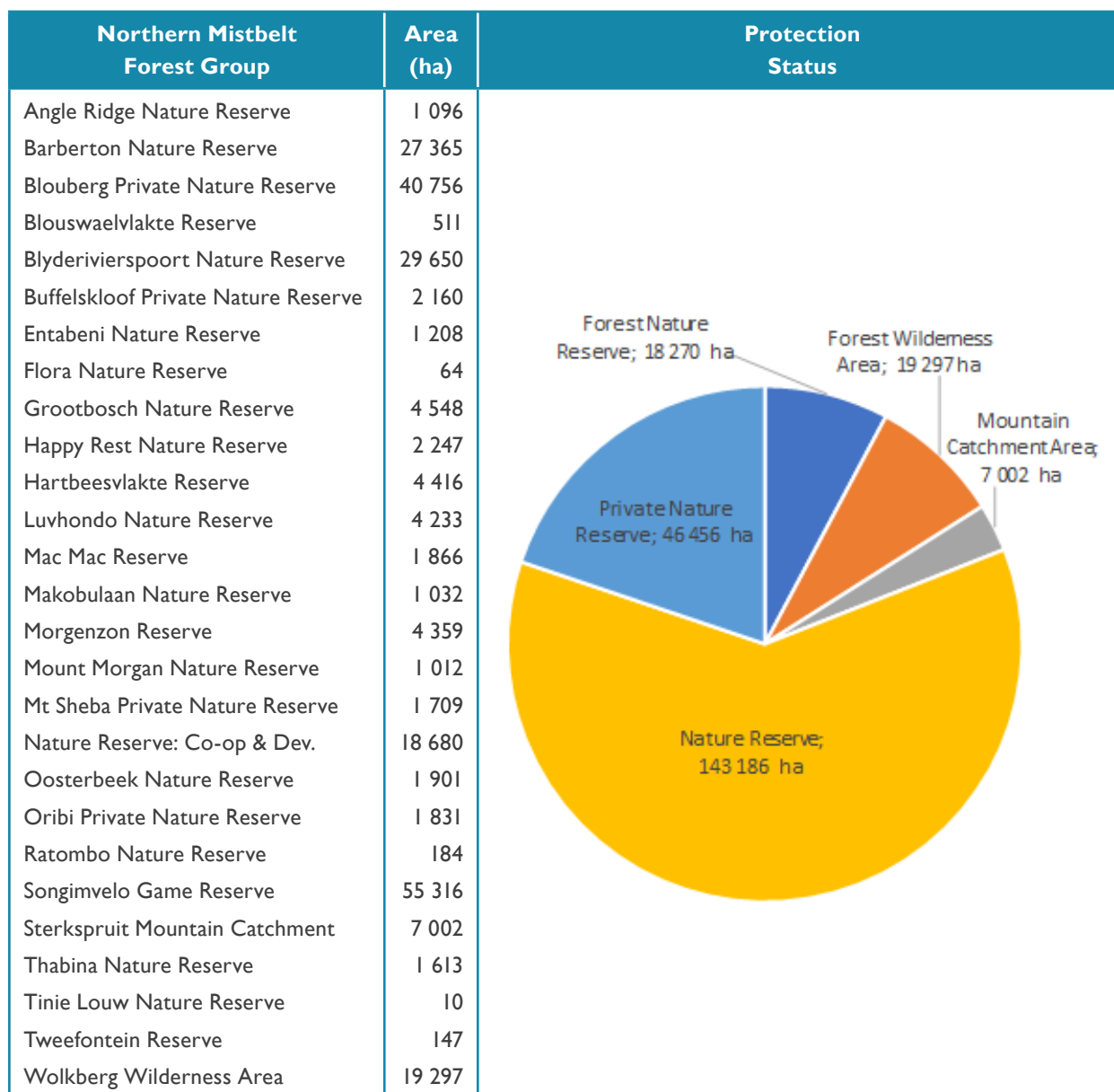


Figure 5: The Northern Mistbelt Forest Group and conservation areas where this forest group is afforded protection status.

The complexity of determining institutional arrangements is compounded by a number of factors such as the Forest Type, conservation status, jurisdiction as well as threats of destruction or degradation. As an example, the Northern Mistbelt Forest Group bioregion encompasses 234 212

ha, of which the forest extent is only 3 7910 ha with 25 497 ha falling within 27 reserves or mountain catchment areas and therefore afforded some degree of protection status (Figure 5).





DAFF (2017b) provides further detail on custodianship of forests in South Africa, that needs to be closely considered in identifying a lead REDD+ institution, especially in terms of the ability to coordinate and monitor programmes. For example:

South African indigenous forests fall within an assortment of land ownership and land tenure regimes. Approximately 55% of the forest estate occurs on land not directly owned by organs of the state. Of this, 22.6% is on communal land and 23.4% on private land (Table 4). Most of the larger forests occurring on communal land are designated as 'state forests', while many of the smaller forest patches are considered as 'headman's forests' and controlled by the local tribal authorities. Cooper and Swart (1992) surveyed a total of 100,000 ha of forest in the former Transkei, of which 30,000 ha were designated as 'headman's forests'. Of the 91,000 ha of forest surveyed in KwaZulu-Natal by Cooper (1985), 31,671 ha was located on communal land.

Private forestry companies conserve an estimated 41,000 ha (DWAF 2003) of patches of natural forest on their land, and in some instances, these forests have been given elevated conservation status within the provincial conservation systems or biodiversity stewardship programmes. Some 10% of South Africa's natural forested area is subject to land restitution claims (approximately 49,218 ha). A significant proportion of these areas (45%) are in existing Type I protected areas. These areas present a particularly important challenge to conservation and social planners alike, since it is imperative that forest conservation be achieved, not at the expense of, but in conjunction with, improvements to rural livelihoods.

## 4.2 WOODLANDS (CLOSED AND OPEN FORESTS)

Although by definition any woodland with a canopy cover of >10% is classified as forest, from a REDD+ institutional arrangement and the practicality and cost-benefit of measuring, reporting and verification, only woodlands with a canopy cover of >35% are classified as forests.

Rutherford et al. (2006) recognised a number of woodland (savanna) bioregions and associated Woodland types in South Africa. The distribution of these woodlands is illustrated in Figure 6.

Table 5 provides an analysis of the area of woodland bioregions based on their cover classes and level of transformation. Transformation includes conversion to other land uses including agriculture, forestry plantations or settlements as well as bush encroachment and alien invasive plants (AIP). Woodland bioregions occupy an area of approximately 39.4 Mha. Of this area, 8% has a tree canopy cover of greater than 35% and 27.4 Mha (70%) of the total woodland bioregion has been transformed to other land uses. Of the transformed amount, 2.9 Mha is as a result of bush encroachment and AIP. Carbon stocks (tC/ha) are in all likelihood higher in bush encroached, AIP and forestry plantation areas.

Land ownership of these woodland areas is diverse including private ownership, communal lands, land trusts, state land and protected areas. Approximately 9.5 Mha (24%) of the woodland bioregions has been afforded protection status. This includes woodland areas with canopy cover of less than 35%.

Table 4: Forest land ownership class for national forest estate expressed as percentage of total area (Berliner et al. 2006 in DAFF 2017b).

Land tenure	Percentage area of all forests
Communal	22.6
DEFF State Forest	25.6
Private	23.4
Type I protected areas	17.6
Uncertain	10.8



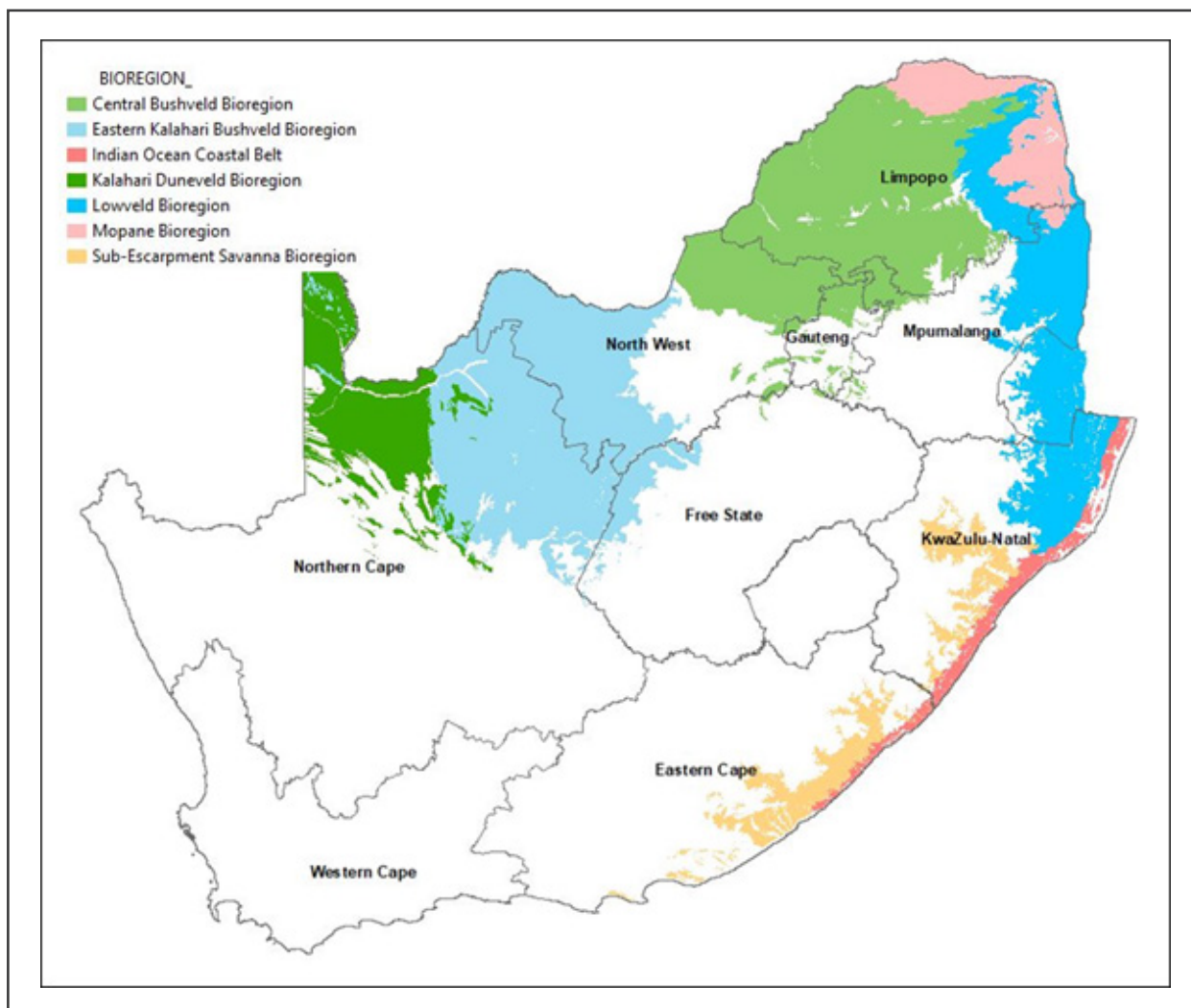


Figure 6: The distribution of woodland bio-regions within South Africa (SANBI 2018).



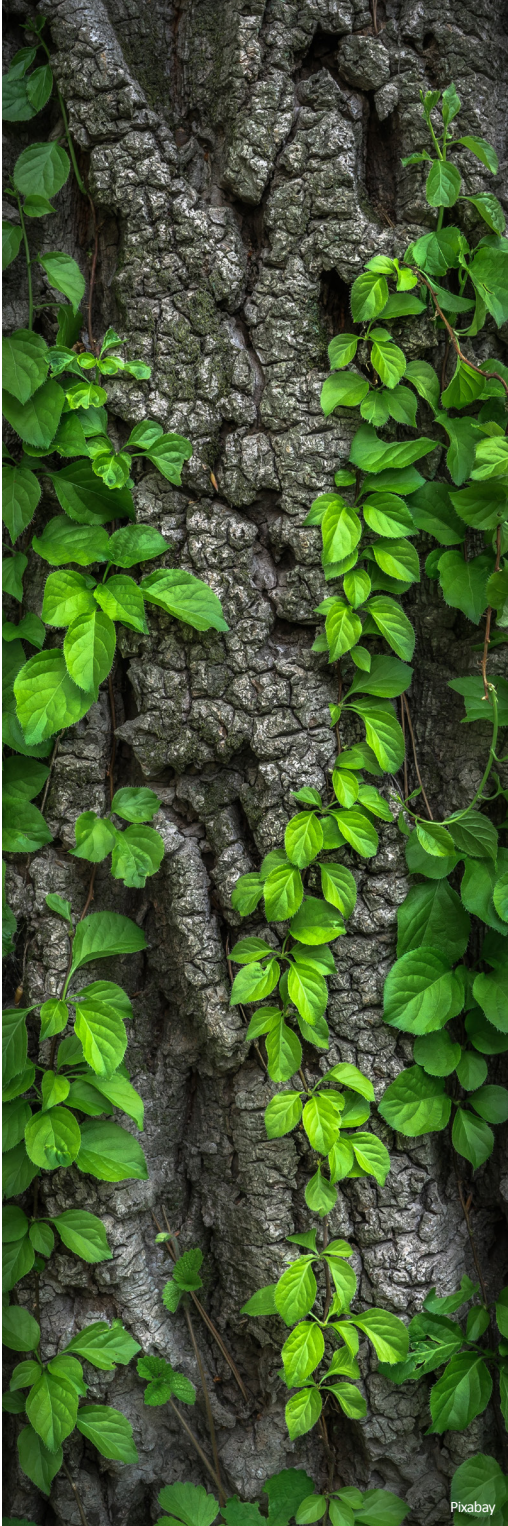


Table 5: Woodland bioregions and their areas (ha) based upon cover classes, amount of bush encroachment, alien invasive plants or their level of transformation.

Biome / Bioregion	Total extent (ha) <sup>a</sup>	Woody cover fraction			Plantation (ha)	AIP cover (ha)	Bush encroach. (ha)	Trans-formed (ha)	Formal protection (ha)	% Protec-ted <sup>b</sup>	Type of protection
		> 75%	35%-75%	< 35%							
Mopane	2 567 260	1 232	120 326	1 535 440	215	5 852	317 542	586 649	2 418 095	94%	FNR, NP, NR, WHS
Central Bushveld	11 856 200	65 775	929 118	4 383 020	66 263	74 906	1 431 090	4 906 000	3 062 564	26%	FWA, NP, NR, WHS
Lowveld	5 382 480	333 982	1 027 530	1 257 020	161 848	132 208	358 232	2 111 660	2 721 359	51%	FNR, FWA, NP, WHS
Sub-escarpment Savanna	2 858 040	205 684	281 132	5 239	60 702	140 451	259 876	1 904 960	23 444	1%	FNR, NP, NR, PE
Eastern Kalahari Bushveld	12 453 000	9 294	42 298	1 756 070	5 433	-	145 245	10 494 600	265 704	2%	WHS, NR, NP, FNR
Kalahari Duneveld	4 294 520	1	40	13 707	3	-	1 314	4 279 450	958 704	22%	NP, NR
<b>TOTAL</b>	<b>39 411 500</b>	<b>615 968</b>	<b>2 400 445</b>	<b>8 950 497</b>	<b>294 465</b>	<b>353 417</b>	<b>2 513 299</b>	<b>24 283 319</b>	<b>9 449 870</b>		

“Mopane, Acacia and Combretum woodlands”

FNR Forest Nature Reserve; FWA Forest Wilderness Area, NP National Park; PE Protected Area; WHS World Heritage Site; NR Nature Reserve;

As an example, the total extent of the Mopane Bioregion is 2.6 Mha of which 2.4 Mha ha falls within 15 different reserves, cultural landscapes or national parks (Figure 7). With approximately 94% of the bioregion protected, the

majority of which falls within the Kruger National Park and the Mapungubwe Cultural Landscape and National Park, it is suggested that the motivation for REDD+ in the Mopane Bioregion is low.

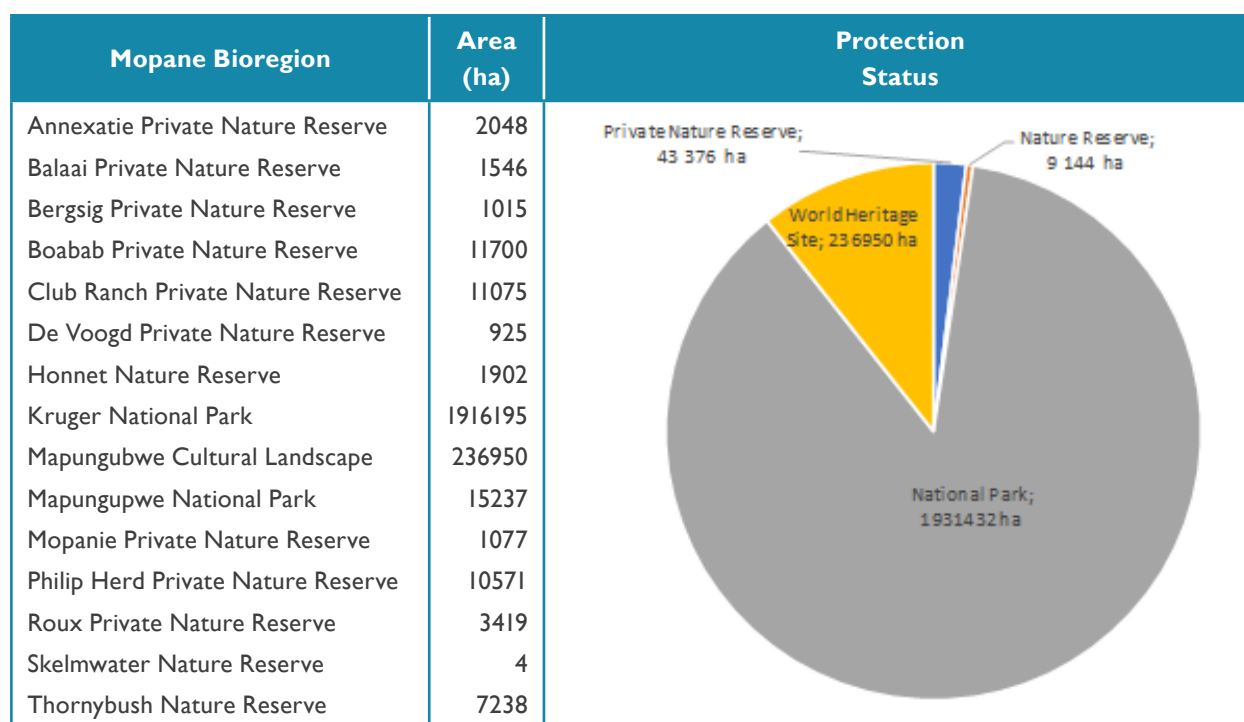


Figure 7: The Mopane Bioregion and areas where this woodland is afforded protection status.



## 5. WHAT IS THE MANDATE AND CAPACITY REQUIREMENTS OF A LEAD INSTITUTION?

### 5.1 INTRODUCTION

An appropriate lead entity will not only need to be able to develop and coordinate each element and supporting institution, but also have the mandate and ability to secure engagements with other government departments and lead meetings with international funders as noted in the REDD+ Assessment Report.

*International experience shows that REDD+ requires that one institution be appointed to have authority for, and to oversee implementation. This institution should not merely convene others, but should also have responsibility for ‘overcoming any potential conflicts or uncertainty regarding how it works with other agencies’ (REDD Law Project 2014).*

By its nature, REDD+ is multi-disciplinary and intergovernmental. Halting, reducing and reversing deforestation and forest degradation requires elements that fall under the mandate of several national departments that focus on forest management, natural resource management, spatial planning, monitoring and evaluation, among others. However, accountability for implementation should reside with a single institution or entity.

A three-phased approach was adopted for REDD+ under the Cancun Agreements in 2010 (UNFCCC 2011, Decision I CP.16 Paragraph 73). The phases include, strategy development (Phase 1), early implementation (Phase 2), and performance-based actions (Phase 3). This phased approach is illustrated in Figure 8. Readiness actions such as planning, establishment of forest reference levels or reference emission levels, monitoring, reporting and verification (MRV) and benefit-sharing frameworks, and safeguard information systems should be initiated in Phase 1. Other Readiness activities such as capacity-building, institutional and policy developments, demonstrations, piloting, and investments can be continued throughout Phase 1 and into Phase 2.

#### PHASE 1

##### Performance-Based Actions

- REDD+ Readiness Assessment
- REDD+ Strategic Planning
- National Forest inventory monitoring
- Reference Level (WOM, WEM, WAM) establishment
- Benefit sharing mechanisms
- Safeguard Information System
- Non-carbon benefits

#### PHASE 2

##### Early Implementation

- Results-based demonstrations / piloting
- Legal regulatory framework
- Compliance framework
- Institutional framework
- Capacity enhancement
- Investments

#### PHASE 3

##### Performance-Based Actions

- Quantified Emission Reductions
- Fully implemented REDD+
- Benefit sharing mechanisms (Results-based payments)

Figure 8: The three-phased approach for adopting REDD+ (adopted from Minang et al 2014, 687).

This three-phased approach which is used as a bench mark to evaluate the current ability to implement a REDD+ programme in South Africa is strongly aligned with the more detailed technical and non-technical elements and activities required within a national REDD+ framework identified in the initial national REDD+ Readiness Assessment Report ( DAFF 2017b Table 1, 12 and Figure EI, pg. 8).

## 5.2 CURRENT PREPAREDNESS OF SA INSTITUTIONS TO IMPLEMENT REDD+

The current preparedness of institutions to implement a REDD+ programme in South Africa are examined using the three-phased approach (Figure 8). Understanding this will assist in making recommendations as to the most fit for purpose institutional arrangement. Key inputs from experts and stakeholders (Appendix A) have been used to assess the current preparedness.

### 5.2.1 PHASE I – STRATEGY DEVELOPMENT

#### **REDD+ Strategic Planning**

Besides the current activity of exploring effective and efficient institutional arrangements for REDD+, a number of past and ongoing initiatives are contributing to the development of a REDD+ programme. These include the REDD+ Readiness Study (DAFF 2017b), the assessment of the South African Forest Scope and Definition for the development and implementation of REDD+ outlined above and the current work developing the Agriculture Forestry and Other Land Use (AFOLU) Strategic Framework.

#### **Reference levels (baseline scenario)**

To evaluate the additional reduction in GHG emissions as well as carbon sequestration that may occur due to REDD+ activities, parties need to develop a robust national scale reference level. No Level 3 or Level 2 reference levels have been developed for the 13 forest types and 5 woodland (open forest) types in South Africa. We are aware that data exists for indigenous forests but this is currently inaccessible.

#### **MRV Infrastructure Development and the National Forest Monitoring System**

The Strategic Plan for the Measurement, Reporting and Verification: AFOLU Sector 2016 to 2020 (DEA 2016) has

been published. However, the Strategic Plan for MRV has not been implemented.

#### **Benefit Sharing Mechanism (BSMs)**

These include structures and mechanisms for:

- Results-based payment (RBP) as an effective and transparent approach to reducing deforestation and forest degradation;
- Social, water, biodiversity co-benefits of REDD+;
- Focusing of REDD+ benefits on predominantly poor and marginalised communities
- Addressing social equity and gender concerns with well-designed safeguards.

No benefit sharing mechanism has been employed.

#### **Safeguard Information System (SIS)**

Safeguards aim to ensure that REDD+ actions do not cause negative social or environmental impacts and cover a range of issues, including respect for the knowledge and rights of indigenous peoples and local communities, transparent national forest governance structures, effective participation of stakeholders, and the conservation of natural forests and biodiversity.

With respect to REDD+ no Safeguard Information System has been implemented in South Africa.

### 5.2.2 PHASE 2: EARLY IMPLEMENTATION

#### **Results-based demonstrations – piloting**

The assessment of the potential of REDD+ activities in the three pilot areas has been completed. Spatial analysis of potential changes in forest -cover and -degradation and the subsequent analysis of drivers of deforestation has been completed.

### Legal, Regulatory Framework

The forestry directorate within DEFF, which has the mandate to implement the National Forests Act, 1998 (Act No. 84 of 1998) (Table 6), may be required to lead several elements, if not the programme as a whole. In a similar manner, the Environmental Directorate within DEFF has a mandate to implement the vision and goals of the National Environmental Management Act, 1998 (Act 107 of 1998) (NEMA 1998); –2002 (Act 5 of 2002; –2004 (Act 20 of 2004), and the National Environmental Management: Biodiversity Act 2004 (Act 10 of 2004) (NEMBA 2004), which strongly focus on halting and addressing the degradation of South Africa’s ecosystems, including forests, woodlands and thickets. The assessment of the scope of implementation of REDD+ in South Africa (DEFF 2019a) will further inform the institutional arrangements.

### Institutional Framework for the Implementation of REDD+

Further to policy mandates, in terms of national development strategy, the Medium-Term Strategic Framework (MTSF) is the country’s principle strategic plan for the period 2014–2019 (RSA 2014). Within the Framework is a set of fourteen outcomes that define delivery across all spheres of Government. Outcome 10, which focuses on ‘the protection and enhancement of

environmental assets and natural resources’, is particularly relevant to the implementation of REDD+.

The realisation of Outcome 10 falls under the mandate of several national departments. The Directorate: Environment of DEFF is the coordinating department with the Directorate: Forestry of DEFF, DALRRD, DMR, Department of Water and Sanitation (DWS), and the Department of Higher Education, Science and Technology (DHST) responsible for implementation. In addition to national departments, provincial and municipal spheres of government are mandated to effect certain actions as well as conservation agencies, SANBI, Land Care and the Expanded Public Works Programme. Coordination occurs through Intergovernmental Relations and intergovernmental mechanisms known as MINMEC and MINTECH that include nine provincial departments and further partner organisations. As noted in Outcome 10:

*The Executive Implementation Forum, the extended MINMEC: Environment. is convened and Chaired by the Minister of Environmental Affairs, and the Technical Implementation Forum, Headcom or the extended MINTECH: Environment is convened and Chaired by the DG of Environmental Affairs... The MINTECH working groups are aligned per output to coordinate the output activities and report to the technical Implementation Forum that makes recommendations to the executive Implementation Forum.*

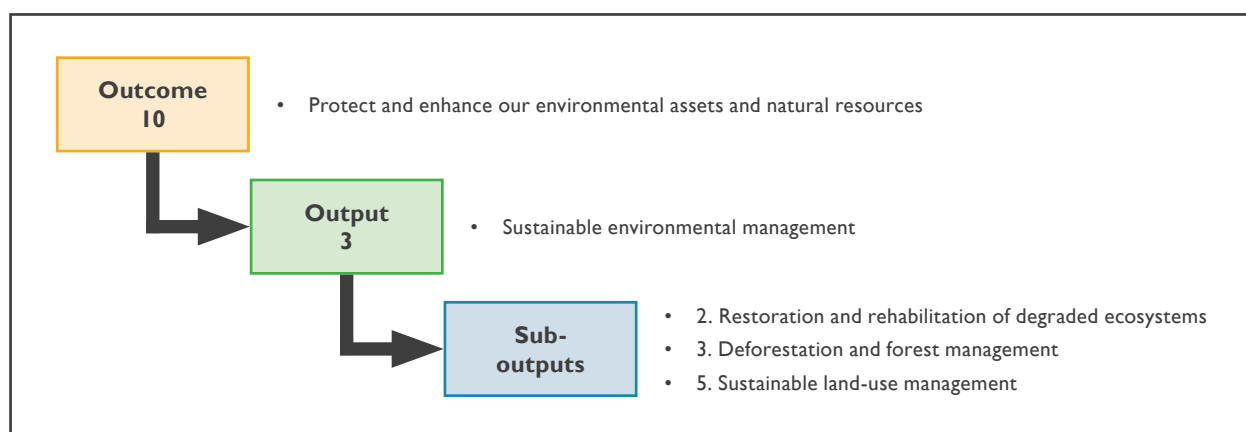


Figure 9: The South African Outcomes approach: results most pertinent to REDD+ (DAFF 2017b, 37).

Table 6: National Acts that have relevance to the management of forests, woodlands, subtropical thicket and the realisation of REDD+ in South Africa.

Acronym	Date	Title	Purpose
NFA	1998	National Forests Act	To: 'a) promote the sustainable management and development of forests for the benefit of all; b) create the conditions necessary to restructure forestry in State forests; c) provide special measures for the protection of certain forests and trees; d) promote the sustainable use of forests for environmental, economic, education, recreational, cultural, health and spiritual purposes; e) promote community forestry; f) promote greater participation in all aspects of forestry and the forest products industry by person disadvantaged by unfair discrimination.'
NEMA	1998	National Environmental Management Act	'To provide for co-operative, environmental governance by establishing principles for decision-making on matters affecting the environment, institutions that will promote co-operative governance and procedures for co-ordinating environmental functions exercised by organs of state; and to provide for matters connected therewith.'
NEMA	2002, 2004	National Environmental Management Amendment Acts	To amend certain sections of NEMA (1998). Including -...to provide for the prohibition, restriction or control of activities which are likely to have a detrimental effect on the environment; and to provide for matters connected therewith.'
NEMBA	2004	National Environmental Management Act: Biodiversity Act	'To provide for the management and conservation of biological diversity within the Republic and of the components of such biological diversity." As such the focus of this Act is on the preservation of species (a widely defined term) and ecosystems irrespective of whether or not they are situated in protected areas. Biodiversity is defined as the "variability among living organisms from all sources including, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part and also includes diversity within species, between species, and of ecosystems.'
CARA	1983	Conservation of Agricultural Resources Act	The objectives of this Act are to provide for the conservation of the natural agricultural resources of the Republic by the maintenance of the production potential of land, by the combating and prevention of erosion and weakening or destruction of the water sources, and by the protection of the vegetation and the combating of weeds and invader plants.

The current organisational structures of the Chief Directorate Forestry and Natural Resource Management, and the Chief Directorate: Climate Change, Sustainable Development and Air Quality are illustrated in Figure 10. Cognisance is taken of the fact that a restructuring process is currently occurring within DEFF and the structure may change.

What is evident from the two organisational structures and from engagements with stakeholders (see Appendix A for details) is that there appears to be a disjunct between levels of reporting, accountability and communication. Ideally from a REDD+ institutional perspective, the Director: Woodlands and Indigenous Forest Management should be engaging directly with the Chief Directors: Climate Change Mitigation and Climate Change Monitoring and Evaluation.

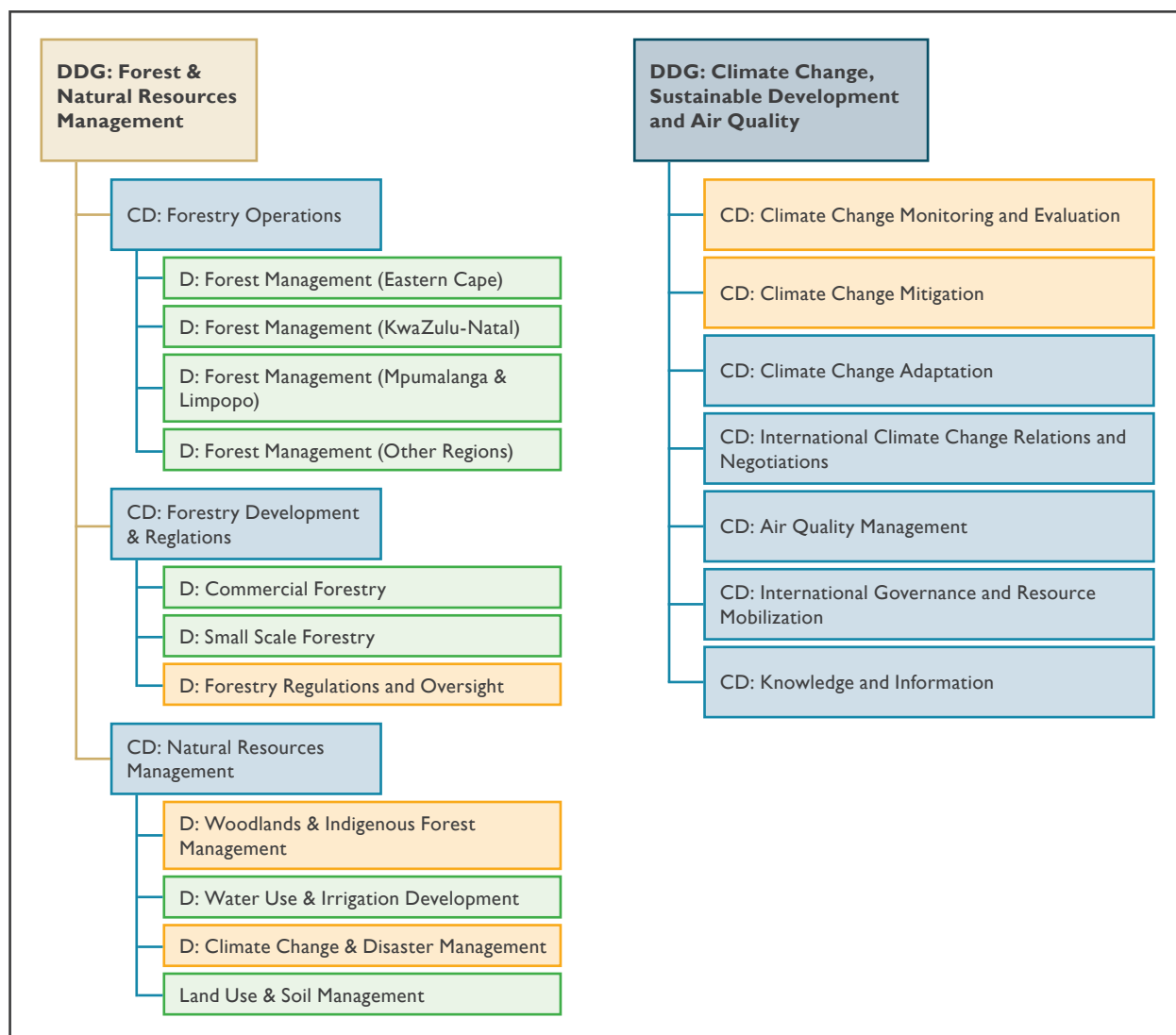


Figure 10: Current organisational structures for (a) Directorate Forestry and Natural Resource Management and (b) Directorate: Climate Change, Sustainable Development and Air Quality. Areas impacting the institutional arrangements for REDD+ are highlighted in orange.



### Capacity Enhancement

A crucial issue is required capacity. As noted in DEFF (2017), a lead entity will need to have the organisational structure, human resources and financial resources to build and sustain a REDD+ programme over the long-term. A key consideration in the development of any REDD+ activity is permanence and the need to sustain implementation over a long multi-decadal time period. The lead entity will most probably need to be a government institution to ensure permanence over this time scale.

Based upon engagements with the Director of Woodlands and Indigenous Forests, whose mandate is implementation of sustainable forest management within indigenous forests and woodlands, it was found that financial and resource capacity are severely constrained. To illustrate this the Directorate of Woodlands and Indigenous Forests:

- Manages only 18 000 ha of indigenous forests. This represents approximately 1.1% of the total zonal, intrazonal, azonal and Indian Ocean coastal belt indigenous forest biome of 1.6 Mha.
- Due to resource constraints no management activities take place within the thicket and woodland biomes.
- Approximately 400 positions have recently been abolished and 120 posts frozen. Almost all activities are associated with compliance and very little to do with rehabilitation.
- Reliance on the Expanded Public Works Programmes including Working for Fire to assist in protection and management activities, including restoration. Clearing of AIP is an important part of indigenous forest rehabilitation. Over a 13-year period, the

Working for Water Programme of the Expanded Public Works Programme (EPWP) has currently 'treated' 1.6 Mha of the 19.4 Mha of AIP. This represents only 7% of the total area and it is recognised that substantial parts of the 'treated' areas have reverted back to alien invasive species (Wannenburgh 2019).

- Withdrawal of direct and indirect funding to NGOs, such as Wildlands, to support extension, management and communication activities within forests. An example of this is the 8 000 ha Marutswa Forest near Bulwer. Here more than 38 tree species are being unsustainably harvested for bark and areas cleared for cannabis cultivation.

Further engagements with the Director of Forest Regulations and Oversight also indicate significant financial and resource capacity challenges. Examples are:

- Severe financial constraints to the funding of legal actions preventing unplanned infrastructure development and resultant degradation and destruction of indigenous forests and woodlands
- Although mandated by the National Forest Act, 1998 (Act No. 84 of 1998) to report forestry statistics on an annual basis, outmoded techniques are used to collect information and reported statistics are 18 to 24 months behind schedule.

During engagement with the Chief Director of Climate Change Mitigation it was conveyed that this Chief Directorate's role is not one of implementation but rather one of enabling (influencing and affecting) between Directorates and Departments. This is a significant consideration when determining institutional arrangements.

## 6. POTENTIAL INSTITUTIONAL ARRANGEMENTS

It is proposed that the potential REDD+ institutional arrangements be tested within the selected Mariepskop, Underberg and Eastern Cape pilot areas (see Component 3).

Two key factors will determine the successful implementation of a REDD+ programme namely:

- Institutional frameworks or structures.
- Institutional capacity (financial and human resources).

### 6.1 INSTITUTIONAL FRAMEWORKS

Based upon engagements with experts and stakeholders, as well the understanding of the requirements, barriers and opportunities to implement a successful REDD+ programme, the current institutional frameworks within DEFF, with some adjustments can be used to achieve the objectives of Phase I and implement the pilot programmes within Phase 2 (see Section 5.1). The recent restructuring of the DAFF and DEA to form a single Department

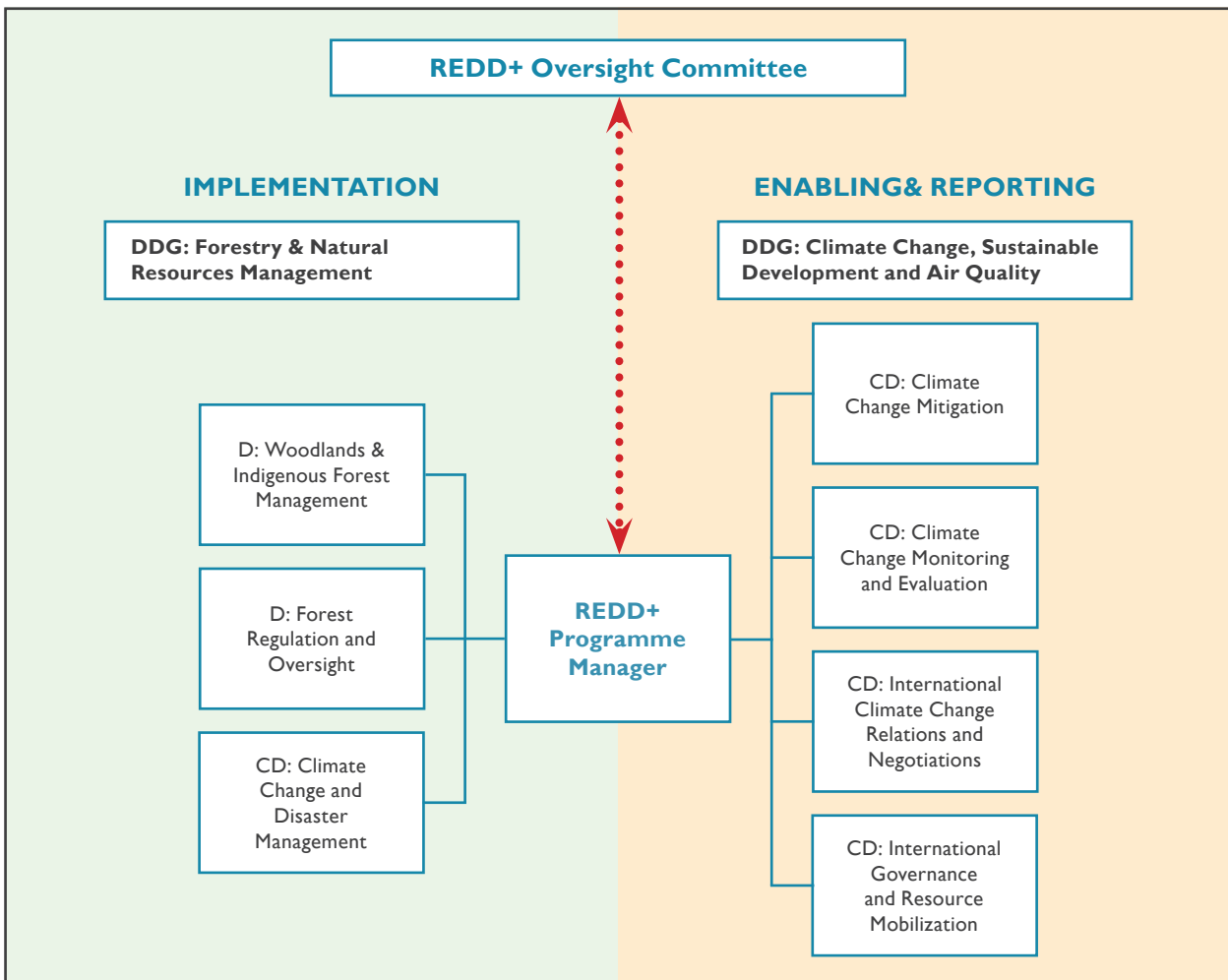



Figure 11: The conceptual institutional arrangements for a REDD+ Programme within DEFF



of Environment, Forestry and Fisheries (DEFF) has reinforced potential institutional relationships. At the same time, it is recognised that there could be some duplication of activities, for example GIS services.

The conceptual institutional arrangements identified as relevant for a REDD+ Programme within DEFF are illustrated in Figure 11. Overall, Forestry and Natural Resource Management is seen as the **Implementing** body while Climate Change, Sustainable Development and Air Quality is viewed as the **Enabling** and **Reporting** body.

As successful implementation is the primary key to the success of the REDD+ Programme, it is proposed that a REDD+ Programme Manager be appointed. The institutional home for the REDD+ Programme Manager should be within Forestry and Natural Resource Management. The Directorate within which the Programme Manager should reside is still uncertain. As this is a management role, both the Directorates of Woodlands and Indigenous Forest Management and Climate Change and Disaster Management should be considered.

In order to ensure that all REDD+ implementation objectives and activities are fulfilled and that there is strong alignment with the AFOLU Strategic Framework for the management and enhancement of carbon sinks, a REDD+ oversight committee is proposed. Besides the REDD+ Programme Manager, representation should include six to eight persons from government, academia and implementing NGOs. The proposed representation is more fully described in Section 6.3.

The current aims and functions of the various Directorates identified for the implementation of a REDD+ Programme are listed in Sections 6.1.1 and 6.1.2. These can be modified or expanded to align with the objectives of a REDD+ programme.

### 6.1.1 FORESTRY AND NATURAL RESOURCES MANAGEMENT

#### **Directorate: Woodlands and Indigenous Forest Management<sup>1</sup>**

**Aim:**

To ensure an enabling framework for the sustainable management of woodlands and indigenous forests.

**Functions:**

- Set norms and standards for indigenous forests and woodland management.
- Development of rehabilitation programmes for woodlands and indigenous forests.
- Conservation planning and compliance with the national biodiversity management frameworks.
- Provide frameworks for trees outside forests including greening.

#### **Directorate: Forestry Regulations and Oversight<sup>2</sup>**

**Aim:**

To provide forestry regulation and oversight.

**Functions:**

- Develop national norms and standards of sustainable forest management.
- Administer the National Forests Act, 1998 (Act No 84 of 1998 and the National Veld and Forest Fire Act, 1998 (Act No. 101 of 1998).
- Ensure sustainable use of the natural resource base through the management of the overall system for forestry data, information, and knowledge, including spatial and non-spatial forestry information.

<sup>1</sup> Extracted from <https://www.daff.gov.za/daffweb3/Branches/Forestry-Natural-Resources-Management/Woodlands-and-Indigenous-Forest-Management>

<sup>2</sup> <https://www.daff.gov.za/daffweb3/Branches/Forestry-Natural-Resources-Management/Forestry-Regulation-Oversight>



- Support rural socio-economic development through access to and use of State forests and developing systems and strategies for preventing, managing and monitoring veld and forest fires.
- Ensure access to forestry information by sector stakeholders and the gathering of forestry information by the regions.
- Support sustainable forest management by monitoring forestry management and ensuring that there is sufficient capacity at the local level for implementing forestry legislation.
- Provides technical advice to, and support for, the organisation and operation of local institutions to prevent veld and forest fires and to achieve fire management goals in general.

#### **Directorate: Climate Change and Disaster Management<sup>3,4</sup>**

##### **Aim:**

To facilitate climate change mitigation and adaptation, risk and disaster management

##### **Functions:**

- Develop and provide a National policy framework for climate change and disaster management for the sector.
- Ensure effective planning and implementation of an early warning system in support of associated sector risk management.
- Co-ordinate post disaster recovery and rehabilitation.
- Implement climate change programmes in support of risk and disaster management and ensure sectoral compliance with the National Climate Change Response framework and regional and international obligations.
- Prevent production losses by combating migratory pests and diseases.

#### **6.1.2 CLIMATE CHANGE, SUSTAINABLE DEVELOPMENT AND AIR QUALITY**

##### **Directorate: Climate Change Mitigation**

##### **Aim:**

To lead, coordinate, support and inform climate mitigation responses in South Africa.

##### **Functions:**

- To conduct research and analyses in order to inform climate change mitigation decision-making and responses.
- Ensure that climate change mitigation related policy, legislation, regulations, national strategies and plans are developed in order to ensure that South Africa meets its emission reduction objective.
- To lead and/or coordinate national carbon sinks work.
- To ensure that climate mitigation responses are implemented effectively in order to meet South Africa's GHG emission reduction objective.

##### **Directorate: Climate Change Monitoring and Evaluation**

##### **Aim:**

To formulate and implement a country-wide monitoring and evaluation system to measure and evaluate climate variables at scales appropriate to the institutions that must implement climate change responses

##### **Functions:**

- A national system of data collection to provide detailed, complete, accurate and up-to-date emissions data in the form of a greenhouse gas (GHG) inventory.

3 Numerous unsuccessful attempts have been made to secure an interview with the Director: Climate Change and Disaster Management

4 <https://www.daff.gov.za/daffweb3/Branches/Forestry-Natural-Resources-Management/Climate-Change-and-Disaster-Management>

- Analyses of emission trends, including changes in emission intensity of the economy and a comparison of actual GHG emissions against the benchmark national GHG emission trajectory range.
- A monitoring and evaluation (M&E) system to support the analysis of the impact of mitigation measures. –
- Mitigation interventions will be monitored and evaluated against the national emissions trajectory range. - The M&E system will assess indicators defined in desired emission reduction objectives (DEROs) and mitigation plans, including impact on emissions, implementation and wider sustainable development (SD) benefits
- Adaptation and impact: - Establish a system for gathering information and reporting progress on the implementation of adaptation actions.
- Measure climate variables at scales appropriate to the institutions that must implement responses.
- Monitor climate change impacts, risks and vulnerabilities.
- Climate Finance: - Create a transitional tracking facility for climate finance mechanisms and climate responses.

**Directorate: International Climate Change Relations and Reporting**

**Aim:**

To prepare for, negotiate and inform the implementation of multi-lateral, mini-lateral and bilateral climate change agreements and reporting

**Functions:**

- Conduct research, analysis and stakeholder engagement necessary to develop well-informed mandates for multilateral, mini-lateral and bilateral climate change agreement related to the UNFCCC and the IPCC and delegation management
- Ensure South Africa’s implementation of aligning with international commitments and trends on developments of climate change.

**Directorate: International Governance and Resource Mobilization**

**Aim:**

To oversee, facilitate and coordinate the department’s international relations, engagements and cooperation agreements.

**Functions:**

- Manage and coordinate international multilateral governance relations, cooperation and related resource mobilisation
- Manage policy position research, monitor and report on international African, Bilateral (Developing Countries) South-South cooperation on environment
- Engage nationally and internationally in sustainable development and environmental sector trade programmes
- Manage technical and administrative support on the implementation of the Greening Programme nationally, flagship projects coordinate sector green economy action, manage and coordinate the green fund and green financing mechanism.

**6.2 INSTITUTIONAL CAPACITY**

Current institutional capacity both in terms of human resources with the appropriate skills and implementation experience, as well as sufficient financial resources is a significant barrier to implementation of Phases 1 and 2 of a REDD+ Programme.

Establishing in-house institutional capacity within DEFF is a critical success factor for ensuring successful long-term implementation. The institutional home, resources, skills and associated activities required to implement a REDD+ Programme in the three pilot areas are shown in Table 6.

The REDD+ Programme Manager must be empowered with adequate financial and human resources and a clear and well-communicated mandate to implement the REDD+ programme, initially for the three pilot areas and thereafter



extending to other indigenous forest and woodland areas where there are clear threats of degradation and deforestation. In certain parts of DEFF there is existing capacity which in certain instances may require re-orientation or skills development. New capacity would also be required to address existing skills gaps within DEFF or to redress areas where posts have been abolished or frozen.

High-level estimates of human resource, consultancy services and operational costs (in ZAR) associated with the establishment and implementation of REDD+ in the three pilot areas for a period of five years are illustrated in Table 7. Many of these costs are associated with establishing REDD+ capacity, and once implementation within the pilot areas is established, these resources can then be used for further REDD+ initiatives.

In Year 1, human resources, consultancy services and operations each account for approximately a third of costs. In Year 2 and thereafter following the completion of reference levels and project registration, total costs decrease with operational costs (including results-based payments to communities) accounting for approximately 56% of the total.

Based upon engagements with stakeholders as well as lessons learnt from the EPWP, a REDD+ operational management regime on a per hectare basis is not the recommended approach. A far more sustainable approach is to maintain a team within a particular pilot area for a minimum period of three but up to five years. The team should comprise a coordinator (part time) a team leader and seven team members.<sup>5</sup> They become the custodians of the pilot area. These teams as responsible for a range of activities including control of AIP, fire management, nursery and enrichment planting, liaison with extension and forest guards and so on. Being permanently associated with a pilot area for three to five years not only allows performance management but it creates a culture of forest stewardship and community ties. They also become the core personnel for the operational expansion of REDD+ activities outside of the pilot areas.

<sup>5</sup> pers comm. Dr Jan Graf - AWARD

An assessment of sources of funds would need to be undertaken, for example, that which could be obtained from international agencies, the EPWP programme as well as revenues from securitisation of carbon and the sale of carbon credits both domestically within South Africa's carbon tax and offset mechanisms or internationally. Developing an income generation strategy would be one of the primary tasks of the National REDD+ Programme Manager.

### 6.3 REDD+ OVERSIGHT COMMITTEE

In order to facilitate the work of the REDD+ Programme Manager, initially within the three pilot areas and thereafter for additional REDD+ projects over time, it is recommended that a REDD+ Oversight Committee is established (Figure 11). The role of the committee would be to ensure alignment between the objectives of the REDD+ programme and implementation, effective communication between stakeholders and compliance from a fiduciary perspective.

Conceptually, the Committee should comprise between six and eight members. This should include:

- Director of Woodlands and Indigenous Forests
- Director of Forestry Regulation and Oversight
- Chief Director of Climate Change Mitigation
- Chief Director of International Climate Change Relations and Negotiations
- REDD+ Programme Manager
- An independent REDD+ expert
- Separate representation of implementing agencies within each of the three pilot areas. For example, EPWP, the Association for Water and Rural Development (AWARD) and Kruger 2 Canyons in Mariepskop; Ezemvelo KZN Wildlife and Wildlands in Underberg.

Table 7: Institutional home, activities, resources, skills and associated requirements to implement a REDD+ Programme in three pilot areas.

Directorate	Resources	Roles and Responsibilities	Skills
	<p>a. REDD+ Programme Manager (new)</p>	<p>a. Overall accountability and responsibility and budget for implementation. This includes:</p> <p>b. Oversee the initial mapping of carbon stocks, GHG emissions and drivers of deforestation and degradation to understand the opportunity in more details.</p> <p>c. Identify and develop a set of response activities to address each driver of deforestation and forest degradation as well as implement required forest restoration (actual implementation would be coordinated and led by the Directorate of Woodland and Indigenous Forest Management).</p> <p>d. Identification of the correct REDD+ methodology and certification standard.</p> <p>e. Registering the REDD+ projects and acquiring the Project Identification Numbers (PIN).</p> <p>f. Project Design Documentation (PDD) which will also include the MRV protocol, Benefit Distribution Mechanism and Safeguard Information System.</p> <p>g. Develop and manage the securitisation of carbon and other income streams, including their appropriate distribution to implementing parties.</p> <p>h. Lead the development of funding proposals for submission to domestic and international funding agencies.</p> <p>i. Manage key activities within the various Directorates and with implementing agents including establishing reference levels, reporting and policies and measures (PAMs) alignment. This could be through an Executive Committee.</p>	<p>a. At least a MSc in forestry or environmental science with 5 to 10 years practical experience in the development and implementation of REDD+ projects. Good communication and management skills as well as a proven track record of implementation.</p>



Table 7 continued.

Directorate	Resources	Roles and Responsibilities	Skills
D: Woodlands & Indigenous Forest Management Activities	<p>a. Regional and district forestry managers (<i>existing</i>)</p> <p>b. Implementing agents e.g., Government (EPWP, NRM, LandCare, Ezemvelo KZN Wildlife), NGO's (Wildlands, Kruger 2 Canyons, AWARD, the Wildlife and Environment Society of South Africa (WESSA)) (<i>existing</i>)</p> <p>c. Extension officers (<i>new</i>)</p> <p>d. Participatory Forestry Management committees (PFMC) (<i>new</i>)</p> <p>e. Forest guards (<i>new and existing</i>)</p>	<p>a. Regional and district co-ordination and implementation of activities within the PDD.</p> <p>b. Implementing of REDD+ activities in the three areas as outlined within the PDD. Strong liaison with regional and district forest managers, other implementing agents, extension officers and PFMC's</p> <p>c. Weekly engagements with implementing agents and PFMC's to ensure technology transfer and measurement and reporting of activities.</p> <p>d. Measurement and reporting of mitigation activities to the extension officers and implementing agents</p> <p>e. Ensure compliance with the National Forest Act. Cannot be same person as extension officer.</p>	<p>a. BSc or Diploma in Forestry. Upskilling in REDD+ will be required.</p> <p>b. Good communication and management skills as well as a proven track record of implementation.</p> <p>c. Degree or diplomas in forestry with good communication skills and skills in dealing with communities.</p> <p>d. Recognised representatives of communities adjacent to indigenous forests.</p> <p>e. Compliance and communication skills. Intimate knowledge of forest area and surrounding communities</p>
D: Forestry Regulation and Oversight	<p>a. Forestry planning manager (<i>new</i>)</p>	<p>a. Development of carbon reference level (without measures (WOM), with existing measures (WEM) and with additional measures (WAM)) for the three pilot areas. This will involve engagement with tertiary institutes and/or consultancies</p> <p>b. Annual measurement and reporting of changes in carbon stock for three pilot areas.</p> <p>c. Co-ordination of third-party verification for three pilot areas.</p> <p>d. Annual reporting of changes in carbon stock to the Directorates Climate Change Mitigation and Climate Change Monitoring and Evaluation.</p>	<p>a. BSc or MSc in Forest Management, with proven expertise and experience in Geographical Information System (GIS), remote sensing, forest mensuration*, growth and yield modelling and spatial and attribute databases</p>



D: Climate Change and Disaster Management	<p>a. Climate Change manager</p> <p>b. Disaster Management coordinator</p>	<p>a. Climate change policy development and implementation, research, monitoring and evaluation.</p> <p>b. Disaster Management coordination (risks such as fires, droughts, floods and pests and diseases).</p>	<p>a. BSc/MSc (Environmental science, agro-meteorology) with proven experience</p> <p>b. Honours/Masters in Disaster Management with proven experience</p>
CD: Climate Change Mitigation	<p>a. Climate Change Research Analyst (existing)</p>	<p>a. Strong co-ordination with the forestry planning manager and monitoring and evaluation.</p> <p>b. Analysis of REDD+ mitigation activities within the three areas.</p> <p>c. Receipt and reporting of CO<sub>2</sub> emissions and sinks from the three pilot areas to Directorate Climate Change Monitoring and Evaluation.</p> <p>d. Oversight role on PAMs and legal and regulatory frameworks</p>	<p>a. BSc or MSc in Environmental Science and proven experience in mitigation initiatives</p>
CD: Climate Change Monitoring and Evaluation	<p>a. Climate Change Research Analyst (existing)</p>	<p>a. Strong co-ordination with the forestry planning manager and mitigation.</p> <p>b. Analysis of REDD+ mitigation activities within the three pilot areas.</p> <p>c. Monitoring and evaluation of CO<sub>2</sub> emissions and sinks from the three pilot areas.</p> <p>d. Oversight role on PAMs and legal and regulatory frameworks.</p>	<p>a. BSc or MSc in Environmental Science and proven experience in mitigation initiatives</p>
CD: International Climate Change Relations and Reporting	<p>a. International Climate Change Analyst (existing)</p>	<p>a. Lead engagement with UN-REDD programme, including the development and submission of Reference Levels.</p> <p>b. Assist the CD International Governance and Resource Mobilisation to identify funding agencies and position South Africa's REDD+ programme. internationally with a view to securing funds for the implementation of the pilot areas and further expansion in the future.</p>	<p>a. Sound understanding of South Africa's multi-lateral, mini-lateral and bilateral climate change agreements</p> <p>b. Sound understanding and experience in leveraging funding for climate mitigation activities</p>
CD International Governance and Resource Mobilization	<p>a. International Governance and Resource Analyst (existing)</p>	<p>a. Lead and strategically manage relationship with international funding agencies and opportunities.</p> <p>b. Together with the National REDD+ Programme manager, develop funding proposals for submission to international agencies.</p>	<p>a. Sound understanding and experience in leveraging funding for climate mitigation activities</p>

\* Forest mensuration is the science of measurement applied to forest vegetation and forest products

Table 8: High-level estimate of Human Resource, Consultancy Services and Operational costs (ZAR) associated with the establishment and implementation of a REDD+ programme in the three pilot areas.

1.0	Human Resources	Year 1 (ZAR)	Year 2 (ZAR)	Year 3 (ZAR)	Year 4 (ZAR)	Year 5 (ZAR)	Comments
1.1	Programme Manager	1 800	1 800	1 800	1 800	1 800	Objective is to develop in-house capacity (DPSA 2017, DPSA 2018)
1.2	Planning Manager	1 000	1 000	1 000	1 000	1 000	Objective is to develop in-house capacity (DPSA 2017, DPSA 2018)
1.3	Regional Forest Officer						This assumes the post is occupied. Some may be vacant
1.4	District forest officer						This assumes the post is occupied. Some may be vacant
1.5	Extension officers	750	750	750	750	750	For Mariepskop, Underberg and Eastern Cape complex
1.6	Forest guards	540	540	540	540	540	For Mariepskop, Underberg and Eastern Cape complex
1.7	Participatory Management committees (PFMC)	600	600	600	600	600	For Mariepskop, Underberg and Eastern Cape complex
1.8	Climate Change Research Analyst						Cost of employment covered
1.9	Monitoring and Evaluation Analyst						Cost of employment covered
	<i>Sub-total</i>	4 690	4 690	4 690	4 690	4 690	
<b>2.0</b>	<b>Consultancy Services</b>						
2.1	Reference Levels	3 600					
2.2	Methodology development costs	425					Adapted from VM0009 – Mosaic REDD in DEA 2015. Assumes 50% as programme manager also included
2.3	PIN and project registration	100					Dependent on standard adopted
2.4	Buffer stock analysis	200					
2.5	Benefit Distribution Mechanism	250					Requires legal input
2.6	Safeguard information System	250					Requires legal input
2.7	3rd Party Verification audit		250	250	250	250	
	<i>Sub-total</i>	4 825	250	250	250	250	
<b>3.0</b>	<b>Operational</b>						
3.1	Rehabilitation	3 500	3 500	3 500	3 500	3 500	For Mariepskop, Underberg and Eastern Cape complex
3.2	Measurement and reporting	1 800	1 800	1 800	1 800	1 800	Carried out using community teams in order to reduce costs
3.3	Contingency	250	250	250	250	250	
3.4	Results based payments		750	750	750	750	For Mariepskop, Underberg and Eastern Cape complex
	<i>Sub-total</i>	5 550	6 300	6 300	6 300	6 300	
	<b>Total</b>	<b>R15 065</b>	<b>R11 240</b>	<b>R11 240</b>	<b>R11 240</b>	<b>R11 240</b>	



## 7. CONCLUSION

The study of the scope and depth of a national REDD+ programme in South Africa has revealed a complex set of drivers which will have an impact upon the REDD+ institutional arrangements. The set of drivers influencing the institutional arrangements encompass a broad range of existing policies and measures, national programmes, commitments to international and national climate agreements and Nationally Determined Contributions (NDCs), and a diverse range of government and non-government stakeholders, interested and affected parties.

Identifying a suitable institution to lead REDD+ required an understanding of the magnitude and nature of the strategic, tactical and operational activities on a national, regional and local scale that an entity would need to perform as well as consideration of the five REDD+ activities globally agreed upon to contribute to mitigation actions in the forest sector.

From an institutional perspective the complexity of existing protection status, ownership and management of indigenous forests and woodlands cannot be over-emphasised. The complexity of determining institutional arrangements is compounded by a number of factors such as the forest type, conservation status, jurisdiction as well as threats of destruction or degradation. Land ownership of these woodland areas is diverse including private ownership, communal lands, land trusts, state land and protected areas. Protected forest and woodland areas have a range of conservation status including world heritage areas, national parks, wilderness areas and private, municipal and provincial reserves all managed by different entities. The Directorate: Indigenous Forests and Woodland directly manages 18 000 ha of indigenous forests representing approximately 1.1% of the total zonal, intrazonal, azonal and Indian Ocean coastal belt indigenous forest biome.

The three-phased approach adopted for REDD+ under the Cancun Agreements together with the outputs of expert interviews was used as a benchmark to evaluate

the current ability to implement a REDD+ programme in South Africa. The three phases are strategy development, early implementation, and performance-based actions. Although good work has been carried out in REDD+ strategic planning, in order to implement there is an urgent need to develop reference levels, initiate a coordinated monitoring, reporting and verification (MRV) and national forest monitoring system, benefit sharing mechanisms and a safeguard information system.

With respect to the institutional framework for the Implementation of REDD+, existing structures within DEFF are adequate and there is no need to create another REDD+ entity. Forestry and Natural Resource Management is seen as the Implementing body while Climate Change, Sustainable Development and Air Quality are viewed as the Enabling and Reporting body. As successful implementation is the primary key to the success of the REDD+ Programme, it is proposed that a REDD+ Programme Manager be appointed. The institutional home for the REDD+ Programme Manager should be within Forestry and Natural Resource Management. The Directorate within which the Programme Manager should reside is still uncertain. As this is a management role, both the Directorates of Woodlands and Indigenous Forest Management, and of Climate Change and Disaster Management should be considered.

In order to ensure that all REDD+ implementation objectives and activities are fulfilled and that there is strong alignment with the AFOLU Strategic Framework for the management and enhancement of carbon sinks, a REDD+ oversight committee is proposed. Besides the REDD+ Programme Manager, representation should include six to eight persons from government, academia and implementing NGOs.

Current institutional capacity both in terms of human resources with the appropriate skills and implementation experience as well as sufficient financial resources are significant barriers to implementation of a REDD+



Programme. Establishing in-house institutional capacity within DEFF is a critical success factor for ensuring successful long-term implementation.

The REDD+ Programme Manager must be empowered with adequate financial and human resources and a clear and well-communicated mandate to implement the REDD+ programme, initially for the three pilot areas and thereafter extending to other indigenous forest and woodland areas where there are clear threats of degradation and deforestation. In certain parts of DEFF there is existing capacity which in certain instances may require re-orientation or skills development. New capacity would also be required to address existing skills gaps within DEFF or to redress areas where posts have been abolished or frozen.

High-level estimates of human resources, consultancy services and operational costs associated with the establishment and implementation of REDD+ in the three pilot areas for a period of five years amount to approximately R15 million in Year 1 and R11 million in successive years. Many of these costs are associated with establishing REDD+ capacity, and once implementation within the pilot areas is established, these resources can then be used for further REDD+ initiatives greatly reducing the overhead costs.

## 8. INTERVIEWED EXPERTS AND STAKEHOLDERS

Name	Affiliation	Title	Contact details
<b>GOVERNMENT</b>			
<b>Dr. T. Ramatshimbla</b>	DEFF: D: Woodlands & Indigenous Forest Management	Director	TshifhiwaRa@daff.gov.za
<b>Mr Masilo Mashatole</b>	DEFF: D: Woodlands & Indigenous Forest Management	Deputy-Director	MasiloM@daff.gov.za
<b>Mr Renny Madula</b>	DEFF: Directorate: Forestry Regulation and Oversight	Director: Forestry Regulation and Oversight	RennyM@daff.gov.za
<b>Mr Richard Green</b>	DEFF	Principal Forestry Scientist	RichardG@daff.gov.za
<b>Ms Deborah Ramalope</b>	Climate Change Mitigation	Chief Director	DRamalope@environment.gov.za
<b>Ms Olga Chauke</b>	Climate Change Mitigation	Director	OChauke@environment.gov.za
<b>PRIVATE SECTOR</b>			
<b>Andrew Whitley</b>	Wild Trust	Projects Director	andreww@wildtrust.co.za
<b>Dr Jan Graf</b>	AWARD	Biodiversity & Systems Researcher	jan@award.org.za
<b>Nicholas Theron</b>	Kruger 2 Canyons	Stewardship Coordinator	stewardship@kruger2canyons.org
<b>Ian Rushworth</b>	Ezemvelo KZN Wildlife	Manager Ecological Advice	ian.Rushworth@kznwildlife.com
<b>Michael Powell</b>	Rhodes University	Researcher	mpowell@ru.ac.za
<b>Prof C. Shackleton</b>	Rhodes University	Professor	c.shackleton@ru.ac.za
<b>Prof C. Geldenhuys</b>	Forestwood	Professor	cgelden@mweb.co.za



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Department of Environment, Forestry and Fisheries  
Private Bag X447  
Pretoria  
0001  
Republic of South Africa

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