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**PART 1 OF 3**



For purposes of reference, all Proclamations, Government Notices, General Notices and Board Notices published are included in the following table of contents which thus forms a weekly index. Let yourself be guided by the gazette numbers in the righthand column:

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**GOVERNMENT NOTICES • GOEWERMENTSKENNISGEWINGS**

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**DEPARTMENT OF ENVIRONMENT, FORESTRY AND FISHERIES**

NO. 1283

04 DECEMBER 2020

**NATIONAL ENVIRONMENTAL MANAGEMENT: AIR QUALITY ACT, 2004  
(ACT NO. 39 OF 2004)****DRAFT METHODOLOGICAL GUIDELINES FOR QUANTIFICATION OF GREENHOUSE GAS EMISSIONS - CARBON SEQUESTRATION IN THE FORESTRY INDUSTRY TO SUPPORT THE IMPLEMENTATION OF THE GREENHOUSE GAS EMISSION REPORTING REGULATIONS, 2016 FOR PUBLIC COMMENT**

I, Barbara Dallas Creecy, Minister of Forestry, Fisheries and the Environment, under section 56 and section 57 of the National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004) hereby publish for public comment, the Methodological Guidelines for Quantification of Greenhouse Gas Emissions - Carbon Sequestration in The Forestry Industry - Guidelines for Validation and Verification of Greenhouse Gas Emissions. The Guidelines can be accessed at:

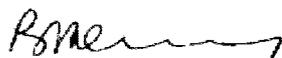
Regulation 10 of the National Greenhouse Gas Reporting Regulations published under General Notice No. 275 in Government Gazette No. 40762 of 3 April 2017 (the Regulations) requires data providers to report using methods set out in the methodological guidelines for quantification of greenhouse gas emissions. To this end, the Department of Environment, Forestry and Fisheries has developed methodological guidelines for quantification of greenhouse gas emissions - carbon sequestration in the forestry industry, to serve as a companion to the Regulations for data providers with forestry plantations. Members of the public are invited to submit written representations or comments, within 30 days from the date of the publication of this notice in the Gazette, to any of the following addresses:

By post:           The Director-General: Department of Environment, Forestry and Fisheries  
Department of Environment, Forestry and Fisheries  
Attention: Mr Jongikhaya Witi  
Private Bag X447  
Pretoria  
0001

By hand:           Ground Floor (Reception), Environment House, 473 Steve Biko Road, Pretoria.  
By email:          By email: [GHGReporting@environment.gov.za](mailto:GHGReporting@environment.gov.za) or by fax: 086 615 4321.

Any inquiries in connection with the draft guidelines can be directed to Mr Jongikhaya Witi at 012 399 9048 or 083 991 9913.

**Comments received after the closing date may not be considered.**



**BARBARA DALLAS CREECY  
MINISTER OF FORESTRY, FISHERIES AND THE ENVIRONMENT**



environment, forestry  
& fisheries

Department:  
Environment, Forestry and Fisheries  
REPUBLIC OF SOUTH AFRICA

## SCHEDULE

# **Methodological Guidelines for Quantification of Greenhouse Gas Emissions – Carbon Sequestration in the Forestry Industry**

A companion to the South African National Greenhouse  
Gas Emission Reporting Regulations



## environment, forestry & fisheries

Department:  
Environment, Forestry and Fisheries  
REPUBLIC OF SOUTH AFRICA

### Acronyms

$\Delta C_B$	Annual change in carbon stocks in biomass
BEF	Biomass Expansion Factor
BCEF	Biomass Conversion and Expansion Factor
C	Carbon
CAI	Current Annual Increment
CF	Combustion factor
CH <sub>4</sub>	Methane
CO <sub>2</sub>	Carbon dioxide
CO <sub>2</sub> eq	Carbon dioxide equivalents
COC	Chain of custody
D	Density
DEFF	Department of Environment, Forestry and Fisheries
DOM	Dead organic matter (composed of dead wood and litter)
d.m.	dry matter
DW	Dead wood (sub-pool of DOM)
FES	Forest Economic Services
FSC	Forest Stewardship Council
GC	Growth curve
GHG	Greenhouse gas
GS	Gold Standard
ha	hectares
HWP	Harvest wood products
IPCC	Inter-governmental Panel on Climate Change
ISO	International Organisation for Standardisation
KP	Kyoto Protocol
LCA	Life cycle analysis
LT	Litter (sub-pool of DOM)
LULUCF	Land use, land use change and forestry
MAI	Mean Annual Increment
MRV	Monitoring, reporting and verification
N <sub>2</sub> O	Nitrous oxide
NAEIS	National Atmospheric Emissions Inventory System
NFA	National Forest Act
NGER	National GHG Emissions Regulation
NGHGIS	National GHG Information System
PAMSA	Paper Manufacturers Association of South Africa
PEFC	Programme for the Endorsement of Forest Certification
QA/QC	Quality Assurance and Quality Control
R	Ratio of below-ground biomass to above-ground biomass
S <sub>B</sub>	CO <sub>2</sub> component of biogenic fuel emissions from the combustion of biogenic fuels from plantations
S <sub>fert</sub>	Emissions from fertilisers
S <sub>fire</sub>	Emissions from fires
S <sub>HWP</sub>	Emissions/removals from HWP



**environment, forestry  
& fisheries**

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

SAGERS	South Africa’s GHG Emissions Reporting System
SOC	Soil organic matter
TAR	Third Assessment Report
TUP	Temporary Unplanted Areas
UNFCCC	United Nations Framework Convention on Climate Change
VCS	Verified Carbon Standard
WBP	Wood-based panels
wwt	wet white tonnes



## environment, forestry & fisheries

Department:  
Environment, Forestry and Fisheries  
REPUBLIC OF SOUTH AFRICA

### Definitions

**“3rd party forests”** is defined a forest land area or ownership that is not eligible under the C Tax Act. Wood supplier for HWP production having between 1000 and 10000 ha of forest which is not-eligible in the scheme. Its participation in the scheme is only possible through eligible entities which report emissions from fossil fuels “E” under the C tax.

**“accounting”** is a method to calculate the amount of emission reduction or sequestration, following the rules defined in this rulebook, by an eligible company.

**“accounting period”** is the period over which for which emissions reduction or removals by forestry activities are reported and accounted, which is annually from 1st of January to December the 31st, submissions are due at the end of each fiscal year.

**“accounting rulebook”** refers to the Forestry Accounting Rulebook provided in Chapter B.

**“afforestation”** is the direct human-induced conversion of non-forested land to forested land through planting, seeding and/or the human-induced promotion of natural seed sources.

**“deforestation”** is the direct human-induced conversion of forested land to non-forested land (consistent with IPCC, 2014). This includes all areas that meet the forest definition (including invasive species such as wattle).

**“facility”** is a plantation management unit or manufacturing facility

**“forest”** definition from the National Forest Act (Act 84 of 1998) (NFA) states that:

- i. “forest” includes a natural forest, a woodland and a plantation (Section 1(2)(x) of NFA);
- ii. “natural forest” means a group of trees whose crowns are largely contiguous, or which have been declared by the Minister to be a natural forest (Section 1(2)(xx) of NFA);
- iii. “plantation” means a group of trees cultivated for exploitation of the wood, bark, leaves or essential oils (Section 1(2)(xxii) of NFA); and
- iv. “woodland” means a group of indigenous trees which are not a natural forest, but whose crowns cover more than five percent of the area bounded by the trees forming the perimeter of the group (Section 1(2)(xxxix) of NFA).

However, in order to facilitate a robust reporting and accounting system for forestry under the GHG Reporting Regulations, using the Marrakech Accord (2011) as a guide, a forest is defined as follows:

**“Forest”** is defined as having a minimum area of land of 1.0 hectare with tree crown cover (or equivalent stocking level) of more than 30 per cent with trees with the potential to reach a minimum height of 5 metres at maturity in situ. A forest may consist either of closed forest formations where trees of various storeys and undergrowth cover a high proportion of the ground or open forest. Young natural stands and all plantations which have yet to reach a crown density of 30 per cent or tree height of 5 metres are included under forest, as are areas normally forming part of the forest area which are temporarily unstocked as a result of human intervention such as harvesting or natural causes but which are expected to revert to forest.”

**“forest activity”** refers to the activities forest management, afforestation and deforestation.



## environment, forestry & fisheries

Department:  
Environment, Forestry and Fisheries  
REPUBLIC OF SOUTH AFRICA

“**forest management**” is a system of practices for stewardship and use of forest land aimed at fulfilling relevant ecological (including biological diversity), economic and social functions of the forest in a sustainable manner. **Note:** The broad definition of management shall be applied, which means including planned management of silvicultural intervention even if the forest is not currently managed.

“**gross-net accounting**” is an accounting method to calculate the accounting amount which does not consider a reference period, so it is equal to the reported gross removal/emission for a forest category over the accounting period.

“**net-net accounting**” is an accounting method to calculate the accounting amount as the reported emissions/removals over the accounting period minus the annual emissions/removals for the selected reference period.

“**liable entity**” is a Forest and forest products Company with processing facilities such as sawmills, board mills and pulp and paper mills within South Africa and that are required to report under the South African Carbon Tax Act.

“**mass-balance**” is a rule where amount entering the system is equal to amounts exiting the system.

“**methodological guidelines**” refers to the Methodological Guidelines for Land Activities in Forest Plantations provided in Chapter C.

“**MRV tool**” refers to the Carbon Tax Sequestration MRV Tool for Forest Plantations and Timber Processing Industry.

“**not a source**” is a rule that allows to exclude from accounting a carbon pool in which the C stock change is neutral or a sink (acts as removal) rather than a source (emission).

“**reference period**” is the period which is selected as representing the baseline circumstances for emission or removals level, it can be one to several successive years. It is used for net-net accounting to estimate the mean annual net emission/removal for forest over the selected period.

“**registered taxpayer**” is a person or company that is registered to account and report under the C Tax Act.

“**reporting**” is the provision of data by a taxpayer in a comparable, transparent, consistent, accurate and complete manner to DEFF for estimation of accountable CO<sub>2</sub>eq emissions/removals

“**taxpayer**” means a person or company liable for the carbon tax in terms of section 3 of the Carbon Tax Act 2019.

“**verification**” refers to the collection of activities and procedures that can be followed during the planning and development, or after completion of an inventory report that can help to establish its reliability for the intended applications of that inventory. Typically, methods external to the inventory are used to check the truth of the inventory or input parameters (Guidelines for Validation and Verification of Emissions).



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## Chapter A: Introduction and background

### A.1. Introduction

The Carbon Tax Act (Act No. 15) of 2019 (referred to as “C Tax Act” in this document) attempts to incentivise reduction of fossil fuel emissions and to increase sequestration associated with the land use and forestry sectors. This means that permanent carbon dioxide (CO<sub>2</sub>) removals from atmosphere are used to offset against emissions from the use of fossil fuels and other fugitive emission for companies reporting and accounting under the C tax scheme. In the C tax scheme sequestration represents the number in respect of greenhouse gas emissions, expressed in terms of carbon dioxide equivalent, that were sequestered in respect of that tax period as verified and certified by the Department of Environment, Forestry and Fisheries (DEFF).

Sequestration in the forestry sector can broadly be split into 3 major activities, namely a) removals in the forest C cycle (including land use change related management), b) storage of C in harvested wood products (HWP) and c) substitution of energy intensive materials or fossil fuels with timber products (Figure A.1).

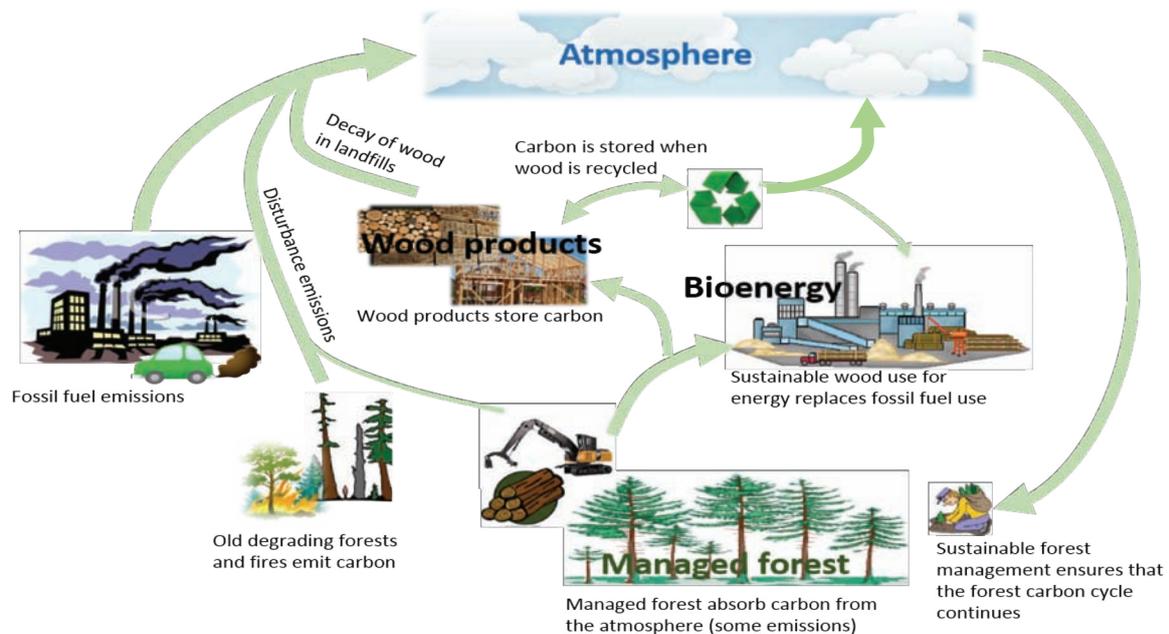
Forestry activity related carbon (C) sequestration can be achieved through:

- Afforestation and reduction of deforestation;
- Extension of the rotation ages in current plantations or reduced harvest, integral harvesting and use of wood parts of the trees;
- Substitution with tree species with higher capacity of carbon uptake and storage over a rotation (e.g. faster growth, wood with higher density or increase productivity through genetic improvement);
- Manufacture of harvested wood products (HWP) from domestically produced timber;
- Production of harvested wood products with a longer lifetime or increased recycling of products in order to further delay emissions from HWP;
- Substitution of energy intensive products such as steel or cement with wood products (i.e. product substitution);
- Increase of the carbon permanently stored in the soils, deadwood and litter pools;
- Reduction of controlled biomass burning such as burning of harvest residues;
- Reduction of greenhouse gas emissions from fertiliser application.

Sequestration in the forest ecosystem is a result of the net uptake of C during photosynthesis, accumulation in the deadwood and soil pools, decomposition losses associated with turnover of C in deadwood and emission of greenhouse gasses due to disturbances (e.g. harvest, fires) and application of fertilisers. Disturbance due to management intervention has the largest impact on the C balance resulting in either net removals or net emissions of CO<sub>2</sub> into the atmosphere. One of the largest impacts on managed forest plantation C balance is the level of harvest relative to growth increment (Grassi et al., 2018). It is generally accepted that afforestation results in a net removal of CO<sub>2</sub> from the atmosphere for the first rotation, but deforestation causes emissions of similar magnitude. It is important that accounting CO<sub>2</sub> removals from atmosphere under financial mechanisms or emissions reduction mitigation action are permanent.

HWP removals are a function of manufacture of long-life timber products, which are stored in the HWP pool, and emissions from the existing (historical) HWP pool back to the atmosphere due to

product end life and cascading into other products or uses (e.g. bioenergy). HWP sequestration does not take place just by production of HWP but by adding more HWP to the pool than what is being released back to the atmosphere.



**Figure A.1: A schematic representation of GHG flows between the atmosphere and forestry related activities including forest management, disturbances, wood processing emissions, net HWP storage and product substitution.**

Product substitution is based on the concept of avoidance of emissions by replacement of processes or products using wood as a substitute (Stare and O Connor, 2010). Life cycle analysis (LCA) of wood products provides a way of measuring the CO<sub>2</sub> savings that can be made by use of wood products and replacement of high CO<sub>2</sub> emission potential products such as energy, cement etc. (Oliver, 2014). However, the accounting of product substitution is not included in C offsetting mechanisms, emission trading and C tax schemes due to methodological complexities and detailed data required to determine the extent of substitution. Potential sequestration can vary considerably depending on assumptions used and the system boundary used in the LCA (Stare and O Connor, 2010).

In order for emissions and removals to be accounted under International Climate Change Targets (e.g. Kyoto Protocol), C trading platforms or C tax schemes, certain well adopted principles should be adhered to such as permanence, additionality, leakage, robustness and avoidance of double accounting. Permanence of accounted removals is a particularly complex issue to address in the context of forest activities. All accounted forest and HWP removals should in principle be permanent to reflect real removals from the atmosphere. In this context, the relationship between emissions associated from harvest from forestland, the production of HWP and the decomposition of the HWP pool needs to be taken into account (i.e. accounting must ensure mass balance of relevant C flows).

Additionality is another principle which is difficult to deal with in the land use sector, in particular, accounted removals should be directly human induced and additional to historical trends to ensure



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that effective emission reduction to the atmosphere are real and fully attributable to the concerned activity. This requires consideration of base line, and reference level accounting frameworks, such as gross net or net-net accounting (Grassi et al., 2018; 16CMP/1<sup>1</sup>, 2CMP/7 and 8).

This chapter outlines the concepts, accounting principles, specific forest industry considerations and concerns and the justification of proposed accounting rules for accounting forest and HWP emissions/removals under the South African Carbon Tax Act of 2019.

### A.2. System boundary

The scope of this guideline is to only consider an accounting framework for forest and HWP related emissions and removals in the South African plantations and timber processing sector. The accounting of emissions associated with wood processing and use of fossil fuels (defined as “E” in the C Tax Act) have already been developed under the C Tax Act and are not considered.

In order to account for sequestration activities accounting for plantation management and wood processing (i.e. “S”), all C pools (biomass, deadwood, litter, soils and HWP) and non-CO<sub>2</sub> emissions such as those from fires, management of soils, fertiliser and lime application in activities are considered based on internationally established methods (IPCC, 2006). Specific novel approaches are, however, explored to facilitate company-based accounting under the C Tax Act.

Ownership and liability of emissions and removals is a key system boundary consideration. Although the C Tax Act lays out the criteria for eligibility, careful consideration on how timber flows from small and non-eligible plantation owners are included in the accounting framework without creating a reporting burden on owners with limited resources. This aspect has not been extensively explored in the C Tax Act, we propose new criteria for eligibility under the C Tax Act to address these issues. Rules defined here also observe avoiding double-accounting or leakage.

### A.3. Legislative Framework

#### A.3.1. National Greenhouse Gas Emissions Reporting Regulations

The National Greenhouse Gas Emission Reporting Regulations (NGER) published under the National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004) were gazetted on 3 April 2017. Amendments to the regulations were issued for public comment on 6 September 2019 but have not yet been promulgated. Annexure 1 of the amended regulations list the activities and thresholds for which GHG emissions must be reported. The NGER serves as a reporting framework under international obligations.

Plantations meeting the area threshold specified in the NGER are required to register in the South African GHG Emissions Reporting System (SAGERS) (which is part of the National Atmospheric Emissions Inventory System (NAEIS)). Plantation activity data and emission factors will be reported through the reporting templates and this data will be utilized to improve the National GHG Inventory for carbon tax reporting and for international reporting.

<sup>1</sup> <https://unfccc.int/resource/docs/2005/cmp1/eng/08a03.pdf>



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### A.3.2. The Carbon Tax Act 2019

The C Tax Act serves as an accounting framework at the company scale. The legal basis for this is the Carbon Tax Act (Act No. 15 of 2019) which came into effect from 1 June 2019. Amendments to the Act were gazetted on 31 October 2019.

Section 6 (1) sets out the formula for calculation of the tax payable by a taxpayer in respect of a tax period.

$$X = < \{[(E - S) \times (1 - C)] - [D \times (1 - M)]\} + \{P \times (1 - J)\} + \{F \times (1 - K)\} > \times R$$

**Equation A.1**

The variables in the above formula are:

- (a) "X" represents the amount to be determined that must not be less than zero (i.e. No tax credits are issued if X is a net removal of CO<sub>2</sub> from the atmosphere);
- (b) "E" represents the number in respect of the total fuel combustion related greenhouse gas emissions of the taxpayer in respect of that tax period expressed as a carbon dioxide equivalent;
- (c) "S" represents the number in respect of greenhouse gas emissions, expressed in terms of carbon dioxide equivalent, that were sequestered in respect of that tax period as verified and certified by the Department of Environment, Forestry and Fisheries (DEFF);
- (d) "C" represents a number equal to the sum of the percentages of allowances determined under sections 7, 10, 11, 12, and 13 of the C Tax Act in respect of that tax period, subject to section 14 of the act;
- (e) "D" represents the number in respect of the petrol and diesel related greenhouse gas emissions of that taxpayer in respect of that tax period expressed as a carbon dioxide equivalent, determined in terms of section 4(1) of the act.
- (f) "M" represents a number equal to the sum of the percentages of the allowances determined under sections 7, 12 and 13 in respect of that tax period, subject to section 14 of the tax act;
- (g) "P" represents the number in respect of the total industrial process related greenhouse gas emissions of the taxpayer in respect of that tax period expressed as a carbon dioxide equivalent determined in terms of section 4(1) or (2)(c) of the tax act;
- (h) "J" represents a number equal to the sum of the percentages of the allowances determined under sections 7, 8, 10, 11, 12 and 13 in respect of that tax period, subject to section 14 of the tax act;
- (i) "F" represents the number in respect of the total fugitive greenhouse gas emissions of the taxpayer in respect of that tax period expressed as a carbon dioxide equivalent determined in terms of section 4(1) or (2)(b) of the act;
- (j) "K" represents the sum of the percentages of the allowances determined in terms of sections 7, 9, 10, 11, 12 and 13 in respect of that tax period, subject to section 14 of the tax act; and
- (k) "R" represents the rate of tax prescribed under section 5 of the tax act.



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GHG emissions represented by the variable “E” in the formula are calculated in accordance with the methodology set out in the Technical Guidelines for Monitoring, Reporting and Verification of Greenhouse Gas Emissions by Industry (DEA, 2017).

The applicable allowances for listed activities that are summed to calculate variable “C” are set out in Schedule 2 of the Carbon Tax amendments.

Key points included in the C Tax amendments that are relevant to the forestry sector are:

- a) Schedule 1: Biogenic fuels that include wood/wood waste, sulphite lyes (black liquor), other primary solid biomass, charcoal, bio-gasoline, biodiesels, other liquid biofuels, landfill gas, sludge gas, other biogas and municipal waste (biomass fraction) report CO<sub>2</sub> emissions separately **and are not included** in the CO<sub>2</sub> emission totals (namely in “E”). The calculated values for N<sub>2</sub>O and CH<sub>4</sub> are included in the calculation for the variable “E”.
- b) Schedule 2: All activities listed under IPCC Code 3 (Agriculture, Forestry and other land use) and Code 4 (Waste) are discounted with a 100% allowance.
- c) The threshold for reporting by plantations is set out as >100 ha in the NGER and the Carbon Tax Act.

Although the variable “S” is included in the formula, the calculation method is not defined. The guidelines to be developed within this project will develop the methodology for measurement and verification.

Although the calculation of “S” is not explicitly outlined in the C Tax Act, there are a number of elements in the Act that pertain to eligibility of forest plantations and sector owners/companies and which define the system boundary of a forest accounting system (Table A.1). These elements can be directly used to define some accounting rules since they are already defined in law.



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**Table A.1: Elements extracted from the 2019 C Tax Act, amendments to the act (B18-2019) and proposed further amendments (appendix 1) which have relevance to accounting rules**

Element	Rule relevant to forestry rules [relating to]	Reference in C tax act 2019	Rule clarification required
Adjustment to (E-S). The current act caps the term (E-S) in the case where S>E. However, the basic emission tax free allowances in schedule 2 relating to forestry indicate that net emission for forestry categories are discounted at 100%	No, but relevant to overall accounting.	Item 6 (k) pg 14 of the Act and schedule 2 of the Act	Proposed amendment to the act (see Annex A) "If the sum of subcategories 3B1a, 3B1b, 3C1a, 3C4, and 3D1 is an accountable net emission then "(E-S)"=E."
CO <sub>2</sub> emissions from combustion of wood, wood waste and biogenic liquids is zero	No, N <sub>2</sub> O and CH <sub>4</sub> emissions from combustion of wood and wood waste are included in "E" in eq.1 [applicability, relevance]	Schedule 1, Table 1 pg 45 in amendments to the Act (B18-2019)	Yes, black liquor (sulphite lyes) CO <sub>2</sub> emissions are excluded.
Fossil fuel emissions from manufacture of wood and wood products has a 60% allowance	No, this refers to fossil fuel emissions included in "E" so does not relate to biogenic emissions [applicability, relevance]	Schedule 2 pg 48 of the Act 2019 (May 2019)	No
Exclusion of processing emissions from production of harvested wood products (HWP)	Emissions from production of HWP (P in eq. 1) are excluded from taxation due to a 100% allowance for CO <sub>2</sub> (J). Note CH <sub>4</sub> and N <sub>2</sub> O emissions are reported under "E" [applicability, relevance]	Schedule 2, Table 3 pg 60 of the Act	Yes, are CO <sub>2</sub> emissions for biogenic fuel sources to be reported, but not accounted under the C Tax Act



<p>Owners with forest of areas greater than 1000 ha and less than 10 000 ha are required to register, and owners with areas equal or greater than 10 000 ha of plantation and required to register and report</p>	<p>Yes, provided a threshold for participation in, the use of "s" only if lands owned or leased by a company are equal to or greater than 10 000 ha [eligibility]</p>	<p>Schedule 2 pg 58 of the Act</p>	<p>Yes, need to create rules regarding eligibility, permanence, leakage avoidance and additionality (direct human induced in relation to natural unmanaged forests) using the threshold defined in the C Tax Act or re-define provide for enhanced? eligibility criteria (see System Boundary section)</p>
<p>The threshold for HWP category 3D1 is N/A</p>	<p>Yes, the current act excludes HWP, but proposed amendments to the threshold will include HWP</p>	<p>Schedule 2 pg 60 of the Act</p>	<p>Yes, need to create rules to include HWP but potential sequestration must be linked to harvest emissions in related forest areas. Rules to differentiate between company own and third party wood sources.</p>
<p>The thresholds for biomass burning, direct and indirect emission from managed soils categories 3C1a, 3C4 and 3 C5 are N/A</p>	<p>Yes, but these emissions are excluded, proposed amendments to the threshold will include reporting of these emissions (appendix 1)</p>	<p>Schedule 2 pg 60 and 63 of the Act</p>	<p>Yes, the 100% tax free emission allowance means that these emissions are reported but not accounted</p>
<p>Thresholds for waste treatment in processing</p>	<p>Yes</p>	<p>Schedule 2 IPCC code 4</p>	<p>Excluding the reporting of emission below waste thresholds. However, emissions from the waste sector only include CH<sub>4</sub> and N<sub>2</sub>O. C waste emissions need to be reported under HWP but not accounted (the tax free emission allowance is set at 100%)</p>



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### A.4. Existing forest industry frameworks

A number of existing forest data resources and certification schemes have been suggested to be suitable for inclusion and/or adaption for reporting and accounting requirements under the C Tax Act:

- a) The Forestry Economics Services (on behalf of DEFF) collects all plantation and timber production data as legally required in terms of Regulation 19 made by the Minister of Agriculture, Forestry and Fisheries under the provisions of Section 6(1) and Section 6(3) of the National Forest Act, 1998 (Government Gazette No 32185, dated 29 April 2009). This data is submitted by all company and state owned plantations in electronic format on a form referred to as the “Green Mamba” form. This is the primary data source on forestry statistics, such as the Forestry South Africa Handbook. The project has considered the inclusion of data in the reporting format outlined in the Green Mamba forms. Forest products chain of custody standards (COC) and certification (PEFC and FSC) demonstrates that registered company produces source timber from controlled, well managed forest resources. The forestry industry suggests that COC or certification should be used as a proxy for sustainable timber production, preservation of forest C stocks and that these mechanisms could be incorporated in an accounting framework. However, this approach has drawbacks:
  - Since COC or certification uses sustainability indicators to assess adherence to the schemes, this is often misinterpreted that timber is sustainably produced, while at best it could be described as responsible management with no causative link with carbon sequestration as an ecosystem service. For example, FSC criteria<sup>2</sup>, under the S.A. standard, does not assess harvest relative to volume increment, a core sustainability indicator linked to forest C budgets (Grassi et al, 2018). Moreover, C sequestration is not listed as one of the ecosystem criteria under the FSC standard.
  - The assumption that certified plantations would not be a net emission for any reporting period does not hold. In fact, nearly 60% of the worlds certified forests and plantations are in Europe. Some member state GHG inventories report that net emissions or a decline in forest C stocks since 1990 (UNFCCC<sup>3</sup>). The same can be seen in the emission/removal trends for the South African, which shows that annual forest stock changes are a net emission and that C stocks have generally declined despite participation on COC and certification schemes.
  - Not all timber suppliers to the processing facilities are certified<sup>4</sup>. In South Africa approximately 76% of the plantations areas are owned or managed by large companies, 95% of which are certified. Another 20 % of the plantation area is owned by commercial farmers or family companies (typically between 100 and 5,000 ha). Only 30% of these areas are covered by one of the four certification schemes and nearly no small growers are covered by a scheme. This means that even if certification was used as a proxy to ensure harvested 3<sup>rd</sup> party and non-registered forest areas

<sup>2</sup> <https://fsc.org/en/document-centre/documents/resource/319>

<sup>3</sup> <https://unfccc.int/process-and-meetings/transparency-and-reporting/reporting-and-review-under-the-convention/greenhouse-gas-inventories-annex-i-parties/national-inventory-submissions-2019>

<sup>4</sup> Source SA Forestry Online [http://saforestryonline.co.za/articles/environment/how\\_effective\\_is\\_forest\\_certification/](http://saforestryonline.co.za/articles/environment/how_effective_is_forest_certification/)



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(under the C Tax Act) are replanted and “responsibly” managed, most on the 3<sup>rd</sup> party timber sources supplied to manufacturing facilities may still not be certified.

- Participation in COC or a certification scheme does not guarantee permanence of accounted removals because certification may not be renewed following subsequent audits.

Despite the above-mentioned difficulties, it is acknowledged that COC and certification could be used in cases where the risk of non-permanent accounting of removals is low, such as in the case of 3<sup>rd</sup> party forest emissions and removals and inflows into HWP storage (see Accounting Rules in Chapter B). However, 3<sup>rd</sup> parties can only be included if proof of certification is provided and that the burden of reporting and accounting is put on the company accounting for “S” under the C tax scheme.

### A.5. Defining the Variable “S” and system boundaries

The previous “Technical guidance for the reporting of GHG emissions from plantation forests, biogenic fuels and harvested wood products within the South African plantation forest and forest products sector” (Knowles and Christie, 2018) defines the net sequestration by forest and forest products (“S”), as:

$$S = S_B + S_{HWP} - \Delta C - S_{fire} - S_{fert} \quad \text{Equation A.2}$$

Where:

- $S_B$  = CO<sub>2</sub> component of biogenic fuel emissions from the combustion of biogenic fuels sourced from South African plantations (e.g. wood, bark, black liquor) expressed in t CO<sub>2</sub>eq. Note that this excludes non-CO<sub>2</sub> emissions but these are reported and accounted under ‘E’;
- $S_{HWP}$  = CO<sub>2</sub> emissions or removals by harvested wood products (expressed in t CO<sub>2</sub>eq).
- $\Delta C$  = Annual change in plantation carbon stocks (expressed in t CO<sub>2</sub>eq);
- $S_{fire}$  = Emissions from controlled burning and wildfires (N<sub>2</sub>O and CH<sub>4</sub> expressed in t CO<sub>2</sub> eq);
- $S_{fert}$  = The fraction of emissions from applied fertiliser (N<sub>2</sub>O expressed in t CO<sub>2</sub>eq).

Subsequent to the compilation of the Knowles and Christie guideline document, the amendments to the C Tax Act define biogenic fuels as a net zero CO<sub>2</sub> emission assuming that sources are renewable. In addition, through the implementation of a mass balance methodology of  $S_{HWP}$ , biogenic fuel use and CO<sub>2</sub> emissions are included in this calculation. Since the conventions for net removals of CO<sub>2</sub>eq under the UNFCCC that emissions are denoted as a positive value and sequestration as a negative value, both  $S_{HWP}$  and  $\Delta C$  should have negative values in equation A.3, to denote net removals of CO<sub>2</sub>eq. Equation A.2, therefore, becomes:

$$S = -S_{HWP} - \Delta C - S_{fire} - S_{fert} \quad \text{Equation A.3}$$



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Emissions from fires and fertilisation are to be reported under the C Tax Act, but these emissions are not included in the final tax account as the C Tax Act fully discounts these emissions (see equation A.4). The rationale for reporting (under the C Tax Act) but not accounting for these emissions is that baseline data is required to develop more suitable accounting procedures in the future. Fertiliser emissions may be excluded from reporting (under C Tax Act) in future if they are found to be insignificant, but the initial reporting is required to determine if these emissions are below the significance threshold. Fire is to be reported so that a background level can be determined in order to exclude wildfire emissions in future (see section A.12.4 for method suggestions for excluding wildfire). On the other hand, fire and fertilisation emissions may also be included for accounting if determined to be significant and if the C Tax Act is reviewed. Equation A.3 is therefore rewritten as:

$$S = -S_{HWP} - \Delta C - \left[ S_{fire} - \left( S_{fire} \times \frac{D}{100} \right) \right] - \left[ S_{fert} - \left( S_{fert} \times \frac{D}{100} \right) \right] \quad \text{Equation A.4}$$

D is the current discount defined in the act (Schedule 2, C Tax Act of 2019), which is 100% for emissions from fires and fertiliser application. Equation 4 excludes emissions associated with forest lands in the IPCC guidelines, which are considered to be negligible in South Africa. These include:

***Nitrogen mineralisation associated with loss of soil organic matter resulting from change of land use or management of mineral soils ( $F_{SOM}$ ) (du Toit et al, 2016). However,  $F_{SOM}$  can directly calculated from soil C stock changes under  $\Delta C$  (equation A.4) and included in the future if considered to be significant (see***



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- a) Table A.2).
- b) CO<sub>2</sub> emissions associated with lime application is not a practice of SA plantations.

#### **A.6. Principles of a Robust GHG Accounting System**

The Intergovernmental Panel on Climate Change (IPCC), the International Organisation for Standardisation (ISO), the Verified Carbon Standard (VCS), the Gold Standard (GS) as well as South Africa's National Atmospheric Emission Inventory System (NAEIS) and National GHG Inventory Management System (NGHGIS), among others, have adopted the common principles of relevance, significance, completeness, consistency, accuracy, transparency and comparability. These principles should be applied to entities accounting for "S" under the C Tax Act.



**Table A.2: Common principles informing the scope and structure of organization GHG inventories.**

Common Reporting Principles*	Description (as defined in ISO 14064-1)
Relevance	Select the GHG sources, GHG sinks, GHG reservoirs, data and methodologies appropriate to the needs of the intended user.
Completeness	Include all relevant GHG emissions and removals. Include all relevant information to support criteria and procedures.
Consistency	Estimations of GHG stocks, emissions and removals should be done consistently across time and space
Comparability	Enable meaningful comparisons in GHG-related information over time and across different data providers
Accuracy	Reduce bias and uncertainties of parameters used and accounted amounts as far as is practical
Transparency	Disclose sufficient and appropriate GHG-related information to allow intended verifiers to make decisions with reasonable confidence and reporting and accounting rules have been adhered to.
Significance	An emission for a pool or source may only be excluded from reporting and accounting if it is smaller than a significance threshold which is a fraction of the total emission and removals. Following the UNFCCC guidelines (art 37(b) of decision 24/cp19), the significance threshold is <0.05% of the total emissions for both "E" and "S" (i.e. sum of absolute emissions from "E" and "S").
Adherence to the IPCC Guidance (AFOLU 2006 and KP-supplement 2013)	The IPCC guidance provides the reporting methodology which is broadly adopted under the forestry reporting rulebook (Annex B). This is important in cases where models may be used or where company specific factors are used in calculation emissions and removals. Note: some IPCC guidance is not followed in detail, such as HWP (see section A.8.3)

\*These common principles are shared by IPCC, ISO, VCS, CDM, GS, GHG Protocol as well as South Africa's National Atmospheric Emissions Inventory System (NAEIS) and National GHG Inventory Management System (NGHGIS).

***Additional considerations on overriding principles should be adhered to when a framework for robust accounting of GHG emissions and removals is developed (***

Table A.3). These principles are based on international agreements, such as the Paris Agreement, agreements from other UNFCCC Conference of the Parties (particularly 16CMP/1<sup>5</sup>, 2CMP/7 and 8), the voluntary market principles and climate change policy drivers behind the C Tax Act.

<sup>5</sup> <https://unfccc.int/resource/docs/2005/cmp1/eng/08a03.pdf>



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**Table A.3: Common principles adopted when developing a robust carbon accounting system and considerations specific to accounting of forest land under the C Tax Act.**

Accounting principles	Considerations
Eligibility	<p><b>Forest definition:</b> The forest definition should be consistent with the National forest definition but with additional criteria to ensure robust reporting of areas.</p> <p><b>Ownership and liability:</b> Tax act thresholds stipulate that plantation forests eligible for registration and define liability for removals or emissions.</p> <p>Eligibility should ensure that the mass flow of C between HWPs and forest land C budgets are maintained.</p>
Permanence	<p><b>Once in, always in principle:</b> Once emissions and removals are accounted for in a unit of forest land these areas and pools should be continued to be reported and accounted throughout the accounting period and for subsequent accounting periods.</p> <p>Permanence has important implications on the treatment of deforestation and decay of accounted HWP removals</p>
Accounting periods and intervals	Reporting Periods and intervals pursuant to the Carbon Tax Act
Robustness	The treatment of any accounted activities be based on sound science, that mass balance is conserved and accounting should ensure emissions or removals are verifiable.
Additionality	<p>That the mere presence of carbon stocks be excluded from accounting.</p> <p>That accounting excludes removals resulting from indirect human activities: (i) elevated carbon dioxide concentrations above their pre-industrial level; (ii) indirect nitrogen deposition; and (iii) the dynamic effects of age structure resulting from activities and practices before the accounting year.</p> <p>This is an important consideration when deciding on appropriate accounting rules, such as gross-net or net-net accounting and the rules for HWP accounting.</p>
Incentives and policy alignment:	Accounting framework should consider other policies such as those set out under the national framework, UNFCCC and the Paris Agreement (e.g. action plans) but also incentivise companies to enhance forest sinks and reduce emissions without being unfairly penalized for current and historical management practice.
Leakage	Increased emissions of GHGs or decreased removals should not result outside the accounting framework boundary. For example: use of timber sources from outside the geographical of South Africa for production of HWPs or timber from non-reporting or unregistered entities could result



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	in increased emission or deforestation in other regions or from forest lands non-certified for sustainable management.
Double accounting avoidance	Emissions or removals shall not be accounted twice. For example, already produced pulp, recycled pulp or paper from another production facility cannot be used as a carbon inflow into the HWP pool for the reporting entity.

## A.7. Challenges faced when implementing carbon accounting system at the company level

### A.7.1. Eligibility and liability

The use of an area threshold as a criterion for accounting forest and HWP emissions/removals (C Tax Act October 2019) has implications regarding inclusion of timber to HWP from non-eligible, 3<sup>rd</sup> party, forest owners. The major forest companies who will account for HWP removals can only include timber produced by eligible companies under the Act (from own wood land and leased land), estimated to be ca. 80% or less of the annual harvest. This is because the emissions associated with harvest have to be linked to removals associated with HWPs to ensure balanced and robust accounting.

Another issue is that the area-based criteria also does not consider related eligibility to account for "E" under the act. It is possible in the future that a wood product manufacturer has to account for emissions from "E" but cannot account for potential forest removals if the forest areas they own falls below the area threshold.

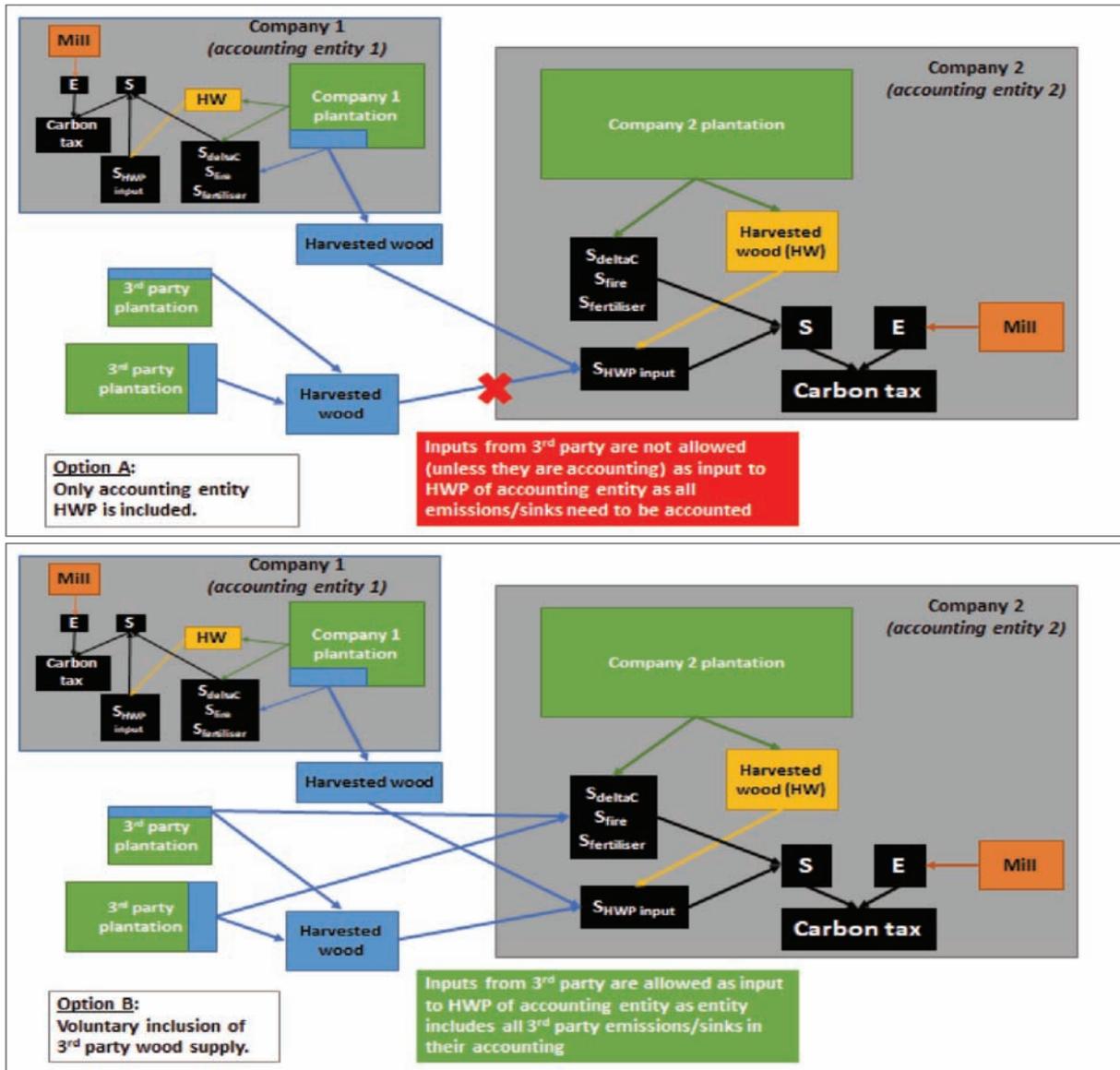
It is therefore, proposed that the area threshold currently used in the C Tax Act should be removed and eligibility to account should be solely based on the threshold related to processing and fossil fuel emissions "E" (Figure A.2, option A).

During the consultation, the forestry industry indicated that it would be important to include all wood flows into the HWP pool as there were concerns that the market would be biased as companies would lean towards purchasing wood from accounting companies. This may cause smaller plantations to be disadvantaged. As discussed, emissions associated with such harvest would need to be included to ensure permanence. In order to try to accommodate this an additional voluntary clause in proposed framework where non-eligible 3<sup>rd</sup> party timber inflows can be included in the HWP accounting by eligible companies (Figure A.2, option B) provided that the following conditions are met:

- a) Ownership of HWP removals and emissions is assigned to the wood processing company;
- b) 3<sup>rd</sup> party forest emissions associated with the harvest timber inflows into the HWP pool are accounted;
- c) There is no double accounting if timber is supplied to two or more registered companies accounting for HWP;
- d) All timber from 3<sup>rd</sup> parties must be registered with COC or certified from sustainability perspective (i.e. replanting to occur after harvesting within the legal 5-year period). This is a departure from the NGER but ensures harmonisation between land ownership and industry related emissions.



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**Figure A.2: Illustration of the process for accounting excluding (Option A) and including (Option B) voluntary 3<sup>rd</sup> party HWP inputs.**

The proposed accounting options for eligible HWP inflows is presented in Figure A.2. Option A only considered eligible companies under the C Tax Act. Option B includes a voluntary inclusion of 3<sup>rd</sup> party HWP inflows as long as 3<sup>rd</sup> party forest emissions/removals are also reported and accounted.



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### A.7.2. Reporting of 3<sup>rd</sup> party emissions/removals by accounting entity

The forestry industry expressed concern around the reporting of 3<sup>rd</sup> party emissions/removals by an accounting entity, since the NGER stipulates that an entity reports for emissions/sequestration on activities over which they have operational control. Their view is that an entity cannot therefore report on behalf of a plantation ownership that will be required to register and report independently. The forestry industry suggests using the chain of custody (COC) be used for inclusion of 3<sup>rd</sup> party HWP by the accounting entity instead of having the accounting entities report the 3<sup>rd</sup> party emissions/removals.

In response, operational control is stipulated in the NGER, however, these rules are for accounting under the C Tax Act and are guided by the text in the Act. In the C Tax Act, it is only those companies that have “E” that will be accounting for the “S”, so companies with plantations only will not be reporting and accounting independently under the C Tax Act. As indicated in the section A.8.1. above it is proposed that the area threshold be removed from the C Tax Act and replaced with entities with “E” so as not to cause confusion between the two legislations. Further to this, the reasons that COC cannot be used instead of reporting is discussed in section A.A.4. . Therefore the only two options for accounting are presented in Figure A.2.

### A.7.3. HWP accounting

The HWP first order decay approach for semi-finished HWP (IPCC, 2006) proposed by Knowles and Christie, (2018) for use under the C Tax Act, has numerous drawbacks when implemented at company scale:

- a) Application of the first order decay approach means that emissions from previously historically produced HWP must be accounted in subsequent years. If there is change of ownership or where a company may exceed the eligibility threshold to the account for “E” for the first time, then newly registered companies (persons) are being debited for emissions created by previous owners or historical HWP inflows that were not accounted. Ownership is a key eligibility criterion under the C Tax Act. Therefore, annual accounting requires the accounting of removals and all emissions associated with production and use of the HWP in the year when HWPs are manufactured so to ensure that permanence principles are adhered to. The IPCC approach can be applied at the company level for annual accounting but this would require the reporting and accounting of emissions from HWP produced in previous years (for many decades or since establishment).
- b) The IPCC semi-finished product approach to allocate timber harvest to wood product does not consider company level processing efficiencies in conversion or raw timber to products. A recent South African study (Adu Poku, 2015) provides process specific mass flow approaches and conversion factors for the paper industry and similar approaches can be applied to the sawlog processing industry. Previous studies show that more detailed timber allocation models to finished products provide more accurate removal estimates when compared to the IPCC semi-finished product approach based on FAO data (Aleinikovas et al., 2018). The mass flow approach, proposed by Adu Poku (2015) appears to be the best option for the South African industry.
- c) The IPCC methodology (2006) does not clearly outline the assumptions used when determining the life time (half-life) of wood and wood products. The methodology assumes a time constant (half-life) and that the product life goes to recycling or waste or burning etc.



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In South Africa, it is estimated that ca. 68% of paper is recycled<sup>6</sup>, but recycled paper should not be considered as an emission (Vácha, 2011). To account for recycling, a large proportion of paper should be reallocated to the recycled inflow pool every year or the half-life decay should be applied to 32% only. The same would apply to solid wood cascading and recycling, but there are no known national studies on detailed life cycle analysis in wood products.

Consequently, the **proposed accounting rules advocate to use the mass flow approach** (Adu Poku, 2015) with product efficiencies and flow factors derived from South African studies (Adu Poku, 2015; Christie and Sholes, 1995) supplemented by international data where data is not available (UNECE/FAO, 2010). Mass flow approach means that the total amount of C entering the system (e.g. round wood and recycled paper) equals the sum of C outputs from the system (e.g. in sawn-wood, gaseous emissions from burning wood). The application of method for accounting for emissions from HWP emissions is discussed in section A.8.3.

### A.7.3.1. C stock and Emissions from HWPs

*HWPs are included in "S" as a potential sequestration because removals are deemed to be permanent and that credits cannot be accounted simply do to the creation of C stocks (*

Table A.3:). **HWP sequestration does not take place just by production of HWP but by adding more HWP to the pool that what is being released back to the atmosphere, so accounting should be based on removals and emissions or a stock change from year to year (IPCC, 2006).**

The industry claims that ownership is the key liability for accounting of emissions for corporate/company, so the consumer should be responsible for all related emissions. However, there are numerous drawbacks and risks associated with this proposal:

- a) **Equal treatment of all sectors:** Long term retention of C in manufactured products are considered viable for annual accounting if the product life cycle is more than 1 year. Therefore, sequestration from production of charcoal, firewood, matches and other biogenic compounds in the food sector (for example) are excluded from the C Tax Act because they are considered as short-term products due to the relatively fast decay of the products after production and sale to the consumer. **Emissions from these products are, therefore, implicitly accounted.** Although paper and other HWP have long lifecycles, the decay of the created HWP pool should be accounted to ensure permanence and **so that accounting rules are applied equally across all sectors.**
- b) **Removals must be permanent (so there is an actual benefit for the atmosphere, i.e. less CO<sub>2</sub>).** For HWP removals to be permanent, emissions from the HWP pool must be considered. If the ownership principle is applied, then all future emissions from HWP should be accounted under the waste sector. However, waste emissions are not included in the C Tax Act due the methodological complexity. Therefore, if emissions cannot be accounted under the forest sector then all removals and emissions should be excluded from the act due to methodological complexity and to ensure that removals are permanent. This, again, is consistent application of rules to all sectors.

<sup>6</sup> <https://www.thepaperstory.co.za/south-africas-paper-recycling-rate-rises-to-68-4/>



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- c) **Robust accounting.** If no emissions are applied to all HWP, then the accounting framework does not acknowledge extensive scientific evidence<sup>7</sup> that solid wood products have longer life-cycles than paper. The discount under the act already excludes biogenic and waste emissions for HWP manufacturing. Therefore, the paper industry will be able to claim the same amount of credits per t C of product as the sawn wood and wood-based panel manufacturing facilities. This is contrary to the scientific literature.
- d) **Baseline approach.** Fact that various industrial entities produce various HWP with different climate or C storage impact is considered part of the baseline, resulted from historical contribution to the national economy.

### A.7.3.2. How should HWP decay be accounted?

The forest industry does not accept that the IPCC approach is suitable for accounting HWP removal and emissions. Use of the mass flow approach provides a partial solution for the C allocation aspect of the method. However, alternative methods to account for emissions on an annual basis are still required. A review of the literature concluded the use of one of the three options discussed below could be considered.

#### A.7.3.2.1. *The land fill approach*

The default half-life factors applied to the paper and other timber products is suggested to be over conservative and the half-life value for paper products is too generalised to capture the range of products produced by the paper industry (see section A.8.3.a)). Alternative approach may be that to use the **share of wood products converted to C emissions in landfills** (Skog and Nicholson 1998). Some studies suggest that C emissions from paper in landfill varies from 3- 38 % over 96 years (Skog & Nicholson, 1998; **Error! Reference source not found.**), magnitudes lower than the expected C lost based on the first order decay approach. The comparable half-life of paper using the landfill approach is 220 years, compared to 1 to 6 years for paper (IPCC, 2006, Skog & Nicholson, 1998). Land fill approach by Skog and Nicholson does not consider paper recycling, product life in use and combustion of paper, so could be considered as an underestimation of emissions.

**Table A.4: Estimated maximum proportions of wood and paper converted to CO<sub>2</sub> or CH<sub>4</sub> in landfills (Skog & Nicholson, 1998) with associated life-cycle retention values (fLC<sub>96</sub>).**

Product type (i)	Maximum % carbon converted	fLC <sub>96</sub>
<b>Solid wood</b>	<b>3</b>	<b>0.97</b>
Newsprint	16	0.84
Coated paper	18	0.82
Boxboard	32	0.68
Office paper	38	0.62
<b>Mean for paper and pulp</b>		<b>0.74</b>

#### A.7.3.2.2. *The 100-year approach*

A proposed alternative is the use of the 100-year approach (Miner, 2006), which is designed for application to corporate accounting, considering **future decay of today products of the company** in

<sup>7</sup> Skog and Nicholson, 1998; Profft et al., 2009; Winjum et al., 1998; Brown et al., 1999; Marland et al., 2010; Miner and Perez-Garcia, 2007; Broadmeadow and Matthews, 2003; O'Connor, 2010; Lippke et al., 2011; Henschel et al., 2008; Pingoud et al., 2006; Skog, 2008; Ellison et al., 2011; UNECE, 2010; etc



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contrast to the national reporting by the IPCC approach (that applies decay to historical inflows). This approach proposes three important modifications:

- a) It recognised that the decay is not a first order function, i.e. the decay constant varies over time (see Kurtz et al., 1992; Row & Phelps, 1996). This acknowledges that decay constant declines over time due to the slower breakdown of more recalcitrant C (such as lignin) remaining in product after end of use and during decay. These functions also attempt to construct decay curves by considering time-in-use, an improvement on the IPCC assumptions (see section A.8.3).
- b) The 100-year time frame is based on the general IPCC approach used to defining radiative forcing potentials and this 100-year period is used in many climate change projection scenarios.
- c) The approach facilitates annual accounting where all future emissions and current removals are accounted in one year.
- d) Removals and emissions are all attributed to current business options of the company.

The 100-year method involves five steps:

- 1) Identify the types and amounts of biomass-based products (e.g. Pine or Eucalyptus) that are made in the year of interest and end up in a final product (e.g. sawlog, pallet, mining poles, paper, long life paper etc.)
- 2) Express this annual production in terms of the amount of biomass carbon per year for each product.
- 3) Divide the products into categories based on function and allocate the carbon to the functional categories. Some of the functions may be single use products. Alternatively, products can be divided into the categories used for national and international harvested wood products.
- 4) Use 2<sup>nd</sup> or 3<sup>rd</sup> order decay curves or other time-in-use information to estimate the fraction of the carbon in each functional category, expected to remain in use for 100 years.
- 5) Multiply the amount of carbon in annual production in products in each functional category by the fraction remaining at 100 years. The result is the amount of sequestered carbon in the products in each functional category attributable to this year's production.

### ***A.7.3.2.3. The CCAR approach***

All C trading platforms, besides the Californian Carbon Action Registry (CCAR), do not account for HWP because of methodological and system boundary complications. The CCAR solution is to **use the IPCC approach but to exclude historical HWP C stock in the first year of reporting** because it is not often possible to derive this data at a corporate level. At the end of the first year, the net emission/removal of HWPs is equal to the amount of carbon in products-in-use associated with the company's production for that year. In each subsequent year, the company estimates additions to, and losses from, the pool of carbon attributable to its products. Additions are equal to the carbon in products-in-use attributable to new production. Losses are determined by decay curves that describe the amounts of products-in-use removed from service each year.

Under a scenario where the annual production of new products remains constant, the approach results in large annual increases in the pool of carbon in products-in-use in early years, and smaller annual increases over time. This is because the annual losses from the pool of products-in-use are small at first but increase over time as the pool gets larger and the products get older. This results in what might be termed a "start-up effect", which may be an undesirable feature in a corporate accounting context (Miner, 2006).



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The disadvantage of this approach is that the use of first order decay models tend to overestimate emissions, but the multiple time decay constant approach (e.g. Row and Phelps, 1996) can be used. Another disadvantage is that the accounting of emissions of manufactured product is done in years subsequent to production and these emissions increase as the HWP pool increases. Another disadvantage is related to when company has a new owner (which should continue the account for previous owner emissions) or start new accounting (when “start-up effect” is strong).

### A.7.3.2.4. *Comparisons and conclusions*

In conclusion, all of the outlined methods have problems from an accounting perspective and do not accurately reflect emission reductions perspective and true atmospheric effect. If future emissions are accounted in advance (e.g. the landfill and 100-year approach), the company is in effect paying a C tax in advance. On the other hand, if emissions are accounted when they occur in subsequent years then all emissions and removals are not accounted in the year and the company may be prone to legacy risks in the future.

Comparison of the potential outcomes on implementing a HWP accounting method for the three HWP is summarised in Table A.5.

**Table A.5: A comparison between the landfill carbon remaining approach (LCA), CCAR and 100 year approaches for accounting emissions and removals for paper production in a hypothetical mill (assuming production of 200 000tC/year based on the mass flow principle). The effect of using different half-lives and life-cycle retention values (FLC96 or FR). Retention fraction (FR) values are calculated using corresponding half-life values in the same row. The 2 year half-life (highlighted in red) is the current IPCC default for paper, and the FLC96 of 0.74 (highlighted in green) is the suggested value for paper based on an average of the data from Skog and Nicholson (1998) (see Table A.4).**

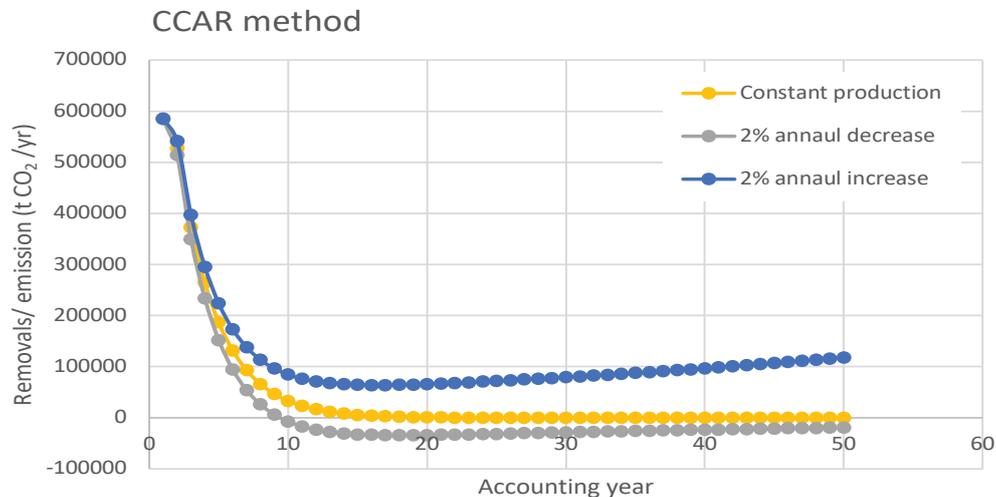
$S_{HWP}$ with landfill factor 96 year		$S_{HWP}$ CCAR approach (using IPCC half-life) Year 1 of accounting		$S_{HWP}$ 100 year approach Row and Phelps decay curve (FR are calculated at half-lives of 1 -10)	
FLC96	t CO <sub>2</sub> /yr	Half life (yr)	t CO <sub>2</sub> /yr	FR	t CO <sub>2</sub> /yr
<b>0.74</b>	<b>542 667</b>	1	366 667	0.05	35 911
0.8	586 667	<b>2</b>	<b>518 548</b>	0.06	41 553
0.85	623 333	3	582 050	0.06	45 758
0.9	660 000	4	616 661	0.07	49 298
0.95	696 667	5	638 407	0.07	52 445
1	733 333	10	684 228	0.09	65 416

As seen in Table A.5, the application of the landfill carbon remaining approach (LCA) approach, compared to the CCAR and 100-year method, offers a large advantage to the paper industry. It should be noted that the CCAR approach has a high “start-up value” but this will decline sharply regardless of future production outputs (Figure A.3).



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**Figure A.3: A projected estimate of accountable HWP removals/emissions under the CCAR scheme using a hypothetical mill with a pulp production of 225 000 tC/yr as an example assuming a constant or 2% annual increase of decrease in production output.**

The 100-year approach appears to be the most robust from a scientific point of view, but this is still sensitive to assumptions on the time products are in use. The 100-year approach would be the preferred option, but only if data can be provided on product time in use for the industry.

The LCA approach clearly overestimates C retention in wood products. The corresponding half-life of paper using a FLC96 of 0.74 (Skog & Nicholas, 1998) is 220 years. This is greater than the half-life of lignin (150 years) in natural ecosystems (Dittmar, 2001), which is theoretically unlikely. Although it is acknowledged that the 1<sup>st</sup> order half lived are overly conservative, the 100-year approach and multiple time decay models show that differences are quite small (Miner (2006). Uncertainty analysis by Pingoud et al (2011) show that the level of uncertainty for first order decay short life products (2-4 year half-lives) is only 9-20% and most published half- life values for paper do not exceed 6 years (Miner, 2006).

Although the life-cycle retention value (FLC96) for different products (Skog and Nicholson, 1998), may largely overestimate HWP removals, the risk of claiming excessive credits due to removals is limited due to the cap applied under the C Tax Act (Table A.1). Moreover, since the annual accounting of future emissions might be argued as a payment of tax in advance, this downside may be seen to be compensated by the over estimation of removals. The LCA approach covers more HWP categories (see Skog and Nicholson 1998, Christie and Scholes, 1995) and will not have a large influence in differences in claimed credits if emissions are not accounted (Table A.6).

**Table A.6: The proposed impact of using the LCA approach for annual accounting HWP removals and emissions for mills with various pulp production using the average paper FLC96 factor of 0.74.**



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	Annual production (Adu Poku, 2015)	S <sub>HWP</sub> with FLC96	S <sub>HWP</sub> without FLC96	Difference
Mill	pulp (t C/yr)	t CO <sub>2</sub> /yr		
Mill A	400 000	1 085 333	1 466 667	381 333
Mill B	300 000	814 000	1 100 000	286 000
Mill C	200 000	542 667	733 333	190 667
Mill D	100 000	271 333	366 667	95 333
Mill E	50 000	135 667	183 333	47 667
Mill F	20 000	54 267	73 333	19 067
Mill G	10 000	27 133	36 667	9 533
Mill H	2 000	5 427	7 333	1 907

The proposed interim accounting approach is to adopt the mass flow approach with the land fill approach to account emissions. However, it is strongly recommended that the 100-year approach should be implemented in future C tax periods as soon as industry specific studies are completed to derive suitable half-life, and product use period assumptions.

### A.8. Reporting of fertilisers and fires

Emissions from fertilisers and fires have been included in “S” as all emissions/removals from plantation activities need to be accounted for. However, the C Tax Act fully discounts emissions from biomass burning and fertilisation, therefore during this first tax phase these activities are only reported but not included in the accounting (i.e. not included in the calculated tax liability). The reason for continued reporting of these emissions is to collect company level baseline data so that these emissions can be excluded or included in the accounting in future. This reporting was also initially agreed by the forestry industry during a stakeholder meeting.

#### A.8.1. Fertilisers

*The forestry industry indicated that fertiliser emissions are insignificant and should not be included in the reporting. The rulebook states that emissions can be excluded from reporting and accounting if it is smaller than a significance threshold. The UNFCCC significance level is described as either an absolute size (500 kt CO<sub>2</sub>eq) or a fraction (<0.05%) of the absolute total emissions/removals. The absolute value of 500 kt CO<sub>2</sub>eq is only applicable at the national level, and C Tax is at the company level, therefore this absolute significance level was removed from the significance definition*



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Table A.2). For emissions to be insignificant they must be less than 0.05% of the total emissions for both “E” and “S”.

A theoretical exercise was conducted by SAPPI to calculate the worst-case scenario of non-CO<sub>2</sub> emissions from the application of fertiliser at planting for national level plantations to show its insignificance. It was estimated that if the 1.2 million plantation hectares were all planted to eucalypts on a 10-year rotation, the 120 000 ha of replanted area will have an annual emission of 18.6 kt CO<sub>2</sub>e as a result of nitrogen fertiliser application. This is an estimate for national level plantations. The difficulty is that insignificance is a fraction of total emissions/removals of the company, i.e. the net of “E” and “S”, and determining the net emissions/removals for the plantation and timber processing industry is complex. It requires data which will be obtained through the C Tax reporting, hence the recommendation to complete this reporting as part of the C Tax accounting until it can be shown that fertiliser emissions are less than 0.05% of the net emissions/removals of a company.

### A.8.2. Fires

The reporting of emissions from fires is recommended so that data can be obtained to determine a threshold for exclusion of natural disturbance and fires (see section A.12.4 on natural disturbance provision). The natural disturbance provision will require company level emissions and these emissions also need to be divided into controlled and wildfire emissions. Where data is lacking for the calculation of these emissions, IPCC default values are provided in the accounting tool.

There are different approaches for accounting for natural disturbance and a suggested methodology for the future is provided in section A.12.4. This approach would, however, be reviewed and discussed further when a natural disturbance provision is being considered for inclusion and once data has been obtained.

## A.9. Accounting frameworks

There are various proposed accounting frameworks designed to deal with different forestry activities.

**Gross-net accounting:** is generally applied to afforestation and deforestation activities, where actual reported emissions or removals are accounted for each year.

**Net-net accounting:** is applied to managed forests, where removals or emissions need to factor out indirect human induced removals/emissions (see additionality principle) or incentives are provided to account where there are net emissions. Notably, there is a reduction in the accounted amounts of net emissions in managed areas over time. The net-net accounted value is calculated using the reported emissions/removals in an accounting period (grey zone in Figure A.4: (2008-2012) relative to a reference year (example 2000 in Figure A.4). In all of the scenarios provided in Figure A.4, credits will be accounted, even in the case where net emissions are reported in the accounting period (Scenario C). Debits will only be accounted if the slope between the reference year and accounting year is negative.

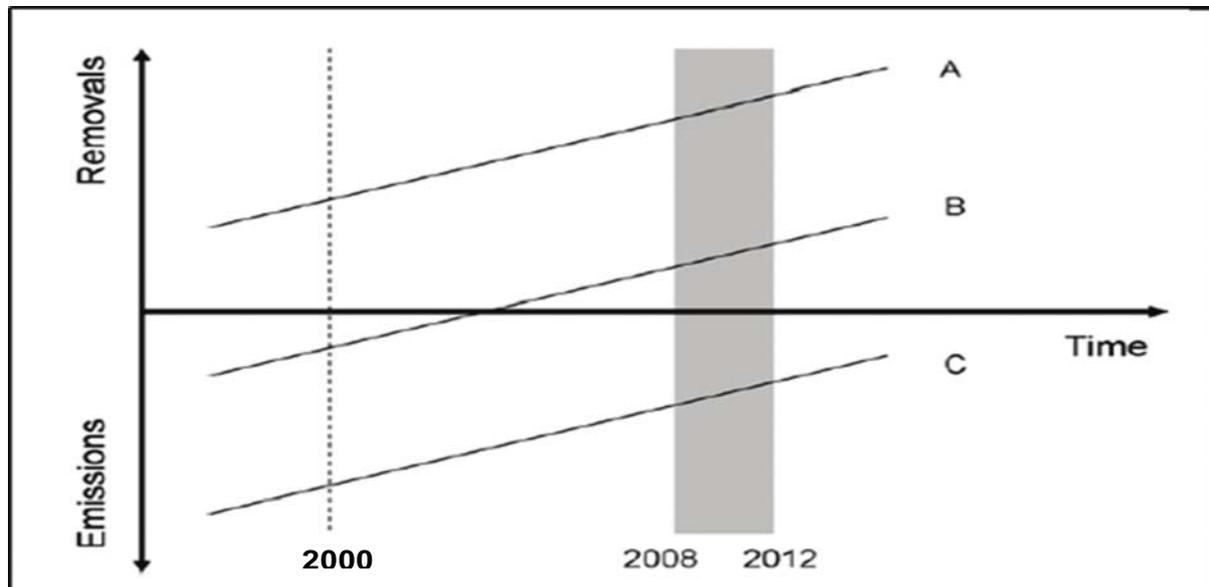


Figure A.4: Examples of net-net accounting of reported emissions and removals.

**Net-net with a reference level:** This is an adopted net-net approach which accounts for dynamic shifts in age class structure and historic management legacy. However, the approach requires the use of complex models (to simulate at least biomass growth under management interventions). This is dealt with in more detail in section A.12.3.

**An accounting cap:** The C Tax Act applies a cap where credits from “S” cannot exceed debits from “E”, i.e. there is no tax rebate if the sum of “E” and “S” is a net removal (see Table A.1:). In order to provide a fair and balanced cap and in accordance with the discounts applied to the Land sector in schedule 2 of the C Tax Act, we proposed the same should apply to a situation where the sum of emissions and removals from forests and HWP is a net emission (i.e. additional emissions from “S” cannot be added to “E” (see Table A.1). The advantage of the cap is that it limits the amount of credits that can be claimed through forest activities whilst at the same time incentivising participation of the forestry industry in the C Tax Act where net forest and HWP activities may be a net emission, particularly under a gross net accounting framework. This may function as compensation across time given the intensity of commercial activity.

#### A.9.1. Justification for the Use of Annual Gross-net Accounting

Gross-net reporting has been recommended to apply to all eligible forest activities because of the following:

- a) To provide incentives for accounting of removals through allocation of timber for long term wood products and creation of new forest sinks through continued afforestation. Application of a net-net framework would provide no incentive for these.
- b) Although a gross-net approach or the only net-net options available at present (i.e. net-net with a reference period) does not factor out any dynamic age class legacy



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- effect on forest growth increment, particularly due to historical afforestation legacy there is no modelling capacity to develop an alternative approach at present.
- c) Application of a gross-net accounting to both the forest and HWP category ensures that the accounting system is robust and balanced. Applying different accounting framework to HWP and forest land would result in unbalanced and inconsistent accounting”
  - d) Application of one accounting procedure to all forest categories facilitates a simpler reporting task. Ideally the cost and effort of reporting under the C Tax Act should be minimised and simplified as much as possible.
  - e) Although a gross-net approach does not factor out any indirect human influences on emissions and removals, it is assumed that any windfalls are offset by debits associated with management legacy which is not factored out.
  - f) Liability for very large debits due to natural disturbances are excluded because emissions from fires are not accounted under the current framework.
  - g) “Implicit cap” from C Tax Act ensures that accounted credits are limited by the size of the “E” debit and debits cannot be incurred for “S”.
  - h) Encourages participation and collecting data for future when enhanced accounting can be applied.

## A.10. Reporting and verification

### A.10.1. Sequestration submission process

For C Tax reporting of sequestration, taxpayers are required to register on NAEIS. Here the MRV tool will be provided for completion. Once completed the tool can be uploaded to NAEIS where it will go to DEFF for review (Figure A.5). A taxpayer may be selected to undergo an independent review (see further details in the Verification Guidelines in Chapter D). Once reviewed and verified, DEFF will approve the “S” amount and submit it to SARS where it will be combined with the other emission components in the carbon tax equation to determine the overall tax liability.



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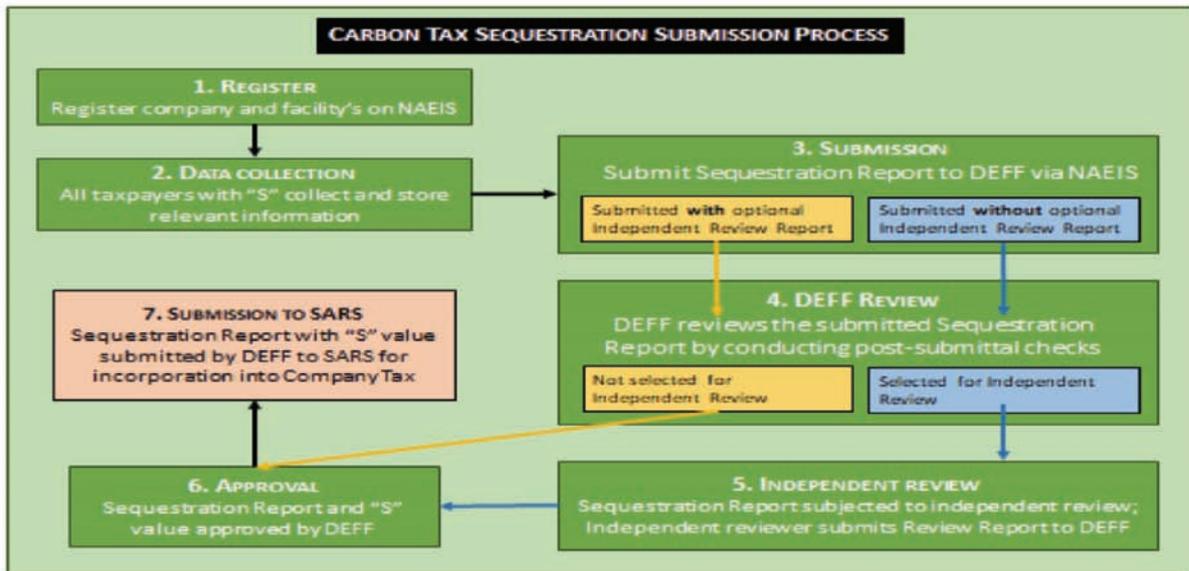


Figure A.5: Carbon Tax sequestration submission process.

### A.10.2. Reporting

The NGER specifies **reporting requirements, not accounting rules** to be applied under the C Tax Act. The accounting requirements are therefore much stricter than NGER requirements as accounting rules (such as permanence, inclusion of deforestation and new HWP methodologies) need to be included and adhered to. There was, therefore, a need to develop a separate accounting tool (Carbon Tax Sequestration MRV tool for Forest Plantations and Timber Processing Industry (referred to as “MRV Tool” in this document)) for company sequestration accounting purposes (Figure A.6). Although all efforts were made to harmonize reporting requirements under the C Tax Act and those required under the NGER, the **overriding framework for developing accounting rules must be derived from text in the 2019 Carbon Tax Act**.

The MRV tool is provided as an excel spreadsheet and is attached with this document. The MRV tool provides an option for using a default methodology (tier 1) with provided emission factors and conversion factors. Tier 1 approaches can be used in the absence of available methodologies (e.g. soils and dead organic matter). If companies have their own emission or conversion factors, these can be used (tier 2 reporting). Where models are used (tier 3), the description of the calculations, methods input data and output data should be transparently documented and verified by DEFF. Methodological guidelines detailing the use of the tool are provided in Annex C.

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**A.10.3. Verification**

Reporting under the NGER cannot be directly be linked to accounting under the C Tax Act as the former is documented at the plantation level and the latter at a company level (Figure A.6). As a consequence, there is no required verification of accounted emissions removals by eligible companies against GHG reported emissions or removals. All accounting related verification are based on nationally available forestry statistics (e.g. Green Mamba reports discussed in section A.5) and additional verification processes (see verification guidelines in Chapter D).

Recently the process for submitting Green Mamba forms was investigated. The forms are sent out by Forestry Economic Services (FES) to the various plantations, who then complete the forms. SAPPI provided us with an excel version of the form. It is not clear yet if all companies have the excel sheets or if some just have pdf forms. This still needs to be clarified. The forest plantations then complete the form and send it in hard copy to FES. FES converts the information into a database, aggregates the data for the whole plantation industry and produces the Timber Statistics Report. It is this report which gets submitted to DEFF<sup>8</sup>.

The problem with this is that it means FES has the actual raw data, not DEFF, making it difficult for DEFF to do verification with Green Mamba forms. The Green Mamba forms would therefore need to be requested from FES or from the individual companies. Alternatively, an external verifier could be tasked with doing verification on site. The other alternative is that the Green Mamba form be modified or additional items added so as to report all data required for NGER and then this could be submitted under the NGER reporting. It should, however, note that these Green Mamba forms provide long term historical data for plantations, therefore any modifications or additions to the forms should be able to allow for aggregation to ensure consistency with historical records. FES indicated that their contract was up for renewal shortly and so additional reporting requirements could possibly be incorporated into the current Green Mamba forms.

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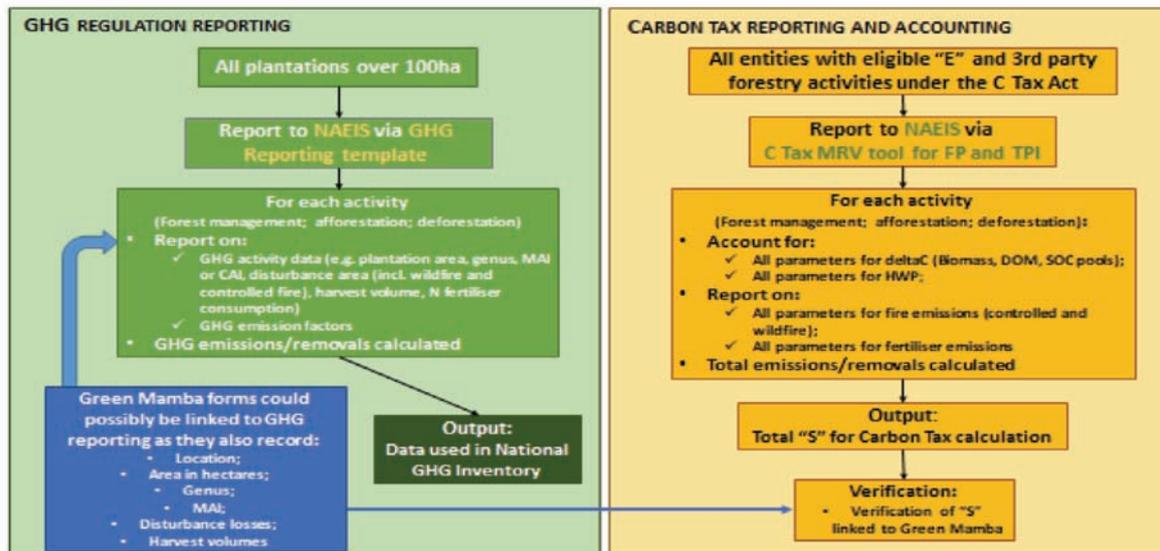


Figure A.6: Illustration showing the two different reporting processes.

### A.10.4. Reducing the reporting burden

Reporting can become a burden on companies and the aim is to try to minimise reporting where possible. The forestry industry already reports data to DEFF via the Green Mamba forms (see section A.5), therefore there was a request by the forestry industry to try to harmonise the current Green Mamba reporting with the C Tax accounting and reporting. This was considered, however, as discussed above, the accounting requires quite specific data and not all the required data is recorded in the Green Mamba forms (the data by activity, for example). It is recommended that the Green Mamba data rather be used in the verification process for verifying various activity data included in the C Tax accounting and reporting.

## A.11. Future considerations

### A.11.1. Net-net Accounting Frameworks

The UNFCCC COP (2/CMP7) and the EU LULUCF regulation 841/EU(2018) implemented the use of a forward-looking baseline approach to define the reference level for managed forests based on dynamic forest models. This approach factors out age-class legacy and other indirect human factors whilst still providing an incentive for potential C credits, but also allowing the continuation of sustainable management practice without potential debits associated with management legacy. This legacy has been shown to be associated with age-class shifts in forest areas due to either fluctuation in afforestation or practices that result in non-uniformly distributed ages classes in forest ecosystems (Black et al., 2012; Botcher et al., 2008). The same trends are evident based on our analysis of the plantation on forestry industry carbon stock changes. The forward-looking baseline approach is generally accepted as credible science-based carbon accounting approach based on the projected



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continuation of documented historical forest management practice (Grassi et al., 2018). Meanwhile the gross-net approach is retained for afforestation and deforestation.

The advantage of this approach, in a South African forest industry perspective, is that implementation of improved management practice or deployment of genetically improved nursery stock can potentially increase any removals and hence companies can account removal credits for these activities. The suggested framework allows for the continuation of sustainable management practice and utilisation of HWP without unfairly debiting accountable emissions due to age class legacy effects (see Box A. 1).

The development of forward-looking baselines requires the implementation of modelling frameworks that simulate changes in forest age class structure based on silvicultural rules defined for different species and existing stands over the defined reference period.

### **A.11.2. Current Forest Carbon Modelling Capacity**

The development of a forward-looking baseline requires the ability to dynamically model forest C stocks based on silvicultural practice and shifts in the state of the forest (i.e. age class shifts as a result of management etc.). Based on a review of the forestry industry's capacity to develop and use complex tier 3 models for reporting or development baselines (this project and Knowles and Christie, 2018), it is suggested that the capacity is not sufficiently developed to implement such an approach.

A phased approach to the implementing of reporting should be implemented that allows entities to report using Tier 1 methodology unless the information is available for an entity to submit information using higher tier calculation.

A study by Ndalowa (2014) highlighted the potential use of internationally available models, such as CBM\_CFSv3 (Kurz et al., 2009) or CASMOFOR (Somogyi, 2019), for reporting and modelling future GHG profiles from South African plantations. However, it was also suggested that considerable time and resources are required to implement this at a company or national scale (Knowles and Christie, 2018). Other national platforms such as the carbon calculator are being developed to calculate carbon stocks in above- and below ground biomass pools (du Toit et al 2016, 2019). We are also aware that some companies such as Sappi have produced carbon stock change forecasts based on Mean Annual Increment (MAI) growth curves and inventory information.

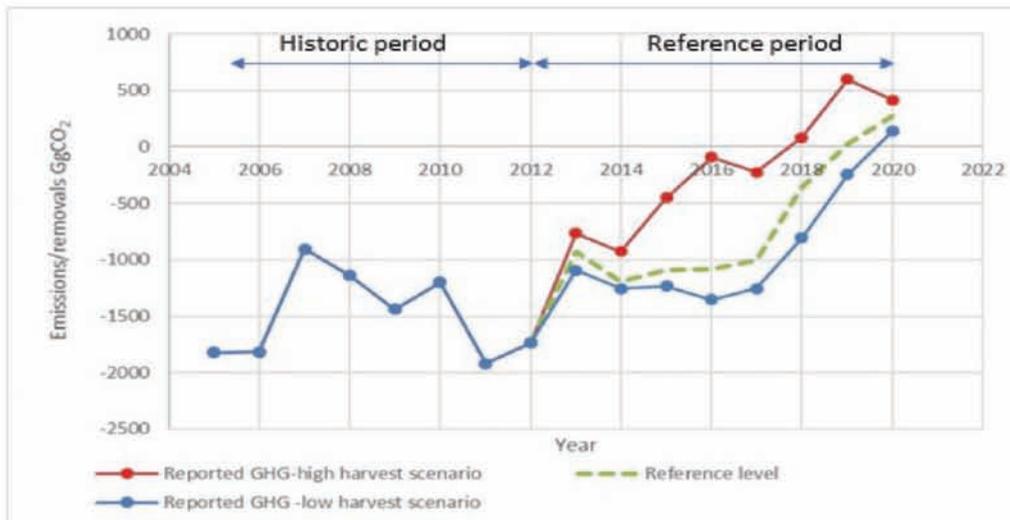
It is noted, however, that the basic information and allometric equations for the calculation of above ground biomass changes are available (du Toit et al., 2016) and these together with growth curves can be used to develop integrated modelling frameworks, which can simulate forest stock changes using different silvicultural assumptions but not for different climatic conditions.



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**Box A. 1: Net-net accounting using a projected reference level (example)**



The figure shows hypothetical reported GHG emission and removals for managed forest land and HWP, where the sink is declining due to age class legacy effects under two scenarios. The high level of harvest (red line) scenario is due to increase demand for timber of timber products. The low harvest scenario represents a case where forest sinks are enhanced through deployment of improved genetic material and a reduction in the level of harvest.

The projected forest reference level (FRL, green line) was constructed using historical management practices based on the historic period using a dynamic model.

The accountable emissions/removals under a gross-net accounting framework in the reference period would be equivalent to the absolute values for each year over the reference period (solid symbols). Note that there would be an accountable net emission of 413 and 137 GgCO<sub>2</sub>eq. in 2020 for both the high and low scenarios, respectively.

Under a net-net forward-looking base line approach the annual accountable amount is the equal to the reported amount minus the FRL in any given year in the reference period. Under the high harvest scenarios, an annual net debit of 134 to 994 Gg of CO<sub>2</sub>eq. will be incurred. However, a net credit of -60 to -420 Gg CO<sub>2</sub>eq. will be accounted under the low harvest scenario. In the year 2020, the low harvest scenario reports a net emission of 137 Gg CO<sub>2</sub>, but the FRL emission is higher (275 Gg CO<sub>2</sub>eq.), which means an accounted credit of -138 GgCO<sub>2</sub> is incurred.

### A.11.3. Forward looking baseline (net-net) rules

It is recommended that the proposed accounting framework applied to managed forests should be reviewed in the next 3-5 years to determine if a forward looking base-line [reference level] approach can be adopted for managed forest lands based on the proposal by Grassi et al. (2018). Assuming that the modelling capacity has been developed by that time, the following accounting rules and criteria should be considered in constructing a reference level:



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- a) The projected reference level should be based on historical management practice (silvicultural practices they were *actually* applied) used for a defined historic reference period, for which period data needs to be available. Accordingly, the following information should be considered:
  - i) historic thinning practice such as thinning intensity and frequency for specified species
  - ii) historic rotation ages and fallow periods for specific species/management cohorts;
  - iii) historic proportional inflows of timber products into HWPs;
  - iv) historic levels of deforestation and afforestation.
  - v) The projected reference level should not include the following factors (after the initial year of the simulation):
    - envisaged increased levels of harvest due to increased demand or future policy
    - the harvest to volume increment ratios observed for the reference period should not be exceeded in the projected reference level
    - planned changes in forest structure, management or composition of tree species.

Guidance on construction of reference levels are outlined by Grassi et al. (2018):

- b) Models must be able to simulate age-class dynamics as a result of management and simulations should replicate historical carbon inventory estimates.
- c) The generated reference level must be reviewed and verified by an independent third party based on defined rules before a new accounting cycle is implemented. This can be verified by a technical board set up by the Forestry industry and DEFF.
- d) The South African Forestry Industry advocated the implementation of a Technical Advisory Board to guide the development of revised reporting and accounting rules. Such a body could be involved with the definition of reference periods, implementation of a 100year HWP approach (see section 8.3.1), review processes or even model capacity building.
- e) The reference level should be able to simulate all C pools, unless a pool is explicitly ruled out in the legislation revision.
- f) There must be a capacity to adjust for changes in methodology over time by implementation of a technical correction when accounting for forest and HWP emissions and removals.
- g) Net-net accounting with a baseline should be applied to both HWP and managed forest to ensure robust and balance accounting.

### A.11.4. Accounting of natural disturbances

***The following section outlines possible accounting approaches for natural disturbance if future amendment of the Carbon Tax Act no longer discounts fire and natural disturbance emissions from accounting. This cannot be implemented at present because there is no baseline data at the company level. However, baseline data can be collected over the next 5 years. Industry has agreed to report these emissions at a company level so that sufficient baseline data can be collected to develop threshold for exclusion of natural disturbance and fire emissions. Controlled burning may be reported, but only accounted if emissions exceed a defined threshold (***



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Table A.2), and if the effort of collection of data is disproportionate (e.g. high costs) with respect to overall benefit (e.g. emissions are negligible).

In order to minimise the impact of “force majeure” disturbance effects, such as wildfires, a natural disturbance provision, similar to that used for Kyoto Protocol<sup>9</sup> accounting and the EU LULUCF regulation<sup>10</sup>, can be applied. This eliminates the liability of non-anthropogenic GHG emissions and emissions that are beyond the control of the taxpayer.

The forest industry could consider the use of a background level to correct for non-controlled GHG emissions (Box A.2). Due to climate change the incidence of natural disturbance events will increase (more droughts, hail, heat, etc.). Furthermore, the occurrence of natural disturbance is not similar from year to year. History shows that there are large peaks in certain years when disasters strike, such as the 2007/2008 fires (Figure A.7). Industry will not be penalised for such events that are outside their control if a natural disturbance baseline rule is defined and used.

Carbon stock changes due to natural disturbances and effects beyond human control (e.g. droughts, pests and diseases, fire, frost, snow, etc.) should be excluded from accounting. An attempt has been made to develop a method to partition between the effects (Krug, 2018). Kurz (2018) provided a conceptual framework that can be used as a starting point.

- a) The natural disturbance provision allows areas effected by wildfires to be excluded from accounting if the annual emissions from wildfires in company owned forest exceeds a background level. The burnt area is removed from the accounting until biomass C stocks are equivalent to those before the disturbance event took place.
  - i) The background threshold could be based on historical wildfire data for each eligible company;
  - ii) If the threshold is exceeded in an accounting year then emissions and removals for these areas are excluded from accounting until such time that the C stocks in these areas are equivalent to the biomass stock before the wildfire event;
  - iii) Companies should still report C annual stock changes for the areas excluded, which must be geospatially explicitly identified (i.e. a GIS boundary, GIS co-ordinates or maps showing boundaries and describing the elements which define the boundary), as a separate item in their annual reporting.
  - iv) Emission associated with salvage logging shall continue to be reported and accounted;
  - v) If the excluded areas are deforested after the natural disturbance provision was applied, then emissions shall be accounted for in the current reporting year when deforestation is identified.
  - vi) Emission from controlled burning, i.e. burning of harvest residues or fire breaks, should be excluded from the natural disturbance provision.
- b) The natural disturbance background must be calculated for afforested and managed forest land activities separately if different accounting frameworks are used.
- c) The background level cannot be adjusted after submission and verification and it will be applied for all accounting periods (one off submission).

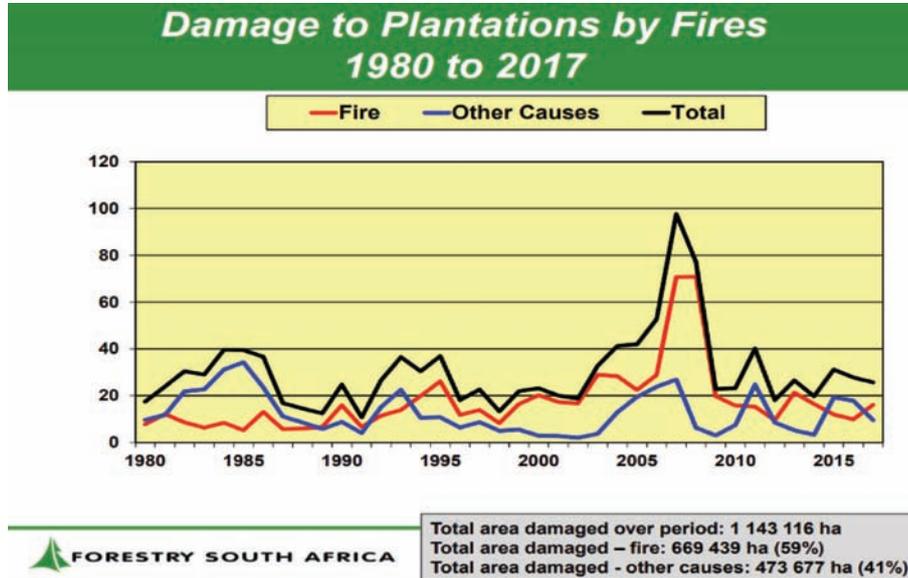
<sup>9</sup> <https://unfccc.int/resource/docs/2012/cmp8/eng/13a01.pdf#page=2>

<sup>10</sup> [https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L\\_.2018.156.01.0001.01.ENG&toc=OJ:L:2018:156:TOC](https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L_.2018.156.01.0001.01.ENG&toc=OJ:L:2018:156:TOC)



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*Figure A.7: Plantation area damaged between 1980 and 2017.*

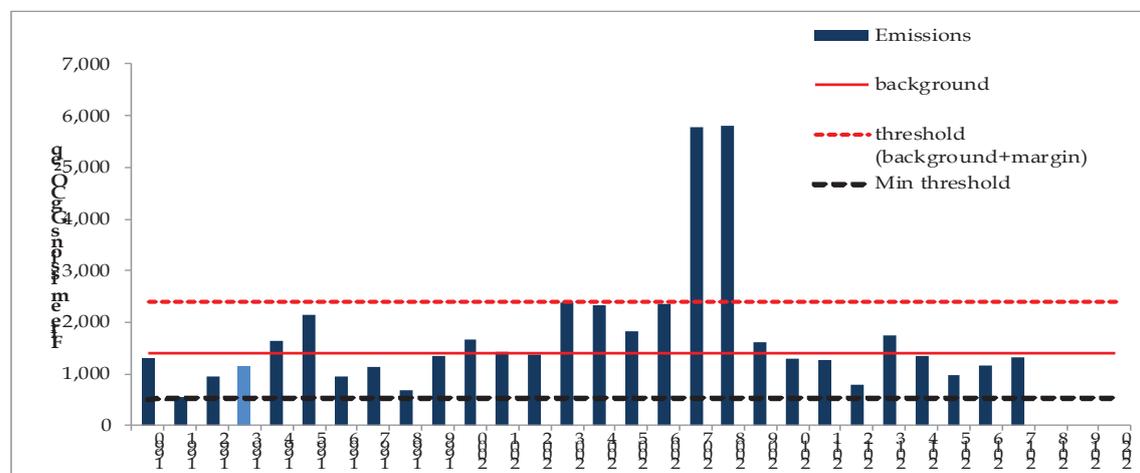


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### Box A.2: The natural disturbance example

The forest areas subject to fire (**Error! Reference source not found.**) were used to calculate CO<sub>2</sub>eq. emissions for the period 1990-2017 using IPCC tier 1 methods and emission factors. The background level is calculated as the mean and the margin is the standard deviation. Outliers are removed from the data set for any given year if the annual emission is greater than the background plus 2 times the margin value (IPCC, 2014). The background and margin values are then recalculated until all outliers are removed. The reference threshold is then determined as the background plus 2 times the margin, when there are no outliers in the calibration dataset (see figure below).



In this figure 2007 and 2008 are outliers and these were removed before the final threshold (margin plus background) were estimated). When emissions from fire are greater than the threshold (ca. 2513 Gg CO<sub>2</sub>eq) emissions will be excluded from accounting under the natural disturbance provision.

An alternative approach, and one better suited for situations where calibration data is limited, is the minimum background threshold (IPCC, 2104). The threshold is determined as the minimum emission value observed over the time series. In this example the threshold will be 575 Gg CO<sub>2</sub>eq (black line in the figure).

It is proposed that the minimum threshold may be more suitable under the C Tax Act if calibration data for each registered company is to be collected and reported over the next 5 years. In this case, the threshold can be defined as the minimum emission from natural disturbances over the period 2020-2024.



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### A.12. References

- Adu Poku, S. (2015). Plant-Based Carbon Flow Analysis of South African Pulp Mills. MSc Thesis School of Chemical Engineering at the College of Agriculture, Engineering and Science, University of KwaZulu-Natal, Durban South Africa.
- Aleinikovas, M., Jasinevičius, G., Škėma, M., Beniušienė, L., Šilinskas, B and Varnagirytė-Kabašinskienė\*, I. (2018). Assessing the Effects of Accounting Methods for Carbon Storage in Harvested Wood Products on the National Carbon Budget of Lithuania. *Forests* 2018, 9(12), 737; <https://doi.org/10.3390/f9120737>
- Black, K., Hendrick, E., Gallagher., G., Farrington, P. (2012). Establishment of Irelands projected reference level for Forest Management for the period 2013-2020 under Article 3.4 of the Kyoto Protocol. *Irish Forestry* 69: 7-32
- Böttcher, H., Kurz, W.A. and Freibauer A. (2008). Accounting of forest carbon sinks and sources under a future climate protocol—factoring out past disturbance and management effects on age–class structure. *Environmental Science and Policy* 11: 669-686
- Broadmeadow M, Matthews R. (2003). Forests, Carbon and Climate Change: the UK Contribution. *Forestry Commission, Information Note 48*. Crown Copyright, Edinburgh, UK (2003).
- Brown S, Lim B, Schlamadinger B. (1999). Evaluating approaches for estimating net emissions of carbon dioxide for forest harvesting and wood products. *In: IPCC expert workshop, Dakar, Senegal, Paris: IPCC/OECD/IEA*.
- Christie, S. & Scholes, R. (1995). Carbon storage in eucalyptus and pine plantations in South Africa. *Environmental monitoring and assessment*, 38, 231-241.
- Dittmar, T. and Lara, R. J. (2001). Molecular evidence for lignin degradation in sulfate-reducing mangrove sediments (Amazonia, Brazil), *Geochimica et Cosmochimica Acta*, 65 (9), pp. 1417-1428 . DOI: 10.1016/S0016-7037(00)00619-0
- du Toit, B., Dovey, S., Seifert, T., Muyambo, P., & Malherbe, D. (2016). *Carbon sequestration in South African plantation forests Progress report number 1: Techniques to estimate net carbon sequestration carbon at the Tier 2 level using available data from local studies and international literature*. Johannesburg, South Africa.
- du Toit, B., Dovey, S.B., Seifert, T., Drew, D.M., Malherbe, G.F., Seifert, S., and Kunneke, A. (2019). The South African plantation forestry carbon calculator, Version 1.0. Department of Forest and Wood Science, Stellenbosch University, South Africa.
- Ellison D, Lundblad M, Petersson H. (2011) Carbon accounting and the climate politics of forestry. *Environmental Science and Policy*. 14, 1062-1078.
- Fey A. (2019). A short guide to the soils of South Africa, their distribution and correlation with World Reference Base soil groups. 19th World Congress of Soil Science, Soil Solutions for a Changing World 32, 1 – 6 August 2010, Brisbane, Australia.
- Godsmark, R. S. L. M., & Oberholzer, F. (2019). The South African Forestry and Forest products Industry 2017. Forestry South Africa, Pietermaritzburg.



## environment, forestry & fisheries

Department:  
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REPUBLIC OF SOUTH AFRICA

- Grassi, G., Pilli, R., House, J., Federici, S., Kutz, W.A. (2018). Science-based approach for credible accounting of mitigation in managed forests. *Carbon Balance Management* 13:8, 4-16
- Henschel C., Ward, M. Rueter, S., Ralph Ashton, R., Bird, N., Frieden, D., Lehtonen, A., Schlamadinger, B., Silvius, M., Tuerk, A. and Zanchi, G. (2008). Options for improving the treatment of LULUCF in a Copenhagen agreement: forest and wetland degradation, factoring out, harvested wood products, and approaches for fuller accounting. <  
[http://www.climatestrategies.org/reportfiles/3\\_options\\_for\\_improving\\_the\\_treatment\\_of\\_lulucf\\_in\\_a\\_copenhagen\\_agreement\\_august\\_18\\_2008.pdf](http://www.climatestrategies.org/reportfiles/3_options_for_improving_the_treatment_of_lulucf_in_a_copenhagen_agreement_august_18_2008.pdf)>.
- IPCC. (2006). 2006 IPCC Guidelines for National Greenhouse Gas Inventories. Volume 4. Agriculture, Forestry and Other Land Use. Eggleston S, Buendia L, Miwa K, Ngara T and Tanabe K (eds.). The Intergovernmental Panel on Climate Change, IPCC National Greenhouse Gas Inventories Programme Technical Support Unit, Japan, Available at: <http://www.ipcc-nggip.iges.or.jp/public/2006gl/vol4.html>
- IPCC. (2014). 2013 Revised Supplementary Methods and Good Practice Guidance Arising from the Kyoto Protocol, Hiraishi T, Krug T, Tanabe K, Srivastava N, Baasansuren J, Fukuda M and Troxler TG (eds) Published: IPCC, Switzerland. Available at: <https://www.ipcc.ch/publication/2013-revised-supplementary-methods-and-good-practice-guidance-arising-from-the-kyoto-protocol/>
- Knowles, T and Christie, S. (2018). Technical guidance for the reporting of GHG emissions from plantation forests, biogenic fuels and harvested wood products within the South African plantation forest and forest products sector. Draft report, GIZ, Pretoria
- Krug JH. (2018). Accounting of GHG emissions and removals from forest management: a long road from Kyoto to Paris. *Carbon balance and management* 13(1):1-11
- Kurz WA, Hayne S, Fellows M, MacDonald JD, Metsaranta JM, Hafer M, Blain D. (2018). Quantifying the impacts of human activities on reported greenhouse gas emissions and removals in Canada's managed forest: conceptual framework and implementation. *Canadian Journal of Forest Research* 48(10):1227-40.
- Kurz, W.A., Apps, M.J., Webb, T.M. and McNamee, P.J. (1992). The carbon budget of the Canadian forest sector; Phase 1. Northwest Region Information Report NOR-X-326. Forestry Canada. Northwest Region, Northern Forestry Centre, Edmonton, AL.
- Lippke B, Oneil E, Harrison R, Skog K, Gustavsson L, Sathre R. (2011). Life cycle impacts of forest management and wood utilization on carbon mitigation: knowns and unknowns. *Carbon Management*. 2(3) 303–333.
- Marland ES, Stellar K, Marland GH. (2010). A distributed approach to accounting for carbon in wood products. *Mitigation and Adaptation Strategies for Global Change*. 15, 71-91.
- Miner R, Perez-Garcia J. (2007). The greenhouse gas and carbon profile of the global forest products industry. *Forest Products Journal* 57, 80-90.
- Miner, R. (2006). The 100-Year Method for Forecasting Carbon Sequestration In Forest Products In Use. *Mitigation and Adaptation Strategies for Global Change*. Springer. DOI: [10.1007/s11027-006-4496-3](https://doi.org/10.1007/s11027-006-4496-3)



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- Ndalowa, D. (2014) Evaluation of carbon accounting models for plantation forestry in South Africa. MSc Thesis, Department of Forest and Wood Science, University of Stellenbosch.
- Pingoud K, Skog K, Martino DL, Tonosaki M, Xiaoquan Z, Ford-Robertson J. (2006). Chapter 12. Harvested wood products. IPCC Guidelines for National Greenhouse Gas Inventories, pp. 33 + HWP worksheet MS Excel. IGES, Japan.
- Pingoud, K., Wagner, F. (2006). Methane Emissions from Landfills and Carbon Dynamics of Harvested Wood Products: The First-Order Decay Revisited. *Mitigation and Adaptation Strategies for Global Change* 11(5):961-978
- Profft I, Mund M, Weber GE, Weller E, Schulze ED. (2009). Forest management and carbon sequestration in wood products. *European Journal of Forest Research*. 128, 399-413
- Row, C. and Phelps, B. (1996). 'Wood carbon flows and storage after timber harvest', *Forests and global change: Volume 2. Forest management opportunities for mitigating carbon emissions.* Edited by Sampson and Hair. Published by American Forests, Washington DC.
- Sathre R, O'Connor J. (2010). A synthesis of research on wood products and greenhouse gas impacts, 2nd edition, Technical Report No. TR-19R, FP Innovations, Vancouver, BC.
- Skog K & Nicholson G.A. (1998). Carbon cycling through wood products: The role of wood and paper products. *Forest Products Journal* 48(7):75-83.
- Skog K E. (2008). Sequestration of carbon in harvested wood products for the United States. *Forest Products Journal*, 58, 56-72.
- Skog KE, Nicholson GA. (2000). Carbon sequestration in wood and paper products. USDA Forest Service General Technical Report RMRS-GTR-59 (2000).
- Somogyi, Z. (2019). CASMOFOR version 6.1. NARIC Forest Research Institute, Budapest. Website: <http://www.scientia.hu/casmofofor>
- UNECE. (2010). Forest product conversion factors for the UNECE region. Geneva timber and forest discussion paper 49. United Nations publication, Geneva.
- Vácha. D. (2011). Harvested wood products: approaches methodology and application, Report to IPCC under TSU, IPCC internship Available at: <http://portal.chmi.cz/files/portal/docs/uoco/oez/nis/hwp/hwpstudyvacha.pdf>
- Winjum JK, Brown S, Schlamadinger B. (1998). Forest harvests and wood products-sources and sinks of atmospheric carbon dioxide. *Forest Science* 44, 272-284



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## Chapter B: Accounting Rulebook

### B.1. Introduction

The aim of the rulebook is to provide an instrument for inclusion of carbon (C) sequestration as a component of the C Tax Act accounting framework under the relevant legislation applicable in South Africa.

Although C sequestration and emissions from the South African Forestry Industry have been reported in the National Greenhouse Gas (GHG) inventory, values have been calculated at a national level using information available to Government and application of the default values set out in the IPCC guidelines. The implementation of the Carbon Tax, liability for emissions will be calculated at a company level. The IPCC has acknowledged that there are challenges associated with the application of the guidelines to areas other than national inventories, such as carbon accounting, and has held expert meetings to review these (e.g. Sofia, 1-3 July 2014). Some major challenges include: difference in boundary-setting, availability, detail and quality of data, questions of appropriateness of emission factors and activity data, insufficient level of detail for specific applications and the non-prescriptive nature of guidance on some issues.

The accounting rules outlined in this document are based on, criteria set out in the C Tax Act, proposed modifications to the Act (see discussion in section A.8), international guidelines (e.g. Conference of Parties under UNFCCC) and consideration of country specific factors based on consultation with Forestry South Africa and PAMSA. In this context, it is important to distinguish between accounting of emissions/removals under the C Tax Act and reporting by companies of sequestration and emissions associated with forestry plantations to the National Greenhouse Gas Emissions Reporting Regulations (NGER). Although many of the reporting considerations in the act are taken directly from the NGER, some of the reporting requirements under the NGER are not adaptable to inclusion as the basis for an accounting framework under the C Tax Act, particularly those related to forestry and other land use activities. The justification of the forestry and harvested wood product (HWP) accounting rules is provided in Chapter A.



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### B.1.1. Definition of S

The term “S” in the C Tax Act, as discussed in section A.6. above, is defined as:

$$S = -S_{HWP} - \Delta C - \left[ S_{fire} - \left( S_{fire} \times \frac{D}{100} \right) \right] - \left[ S_{fert} - \left( S_{fert} \times \frac{D}{100} \right) \right] \quad \text{Equation B.1}$$

### B.1.2. HWP accounting

HWP are accounted by applying the mass flow approach with the land fill approach to account for emissions, therefore  $S_{HWP}$  re calculated as:

$$mC_{HWP} = mC_{RM} - mC_E - mC_{SW} - mC_{LW} \quad \text{Equation B.2}$$

Where:

- $mC_{HWP}$  = mass of biogenic carbon in HWP leaving the mill. This should include pulp, paper, solid wood products, saw milling waste sold for pulping if applicable, fines or lignin by products (t C);
- $mC_{RM}$  = mass of biogenic carbon entering the mill in the timber raw materials (t C);
- $mC_E$  = mass of biogenic carbon leaving the mill as gaseous emissions (t C);
- $mC_{SW}$  = mass of biogenic carbon exiting the mill as solid waste (t C);
- $mC_{LW}$  = mass of biogenic carbon exiting the mill as liquid waste (effluent) (t C).

Note: waste discharge threshold applies to  $mC_{SW}$  and  $mC_{LW}$  and emissions are only accounted if these thresholds are exceeded (see IPCC code 4 schedule 2 of the 2019 Carbon Tax Act).

Since biogenic and waste emissions are discounted (D) under the 2019 Carbon Tax Act Equation B.2 can be rewritten as equation B.3.

$$mC_{HWP} = mC_{RM} - \left( mC_E \times \frac{D}{100} \right) - \left( mC_{SW} \times \frac{D}{100} \right) - \left( mC_{LW} \times \frac{D}{100} \right) \quad \text{Equation B.3}$$

The discount is currently set at 100 % in the 2019 Carbon Tax Act, but these emissions will still be reported.

The land fill approach shall be used to account for HWP emissions:

$$S_{HWP(i)} = mC_{HWP(i)} \times fLC_{96(i)} \quad \text{Equation B.4}$$

Where:

- $S_{HWP(i)}$  = sequestered carbon as HWP of product (i);
- $fLC_{96(i)}$  = fraction of C decayed over 96 years (Skog & Nicholson, 1998).



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### B.2. Emission pools or sources included under the various forest activities

Forest plantations can accumulate carbon in three different pools, i.e. living biomass, dead organic matter (DOM, that includes dead wood and litter) and soil organic carbon (SOC). Conversely, if forest plantation is change to a non-forest used, this can result in GHG emissions. Management practices (e.g. application of fertiliser and controlled burning) and wildfires also results in GHG emissions. Table B.1 indicates which pools or emission sources are mandatory.

Table B.1: Sources included or excluded in the reporting and accounting of “S” for the C Tax Act.

Component in Eq B.1	C Pools or non-CO <sub>2</sub> emissions	Gases	Forest activity
$S_{HWP}$	Sawnwood, wood-based products, pulp and paper	CO <sub>2</sub>	All but excluding deforestation
$\Delta C$	Aboveground biomass (AGB)	CO <sub>2</sub>	All
	Belowground biomass (BGB)	CO <sub>2</sub>	All
	Deadwood and litter (DOM)	CO <sub>2</sub>	All*
	Mineral soils (SOC)	CO <sub>2</sub>	All# except deforestation
$S_{fire}$	Wildfires	CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub> O	Reported but not accounted
	Controlled burning	CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub> O	Reported but not accounted
$S_{fert}$	Emissions associated with application of fertilisers	N <sub>2</sub> O	Reported but not accounted
$F_{SOM}$	Mineralisation losses associated with SOC loss (related to soil management)	N <sub>2</sub> O	Not reported until baseline data is available for a significance test

\* Carbon stock changes for DOM should only be reported for afforestation (1st rotation forests up to 20-years old) and deforestation if tier 1 or tier 2 methods are used as under these circumstances changes in DOM in forest management will not occur. If an entity uses advanced tier 3 models, then carbon stock changes can also be reported for managed forest land remaining forest land.

# Carbon stock changes for SOC should only be reported for afforestation (1st rotation forests up to 20-years old) if tier 1 or tier 2 methods are used as under these circumstances changes in SOC in forest management will not occur.

### B.3. Accounting Rules

The following accounting rules will apply to entities when accounting carbon tax liabilities. These rules are primarily based on proposed amendments to the C Tax Act (see Annex A) but also in line with international agreements, such as the Paris Agreement, agreements from other UNFCCC Conference of the Parties (particularly 16CMP/1<sup>11</sup>, 2CMP/7 and 8), the voluntary market principles and climate change policy drivers behind the C Tax Act 2019.

<sup>11</sup> <https://unfccc.int/resource/docs/2005/cmp1/eng/08a03.pdf>



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### B.3.1. Eligibility

The current eligibility criteria under the NGER and the C Tax Act is an area threshold of 100ha. These eligibility criteria are redefined to facilitate accounting HWP removals from 3<sup>rd</sup> party timber harvests, where owned forest areas are less than 100 ha. The rationale is that eligibility to register and account should be based on the criteria to report “E” and not on the area threshold.

#### B.3.1.1. Ownership and liability

- a) Only taxpayers that are eligible to report and account for “E”, as stipulated under the C Tax Act, can account for forest and HWP emissions and removals (S).
- b) Once an area of forest owned by an eligible taxpayer (B.3.1.1.a) is included and registered for accounting, then it shall continue to be reported and accounted for subsequent tax periods.
- c) To avoid double accounting, ownership of the removals by HWP resides with the processing company and not the plantation from which it is sourced.
- d) Inflows of harvest from other registered taxpaying companies into HWP may be accounted by the eligible taxpayer, provided that the source and amount HWP inflows are transparently identified.
- e) Eligible taxpayers may voluntarily elect to account for forest emissions/removals and inflows into HWP from 3<sup>rd</sup> party forest plantations areas subjected to, lease, harvest rights or supply contract agreements with the eligible manufacturing company. In this case:
  - i. It is the eligible taxpayer’s responsibility to report and account for 3<sup>rd</sup> party forestry emissions/removals associated with harvests included in HWP inflows.
  - ii. All 3<sup>rd</sup> party forest emissions and removals shall be reported and accounted only in the year that harvests from the 3<sup>rd</sup> party forest area is used as inflows to HWPs.
  - iii. 3<sup>rd</sup> party HWP inflows may only be accounted if proof of chain of custody certification is provided in the year relevant HWP inflows are accounted.
  - iv. The 3<sup>rd</sup> party area of forest associated with harvest must be the unit (e.g. sub-compartment) that was harvested (not the total forest area owned by the 3<sup>rd</sup> Party) and this area must be identifiable and traceable (using GIS or maps).
  - v. If the harvested timber from a unit of 3<sup>rd</sup> party land is sold to more than one registered taxpaying company, then the individual taxpayer shall transparently account for the equivalent proportion amount of emissions from harvest and inflow into the HWP pool.
- f) If there is a change in ownership, lease or harvest rights, all emissions and removals are the liability of the new land owner.
- g) Only domestically sourced wood from forest land registered by the taxpayer, other registered taxpayers under the act, or accounted 3<sup>rd</sup> party area are eligible to be accounted as HWP inflows (see section B.3.1.1 a and e).



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### **B.3.2. Accounting categories and activities**

#### **B.3.2.1. Afforestation and deforestation activities**

- a) Afforestation (A), deforestation (D) and associated harvested wood products (HWPs) shall be identified and reported as separate activities and accounted for annually on a gross-net basis<sup>12</sup>.
- b) Afforestation areas shall include all established 1<sup>st</sup> rotation forests for the first 20 years of the rotation. After 20-years, these areas shall be transition to the managed forest land category.

#### **B.3.2.2. Forest management activities**

- a) Managed forest areas include all managed forest activities which do not fall under the A and D activities.
- b) Forest management and associated HWPs should be reported as a separate activity.
- c) Accounting of managed forest areas shall be accounted for on a gross-net basis<sup>13</sup>.

#### **B.3.2.3. 3<sup>rd</sup> Party forest activities**

- a) Election of accounting emissions and removals in forest and HWP for 3<sup>rd</sup> party areas (see B.3.1.1 e) is voluntary.
- b) To avoid double accounting, emissions and removals associated with the areas (i.e. see B.3.1.1 d and e) of forests owned by 3<sup>rd</sup> parties shall be reported as a separate category and transparently accounted in the year associated harvests are accounted as HWP inflows.

#### **B.3.2.4. Harvested wood products**

- a) Harvested wood product emissions and removals from afforested activities may be reported and accounted under forest management activities if taxpayers cannot distinguish the amount of harvest coming from afforestation or forest management activities. However, deforestation, other registered taxpayers and 3<sup>rd</sup> party HWP removals should be reported as separate categories.
- b) Harvested wood products shall be estimated based on the mass balance approach (see section A.8.3.2 of Chapter A).
- c) Estimation of mass flow components shall be based on mass flow fractions specific for each HWP category and industrial process (i.e. default factors and methods outlined in the methodological guidelines (see section C.3.3 in Chapter C) or higher tier methods developed by the taxpayer, providing that the methods used are demonstrated to be transparent, verifiable, applicable and accurate.
- d) Annual inflows into the HWP mass balance equation ( $m_{CRM}$ ) shall only include:
  - i. Domestic timber harvested from company owned or leased land or timber purchased from registered taxpaying companies or 3<sup>rd</sup> parties which is used for production of HWP produced by the company owned manufacture facility.

<sup>12</sup> Justification for gross-net accounting is provided in section 10.1 of final report.

<sup>13</sup> It is recommended that net-net accounting be introduced when the industry has capacity to use models and projected emissions/removals as a base line (Section 12.1 of final report).



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- ii. To avoid double accounting, recycled pulp or mill residues produced by the taxpayer and used for production of the HWP shall not be considered as inflows because these are already included in the mass balance calculations.
  - iii. All inflows shall not have previously been accounted as HWP sequestration by a registered 3<sup>rd</sup> party or the registered company.
  - iv. Inflows should exclude purchased processed wood products from registered and 3<sup>rd</sup> parties or cascaded wood products.
  - v. Purchased sawmill or pulp waste residues from other registered taxpayer can be included as inflows. For example, saw mill residues from sawn wood production can be included as inflows if purchased by a wood-based panel manufacturing facility. Similarly, if a registered taxpayer has different processing facilities, the wood-based waste from other production lines can be used of inflows only if it can be demonstrated that removals are not double accounted (i.e. verifiable information must be provided to show that waste inflows are not already included in the mass flow balance of the seller).
  - vi. Timber originating from deforested land must be excluded from HWP inflows in the year deforestation is detected.
- e) Accountable outflows shall include:
- i. Biogenic gaseous CO<sub>2</sub> emissions. These shall be reported but are discounted by 100% in the C Tax Act. N<sub>2</sub>O and CH<sub>4</sub> emissions are reported in accordance with the NGER and accounted as “E” in the C Tax Act.
  - ii. Solid or liquid waste emissions shall also be reported if the defined thresholds set out in the C Tax Act are exceeded. Accounting of all waste emissions are 100% discounted in the C Tax Act.
  - iii. CO<sub>2</sub>eq from CH<sub>4</sub> and N<sub>2</sub>O emissions from waste should be reported under HWP IPCC category 3D1 as set out in the NGER.
- f) The accounting of HWP removals shall acknowledge that long term storage of C is greater in sawn wood and wood-based panels than paper. It is also acknowledged that the half-life decay approach as set out under the IPCC may conservatively overestimate HWP emissions and underestimate long term storage. Therefore, to facilitate accounting of reported mC<sub>HWP</sub> for each HWP category and/or subcategories will be weighted and discounted based on long-term C retention potentials (96 years, see LCA approach in section C.3.3. in Methodological Guidelines (Chapter C))<sup>14</sup>.
- g) Should mass flow factors for a particular processing facility (i.e. tier 2 or 3) not be available, a taxpayer may use default recovery fractions (see Methodological Guidelines, Annex C, section C.3.3) to estimate HWP removals.
- h) If tier 2 mass flow and recovery factors are confidential, then this information can be provided during the verification under a non-disclosure agreement between DEFF and the taxpayer.
- i) HWP removals for use as fuels, such as firewood, charcoal and matches, are not considered as long term HWP pools and are excluded from “S” in the tax equation.

<sup>14</sup> See section A.8.3.2 of Chapter A for justification and arguments for application of the LCA approach and recommendation for implementation of the 100 year accounting approach when required national data is available.



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- j) Additional information on annual (tax period) harvested timber owned and sold by the taxpayer and timber purchased from other companies within the tax scheme for production of HWP should be provided when accounting, including:
- i. The total harvest from eligible forest areas owned by the taxpayer.
  - ii. Timber harvested by the taxpayer and used for production of company owned HWP production facilities.
  - iii. Timber purchased from other registered taxpayers for production of company owned HWP production facilities.
  - iv. Timber purchased for HWP from accounted forest areas owned by a 3<sup>rd</sup> party.
  - v. All HWPs produced by the company in the tax period, by type of HWP.

### B.3.3. Permanence

- a) Once emissions and removals are reported and accounted by a taxpayer, these forest areas should continue to be reported for subsequent accounting periods.
- i. The permanence condition B.3.3.a will not apply if a registered taxpayers production facility is sold and/or the threshold to account to E under the C Tax Act is not met<sup>15</sup>.
  - ii. If deforestation occurs in registered forest areas, biomass, litter and deadwood C pools will be assumed to be immediately / instantaneously oxidised. Tier 1 emission factors can be used for deadwood pools if no company specific data exists.
  - iii. SOC and F<sub>SOM</sub> emissions or removals on deforested land shall not be reported or accounted because other land uses are not included in the 2019 C Tax Act.
  - iv. If there is a change in ownership after deforestation occurs, all emissions and removals are the liability of the new landowner.
  - v. All eligible deforestation emissions and removals will be accounted as a debit in the year the deforestation event takes place.
  - vi. If the registered forest area is clear felled and not replanted before sale or lease to a new owner, whom is not eligible for registration or reporting under the scheme, the entity that reported HWP will be debited all emissions from biomass, litter, deadwood and HWP pools in the year before the clear fell event took place (i.e. from all C pools (except for SOC and F<sub>SOM</sub>) on land and from HWP, using the immediate oxidation assumption applied in clause B.3.3(a)ii).
  - vii. The registered area may be withdrawn from the scheme without any penalties (and not accounted) in the event of rescinding or withdrawal of a water use licence under the National Water Act (Act No. 36 of 1998), removal of plantations from river courses (includes wetlands) as defined in the National Water Act (No. 36 of 1998), or as a result of successful land claims, mandatory clearing of invasive species (Conservation of Agricultural Resource Act, 1983 (Act No. 43 of 1983); National Environmental Management: Biodiversity Act: Alien and Invasive Species Regulations). However, proof of a withdrawal notice should be submitted in the year areas are withdrawn.
- b) Each registered company shall account for all changes in the following carbon pools: above-ground biomass, below-ground biomass, litter, dead wood, soil organic and harvested wood products (see Table B.1). A company may choose not to account for litter, deadwood and soil

<sup>15</sup> Note: liability for accounting of E and S is based on ownership as defined in the act, therefore companies cannot be liable for sold land and strict adherence to the permanence principle cannot be satisfied. However, this may lead to leakage of emissions or emission avoidance. (also applies to B.5.3 iv)



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pools if transparent and verifiable information is provided that the pool is not a source. However, once a pool is reported under an activity, they it must continue to be reported for subsequent tax periods.

- c) When accounting, a taxpayer should distinguish temporary unplanted (TUP) land from deforested land. TUP areas that have not been replanted within a period of 5 years after a clear-fell, or where there is clear evidence of land use change, shall be deemed to be deforested. Emissions from these disturbed areas shall be accounted when land use change occurs or when the 5-year period between clear-fell and replanting has expired (whichever occurs first).
- d) If previously accounted mandatory forest areas are sold or where the lease has expired, the following information shall be provided [in the relevant year of submission]:
  - i. The name and registration identification of owner reporting to the NAEIS or the name of unregistered owner;
  - ii. The carbon stock for biomass at the time the registered areas were sold.
- e) In order to minimise liability due to force majeure disturbances such as wildfires, a natural disturbance provision may be applied in the future (see section A.12.4 of Chapter A). However, the current legislature does not require the accounting of emissions from forest fires.

### **B.3.4. Accounting periods and intervals**

- a) Reporting Period: The period for all reporting will be from the beginning (1 January) to the end of the tax year (31<sup>st</sup> December) preceding the reporting cycle.
- b) Reporting cycle: Data for the preceding year must be reported to NAEIS by 31 March each year.

### **B.3.5. Robustness**

- a) The treatment of any accounted activities will be based on sound science.
- b) All activities shall be reported using the prescribed tier 1 methods if company specific activity data does not exist. Company or manufacturing process specific methods (tier 2) or models (tier 3) methods can be used if the approach is transparently documented and justified by references
- c) The reversal of any removal due to land-use change and forestry activities will be accounted for in the year when the activities occur.
- d) Taxpayers may choose not to include in their accounts changes in carbon stocks provided that it can be demonstrated that the carbon pool is not a source. However, the option shall not apply to the carbon pools of biomass and harvested wood products in the land accounting category of managed forest land and afforestation.
- e) Reported emissions and removals must be verified by DEFF in accordance with the Verification Guidelines before debit or credits can be accounted (see Chapter D).
- f) The pools and emission sources considered for reporting and accounting of emissions removals are outlined in Table B.1.



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### B.3.6. Additionality

- a) The mere presence of carbon stocks is excluded from reporting and accounting<sup>16</sup> (i.e. only C stock change is reported for the accounting year and activity, and not the C stocks cumulated from the past).
- b) Accounting should exclude removals resulting from indirect human activities:
  - i. elevated carbon dioxide concentrations above their pre-industrial level;
  - ii. indirect nitrogen deposition; and
  - iii. the dynamic effects of age structure resulting from activities and practices before the accounting year, assuming robust scientific information becomes available.

Note: the gross-net accounting rule does factor out indirect human induced activities, particularly for forest management. However, the SA forestry industry currently does not have capacity to implement a net-net accounting system (see section A.12.3 of Chapter A);

- c) Only managed forest land is eligible to comply. Therefore, natural forests or woodlands are excluded from accounting, but only if they are not managed.

### B.3.7. Incentives and policy alignment

- b) The information required to report and account for forestry related activities under the Carbon Tax Act 2019 is consistent with the information required under the NGER with some additional elements:
  - i. Different eligibility criteria to facilitate inclusion of 3<sup>rd</sup> party harvest in HWP accounting.

***Additional reporting requirements for deforestation and HWP to ensure the principles of carbon accounting are adhered to (***

- ii. Table A.3, see section A.7 of Chapter A);
- iii. Reporting but not accounting for emissions from fires and fertiliser application;
- iv. Discounting of waste carbon emissions associated with wood processing under HWP;
- v. Additional verification and validation data requirement to ensure adherence to accounting rules.
- c) In order to incentivise afforestation and to disincentivise deforestation, activities should be accounted on a gross-net basis.
- d) Forest management activities should be accounted for on a gross-net basis. However, future rules should consider a net-net accounting in cases such as:

***Where forests with declining stock due to legacy management practice, age class structure changes or natural phenomena can be fairly accounted without penalising as an owner or entity for indirect human induced effects (see additionality principle in***

<sup>16</sup> For example, produced HWP stock cannot be considered as an accountable removal amount without considering emissions due to product life cycle or harvest emissions.



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- i. Table A.3 of Chapter A). This may be best done using a net-net accounting approach but gross-net approach is currently recommended until such time modelling capacity is developed.
- ii. Incentivised management actions in cases where forest stocks are increasing or where improvement to stock changes are brought about by management or genetic improvement for successive rotations, forests (managed forest land) land removals and emissions should be accounted for based on a net-net approach relative to a reference period. However, a gross-net approach is recommended until such time modelling capacity is developed.

### B.3.8. Leakage

- a) Increased emissions of GHGs or decreased carbon removals should not result outside the accounting framework boundary. For example: use of timber sourced from outside South Africa for production of HWPs could result in increased emission or deforestation in other regions.
- b) HWP inflows are only permitted from domestically produced timber harvested or purchased from registered and reporting forest owners under the C tax scheme, or from 3<sup>rd</sup> parties which implement the current rules.

### B.3.9. Double accounting

- a) Where carbon credits have been claimed by a manufacturer for HWPs these products cannot be included as a carbon inflow into the HWP pool for a taxpayer.
- b) Emissions and removals cannot be accounted for under more than one accounting category.

### B.3.10. Significance

- a) In order to reduce the administrative burden of reporting very small emissions that do not have a significant impact on overall emission or removals, a threshold test for significance pools can be applied:
  - i. Emissions may be excluded from reporting and accounting if it is smaller than a significance threshold which is a percentage of the total emissions for all, energy, processing, forest and HWP activities (i.e. sum of absolute emissions from "E" and "S").
  - ii. The threshold for exclusion is <0.05% of the total emissions for both "E" and "S".

### B.3.11. Global Warming Potentials

In line with the updated reporting requirements of the NGER, entities will report GHGs separately (CO<sub>2</sub>, CH<sub>4</sub> and N<sub>2</sub>O). Thereafter, based on their relative Global Warming Potentials (GWPs), a CO<sub>2</sub>eq amount is calculated and used to estimate 'S' using Equation B.1. The C Tax Act specifies the use of GWP values set out in the IPCC third assessment (IPCC, 2001) report be used for calculation of CO<sub>2</sub> equivalent values, namely N<sub>2</sub>O - 296 CO<sub>2</sub>eq, and CH<sub>4</sub> - 23 CO<sub>2</sub>eq.

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**B.3.12. References**

- IPCC (2001). Climate Change 2001: The Scientific Basis. Contribution of Working Group I to the Third Assessment Report of the Intergovernmental Panel on Climate Change [Houghton, J.T., Y. Ding, D.J. Griggs, M. Noguer, P.J. van der Linden, X. Dai, K. Maskell, and C.A. Johnson (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, 881pp.
- Knowles, T and Christie, S. (2018). Technical guidance for the reporting of GHG emissions from plantation forests, biogenic fuels and harvested wood products within the South African plantation forest and forest products sector. Draft report, GIZ, Pretoria
- Skog K & Nicholson G.A. (1998). Carbon cycling through wood products: The role of wood and paper products. Forest Products Journal 48(7):75-83.

## **Chapter C: Methodological Guidelines for Land Activities in Forest Plantations**

### **C.1. Introduction**

The methodological guidelines serve as a background document to facilitate the understanding and completion by companies of the Carbon Tax Sequestration MRV Tool for Forest Plantations and Timber Processing Industry (hereafter referred to as 'MRV tool') for reporting, and the verification of the information reported. The guidelines are underpinned by the Forestry Accounting Rulebook (hereafter referred to as the 'Accounting Rulebook') for the accounting of forest plantations and timber processing industry greenhouse gas emissions and removals under the Carbon Tax Act (Act No. 15) of 2019 (hereafter referred to as 'C Tax Act').



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### C.1.1. Carbon Sequestration in the Carbon Tax Act

The Accounting Rulebook (Chapter B, Section B.3, equation B.1 of this document) defines the net sequestration by forest and forest products,  $S$ , as:

$$S = -S_{HWP} - \Delta C - S_{fire} - S_{fert}$$

Where:

- $S_{HWP}$  = The amount of carbon located in harvested wood products (expressed in t CO<sub>2</sub>eq). Note that it is an IPCC convention that a flux into the atmosphere (emissions) is denoted as a positive flux and sequestration (removals) as a negative flux;
- $\Delta C$  = Annual change in plantation carbon stocks, expressed in t CO<sub>2</sub>eq. Note that it is an IPCC convention that a flux into the atmosphere (emissions) is denoted as a positive flux and sequestration (removals) as a negative flux;
- $S_{fire}$  = Emissions from fire (N<sub>2</sub>O and CH<sub>4</sub> expressed in t CO<sub>2</sub>eq);
- $S_{fert}$  = The fraction of emissions from applied fertiliser (N<sub>2</sub>O expressed in t CO<sub>2</sub>eq) growth of wood.

Note: Emissions from fires and fertilisation are to be reported, but not accounted. The reporting conversion for net sequestration is that it should be denoted as a negative value i.e. removal of CO<sub>2</sub>eq, however, when entering  $S$  into the C Tax formulae [equation 1 main project report] it should have a positive sign.

In accordance to the Accounting Rulebook, the four activities to be reported are:

- 1) Forest Management;
- 2) Afforestation;
- 3) Deforestation; and
- 4) HWP production.

The emission pools or sources included under the various activities are outlined in the Accounting Rulebook (Table B.1).

### C.1.2. Purpose of methodological guidelines

Greenhouse gas (GHG) emissions represented by the variable “E” in the C Tax formula are calculated in accordance with the methodology set out in the Technical Guidelines for Monitoring, Reporting and Verification of Greenhouse Gas Emissions by Industry (DEA, 2017). The purpose of these guidelines is to provide guidance on the methodology for determining the sequestration or “S” factor in the C Tax formula. The guidelines aim to facilitate the understanding and completion by companies of the MRV tool for reporting, and the verification of the information reported. The guidelines are in line with the Accounting Rulebook that contain the accounting rules for the C Tax Act (Accounting Rulebook, Chapter B of this document).

## C.2. Structure of the Methodological Guidelines

The following sections describe the methods for the estimate of emissions/removals from the different sources and sinks contained within the MRV tool and Accounting Rulebook. Firstly, the source is described, then the calculation method is presented followed by a list of the data required for the estimates in the MRV tool. Examples of calculations are shown within the orange boxes. Finally,

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there are three sections which state the data that is to be reported by the companies, the data that is to be verified and the reference to the Accounting Rulebook for the corresponding source.

**C.2.1. Relation to Accounting Rulebook and MRV Tool**

These methodological guidelines are complementary to the Accounting Rulebook and the MRV tool.

The corresponding section of the Accounting Rulebook is referred to throughout these methodological guidelines as:

**Section [name of section] in the Accounting Rulebook**

The **MRV tool** is a Microsoft Excel file which aims to collect information on emissions and removals from companies that are subject to reporting and/or accounting obligations. The emission/removal estimate methods implemented in the MRV tool are explained in these methodological guidelines. The corresponding sheet in the MRV tool is referred to throughout these methodological guidelines as:

**Sheet [name of sheet] in the MRV tool**

The MRV tool contains various sheets with different purposes: introduction and instruction, textual data collection, variable/parameters used, emissions/removal estimates, accounting and verification. Therefore, the MRV tool allows simultaneously for the Reporting, Accounting and Verification of the emission/removal estimates.



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**Table C.1: Content of the MRV tool: sheets and purpose**

Sheet name and colour	Description
<b>Content and Instructions</b>	This sheet contains information on the MRV tool content and general instructions for its use. It contains the list of sheets in the MRV tool, the colour coding used, an acronym list and a reference list.
<b>Company Details</b>	This sheet contains general organisation details to be filled by the user.
<b>Facility Register</b>	This sheet contains the main plantation details to be filled by the user.
<b>3<sup>rd</sup> Party Register</b>	This sheet contains the details of the 3rd parties from which the reporting facility has purchased wood. The 3rd Party ID should match the 3rd Party entered in the "Ownership" column in the 'Land Stock-Difference Method'/'Land Gain-Loss Method' tabs.
<b>Parameters</b>	This sheet contains default IPCC 2006 Guidance and country-specific parameters to support the estimates.
<b>BCEF Lookups</b>	This sheet contains factors for expansion of merchantable growing stock volume to standing above-ground biomass (BCEFS), for conversion of net annual volume increment to biomass growth (BCEF <sub>G</sub> ) and for conversion of wood and fuelwood removal volume to above-ground biomass removal (BCEF <sub>R</sub> ).
<b>Supporting Calculations</b>	This sheet provides suggested calculations for generating activity data/emissions/removals estimates to be used in the yellow compilation sheets. Defaults are provided where available, but if alternative data which is considered to be more representative for the company circumstances and is justifiable and verifiable is available, this should be used.
<b>Land Stock-Difference method*</b>	This sheet provides emissions/removals estimates due to the change in Carbon Stock in living biomass using the gain-loss method.
<b>Land Gain-Loss method*</b>	This sheet provides emissions/removals estimates due to the change in Carbon Stock in living biomass using the stock-difference method.
<b>HWP</b>	This sheet provides emissions/removals estimates due to HWP.
<b>Wildfires</b>	This sheet provides emission estimates due to wildfires
<b>Controlled burning</b>	This sheet provides emission estimates due to controlled burning.
<b>Fertilisation</b>	This sheet provides emission estimates due to fertilisation
<b>Reporting &amp; Accounting</b>	This sheet provides the summary of estimates for reporting and accounting purposes.
<b>Verification</b>	This sheet provides a list of checks that can be completed for verification purposes.
List	This sheet contains the values for the dropdown lists used in the MRV tool.

\* Either the Gain-Loss or Stock-Difference method should be used, not both. The other should be left empty.

The MRV tool includes instructions to allow its use as a standalone file. However, further explanation on the methods implemented is presented in these methodological guidelines. In addition, the MRV tool utilises colour coding for the fields to facilitate its use:



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**Table C.2: Colour coding used in the MRV tool**

<b>Input data:</b> data required to be included by the user
<b>Emissions/removals:</b> calculated emissions/removals
<b>Calculation/linked cells:</b> cells with formulae, automatically updated. Do not change
<b>Conversion factors &amp; constants</b>
<b>Assumptions/assumed values</b>
<b>Checks</b>

Note on input data: these methodological guidelines include tables to show the data that is required to complete the estimates in the MRV tool. The user has the option to use the **Sheet Supporting calculations in the MRV tool** to estimate some of the variables needed in other sheets in the MRV tool, these cases are highlighted throughout these guidelines.

Note on the use of different tiers: the estimation methods included in the MRV tool allows for reporting of emissions and removals using different tiers:

- **Tier 1:** using the equations for the estimates as implemented in the MRV tool and default IPCC 2006<sup>17</sup> or country specific values for the required parameters. These factors are included in the **Sheet Parameters in the MRV tool** and can found in Appendix C.1.D. Tier 1 methods and country-specific parameters have been specially selected for the South African forestry sector.
- **Tier 2:** using the equations for the estimates as implemented in the MRV tool and facility-specific values for several parameters.
- **Tier 3:** when other methods, different from those implemented in the MRV tool are used. The MRV tool allows for the reporting of emissions/removals and the parameters required for verification.

The MRV tool has formulae implemented for Tier 1 and Tier 2 estimates. When applying Tier 2 with facility-specific parameters, justification of the appropriateness of those parameters must be provided. In the case of Tier 3, less input data is needed in the MRV tool since Tier 3 estimates are only reported, not calculated, using the MRV tool. When applying Tier 3, a description of the methods used, and justification of their appropriateness must be provided as part of the annual reporting. In addition, inputs required for verification must also be provided.

Each of the columns in the MRV tool tables where data has to be reported have the following structure, showing the variable, instructions and tier.

**Table C.3: Structure of the columns in reporting tables in the MRV tool**

<b>e.g.: Facility ID</b>	1 <sup>st</sup> row (title row): Name of the variable
<i>e.g.: INFORMATION ROW (do not delete)</i>	2 <sup>nd</sup> row: instructions to fill in the column
<i>e.g.: INFORMATION ROW - TIERS (do not delete)</i>	3 <sup>rd</sup> row: Tier for which the column is to be filled

<sup>17</sup> The only exception is the stock change factors for SOC which are taken from IPCC 2019 Refinement.



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### Implementation of Tiers in the MRV Tool

The MRV tool implements Tier 1 and provides default values, sourced from both IPCC 2006 and country specific values, sourced from various publications.

Companies can use their own parameters where information is available and is justified with supporting documentation.

Complete the Methodology Information Boxes included at the top of each of the yellow compilation sheets to provide a description of which tier, or combination of tiers has been applied.

Tier used for carbon stock change:	Methodology Information Box
T1	
T2	
T3	

### C.3. Methodological Guidelines for Reporting and Accounting Carbon Sequestration in Forest Plantations

It should be noted that increases in carbon stocks, i.e. positive (+) stock changes, represent a removal (or 'negative' emission) from the atmosphere, while decreases in carbon stocks, i.e. negative (-) stock changes, represent a positive emission to the atmosphere.

Forest plantations represent three different carbon pools, i.e. living biomass, dead organic matter (DOM, that includes dead wood and litter) and soil organic carbon (SOC). Management practices (e.g. thinning and harvesting, application of fertiliser and controlled burning) and natural disturbances (e.g. wildfires) results in CO<sub>2</sub> removals enhancement and GHG emissions. Table B.1 in Chapter B of this document indicates which pools or emission sources are mandatory for reporting or accounting.

#### C.3.1. Area tracking for the reporting of Annual Change in Plantation Carbon Stocks, $\Delta C$

As determined in the Accounting Rulebook, and in line with IPCC 2006, the afforestation areas shall include all forest for the first 20 years. After 20-years, these areas shall transition to the managed forest land category. The variable/column "age category" in the tables in the MRV tool allows for the tracking of areas:

- Afforestation: "age category" indicates the number of years since the afforestation occurred. This cannot be 0, it should be 1 in the year of the afforestation and up to 20 years ( $\leq 20$  years), because starting the year 21<sup>st</sup> the land will be subject to forest management (see Box C.1 for example). The age information is considered in the estimates of carbon stock change in DOM and SOC. The first year the land is afforested (age category = 1), previous land use can be Grassland, Annual Cropland, Perennial cropland or Other. The following years, the previous land use should be Afforestation.



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- Forest management: “age category” indicates the number of years of the rotation. This should be  $\geq 21$  years for the first rotation and can be any value for the following rotations.
- Deforestation: “age category” indicates the age of the managed forest land deforested or the age of the afforested land deforested. The age information in the deforested lands is considered in the estimates of carbon stock change in DOM. Taxpayers should have a system for distinguishing between deforestation and temporary unplanted (TUP) land.

### Box C.1. Reporting of Afforested areas

In the facility AX32, 2 ha of grassland are afforested with *Pinus patula* in 2020, 4 ha in 2021 and 3 ha in 2022. The reported data in the reporting year 2022 should be:

Facility ID	Activity	Previous land use category	Species/Genus	Age Category	Area (ha)
AX32	Afforestation	Grassland	<i>Pinus patula</i>	1	3
AX32	Afforestation	Afforestation	<i>Pinus patula</i>	2	4
AX32	Afforestation	Afforestation	<i>Pinus patula</i>	3	2

### C.3.2. Annual Change in Plantation Carbon Stocks, $\Delta C$

There are two main methods for GHG estimates in the LULUCF sector as presented in 2006 IPCC Guidelines (IPCC, 2006):

- The Gain-Loss Method estimates the net balance based on the estimation of gains and losses separately for each individual reported year.
- The Stock-Difference Method is based on carbon stocks in relevant pools measured at two points in time to assess carbon stock changes.

In the MRV tool, both methods have been implemented for the estimates of carbon stock change in living biomass. However, the gain-loss method for DOM and SOC pools requires models that simulate DOM and SOC dynamics and these are not implemented in the MRV tool. Therefore, the estimates of DOM and SOC carbon stock change in the **Sheet Land Gain-loss method in the MRV tool** applies stock-difference method so that all carbon stock changes in all pools can be estimated in one single sheet of the MRV tool, regardless the method used for living biomass.

For transparency, the estimation method for DOM and SOM are explained in different sections of these methodological guidelines (see sections C.3.2.3 and C.3.2.4 below).

#### C.3.2.1. Living biomass pool: Gain-loss method

##### Sheet Land Gain-Loss Method in the MRV tool

The gain loss method, as presented in the 2006 IPCC guidelines, requires the biomass carbon loss to be subtracted from the biomass carbon gain<sup>18</sup>.

<sup>18</sup> For further explanation of the gain-loss method, refer to Volume 4, Chapter 2 of 2006 IPCC Guidelines.



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### Calculation method in the MRV tool

The calculations for emissions/removals from the change in carbon stock in living biomass are based on the IPCC 2006 Tier 1 Biomass Gain-Loss Method (Equation 2.7 in IPCC 2006 volume 4, chapters 2 and 4). Emissions/removals are calculated based on the following equations:

$$\Delta C_B = \Delta C_G - \Delta C_L \quad \text{Equation C.1}$$

Where:

- $\Delta C_B$  = annual change in carbon stocks in biomass (the sum of above-ground and below-ground biomass) for each land sub-category, considering the total area, t C yr<sup>-1</sup>
- $\Delta C_G$  = annual increase in carbon stocks due to biomass growth for each land sub-category, considering the total area, t C yr<sup>-1</sup>
- $\Delta C_L$  = annual decrease in carbon stocks due to biomass loss for each land sub-category, considering the total area, t C yr<sup>-1</sup>

**Annual increase in biomass carbon stocks** due to biomass increment in land remaining in the same land-use category are calculated based on the following equation (Equation 2.9 in IPCC 2006 volume 4, chapter 2) with examples provided in Box C.2 and C.3:

$$\Delta C_G = \sum_{i,j} (A_{i,j} \times G_{TOTAL_{i,j}} \times CF_{i,j}) \quad \text{Equation C.2}$$

Where:

- $\Delta C_G$  = annual increase in biomass carbon stocks due to biomass growth in land remaining in the same land-use category by vegetation type and climatic zone, t C yr<sup>-1</sup>
- A = area of land remaining in the same land-use category or in conversion, ha
- $G_{TOTAL}$  = mean annual biomass growth, t d.m. ha<sup>-1</sup> yr<sup>-1</sup>
- $i$  = ecological zone ( $i = 1$  to  $n$ )
- $j$  = climate domain ( $j = 1$  to  $m$ )
- CF = carbon fraction of dry matter, t C (t d.m.)<sup>-1</sup>

Average annual increment in biomass are calculated based on the following equation (Equation 2.10 in IPCC 2006 Volume 4, Chapter 2):

$$\text{Tier 1:} \quad G_{TOTAL} = \Sigma \{G_W \times (1 + R)\}$$

Biomass increment data (dry matter) are used directly

$$\text{Tiers 2 and 3:} \quad G_{TOTAL} = \Sigma \{I_V \times BCEF_i \times (1 + R)\} \quad \text{Equation C.3}$$

Net annual increment data are used to estimate  $G_w$  by applying a biomass conversion and expansion factor.

Where:

- $G_{TOTAL}$  = average annual biomass growth above and below-ground, t d.m. ha<sup>-1</sup> yr<sup>-1</sup>
- $G_w$  = average annual above-ground biomass growth for a specific woody vegetation type, t d.m. ha<sup>-1</sup> yr<sup>-1</sup>



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- $R$  = ratio of below-ground biomass to above-ground biomass for a specific vegetation type, in  $\text{t d.m. below-ground biomass} / (\text{t d.m. above-ground biomass})^{-1}$ .  $R$  must be set to zero if assuming no changes of below-ground biomass allocation patterns (Tier 1).
- $I_v$  = average net annual increment for specific vegetation type,  $\text{m}^3 \text{ ha}^{-1} \text{ yr}^{-1}$ . This is the current annual increment of standing volume, i.e. the actual increment in volume, referred as CAI.

**NOTE.** Mean Annual Increment (MAI), i.e. the mean increment over the entire lifetime of the plantation, is not an adequate substitute of Current Annual Increment (CAI), as MAI only represents the net cumulated volume or biomass at the end of the rotation. The use of MAI generally leads to underestimation of the annual increment in the early ages of the plantations. However, if MAI is the only data available, it can be used, while transparent information is provided on it.

Note that if standing tons are stated as wet white tonnes (wwt), i.e. at field wet basis moisture level, then the values need to be converted from wwt to  $\text{m}^3$ . For this conversion, Standard Industry Conversion Factors (ICFs) for round wood can be used.

**Table C.4: Standard Industry Conversion Factors (ICF) for Round wood**

Product	Species	ICF	Unit
Sawlogs	Softwood	0.94	$\text{m}^3/\text{t}$ (wet)
Sawlogs	Eucalyptus Grandis	0.94	$\text{m}^3/\text{t}$ (wet)
Sawlogs	Other Eucalyptus Species	0.78	$\text{m}^3/\text{t}$ (wet)
Matchwood	Poplar	1.03	$\text{m}^3/\text{t}$ (wet)

- $BCEF_i$  = biomass conversion and expansion factor for conversion of net annual increment in volume (including bark) to above-ground biomass growth for specific vegetation type, tonnes above-ground biomass growth ( $\text{m}^3$  net annual increment) $^{-1}$ .
- If  $BCEF_i$  values are not available and if the biomass expansion factor (BEF) and basic wood density (D) values are separately estimated, then the following conversion can be used:

$$BCEF_i = BEF_i \times D$$

Where, Biomass Expansion Factors ( $BEF_i$ ) expand merchantable volume to total above-ground biomass volume to account for non-merchantable components of increment.  $BEF_i$  is dimensionless.

To convert wood harvest data without bark, i.e. under bark, into merchantable wood removals including bark, i.e. over bark, multiply by the bark factor. Default and country-specific bark factors are included in the **Sheet Parameters in the MRV tool** and can be found in Appendix C.1.D. If the wood harvest data is already over bark, the bark fraction should be 0.



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### Box C.2. Information for the example for C stock change in biomass using Gain-Loss method in Box C.3.

For a forest area of 10 ha in temperate zone, it is assumed the forest species have a rotation age of 32 years and is thinned twice at 12 and 22 years (**Error! Reference source not found.**). To calculate gains and losses, current annual increment (CAI) and losses (harvest) data are needed.

All volumes are expressed as over bark.

*Table C.5: Hypothetical stand characteristics of Pinus patula showing volume data (merchantable over bark volume)*

Stand age (years)	Volume m <sup>3</sup> /ha			Increment m <sup>3</sup> /ha/year	
	Thinning	Standing vol	Cumulative Vol	MAI	CAI
0.001			0.0001		0.001
7		82.0	82.0	11.7	11.7
12	123.0	95.0	218.0	18.2	27.2
17		265.0	388.0	22.8	34.0
22	120	428.0	548.0	24.9	32.0
27		580.0	703.0	26.0	31.0
32		714.0	837.0	26.2	26.8



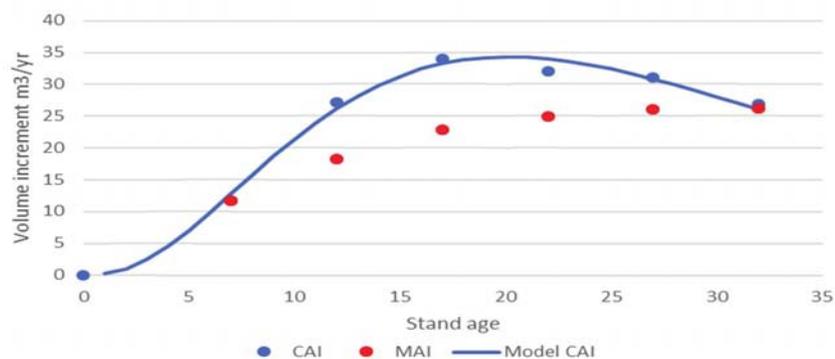
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### Box C.3. Annual increase in biomass carbon stocks due to biomass increment in land remaining in the same land-use category

#### Sheet Land Gain-Loss method in the MRV tool; column Living Biomass GAIN. Sheet Supporting calculations

It is possible to model CAI using a Chapman's growth function or another function as suggested by forest expert, using the information provided in Table C.6. CAI is the recommended increment value to use because it reflects the actual annual increment rate for volume. MAI (derived as the cumulative volume over stand age) is not suitable for growth projections. MAI is generally only used for stand management decision such as determining theoretical stand rotation age (i.e. where CAI and MAI intersect, see Figure C.1).



**Figure C.1: Derived CAI and MAI from cumulative volume production data and the interpolated CAI using the Chapman's growth function (blue line).**

The danger of using MAI is that volume increment and thus biomass growth will be underestimated and hence a lower carbon stock change will be calculated, until age 32 in Figure C.1.

Considering the example forest in Box C.2, in year 17 the CAI,  $BCEF_i$  and  $R$  are:

$$CAI = 34.0 \text{ m}^3 \text{ ha}^{-1} \text{ yr}^{-1}$$

$$BCEF_i = 0.69 \text{ t m}^{-3} \text{ (IPCC 2006, Volume 4, Chapter 4, Table 4.5, climatic zone temperate, forest type pine and growing stock level } 265 \text{ m}^3 \text{ ha}^{-1}, \text{ i.e. } > 200 \text{ m}^3 \text{ ha}^{-1}\text{)}$$

$$R = 0.28 \text{ (Du Toit B. et al. 2016).}$$

$$CF = 0.47 \text{ (IPCC 2006).}$$

#### Average annual increment ( $G_{\text{Total}}$ ) is calculated as:

$$G_{\text{TOTAL}} = 34.0 \times 0.69 \times (1+0.28) = 30.02 \text{ t d.m. ha}^{-1} \text{ yr}^{-1} \text{ (Note that if MAI is used, this would be: } G_{\text{TOTAL}} = 22.8 \times 0.240 = 20.24 \text{ t d.m. ha}^{-1} \text{ yr}^{-1}\text{)}$$

In the MRV tool, the Factor for conversion to C biomass growth  $0.69 \times (1+0.28) \times 0.45 = 0.40$  (can be calculated in **Sheet Supporting calculations**); and the total Gain in living biomass (t C) is calculated in **Sheet Land Gain-Loss Method** as:

$$\text{Living Biomass GAIN (ABG+BGB, t C)} = 34 \text{ m}^3 \text{ ha}^{-1} \times 0.42 \text{ t C m}^{-3} \times 10 \text{ ha} = \mathbf{141.14 \text{ t C}}$$



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**Annual biomass loss** is the sum of losses from wood removal (harvest), fuelwood removal (not counting fuelwood gathered from woody debris), and other losses resulting from disturbances, such as fire, storms, and insect and diseases.

$$\Delta C_L = L_{\text{wood-removed}} \quad \text{Equation C.4}$$

Where:

- $\Delta C_L$  = annual decrease in carbon stocks due to biomass loss in land remaining in the same land-use category, t C yr<sup>-1</sup>
- $L_{\text{wood-removed}}$  = annual carbon loss due to wood removals, t C yr<sup>-1</sup>, includes harvest, regardless its use as fuelwood, and tree parts removals for fuelwood.

And annual biomass carbon loss due to wood-removals is:

$$L_{\text{wood-removed}} = H \times BCEF_R \times (1 + R) \times CF + FG_{\text{part}} \times D \quad \text{Equation C.5}$$

Where:

- $L_{\text{wood-removed}}$  = annual carbon loss due to biomass removals, t C ha<sup>-1</sup> yr<sup>-1</sup>
- $H$  = annual wood removals, roundwood, m<sup>3</sup> yr<sup>-1</sup>
- $R$  = ratio of below-ground biomass to above-ground biomass, in t d.m. below-ground biomass (t d.m. above-ground biomass)<sup>-1</sup>.  $R$  must be set to zero if assuming no changes of below-ground biomass allocation patterns (Tier 1).
- $BCEF_R$  = biomass conversion and expansion factor for conversion of removals in merchantable volume to total biomass removals (including bark), t biomass removal (m<sup>3</sup> of removals)<sup>-1</sup>. However, if  $BCEF_R$  values are not available and if the biomass expansion factor for wood removals ( $BEF_R$ ) and basic wood density ( $D$ ) values are separately estimated, then the following conversion can be used:

$$BCEF_R = BEF_R \times D$$

To convert wood harvest data without bark into merchantable wood removals including bark, multiply by bark factor. Default IPCC 2006 bark factors and country-specific bark factors are provided. These factors are included in the **Sheet Parameters in the MRV tool** and can be found in the Appendix. If volume is already over bark, then bark fraction should be 0.

- $CF$  = carbon fraction of dry matter, t C (t d.m.)<sup>-1</sup>
- $FG_{\text{part}}$  = annual volume of fuelwood removal as tree parts (where trees are not felled), m<sup>3</sup> yr<sup>-1</sup>. Assumed 0 in Tier 1.
- $D$  = basic wood density, t d.m. m<sup>-3</sup>



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### Box C.4. Annual decrease in Carbon stocks due to Wood removals in land remaining in the same land-use category.

Sheet Land Gain-Loss method in the MRV tool; column  $\Delta C$  Living Biomass.

#### Sheet Supporting calculations

This example uses BEF and Wood density (D), instead of BCEF used in Box C.3.

Harvest volume – whole tree ( $\text{m}^3 \text{yr}^{-1}$ ) =  $500 \text{ m}^3 \text{yr}^{-1}$  harvest. There is not fuelwood exploitation of tree parts, i.e.  $\text{FG}_{\text{part}} = 0$ .

$$\text{BEF}_R = 3.1 \text{ m}^3 \text{t}^{-1}$$

Bark fraction = 0.13 (default)

Wood density =  $0.354 \text{ t m}^{-3}$  (*Pinus patula* Du Toit B. et al. (2016))

R = 0.28 (Du Toit B. et al. 2016)

CF = 0.47 (IPCC 2006)

Then,  $L_{\text{wood-removed}} = 500 \text{ m}^3 \times 3.1 \times (1 + 0.13) \times 0.354 \text{ t m}^{-3} \times (1 + 0.28) \times 0.47 = 373.01 \text{ t C}$

In the MRV tool, the Factor for conversion to C biomass loss  $3.1 \times (1 + 0.13) \times 0.354 \text{ t m}^{-3} \times (1 + 0.28) \times 0.47 = 0.75$  (can be calculated in **Sheet Supporting calculations**); and the total Living Biomass LOSS (ABG+BGB, t C) is calculated in **Sheet Land Gain-Loss Method** as:

$$\text{Living Biomass LOSS (ABG+BGB, t C)} = 500 \text{ m}^3 \text{yr}^{-1} \times 0.75 = 373.01 \text{ t C}$$

Continuing with the example forest from previous boxes: Therefore, the annual change in carbon stocks in biomass in the 10 ha is:

$$\Delta C_B = \Delta G_G - \Delta G_L = 141.14 - 373.01 = - 231.9 \text{ t C}$$



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### Data required for the estimates in the MRV tool

This method requires activity data (e.g. area) and forest parameters (e.g. increment, harvest) at either the aggregated (e.g. plantation management units) or disaggregated (e.g. compartment) scale of the land.

Data needs to be disaggregated by the activity, i.e. Forest management.

**Table C.6: Data required for estimating  $\Delta C$  living biomass (gain-loss method)**

<b>Facility ID</b>	Enter the unique facility ID
<b>Activity</b>	Forest Management, Afforestation or Deforestation
<b>Previous land use category</b>	Forest Management, Afforestation, Deforestation, Grassland, Annual Cropland, Perennial Cropland or Other
<b>Ownership</b>	Company owned or 3 <sup>rd</sup> party (please specify)
<b>Species/Genus</b>	Predominant species name
<b>Age Category</b>	Enter value, for afforested areas this should be the years since afforestation occurred
<b>Area</b>	Enter value in ha
<b>Growing stock volume annual net increment</b>	CAI or MAI* (optional for T3)
<b>Factor for conversion to C biomass growth</b>	Enter value or refer to <b>Sheet Supporting Calculations</b> (optional for T3)
<b>Harvest volume, whole tree</b>	Enter value in m <sup>3</sup> /yr
<b>Factor for conversion to C biomass loss</b>	Enter value or refer to <b>Sheet Supporting Calculations</b> (optional for T3)
<b>Living Biomass LOSS - Fuelwood Tree parts</b>	Enter value in t C, assumed 0 in Tier 1 approach

\* CAI = current annual increment, MAI = mean annual increment

### C.3.2.2. Living biomass pool: Stock-difference method

#### Sheet Land Stock-Difference Method in the MRV tool

The Stock-Difference method, as presented in the 2006 IPCC guidelines, requires biomass carbon stock inventories for a given land area, at two points in time<sup>19</sup>. Per unit of area at time  $t_2$ , the annual stock change is the difference between the carbon stock at time  $t_2$  and time  $t_1$ , divided by the number of years between the two inventories<sup>20</sup>.

<sup>19</sup> For further guidance on the stock-difference method, refer to Volume 4, Chapter 2 of 2006 IPCC Guidelines. <https://www.ipcc-nggip.iges.or.jp/public/2006gl/vol4.html>

<sup>20</sup> For further guidance on the stock-difference method, refer to Chapter 2 of 2013 IPCC KP Supplement. <https://www.ipcc-nggip.iges.or.jp/public/kpsg/index.html>



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### Calculation in the MRV tool

The calculations for emissions/removals from the change in carbon stock in living biomass are based on the IPCC 2006 Tier 1 Biomass Stock-Difference Method (IPCC 2006 volume 4, chapters 2 and 4). Emissions/removals are calculated based on the following equations (Equation 2.8 in IPCC 2006 volume 4, chapters 2):

$$\Delta C_B = \frac{(C_{t_2} - C_{t_1})}{(t_2 - t_1)}$$

$$C = \sum_{i,j} \{A_{i,j} \times V_{i,j} \times BCEF_{S_{i,j}} \times (1 + R_{i,j}) \times CF_{i,j}\} \quad \text{Equation C.6}$$

Where:

- $\Delta C_B$  = annual change in carbon stocks in biomass (the sum of above-ground and below-ground biomass terms) in land remaining in the same category (e.g. *forest land remaining forest land*), tonnes C yr<sup>-1</sup>
- $C_{t_2}$  = total carbon in biomass for each land sub-category at time  $t_2$ , t C
- $C_{t_1}$  = total carbon in biomass for each land sub-category at time  $t_1$ , t C
- $C$  = total carbon in biomass for  $t_1$  to  $t_2$ , t C
- $A$  = area of land remaining in the same land-use category, ha
- $V$  = merchantable growing stock volume (over bark), m<sup>3</sup> ha<sup>-1</sup>
- $i$  = ecological zone  $i$  ( $i=1$  to  $n$ )
- $j$  = climate domain  $j$  ( $j=1$  to  $m$ )
- $R$  = ratio of below-ground biomass to above-ground biomass, t dm below-ground biomass (t d.m. above ground biomass)<sup>-1</sup>
- $CF$  = carbon fraction of dry matter, tonne C (t d.m.)<sup>-1</sup>
- $BCEF_S$  = biomass conversion and expansion factor for expansion factor for expansion of merchantable growing stock volume to above-ground biomass, t above-ground biomass (m<sup>3</sup> growing stock volume)<sup>-1</sup>

As indicated in 2013 Kyoto Protocol (KP) Supplement, when using this method for a specific activity, it is important to ensure that the area of land in that activity at times  $t_1$  and  $t_2$  is identical, to avoid confounding changes in stock caused by area changes. If the forest area is changing, then carbon stock changes can occur as a result of the transfer of land between activities. Indeed, if the area subject to an activity increases from the beginning to the end of the reporting year, then the reported carbon stocks reflect the transfer of area (and the associated carbon stocks) into the activity; similarly, carbon stocks will decrease, if area is removed from an activity. The issue is of particular concern when areas outside the scheme enter into the reporting system.

It is good practice to implement the calculations of annual carbon stock changes in the following sequence: (1) for any carbon pool of each activity and for each area, the annual carbon stock change should be calculated for the year of interest on the area at time  $t_2$ , (2) these stock changes should be



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summed for all areas subject to the activity. Annual carbon stock changes and non-CO<sub>2</sub> GHG emissions with the area of the activity at the end of the inventory year should be calculated. The same approach should be used consistently over time.

When land-use change events occur, the associated fluxes are reported in the new land-use category (e.g. afforestation or deforestation/conversion from forest plantation to non-forest lands).

The following example, extracted from 2013 IPCC KP Supplement, shows the correct and incorrect way to implement the stock-change method.

### Box C.5. Suggested alternative: Example of Stock-difference calculation

#### Sheet Land Stock-Different method in the MRV tool; column $\Delta C_{ABG+BGB}$ in the year $i$

#### Sheet Supporting calculations

There is 10 ha of *Pinus patula* that has been under forest management for 10 years.

Total standing volume in previous year (year  $t_{i-1}$ ) in vol merch. m<sup>3</sup> over bark = 425 m<sup>3</sup>

Total standing volume in current year (year  $t_i$ ) in vol merch. m<sup>3</sup> over bark = 200 m<sup>3</sup>

If volume is expressed as under bark then the bark fraction needs to be added.

Wood density = 0.354 t m<sup>-3</sup> (*Pinus patula* Du Toit B. et al. (2016))

BEF for CAI = 0.6861 m<sup>3</sup> ha<sup>-1</sup> yr<sup>-1</sup>

R = 0.28 (default)

Bark fraction = 0.13 (default)

CF = 0.47 (IPCC 2006)

In the MRV tool, the Factor for conversion to standing C stock  $0.6861 \times 0.354 \text{ t m}^{-3} \times (1 + 0.13) \times (1 + 0.28) \times 0.47 = 0.17$  (can be calculated in tab Supporting calculations).

Therefore, the Standing C stock in year  $t_{i-1} = 425 \text{ m}^3 \times 0.17 = 72.3 \text{ t C}$ ;

the Standing C stock in year  $t_i = 200 \text{ m}^3 \times 0.17 = 34.0 \text{ t C}$

$\Delta C_{AGB+BGB} = 34.0 - 72.3 = -38.3 \text{ t C}$



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### Box C.6. Example of Stock-difference calculation. Source KP Supplement

During a year of the CP the area of land reported under FM varies because new forest land (natural forest expansion or previously unmanaged forest land that becomes subject to management) is added to the FM area and because of deforestation activities:

	At the start of year	At the end of year
Area of forest lands that was subject to FM in the previous year	1,000,000 ha	990,000 ha
Area of lands subject to FM converted to non-forest land	0 ha	10,000 ha
Area of new forest lands subject to FM	0 ha	10,000 ha
Total area subject to FM	1,000,000 ha	1,000,000 ha

The carbon stocks measured at times  $t_1$  and  $t_2$  in those lands are:

	At the start of year	At the end of year
Average per hectare biomass carbon stock of forest lands subject to FM	100 tC ha <sup>-1</sup>	105 tC ha <sup>-1</sup>
Average per hectare biomass carbon stock of new forest lands subject to FM	80 tC ha <sup>-1</sup>	84 tC ha <sup>-1</sup>
Average per hectare biomass carbon stock in deforested lands	100 tC ha <sup>-1</sup>	20 tC ha <sup>-1</sup>

A correct procedure will calculate stock changes in the three land categories:

- managed forest lands that were subject to FM since the beginning of the year,
- forest lands where the FM activity started during the year,
- managed forest lands subject to FM that were deforested and converted to cropland in the year.

Then, the sum of stock changes calculated for the two types of lands subject to FM will be reported under the FM activity, while the change in stock calculated for deforested land will be reported under D (Article 3.3).

A. Total stock-change in area subject to FM that was subject to FM in the previous year	$990,000 \text{ ha} * (105 - 100) \text{ tC ha}^{-1} = 4,950,000 \text{ tC}$
B. Total stock-change in area subject to FM for the first time in this year	$10,000 \text{ ha} * (84 - 80) \text{ tC ha}^{-1} = 40,000 \text{ tC}$
C. Total stock-change in deforested areas	$10,000 \text{ ha} * (20 - 100) \text{ tC ha}^{-1} = -800,000 \text{ tC}$
Total stock-change in FM areas (A+B)	$4,950,000 + 40,000 = 4,990,000 \text{ tC}$
Stock change reported in Forest Land converted to Cropland under UNFCCC and in D under Article 3.3 (C)	$-800,000 \text{ tC}$

It would be incorrect, for instance, to calculate the total aboveground biomass carbon stock on the total land subject to FM at times  $t_1$  and  $t_2$  and then subtract  $C_1$  from  $C_2$  e.g.:

$C_1$ Total stock in land subject to FM at the start of year	$1,000,000 \text{ ha} * 100 \text{ tC ha}^{-1} = 100,000,000 \text{ tC}$
$C_2$ Total stock in land subject to FM at the end of year	$990,000 \text{ ha} * 105 \text{ tC ha}^{-1} + 10,000 \text{ ha} * 84 \text{ tC ha}^{-1} = 103,950,000 + 840,000 = 104,790,000 \text{ tC}$
$C_2 - C_1$ – yields the incorrect result	$104,790,000 - 100,000,000 = 4,790,000 \text{ tC}$



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### Data required for the estimates in the MRV tool

This method requires activity data (i.e. area) and forest parameters (i.e. standing volume) *at very disaggregated level*, e.g. for each forest compartment of the land under administration by the entity for previous and current year subject to reporting.

Data is needed for the two calendar years, i.e. end of two years, subject to reporting.

Forest compartment would be identified in MRV tool as of records from forest management planning.

As indicated in Table C.6 above and Table C.7 below, the user has the option to use the calculations in the **Sheet Supporting calculations in the MRV Tool** to estimate some of the data required for the estimates. At least Species and Growing stock volume level data are required.

Parameters needed for the estimate of carbon stock change in living biomass are outlined in Table C.7. Defaults are provided where available, but if alternative data which is considered to be more representative and is justifiable and verifiable is available, this should be used. The default parameters are included in the **Sheet Parameters in the MRV tool** and can found in Appendix C.1.C.

**Table C.7: Data required for estimating  $\Delta C\text{ AGB} + B\text{GB}$  (stock-difference method)**

<b>Facility ID</b>	Enter the unique facility ID
<b>Activity</b>	Forest Management, Afforestation or Deforestation
<b>Previous land use category</b>	Forest Management, Afforestation, Deforestation, Grassland, Annual Cropland, Perennial Cropland or Other
<b>Ownership</b>	Company owned or 3 <sup>rd</sup> party (please specify)
<b>Species/Genus</b>	Predominant species name
<b>Age Category</b>	Enter value, for afforested areas this should be the years since afforestation occurred
<b>Harvest volume, whole tree</b>	Enter value in m <sup>3</sup> /yr
<b>Area in the current year <math>t_i</math></b>	Enter value in ha
<b>Total standing volume in previous year (year <math>t_{i-1}</math>)</b>	Enter value in merchantable volume over bark m <sup>3</sup> , 0 = default for afforested land in age category 1 (optional for T3)
<b>Total standing volume in current year (year <math>t_i</math>)</b>	Enter value in merchantable volume over bark m <sup>3</sup> , 0 = default for deforestation (optional for T3)
<b>Factor for conversion to standing C stock in the previous year <math>t_{i-1}</math></b>	Use <b>Sheet Supporting Calculations</b> if value is not known (species and growing stock volume must be entered) (optional for T3)
<b>Factor for conversion to standing C stock in the current year <math>t_i</math></b>	Use <b>Sheet Supporting Calculations</b> if value is not known (species and growing stock volume must be entered) (optional for T3)
<b>Standing C stock in the previous year <math>t_{i-1}</math> C AGB+BGB (t C)</b>	Use <b>Sheet Supporting Calculations</b> if value is not known (species and growing stock volume must be entered) (optional for T3)



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*Standing C stock in the current year t; C  
AGB+BGB (t C)*

Use **Sheet Supporting Calculations** if value is not known (species and growing stock volume must be entered) (optional for T3)

### C.3.2.3. Dead Organic Matter, $\Delta\text{DOM}$

In line with the Accounting Rulebook, for the estimates of carbon stock change in Dead Organic matter pool (Dead wood and litter) the following has been assumed:

- there is no change in DOM pool on forest plantations where there is a continuous forest management as forest plantation (> 20 years as forest), therefore carbon stock change in DOM is only estimated in the case of Afforestation and Deforestation activities.
- If deforestation occurs litter and deadwood C pools are assumed to be immediately / instantaneously oxidised, therefore carbon stock change in DOM is estimated and reported in the year when the Deforestation occurs (Box C.7). If afforested land is deforested before 20 years then only the amount of DOM accumulated over the afforestation period is oxidised (Box C.8).
- If afforestation occurs, afforested areas accumulate DOM for the first 20 years of the established 1<sup>st</sup> rotation. After 20-years or the rotation, DOM reaches an equilibrium value specific to continuous forest plantations.
- Because plantations are under very intensive management and there is no Dead Wood present only carbon stock in Litter is considered.

#### Calculation method in the MRV tool

Since it is assumed that the carbon stock in DOM pool only changes in the case of Afforestation or Deforestation activities, the IPCC 2006 method for Land conversions is used.

Two methods can be used: either track inputs and outputs (the Gain-Loss Method) or estimate the difference in DOM pools at two points in time (Stock-Difference Method). These estimates require either detailed inventories that include repeated measurements of dead wood and litter pools, or models that simulate dead wood and litter dynamics (IPCC, 2006, volume 4 chapter 2).

The MRV tool allows for the estimates using the stock-difference. The Tier 1 assumption is that DOM pools in non-forest land categories after the conversion are zero, i.e., they contain no litter or dead wood. The Tier 1 assumption for land converted from forest to another land-use category is that all DOM carbon losses occur in the year of land-use conversion. Conversely, conversion to Forest Land results in build-up of litter and dead wood carbon pools starting from zero carbon in those pools. DOM carbon gains on land converted to forest occur linearly, starting from zero, over a transition period (IPCC, 2006, volume 4 chapter 2).

Equation C.7 is the stock-difference method applied in the MRV tool and examples are provided in Boxes 7-9.

$$\frac{\Delta C_{\text{DOM}}}{T_{\text{on}}} = (C_n - C_o) \times A_{\text{on}}$$

**Equation C.7**

Where:

- $\Delta C_{\text{DOM}}$  = annual change in carbon stocks in dead wood or litter, t C yr<sup>-1</sup>



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- $C_o$  = dead wood/litter stock, under the old land-use category,  $t C ha^{-1}$
- $C_n$  = dead wood/litter stock, under the new land-use category,  $t C ha^{-1}$ , for forest land the default stock is  $20 t C ha^{-1}$  at 20 years
- $A_{on}$  = area undergoing conversion from old to new land-use category, ha
- $T_{on}$  = time period of the transition from old to new land-use category, yr. The Tier 1 default is 20 years for carbon stock increases and 1 year for carbon losses.

### Data required for the estimates in the MRV tool

**Table C.8: Data required for estimating  $\Delta C$  Dead Organic Matter (DOM)**

<b>Facility ID</b>	Enter the unique facility ID
<b>Activity</b>	Forest Management, Afforestation or Deforestation
<b>Previous land use category</b>	Forest Management, Afforestation, Deforestation, Grassland, Annual Cropland, Perennial Cropland or Other
<b>Ownership</b>	Company owned or 3 <sup>rd</sup> party (please specify)
<b>Age Category</b>	Enter value, for afforested areas this should be the years since afforestation occurred
<b>Area / Area in the current year <math>t_i</math></b>	Enter value in ha
<b>DOM</b>	DOM in $t C/ha$ , use of <b>Sheet Supporting Calculations</b> is possible if value is not known. Note that the calculated $\Delta C$ DOM should be positive (+) in the case of Forest Management and Afforestation; and negative (-) in the case of Deforestation
<b>DOM in previous land use</b>	DOM in non-forest use $t C/ha$ , the default value is 0. This field is optional.

As a minimum, forest type needs to be known for the use of **Sheet Supporting Calculations in the MRV Tool**. Default values of DOM by forest types are sourced from IPCC 2006 Guidelines, these factors are included in the **Sheet Parameters in the MRV tool** and can be found in Appendix C.1.D.



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### Box C.7. Annual change in Carbon stocks in DOM due to land use conversion: Afforestation

Sheet Land Gain-Loss method in the MRV tool; column  $\Delta C_{DOM}$

#### Sheet Supporting calculations

The default method applied in the MRV tool uses a steady state stock of C in DOM at 20 years.

The stock change for 10 ha of afforested areas of *Pinus patula* in climatic zone warm temperate for the first 20 years is:

C in DOM (equilibrium value for specific continuous forest plantation): 20.3 t C ha<sup>-1</sup> (for Needleleaf evergreen, IPCC 2006, volume 4, chapter 2, Table 2.2, Climate: Warm temperate)

C in DOM in non-forest land: 0 t C ha<sup>-1</sup> (IPCC 2006 Tier 1 assumption)

Then,  $\Delta C_{DOM} = (20.3 \text{ t C ha}^{-1} - 0 \text{ t C ha}^{-1}) \times 10 \text{ ha}/20 \text{ years} = \mathbf{10.15 \text{ t C yr}^{-1}}$

### Box C.8. Annual change in Carbon stocks in DOM due to land use conversion: Deforestation of previous Forest management

Sheet Land Gain-Loss method in the MRV tool; column  $\Delta C_{DOM}$

#### Sheet Supporting calculations

For deforestation all DOM is assumed to be immediately oxidised. The stock change for 10 ha of deforested area of *Pinus patula* in climatic zone warm temperate is:

C in DOM (equilibrium value for specific continuous forest plantation): 20.3 t C ha<sup>-1</sup> (for Needle leaf evergreen, IPCC 2006, volume 4, chapter 2, Table 2.2, Climate: Warm temperate)

C in DOM in non-forest land: 0 t C ha<sup>-1</sup> (IPCC 2006 Tier 1 assumption)

Then,  $\Delta C_{DOM} = (0 \text{ t C ha}^{-1} - 20.3 \text{ t C ha}^{-1}) \times 10 = \mathbf{-203 \text{ t C yr}^{-1}}$  to be reported only in the event year



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### Box C.9. Annual change in Carbon stocks in DOM due to land use conversion: from Afforestation to Deforestation

Sheet Land Stock-Difference method in the MRV tool; column  $\Delta C$  DOM

#### Sheet Supporting calculations

If 10 ha of *Pinus patula* in climatic zone warm temperate in afforested lands are deforested before reaching 10 years after establishment of the 1<sup>st</sup> rotation (e.g. at 3 years) then the DOM stock change is:

C in DOM (equilibrium value for specific continuous forest plantation): 20.3 t C ha<sup>-1</sup> (for Needle leaf evergreen, IPCC 2006, volume 4, chapter 2, Table 2.2, Climate: Warm temperate)

C in DOM in non-forest land: 0 t C ha<sup>-1</sup> (IPCC 2006 Tier 1 assumption)

$$\Delta C_{DOM} = ((0 \text{ t C ha}^{-1} - 20.03 \text{ t C ha}^{-1})/20 \text{ years}) \times 3 \text{ years} \times 10 \text{ ha} = - 30.45 \text{ t C yr}^{-1}$$

#### C.3.2.4. Soil Organic Carbon, $\Delta SOC$

In line with the Accounting Rulebook, for the estimates of carbon stock change in Dead Organic Matter pool (dead wood and litter) the following has been assumed:

- there is no change in SOC pool in Forest management, therefore carbon stock change in SOC is only estimated in the case of Afforestation and Deforestation.
- SOC stock changes associated with Deforestation generally occurs for a period after deforested. However, SOC emissions or removals shall not be reported or accounted because other land uses are not included in the 2019 Carbon Tax Act.
- Therefore, carbon stock change in SOC is only reported when Afforestation occurs and for Forest Management, if Tier 2 or Tier 3 methodologies are applied.
- If afforestation occurs, the default Tier 1 assumption is that afforested areas accumulate SOC for the first 20 years. After 20-years of the rotation, SOC reaches an equilibrium value.

#### Calculation method in the MRV tool

Since it is assumed that the carbon stock in the SOM pool only changes in the case of Afforestation or Deforestation activities, the IPCC 2006 method for Land conversions is used.

$$\Delta C_{Mineral} = \frac{(SOC_0 - SOC_{(0-t)})}{D}$$

$$SOC = \sum_{c,i,j} (SOC_{REF_{c,s,j}} \times F_{LU_{c,s,j}} \times F_{MG_{c,s,j}} \times F_{I_{c,s,j}})$$

Equation C.8

Note: *T* is used in place of *D* in this equation if *T* is  $\geq 20$  years

Where:

- $\Delta C_{Mineral}$  = annual change in carbon stocks in mineral soils, t C yr<sup>-1</sup>



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- $SOC_0$  = soil organic carbon stock in the last year of an inventory time period, t C
- $SOC_{(0-t)}$  = soil organic carbon stock at the beginning of the inventory time period, t C
- $SOC_0$  and  $SOC_{(0-T)}$  are calculated using the SOC equation in the box where the reference carbon stocks and stock change factors are assigned according to the land-use and management activities and corresponding areas at each of the points in time (time = 0 and time = 0-T)
- T = number of years over a single inventory time period, yr
- D = Time dependence of stock change factors which is the default time period for transition between equilibrium SOC values, yr. Commonly 20 years, but depends on assumptions made in computing the factors  $F_{LU}$ ,  $F_{MG}$  and  $F_i$ . If T exceeds D, use the value for T to obtain an annual rate of change over the inventory time period (0-T years).
- c = represents the climate zones, s the soil types, and i the set of management systems that are present in a country.
- $SOC_{REF}$  = the reference carbon stock, t C ha<sup>-1</sup>
- $F_{LU}$  = stock change factor for land-use systems or sub-system for a particular land-use, dimensionless.
- $F_{MG}$  = stock change factor for management regime, dimensionless
- $F_i$  = stock change factor for input of organic matter, dimensionless
- A = land area of the stratum being estimated, ha. All land in the stratum should have common biophysical conditions (i.e. climate and soil type) and management history over the inventory time period to be treated together for analytical purposes.

### Data required for estimates in the MRV tool

**Table C.9: Data required for the estimates, Soil Organic Carbon (SOC)**

<b>Facility ID</b>	Enter the unique facility ID
<b>Activity</b>	Forest management, Afforestation or Deforestation
<b>Previous land use category</b>	Forest Management, Afforestation, Deforestation, Grassland, Annual Cropland, Perennial Cropland or Other
<b>Ownership</b>	Company owned or 3 <sup>rd</sup> party (please specify)
<b>Area / Area in the current year <math>t_i</math></b>	Enter value in ha
<b>SOC</b>	SOC in t C/ha, use of <b>Sheet Supporting Calculations</b> is possible if value is not known. Note that the calculated $\Delta C$ SOM should be positive (+) in the case of Forest Management and Afforestation; and negative (-) in the case of Deforestation



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### *SOC in previous land use*

Change in SOC in non-forest use in t C/ha.  
Use of **Sheet Supporting Calculations** is possible if value is not known.

As a minimum, climate zone and soil type needs to be known for the use of **Sheet Supporting Calculations in the MRV Tool**. Default values of SOC for forest, cropland and grassland are sourced from South Africa NIR 2017. These values are included in the **Sheet Parameters in the MRV tool** and can found in Appendix C.1.D.

### **Box C.10. Annual change in Carbon stocks in SOC due to land use conversion: Afforestation**

#### **Sheet Land Gain-Loss Method in the MRV tool; column $\Delta C$ SOC**

#### **Sheet Supporting calculations**

The default method applied in the MRV tool uses a steady state stock of C in SOC by ha at 20 years. Carbon stock in SOC in non-forest land uses is assumed to be in equilibrium before the first afforestation.

The stock change for 10 ha of afforested areas of *Pinus patula* converted from annual crop in climatic zone warm temperate – moist and sandy soils, for the first 20 years is:

C in SOC in forest after 20 years: 34 t C ha<sup>-1</sup> (SA NIR 2017)

C in SOC in annual cropland: 22.59 t C ha<sup>-1</sup> (SA NIR 2017)

Then,  $\Delta C_{SOC} = (34 \text{ t C ha}^{-1} - 22.59 \text{ t C ha}^{-1}) / 20 \text{ years} \times 10 \text{ ha} = 5.7 \text{ t C yr}^{-1}$



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### Box C.11. Annual change in Carbon stocks in SOC due to accumulation of SOC: Forest management

#### Sheet Land Stock-Difference Method in the MRV tool; column $\Delta C$ SOC

The default Tier 1 method applied in the MRV tool uses a steady state stock of C in SOC by ha in Forest Management areas. However, if facility-specific data is available i.e. a Tier 2 or 3 method is applied, then SOC from Forest Management areas can be estimated.

To estimate the stock change for 10 ha area *Eucalyptus grandis* which has been under forest management for 5 years, it is assumed that:

C in SOC in forest reached equilibrium at 48 t C ha<sup>-1</sup> after 15 years

C in SOC in non-forest use: NA (not applicable)

Then,  $\Delta C_{SOC} = (48 \text{ t C ha}^{-1} / 15 \text{ years}) \times 10 \text{ ha} = 32 \text{ t C yr}^{-1}$

*Note: the values used in this example do not represent real data.*

### Accounting of Annual Change in Plantation Carbon Stocks, $\Delta C$

All emissions and removals from annual changes in plantation carbon stocks that are reported are accounted within the MRV Tool. Refer to the Accounting Rulebook (see Chapter B, section B.2) for further information.

#### C.3.3. Harvested Wood Products, $S_{HWP}$

##### C.3.3.1. The mass balance approach

#### Calculation method in the MRV tool

A mass balance approach (Ado\_Paku, 2015) can be used to determine the mass of carbon in the HWP emanating from a mill as follows:

$$mC_{HWP} = mC_{RM} - mC_E - mC_{SW} - mC_{LW} \quad \text{Equation C.9}$$

Where:

- $mC_{HWP}$  = mass of biogenic carbon in HWP leaving the mill. This should include pulp, paper, solid wood products, saw milling waste sold for pulping if applicable, fines or lignin by products, t C
- $mC_{RM}$  = mass of biogenic carbon entering the mill in the timber raw materials, t C

Biogenic carbon  $mC_{RM}$  can be calculated based on the mass of timber processed and default conversion. It also included the mass of recycled wood/pulp.

$$mC_{RM} = V_{(OB)} \times D \times CF + mC_{recycled} \quad \text{Equation C.10}$$



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Country specific values for bark fraction<sup>21</sup>, wood density and carbon fraction are included in the MRV tool. Same factors should be used for species in calculating C stock change in forest land and HWP.

$V_{(OB)}$  = overbark volume, m<sup>3</sup>. If under bark values are used, then  $V \times (1 + \text{Bark fraction})$  should be used. This parameter is needed in order to apply consistently the default factors (e.g. fractions, mass flow factors) provided in this guideline.

$mC_{\text{recycled}}$  is the mass (tC) of inflow from other timber processing facilities that have not been accounted previously. The reported must demonstrate that inclusion of recycled inflows is not double accounting.

- $mC_E$  = mass of biogenic carbon leaving the mill as gaseous emissions, determined as a fraction of  $mC_{RM}$  entering the mill based on the mass flow into biogenic energy, expressed as a fraction of  $mC_{RM}$  ( $FmC_E$ ), t C

$$mC_E = mC_{RM} \times FmC_E \quad \text{Equation C.11}$$

- $mC_{SW}$  = mass of biogenic carbon exiting the mill as solid waste determined as a fraction of  $mC_{RM}$  entering the mill based on the mass flow into biogenic energy, expressed as a fraction of  $mC_{RM}$  ( $FmC_{SW}$ ), t C

$$mC_{SW} = mC_{RM} \times FmC_{SW} \quad \text{Equation C.12}$$

- $mC_{LW}$  = mass of biogenic carbon exiting the mill as liquid waste (effluent) determined as a fraction of  $mC_{RM}$  entering the mill based on the mass flow into biogenic energy, expressed as a fraction of  $mC_{RM}$  ( $FmC_{LW}$ ), t C

$$mC_{LW} = mC_{RM} \times FmC_{LW} \quad \text{Equation C.13}$$

Note: waste discharge threshold applies to  $mC_{SW}$  and  $mC_{LW}$  and emissions are only reported if these thresholds are exceeded (see IPCC code 4 schedule 2 of the 2019 Carbon Tax Act).

Since biogenic and waste emissions are discounted (D) when accounting under the 2019 Carbon Tax Act Equation C.9 can be rewritten as Equation C.14.

$$mC_{HWP} = mC_{RM} - \left(mC_E \times \frac{D}{100}\right) - \left(mC_{SW} \times \frac{D}{100}\right) - \left(mC_{LW} \times \frac{D}{100}\right) \quad \text{Equation C.14}$$

The discount is currently set at 100% in the 2019 Carbon Tax Act, but these emissions will still be reported. The derived  $mC_{HWP}$  value from equation 10 can be used as the  $S_{HWP}$  variable in the S of the C tax equation outlined in the 2019 Carbon Tax Act.

The mass flow approach can be used for all production facilities including the pulp/paper, lignin-based compounds, sawn products or primary wood-based products, or other products well defined as entering or exiting the mill gate. However, certain accounting rules regarding the eligibility of  $mC_{RM}$  need to be considered to avoid double accounting, leakage and conserved mass balance with harvest

<sup>21</sup> Bark fraction is the factor for converting under bark to total merchantable wood i.e. the inclusion of the mixture of bark, wood, branches etc, which is separated from the pulp wood during the process of barking.



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coming from forest areas included in the scheme (see section B.5.2.4.d of Accounting rules in Annex B).

The final removal or emissions from HWP pool ( $S_{HWP}$ ) for different HWP categories ( $i$ ) is derived as a fraction of HWP remaining based on the landfill approach whereby the fraction of C decayed over 96 years ( $fLC_{96}$ ) by different HWPs ( $i$ ) is applied to the reported  $mC_{HWP}$  value submitted by companies:

$$S_{HWP(i)} = mC_{HWP(i)} \times fLC_{96(i)} \quad \text{Equation C.15}$$

The retention potential is expressed as default  $fLC_{96}$  value for different products and is based on the estimated maximum proportions of wood and paper converted to  $CO_2$  or  $CH_4$  in landfills over 96 years (Skog & Nicholson, 1998). The value for pulp is based on the average for all paper products (see **Sheet Parameters in the MRV tool** and Appendix C.1.C).

The industry can use their own Tier 2 values, but this should be demonstrated to be applicable, verifiable and based on sound science, with references included in the annual report.

### C.3.3.2. Paper mills

System boundaries, in line with the over-riding concepts outlined above:

- Any pulp bought in or recovered pulp from other companies as wood products ( $mC_{HWP}$ ) cannot be included in  $mC_{RM}$ , since this would represent double accounting as the credits would have already been claimed as  $mC_{HWP}$  by the company selling the pulp or recovered pulp.
- Sawmill residues or recovered pulp used in production of product cannot be included in  $mC_{RM}$ , as these are already included in the mass flow balance as waste of the reporting company.
- Therefore, there is no need to distinguish between integrated and non-integrated mills.
- However, bought in recovered pulp or wood waste residues provided by other parties (i.e. waste bought in by a non-integrated mill) is considered as  $mC_{RM}$ , since these were not accounted elsewhere (Figure C.2: A mass flow accounting for paper mills).
- Gaseous ( $mC_E$ ), liquid ( $mC_{LW}$ ) and solid waste ( $mC_{SW}$ ) are fully discounted under the C tax rules so this falls outside the system boundary (Figure C.2: A mass flow accounting for paper mills). These emissions could include lime kiln emissions which are considered as a biogenic source of C as part of the recovery in the Kraft process (Adu Poku, 2015).

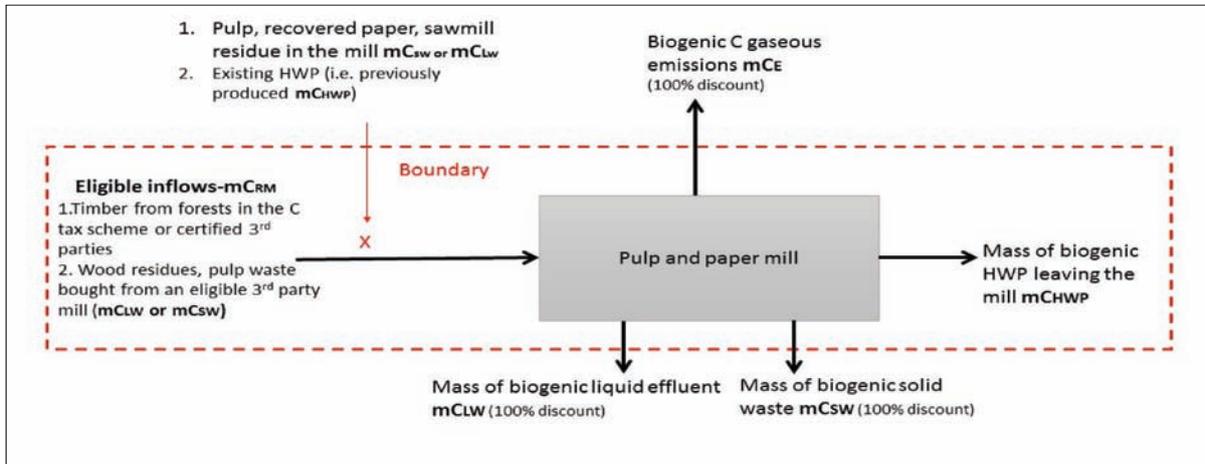


Figure C.2: A mass flow accounting for paper mills

Mass flow factors for paper mills are derived from the thesis of Adu Poku (2015), where factors can be categorised based on different milling processes. These factors are included in the **Sheet Parameters in the MRV tool** and can be found in Appendix 1.D. Individual companies can calculate their own mass flow fractions for carbon leaving the mill based on the latest data available where information is available and can be verified with supporting documentation.

C.3.3.3. Sawmills

**Error! Reference source not found.** Figure C.2: A mass flow accounting for paper mills **Tier 1 option: Mass flow factors for all sawn wood.** Appropriate mass flow factors have not been identified, so tier 1 estimates are based on the fraction recovery of product based on raw timber inputs by HWP category ( $F_{HWPrec}$ ).

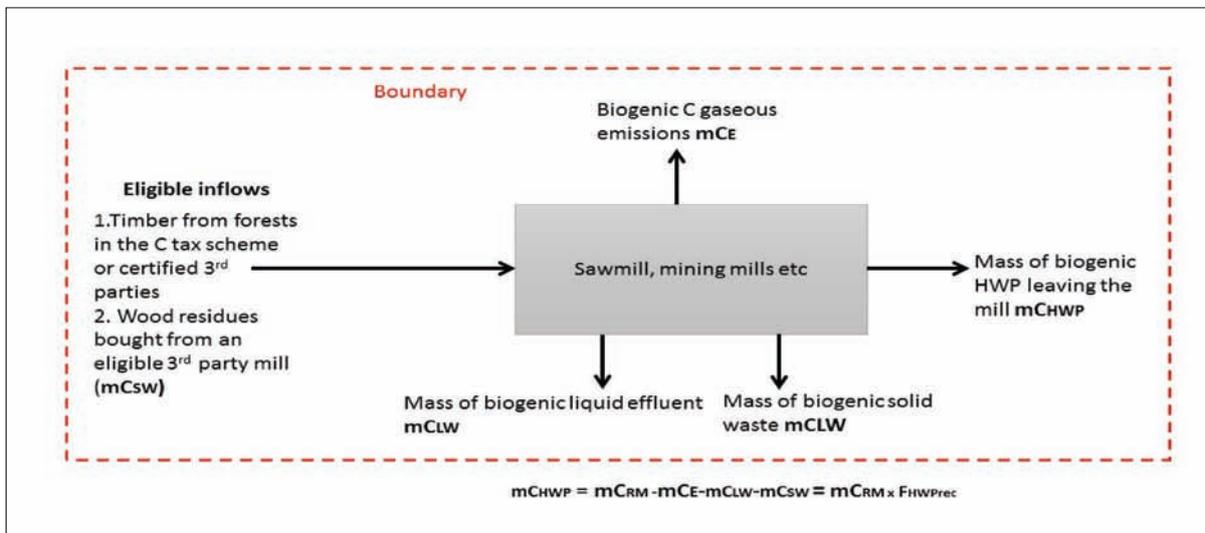


Figure C.3. Mass flow accounting tier 1 (default) option for the sawmill, panels, mining and pole production



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In the absence of any country specific data for  $F_{HWPrec}$ , it is recommended to use the UNECE/FAO conversion factors for the timber industry as a default. Hence Equation C.9 can be restructured for this sector if no specific  $mC_E$ ,  $mC_{SW}$ ,  $mC_{LW}$  data is available:

$$mC_{HWP} = mC_{RM(i)} \times F_{HWPrec(i)} \quad \text{Equation C.16}$$

Where:

- $F_{HWPrec}$  is the recovery of product based on raw timber inputs and  $i$  is the HWP category.

In the default approach  $mC_{RM}$  only includes timber inflow from forest areas within the C tax scheme and recovered waste wood or pulp purchased from 3<sup>rd</sup> parties within the C tax scheme. Although the presented recovery ratios do not consider use of by products such as wood chips, saw dust used in other processes such as wood-based panels from particles (WBP) and pulp, processing residues are considered as eligible inflows (Figure C.3).

The approach also means that biogenic and waste emissions are reported but these are fully discounted for this sector (Figure C.3).

Default values for  $F_{HWPrec}$  by HWP category are included in the **Sheet Parameters in the MRV tool** and can be found in Appendix C.1.D.

Higher tier methodologies can use complete C mass flow or models if they are available and verifiable. Hence, individual companies may use their own recovery factors or data relating to biogenic emissions, other wood by-products and C lost in waste from the plant as outlined in Figure C.3, based on the latest available information. Use of such an approach must be verified by supporting production data for each product. It is recommended that the South African milling sector develops specific mass flow factors for each type of mill process. This may be particularly useful if the discount on waste and energy emissions are changed in future amendments to the C Tax Act.

Individual processing facilities should use their own mass flow factors based on the latest available information, which should be verified with supporting documentation.

**Tier 2 option.** The mass flow principle can also be applied to the milling and solid wood processing sector (Figure C.3). Carbon mass balance studies are at present only available for production of sawn wood (unpublished data, Kerr 2019). But there are no known publications on mass flow balances for mining poles, wood based panels, plywood or pole production in South Africa. If companies have specific information to calculate sawmill HWP mass balance then the same approach can be used as outlined for the paper and pulp sector using equation C.10, the relevant discounts and waste thresholds (Figure C.2).

Note that if standing tons are stated as wet white tons (wwt), i.e. at field wet basis moisture level, then the values need to be converted from wwt to  $m^3$ . For this conversion, Standard Industry Conversion Factors (ICFs) for round wood can be used (see Table C.4). It needs also to be ensured that the biomass entering the mill is overbark.

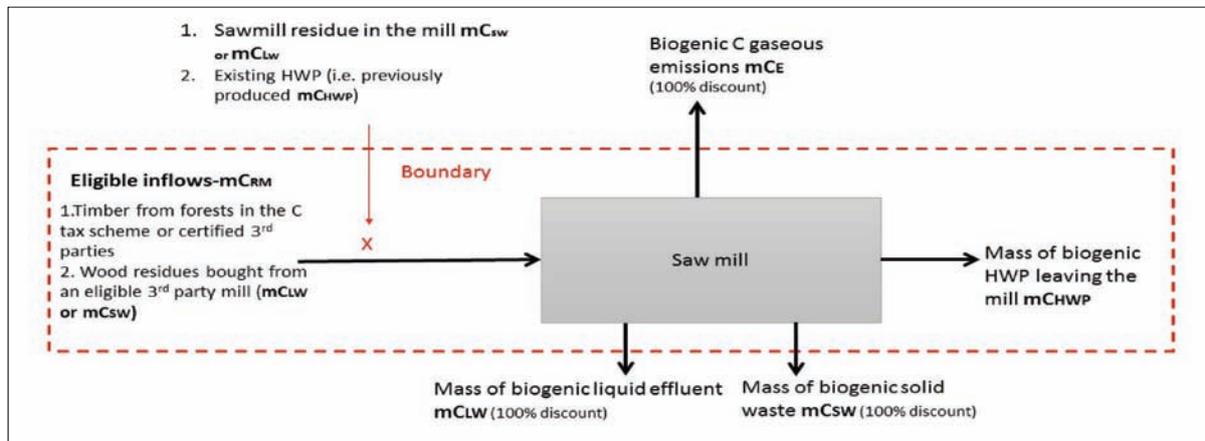


Figure C.4: Mass flow tier 2 accounting option for the sawmill, panels, mining and pole production

**Data required for estimates in the MRV tool**

In line with the Accounting Rulebook (see Chapter B, section B.3.2), the MRV tool allows for the estimation of the HWP contribution differentiated by Activity (forest management, afforestation or deforestation). However, the HWP estimates in afforested areas can be reported under forest management. HWP estimates in deforested areas are to be reported separately (see column Fraction of harvest from registered forests that is from deforested land), because these are not to be accounted.

The method used requires the following data for Paper mills and Sawmills. Data on the total mass of carbon entering the mills is also required (see Table C.10). The Tier 2 methodology for Sawmills matches the Paper mill methodology with the exception that HWP type rather than the process has to be reported (see Table C.10 below). The Tier 1 methodology for Sawmills is presented in Table C.12.

**Table C.10: Data required for estimating HWP, mass carbon entering the mill**

Ownership	Company owned, 3 <sup>rd</sup> party (please specify) or other registered company
Species/ Genus	Predominant species name
Volume entering the mill underbark	Enter a value in m <sup>3</sup> , or leave blank if 'Biomass entering the mill (t d.m.)' is provided
Biomass entering the mill (t d.m.)	Enter a value in t d.m, or leave blank if 'Volume entering the mill (m <sup>3</sup> )' is provided. Ensure it includes bark

Mass C Entering the mill (t m<sup>3</sup>) can be estimated using the MRV tool within Table C.10 based on:

- Volume Entering the Mill (m<sup>3</sup>) by species
- Mean wood density (t m<sup>-3</sup>) (default by species provided)
- Carbon fraction, CF (default by species provided)
- Bark fraction (default provided)



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Note that when using the MRV tool the volume entering the mill should express under bark, since the bark fraction is then applied. If the volume entering the mill is over bark, then the bark fraction should be 0.

**Table C.11: Data required for estimating HWP, pulp/ paper mills**

Mill name	Enter mill name
Activity	Forest management, Afforestation, or Deforestation If it is not possible to split the data by activity, then select Forest management.
Process	Kraft, Sulphite, Soda (Bagasse), Thermomechanical, NSSC, Mechanical & Kraft, NSSC & Kraft or User defined
Solid waste per year	Enter value, t d.m.
Liquid waste per day	Enter value, m <sup>3</sup> /day
mC recycled inflow	Enter value, t C, the default value is 0
Mass C Entering the Mill	Enter value, t C. Reported separately for 3 <sup>rd</sup> party and other register company inflows
Fraction of harvest from registered and/or 3 <sup>rd</sup> party forest under the C tax act 2019	Enter fraction



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### Box C.12. Estimates for HWP contribution: Pulp mill example

#### Sheet HWP in the MRV tool

In a pulp mill produces thermomechanical pulp from wood of *Eucalyptus grandis*. The annual volume under bark entering the mill is 337 240 m<sup>3</sup>. Pulp rejects are minimized by continuously recycling fibres back into the process.

It is not possible to differentiate the origin of the wood by activity (i.e. Forest management, Afforestation or Deforestation). Solid waste per year is 24 400 t d.m. and Liquid waste output per day is 50 m<sup>3</sup> day<sup>-1</sup>.

Applying Tier 1, the Total inflow: Mass C Entering the Mill (t C) is

Species = *Eucalyptus grandis*

Volume Entering the Mill (m<sup>3</sup>) under bark = 337 240 m<sup>3</sup>

Mean wood density (t m<sup>3</sup>) = 0.42

Carbon fraction (CF) = 0.47 (default)

Bark fraction = 0.13 (default)

Activity = Forest management.

Total inflow: Mass C Entering the Mill (t C) = 337 240 x 0.42 x (1+0.13) x 0.47 = 75 225 t C

mC recycled wood/pulp inflow (t C) = 0, because it is already included in the mass flow balance.

mC<sub>RM</sub> (t C) = 75 225 t C

FmC<sub>E</sub> = 0.11; FmC<sub>SW</sub> = 0.04; FmC<sub>LW</sub> = 0.1

mC<sub>E</sub> = 9 152 t C

Does solid waste threshold exceed amount specified in C tax act? No

Does waste water threshold exceed amount specified in C tax act? No

mC<sub>SW</sub> (t C) = NO

mC<sub>LW</sub> (t C) = NO

mC<sub>HWP</sub> from milling processing facility (t C) = 66 951 t C

fL<sub>C96</sub> = 0.74 (default provided)

S<sub>HWPi</sub> Reporting = - 181 659 t CO<sub>2</sub>

S<sub>HWPi</sub> Accounting = -204 112 t CO<sub>2</sub>



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**Table C.12: Data required for the estimating HWP, sawmill Tier 1**

Mill name	Enter mill name
Activity	Forest management, Afforestation, or Deforestation If it is not possible to split the data by activity, then select Forest management.
HWP type	User defined, e.g. Sawn wood, Sawn wood (Pine), Sawn wood (Eucs), Veneer and plywood, Particle board, OSB and wafer board, Fibreboard (all), Mining timber, Poles or User defined
mC recycled wood/pulp inflow	Enter value, t C, the default is 0
Mass C Entering the mill	Enter value, t C. Report separately for 3 <sup>rd</sup> party and other register company inflows
Fraction of harvest from registered and/or 3 <sup>rd</sup> party forests under the C tax act 2019	Enter fraction

**Table C.13: Data required for estimating HWP, sawmill Tier 2**

Mill name	Enter mill name
Activity	Forest Management, Afforestation or Deforestation If it is not possible to split the data by activity, then select Forest management.
Solid waste per year	Enter value, t
Liquid waste per day	Enter value, m <sup>3</sup> day <sup>-1</sup>
HWP type	User defined, e.g. Sawn wood, Sawn wood (Pine), Sawn wood (Eucs), Veneer and plywood, Particle board, OSB and wafer board, Fibreboard (all), Mining timber, Poles or User defined
mC recycled wood/pulp inflow	Enter value, t C, the default is 0
Mass C Entering the mill	Enter value, t C. Report separately for 3 <sup>rd</sup> party and other register company inflows
Fraction of harvest from registered and/or 3 <sup>rd</sup> party forests under the C tax act 2019	Enter fraction
Fm <sub>C<sub>E</sub></sub>	Enter value, no defaults available
Fm <sub>C<sub>SW</sub></sub>	Enter value, no defaults available
Fm <sub>C<sub>LW</sub></sub>	Enter value, no defaults available



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### Box C.13. Estimates for HWP contribution: Saw mill example

#### Sheet HWP in the MRV tool

A saw mill produces poles from wood of *Eucalyptus grandis*. The annual volume under bark entering the mill is 337 240 m<sup>3</sup>. No recycled wood is used.

It is not possible to differentiate the origin of the wood by activity (i.e. Forest management, Afforestation or Deforestation). Solid waste per year is 24 400 t d.m. and Liquid waste output per day is 50 m<sup>3</sup> day<sup>-1</sup>.

Applying Tier 1, the Total inflow: Mass C Entering the Mill (t C) is

Species = *Eucalyptus grandis*

Volume Entering the Mill (m<sup>3</sup>) under bark = 337 240 m<sup>3</sup>

Mean wood density (t m<sup>3</sup>) = 0.42 (default)

Carbon fraction (CF) = 0.47 (default)

Bark fraction = 0.13 (default)

Activity = Forest management.

Total inflow: Mass C Entering the Mill (t C) = 337 240 x 0.42 x (1+0.13) x 0.47 = 75 225 t C

mC recycled wood/pulp inflow (t C) = 0, because it is already included in the mass flow balance.

mC<sub>RM</sub> (t C) = 75 225 t C

f<sub>HWPrec</sub> = 0.83;

mC<sub>HWP</sub> from milling processing facility (t C) = 62 437 t C

f<sub>LC96</sub> = 0.97 (default provided)

S<sub>HWPi</sub> Reporting = -222 068 t CO<sub>2</sub>

S<sub>HWPi</sub> Accounting = -267 552 t CO<sub>2</sub>

#### C.3.4. 1Emissions from Fire, S<sub>fire</sub>

Biomass burning entails the emissions of CO<sub>2</sub>, CH<sub>4</sub> and N<sub>2</sub>O gases. Two types of fires are described in this section: wildfires and controlled burning. The MRV tool includes separate sheets for each of them:

- Controlled burning covers the burning of the remaining residue and litter following the removal of wood to mills and the burning of vegetation in firebreaks. This vegetation is considered to be savanna grassland.
- Wildfires are limited to those affected forest areas within the plantation, i.e. wildfires occurring in grassland areas within the plantation are not estimated nor reporting.



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### Calculation method in the MRV tool

The calculations for emissions from fires ( $S_{\text{fires}}$ ) are based on the IPCC 2006 methodology (volume 4, chapter 2, equation 2.27). Emissions from fires are calculated based on the following equations:

$$L_{\text{fire}} = A_{\text{disturbed}} \times M_B \times C_f \times G_{\text{ef}} \times 10^{-3} \quad \text{Equation C.17}$$

Where:

- $L_{\text{fire}}$  = amount of greenhouse gas emissions from fire, t's of each GHG e.g., t CH<sub>4</sub>, t N<sub>2</sub>O, etc.
- A = area burnt, hectares
- $M_B$  = mass of fuel available for combustion, t d.m. ha<sup>-1</sup>. This includes all biomass, ground litter and dead wood. When Tier 1 methods are used then litter and dead wood pools are assumed to be zero, except where there is a land-use change, therefore:
  - If the activity is Forest management, the total emissions from DOM burnt is assumed to be 0 for tier 1<sup>22</sup>. For higher tier total DOM C stock needs to be provided.
  - If Activity is Afforestation, then total C in DOM depends on the age of the afforestation.
  - If the activity is Deforestation, total C in DOM depends on the age of the afforestation or forest
- $C_f$  = combustion factor, dimensionless. Tier 1 assumption uses the fraction biomass lost based on the type of disturbance and assume the same fraction for AGB and DOM.
- $G_{\text{ef}}$  = emission factor, grams per kilogram of dry matter burnt (default values in Appendix C.1).

### Wildfires - Data required for estimates in the MRV tool

The method requires data on the biomass burnt.

**Table C.14: Data required for estimating emissions from wildfires.**

<b>Facility ID</b>	Enter the unique facility ID
<b>Activity</b>	Forest Management, Afforestation or Deforestation
<b>Total area</b>	Enter value in ha
<b>Mass of fuel available for combustion,</b>	It can be estimated based on total biomass and fraction damaged.
<b>Area disturbed</b>	Enter value in ha
<b>Type of damage</b>	Slight loss, Serious damage or Total loss. This is used to provide default values for the fraction of biomass lost, facility-specific values can be used instead of defaults.

<sup>22</sup> Because the C stock change in DOM in Forest management is 0, i.e. loss should not be reported because gains are not reported.



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In the case of Wildfires, the amount of biomass burnt can be estimated based on:

- Total biomass: input by the user
- fraction damaged: input by the user or default provided based on type of damage (slight loss - 1% lost; serious damage - 60% lost, and total loss - 100% lost according to SA NIR 2017).
- Biomass burnt (t C) =  $M_B$  (t d.m.) x Fraction biomass lost

Emissions of CH<sub>4</sub> and N<sub>2</sub>O are converted to CO<sub>2</sub>eq applying GWP of IPCC third assessment report (TAR).

### Box C.14. Emission estimates due biomass burning: wildfires, forest fires

#### Sheet Wildfires in the MRV tool

Applying tier 1, the biomass loss and gases emissions due to a wildfire affecting 5 ha, producing serious damage in a forest management of Extra tropical forest with a total biomass (living biomass and DOM) per ha of 150 t d.m. ha<sup>-1</sup> are:

Area disturbed = 5 ha

$M_B = 150 \text{ t d.m. ha}^{-1}$

Fraction damage = 0.6 (SA NIR 2019)

$G_{\text{ef-CO}_2} = 1569 \text{ g (kg d.m. burnt)}^{-1}$  (default IPCC 2006)

$L_{\text{fire-CO}_2} = 5 \text{ ha} \times 150 \text{ t d.m. ha}^{-1} \times 0.6 \times 1569 \times 10^{-3} = \mathbf{706.05 \text{ t CO}_2}$

$G_{\text{ef-CH}_4} = 4.7 \text{ g (kg d.m. burnt)}^{-1}$  (default IPCC 2006)

$L_{\text{fire-CH}_4} = 5 \text{ ha} \times 150 \text{ t d.m. ha}^{-1} \times 0.6 \times 4.7 \times 10^{-3} = \mathbf{2.12 \text{ t CH}_4}$

$G_{\text{ef-N}_2\text{O}} = 0.26 \text{ g (kg d.m. burnt)}^{-1}$  (default IPCC 2006)

$L_{\text{fire-N}_2\text{O}} = 5 \text{ ha} \times 150 \text{ t d.m. ha}^{-1} \times 0.6 \times 0.26 \times 10^{-3} = \mathbf{0.12 \text{ t N}_2\text{O}}$

$L_{\text{fire-CO}_2\text{eq}} = 706.05 + 2.12 \times 23 + 0.12 \times 296 = \mathbf{789.3 \text{ t CO}_2\text{eq}}$

*Note that emission factors are expressed in g/kg, therefore 10<sup>-3</sup> needs to be included in the calculation of emissions.*

CO<sub>2</sub>, CH<sub>4</sub> and N<sub>2</sub>O are first estimated and reported separately. The emissions are then converted to CO<sub>2</sub>eq and reported as a summed total. CO<sub>2</sub> emissions have to be reported in case of deforestation, while it is assuming short term recovery of C in all C pool in the case of forest Management and Afforestation, and therefore CO<sub>2</sub> emissions are not reported.

The estimates must be reported by wildfire.



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### Wildfires – Accounting of emissions from Fire, $S_{fire}$

This source is not accounted. See Chapter B, section 3 (Accounting Rulebook).

### Controlled burning - Data required for estimates in the MRV tool

The method requires data on the biomass burnt.

*Table C.15: Data required for estimating emissions from controlled burning*

<b>Facility ID</b>	Enter the unique facility ID
<b>Activity</b>	Forest management, Afforestation or Deforestation
<b>Species/Genus</b>	Predominant species name
<b>Area burnt</b>	Enter value in ha
<b>Controlled burning category</b>	Select from the dropdown (11 options available)

In the case of controlled burning, the amount of biomass burnt could can be estimated (see Box C.15 for example) using **Sheet Controlled burning in the MRV Tool**:

- For the controlled burning category post-harvest burning, the amount of biomass burnt is the product of biomass in litter and harvest residues, that is input by the user or default provided, and the combustion fraction, that is input by user or default provided (0.9) sourced from Dovey (2012) in Cirrus report, p.55, table 6.2).
- For the controlled burning category Firebreaks, the amount of biomass burnt is input by the user or the default provided sourced from IPCC 2006, vol 4, ch. 6, table 6.1 t d.m. ha<sup>-1</sup> and the combustion factor 0.77 sourced from IPCC 2006, vol 4, ch. 2, table 2.6, type of vegetation savanna grasslands (mid/late dry season burns), surface layer combustion only.

Emissions of CH<sub>4</sub> and N<sub>2</sub>O are converted to CO<sub>2</sub>eq applying GWP of IPCC third assessment report (TAR).



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### Box C.15. Emission estimates due biomass burning: controlled burning

#### Sheet Controlled burning in the MRV tool

Applying tier 1, the biomass loss and gases emissions due to controlled burning post-harvest in 100 ha of *Eucalyptus grandis* under forest management is:

Area disturbed = 100 ha

Biomass in litter and harvest residues (t d.m. ha<sup>-1</sup>) = 31.4 t d.m. ha<sup>-1</sup> (default provided)

C<sub>f</sub> = 0.9 (default IPCC 2006)

G<sub>ef-CO<sub>2</sub></sub> = 1569 g (kg d.m. burnt)<sup>-1</sup> (default IPCC 2006)

L<sub>fire-CO<sub>2</sub></sub> = 100 ha × 31.4 t d.m. ha<sup>-1</sup> × 0.9 × 1569 × 10<sup>-3</sup> = **4434.0 t CO<sub>2</sub>**

G<sub>ef-CH<sub>4</sub></sub> = 4.7 g (kg d.m. burnt)<sup>-1</sup> (default IPCC 2006)

L<sub>fire-CH<sub>4</sub></sub> = 100 ha × 31.4 t d.m. ha<sup>-1</sup> × 4.7 × 10<sup>-3</sup> = **13.3 t CH<sub>4</sub>**

G<sub>ef-N<sub>2</sub>O</sub> = 0.26 g/kg d.m. burnt (default IPCC 2006)

L<sub>fire-N<sub>2</sub>O</sub> = 100 ha × 31.4 t d.m. ha<sup>-1</sup> × 0.26 × 10<sup>-3</sup> = **0.7 t N<sub>2</sub>O**

L<sub>fire-CO<sub>2</sub>eq</sub> = 4377,51 + 13.3 \* 23 + 0.7 \* 296 = **4957.0 t CO<sub>2</sub>eq**

CO<sub>2</sub>, CH<sub>4</sub> and N<sub>2</sub>O are first estimated and reported separately. The emissions are then converted to CO<sub>2</sub>eq and reported as a summed total.

The estimates must be reported by controlled burning (harvest residues and litter or firebreaks).

#### Controlled burning – Accounting of emissions from fire, S<sub>fire</sub>

This source is not accounted. See Chapter B, section 3 (Accounting Rulebook).

#### C.3.5. Applied Fertiliser, S<sub>fert</sub>

The application of fertilisers results in human-induced net N additions to soils (e.g. organic fertilisers such as deposited manure, crop residues, sewage sludge and synthetic fertilisers) and consequentially N<sub>2</sub>O emissions. Commercial fertilizers may contain a fraction of nitrogen which represents the activity data for estimation (N inputs). Formally termed “direct emissions from the application of fertiliser”, it does not include the emissions generated through the production and supply of the fertiliser, only the N<sub>2</sub>O emissions generated where they are applied. Only synthetic N fertilisers are assumed to be used, i.e. methodology to estimate emissions due to the use of organic fertilisers is not included in the MRV tool or this document.



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### Calculation method in the MRV tool

The calculations for emissions from applied fertiliser ( $S_{fert}$ ) are based on the IPCC 2006 Tier 1 methodology (volume 4, chapter 11). Emissions from fertiliser are calculated based on the following equations (see Box C.16 for example):

$$N_2O_{Direct-N} = N_2O-N_{N\ inputs} \quad \text{Equation C.18}$$

$$N_2O-N_{N\ inputs} = F_{SN} \times EF_N \quad \text{Equation C.19}$$

Where:

$N_2O$  Direct –N = annual direct  $N_2O$ –N emissions produced from managed soils,  $kg\ N_2O-N\ yr^{-1}$  (N which is available for conversion to  $N_2O$ )

- $N_2O$ –N inputs = annual direct  $N_2O$ –N emissions from N inputs to managed soils,  $kg\ N_2O-N\ yr^{-1}$
- $F_{SN}$  = annual amount of synthetic fertiliser N applied to soils,  $kg\ N\ yr^{-1}$ 
  - $F_{SN} = F_{TOTAL} \times Fraction_N$ ,
  - where  $F_{TOTAL}$  = Total fertiliser applied (kg), Fraction N = the fraction of N in fertiliser
- $EF_N$  = emission factor for  $N_2O$  emissions from N inputs ( $0.01\ t\ N_2O-N\ tN^{-1}$ )

Conversion of  $N_2O$ –N emissions to  $N_2O$  emissions for reporting purposes is performed by using the following equation:

$$N_2O = N_2O - N \times \frac{44}{28}$$

Emissions of  $CH_4$  and  $N_2O$  are converted to  $CO_2eq$  applying GWP of IPCC third assessment report (TAR).

#### Box C.16. Emission estimates due to Synthetic fertiliser application

##### Sheet Fertilisation in the MRV tool

$N_2O$  emissions due to the application of 10,000 kg of N synthetic fertilisers in a forest plantation are:

$$F_{SN} = 10,000\ kg\ N$$

$$EF_N = 0.01\ kg\ N_2O - N\ (kg\ N)^{-1}\ (\text{default IPCC 2006})$$

$$N_2O-N_{N\ inputs} = 10,000\ kg\ N \times 0.01\ kg\ N_2O-N\ (kg\ N)^{-1} = 100\ kg$$

$$N_2O\ emissions = 100 \times \frac{44}{28} \times 10^{-3} = 0.16\ t$$

$$CO_2eq\ emissions = 0.16 \times 296 = 46.5\ t\ CO_2eq$$



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### Data required for estimates in the MRV tool

Registered companies must provide their annual total fertiliser application in kg of N. Default values are provided for other parameters required to calculate the total N applied and N<sub>2</sub>O.

**Table C.16: Data required for estimating emissions from applied fertiliser**

<b>Fertiliser type</b>	Enter fertiliser type
<b>Activity</b>	Forest Management, Afforestation or Deforestation
<b>N in fertiliser applied (kg)</b>	Use of Supporting Calculations is possible if value is not known. At least the amount of C in the fertiliser amount applied is required.

If the total amount of N applied is not known this can be estimated based on the total amount of fertiliser applied and a default content of N in fertiliser, sourced from Cirrus report.

Companies should report the total emissions both in t N<sub>2</sub>O and t CO<sub>2</sub>eq from fertiliser application.

### Accounting of applied Fertiliser, S<sub>fert</sub>

This source is not accounted. Refer to Annex B, section 5 (Accounting Rulebook).

### C.3.6. Land Tracking

There is a need for land tracking under the C tax that is covered in the **sheet Facility Register in the MRV tool**. This is required to ensure accounted emissions/removals are permanent and that once an area is accounted it will continue to be accounted for subsequent years. General information is requested by Facility unit.

**Table C.17: General information by Facility unit**

<b>Facility ID</b>	Enter unique facility ID
<b>Province</b>	Select from dropdown
<b>Region</b>	Select from dropdown
<b>Geospatial verification</b>	Provide file reference e.g. paper maps, or geospatial reference
<b>Species/genus</b>	Predominate species name, this should be consistent with the calculation sheets
<b>Area</b>	Enter the area in ha, this should be consistent with the areas entered in either the <b>Land Gain-Loss Method</b> or <b>Land Stock-Difference Method</b> sheets
<b>TUP area</b>	Enter temporary unplanted area in ha.

### C.3.7. 3rd Party register

There is a need to track the 3<sup>rd</sup> parties from which the taxpayer is purchasing wood. This is done within the **sheet 3<sup>rd</sup> Party Register in the MRV tool**. This is required to ensure accounted emissions/removals are eligible. General information is requested by 3<sup>rd</sup> Party Name.



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**Table C.18: General information by Facility unit**

<b>3<sup>rd</sup> Party Name</b>	Enter 3 <sup>rd</sup> party name
<b>Facility ID</b>	Enter unique facility ID
<b>Area harvested</b>	Enter the area of the Facility that is harvested
<b>Proportion of harvest bought</b>	Enter value
<b>Harvest amount</b>	Enter value
<b>Units of harvest</b>	Provide the units of the harvest amount
<b>Geospatial verification</b>	Provide file reference e.g. paper maps, or geospatial reference
<b>Is there an agreement with the 3<sup>rd</sup> Party?</b>	Yes or no
<b>Has a certificate been provided?</b>	Yes or no
<b>Are forest emissions/reported?</b>	Yes or no

### C.3.8. Verification

A separate document has been prepared to provide detailed information for the verification process (see Chapter D of this report). In the **sheet Verification in the MRV tool** some information relating to verification is provided. It is not mandatory to complete this sheet, but taxpayers are encouraged to do so as it would assist the verification process and could shorten the time for the approval process.

### C.3.9. Guidance for the Use of Models

Companies can develop their own tier 3 methods for estimating carbon sources and sinks. Tier 3 methods make use of measurements and/or modelling, with the goal of improving the estimation of GHG emissions and removals, first in order to reach Tier 2 or go beyond what is possible with Tier 1 or 2 methods. The IPCC Refinement Volume 4, chapter 2, section 2.5. provides guidance on the development of such models.

If tier 3 models are applied in C tax accounting it is essential to have detailed and transparent documentation to accompany the model. The following details are required in the documentation:

- a) Model selection or development:
  - i. A description of the model;
  - ii. Reasons for choosing the model (e.g. suitability to C tax reporting and accounting);
  - iii. Discussion on any likely consequences if the model is used outside of the domain that the model is parameterised to simulate;
- b) Model calibration:
  - i. Description of the process undertaken to calibrate the model;
  - ii. Documentation of the data sources informing the manual or automatic calibration;
- c) Model behaviour evaluation:
  - i. Results of the analysis verifying model behaviour using independent measurements to confirm that the model is capable of estimating carbon stocks, stock changes and/or emissions and removals in the source/sink categories of interest;
  - ii. Source of independent data;
- d) Model implementation:
  - i. Overview of procedures that are used to apply the model;
- e) Quantifying uncertainties:
  - i. Description of the approach taken to estimate uncertainty in the model outputs;



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- f) Verification of estimates:
  - i. Summary of the verification results for the model;
- g) Reporting and documentation:
  - i. Information on the quality assurance and quality control step taken throughout the process.

This documentation would need to be submitted along with the C Tax sequestration submission to DEFF.

### C.4. References

- Adu Poku, S. (2015). Plant-based carbon flow analysis of South African pulp mills. MSc Thesis School of Chemical Engineering at the College of Agriculture, Engineering and Science, University of KwaZulu-Natal, Durban South Africa.
- Christie, S. & Scholes, R. (1995). Carbon storage in eucalyptus and pine plantations in South Africa. *Environmental monitoring and assessment*, 38, 231-241.
- IPCC (2001). Climate Change 2001: The Scientific Basis. Contribution of Working Group I to the Third Assessment Report of the Intergovernmental Panel on Climate Change [Houghton, J.T., Y. Ding, D.J. Griggs, M. Noguer, P.J. van der Linden, X. Dai, K. Maskell, and C.A. Johnson (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, 881pp.
- IPCC (2006). 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Prepared by the National Greenhouse Gas Inventories Programme, Eggleston H.S., Buendia L., Miwa K., Ngara T. and Tanabe K. (eds). Published: IGES, Japan. Available at: <https://www.ipcc-nggip.iges.or.jp/public/2006gl/index.html>
- IPCC (2014). 2013 Revised Supplementary Methods and Good Practice Guidance Arising from the Kyoto Protocol, Hiraishi, T., Krug, T., Tanabe, K., Srivastava, N., Baasansuren, J., Fukuda, M. and Troxler, T.G. (eds) Published: IPCC, Switzerland. Available at: <https://www.ipcc-nggip.iges.or.jp/public/kpsg/index.html>
- IPCC (2019). 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Calvo Buendia, E., Tanabe, K., Kranjc, A., Baasansuren, J., Fukuda, M., Ngarize S., Osako, A., Pyrozhenko, Y., Shermanau, P. and Federici, S. (eds). Published: IPCC, Switzerland. Available at: <https://www.ipcc-nggip.iges.or.jp/public/2019rf/index.html>
- Skog K & Nicholson G.A (1998). Carbon cycling through wood products: The role of wood and paper products. *Forest Products Journal* 48(7):75-83.
- UNECE/FAO (2010). Forest Product Conversion Factors for the UNECE Region. GENEVA TIMBER AND FOREST DISCUSSION PAPER 49. UN, Geneva.



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## Appendix C.1

### Appendix C.1.A: Functionalities in the MRV Tool & User Tips

It is recommended that users familiarise themselves with the Methodology Guidelines before using the MRV Tool. The key functionalities of the MRV Tool and user tips are provided below. This information is also provided within the **Sheet Content and Instructions in the MRV tool**.

- Detailed information is provided within each sheet as well as within the Methodological Guidance. Read this information carefully before entering any data into the tool.
- Complete all green cells (input data cells) which are relevant for the tier being applied, note that users should:
  - Use either the gain-loss of the stock-difference method for calculating the carbon stock change in living biomass.
  - Use either the tier 1 or tier 2 tables provided for Saw Mills in the 'HWP' sheet.
- Complete the methodology boxes at the top of each sheet
- Add new rows under the tables as needed, the formula will be copied automatically.
- Some tables are pre-filled with data for demonstration purposes, references are provided to the Methodological Guidelines. This data should be overridden/ removed before submitting this file.
- The formula within the compilation tables are provided to help with the calculations but can be overridden, it is recommended that users first review the examples provided within the MRV Tool.
- Default parameters are provided for some categories, users may use their own parameters as long as justification is provided. Detailed information is provided within the methodology.
- Some activity data/emissions/removals estimates required for the yellow compilation sheets can be generated in the **Sheet Supporting Calculations in the MRV Tool**.
- The **Sheet Reporting & Accounting in the MRV Tool** is filled automatically, ensure that the appropriate methods are selected in the dropdowns

Where no emissions/removals are generated from a source/pool the appropriate notation keys should be applied (see below).



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### Appendix C.1.B: Country specific Mass flow factors for sawn wood

Mass flow factors for all sawn wood production systems based on inflows of round wood. The only available mass flow factors for the sawn wood products are provided by Kerr (unpublished thesis, 2019) as shown in

Table C.19. These are based on mass flow for all sawn wood products in South Africa, so these estimates are not suitable for use by individual mills because recovery rates could vary from 28 to 100 % (Christie and Scholes, 1995). These are not considered to be suitable for reporting of HWP flow for individual companies.

**Table C.19: Mass flow factors for sawn wood. Not to be used for Tier 1**

Mass flow factor	Value (t C/t C of roundwood inflows)
$fmC_E$	0.061
$fmC_{LW}^*$	NA
$fmC_{sw}$	0.092

\* There are no liquid waste emission C flows in the sawn wood processing sector (NA= not applicable)



### Appendix C.1.C: BCEF default values (see “BCEF lookups” in MRV tool)

Table C.20: BCEF default values

Lookup	Climatic Zone	Species	Growing stock level (m <sup>3</sup> )	BCEF <sub>i</sub> (t/m <sup>3</sup> )	BCEF <sub>R</sub> (t/m <sup>3</sup> )	BCEF <sub>s</sub> (t/m <sup>3</sup> )
Hardwoods/Eucalyptus < 20	Temperate	Hardwoods/Eucalyptus	< 20	1.5	3.33	3
Hardwoods/Eucalyptus 21 - 40	Temperate	Hardwoods/Eucalyptus	21 - 40	1.3	1.89	1.7
Hardwoods/Eucalyptus 41 - 100	Temperate	Hardwoods/Eucalyptus	41 - 100	0.9	1.55	1.4
Hardwoods/Eucalyptus 101 - 200	Temperate	Hardwoods/Eucalyptus	101 - 200	0.6	1.17	1.05
Hardwoods/Eucalyptus > 200	Temperate	Hardwoods/Eucalyptus	> 200	0.48	0.89	0.8
Pines < 20	Temperate	Pines	< 20	1.5	2	1.8
Pines 21 - 40	Temperate	Pines	21 - 40	0.75	1.11	1
Pines 41 - 100	Temperate	Pines	41 - 100	0.6	0.83	0.75
Pines 101 - 200	Temperate	Pines	101 - 200	0.67	0.77	0.7
Pines > 200	Temperate	Pines	> 200	0.69	0.77	0.7
Acacia < 20	Temperate	Acacia	< 20	1	3.33	3
Acacia 21 - 40	Temperate	Acacia	21 - 40	0.83	1.55	1.4
Acacia 41 - 100	Temperate	Acacia	41 - 100	0.57	1.11	1
Acacia 101 - 200	Temperate	Acacia	101 - 200	0.53	0.83	0.75
Acacia > 200	Temperate	Acacia	> 200	0.6	0.77	0.7

Source: IPCC (2006) Volume 4, Chapter 4, Table 4.



### Appendix C.1.D: Default and country-specific parameters included in the MRV tool

Type	Parameter	Value	Units	Data Source
General factors named ranges set	C to CO <sub>2</sub>	-3.67	-	IPCC 2006
	N to N <sub>2</sub> O	1.57	-	IPCC 2006
	GWP CH <sub>4</sub>	23	-	IPCC third assessment report (TAR)
	GWP N <sub>2</sub> O	296	-	IPCC third assessment report (TAR)
	kg to t / g to kg	0.001	-	-
Carbon Fraction				
Combustion factors	CF: Default	0.47	t C/ d.m.	IPCC 2006, V4, Chp4, Table 4.3 Default value
	Eucalyptus grandis - Both treatments, spread- and piled- slash	0.92	fraction	Nadel (2005) (Knowles & Christie, 2018, p.55, table 6.2)
	Eucalyptus grandis - 36.4 t.ha-1 pre-fire, 4.2 t.ha-1 post-fire	0.9	fraction	Dovey (2012) (Knowles & Christie, 2018, p.55, table 6.2)
	Firebreaks: grassland	1	fraction	IPCC (2006)
	R: above-ground to below-ground ratio			
	R: Eucalyptus grandis	0.24	ratio	Du Toit B. et al. (2016) Carbon sequestration in South Africa plantation forests, Progress report number 1. Prepared for PAMSA, February 2016
	R: Eucalyptus dunnii	0.24	ratio	Du Toit B. et al. (2016) Carbon sequestration in South Africa plantation forests, Progress report number 1. Prepared for PAMSA, February 2016
	R: Eucalyptus macarthurii	0.24	ratio	Du Toit B. et al. (2016) Carbon sequestration in South Africa plantation forests, Progress report number 1. Prepared for PAMSA, February 2016
	R: Eucalyptus nitens	0.24	ratio	Du Toit B. et al. (2016) Carbon sequestration in South Africa plantation forests, Progress report number 1. Prepared for PAMSA, February 2016
	R: Eucalyptus smithii	0.24	ratio	Du Toit B. et al. (2016) Carbon sequestration in South Africa plantation forests, Progress report number 1. Prepared for PAMSA, February 2016
	R: E. grandis x E.urophylla	0.24	ratio	Du Toit B. et al. (2016) Carbon sequestration in South Africa plantation forests, Progress report number 1. Prepared for PAMSA, February 2016

Type	Parameter	Value	Units	Data Source
	R: <i>E.grandis</i> x <i>E.nitens</i>	0.24	ratio	Du Toit B. et al. (2016) Carbon sequestration in South Africa plantation forests, Progress report number 1. Prepared for PAMSA, February 2016
	R: <i>E.grandis</i> x <i>E.camaldulensis</i>	0.24	ratio	Du Toit B. et al. (2016) Carbon sequestration in South Africa plantation forests, Progress report number 1. Prepared for PAMSA, February 2016
	R: <i>Pinus patula</i>	0.28	ratio	Du Toit B. et al. (2016) Carbon sequestration in South Africa plantation forests, Progress report number 1. Prepared for PAMSA, February 2016
	R: <i>Pinus elliottii</i> (13 yrs)	0.28	ratio	Du Toit B. et al. (2016) Carbon sequestration in South Africa plantation forests, Progress report number 1. Prepared for PAMSA, February 2016
	R: <i>Pinus radiata</i>	0.28	ratio	Du Toit B. et al. (2016) Carbon sequestration in South Africa plantation forests, Progress report number 1. Prepared for PAMSA, February 2016
	R: <i>Pinus taeda</i> (12 yrs)	0.28	ratio	Du Toit B. et al. (2016) Carbon sequestration in South Africa plantation forests, Progress report number 1. Prepared for PAMSA, February 2016
	R: <i>Pinus pinaster</i>	0.28	ratio	Du Toit B. et al. (2016) Carbon sequestration in South Africa plantation forests, Progress report number 1. Prepared for PAMSA, February 2016
	R: <i>Acacia mearnsii</i>	0.28	ratio	Du Toit B. et al. (2016) Carbon sequestration in South Africa plantation forests, Progress report number 1. Prepared for PAMSA, February 2016
	D: Mean wood density			
	D: <i>Eucalyptus grandis</i>	0.42	t/m <sup>3</sup>	Du Toit B. et al. (2016) Carbon sequestration in South Africa plantation forests, Progress report number 1. Prepared for PAMSA, February 2016
	D: <i>Eucalyptus dunnii</i>	0.534	t/m <sup>3</sup>	Du Toit B. et al. (2016) Carbon sequestration in South Africa plantation forests, Progress report number 1. Prepared for PAMSA, February 2016
	D: <i>Eucalyptus macarthurii</i>	0.541	t/m <sup>3</sup>	Du Toit B. et al. (2016) Carbon sequestration in South Africa plantation forests, Progress report number 1. Prepared for PAMSA, February 2016
	D: <i>Eucalyptus nitens</i>	0.483	t/m <sup>3</sup>	Du Toit B. et al. (2016) Carbon sequestration in South Africa plantation forests, Progress report number 1. Prepared for PAMSA, February 2016
	D: <i>Eucalyptus smithii</i>	0.569	t/m <sup>3</sup>	Du Toit B. et al. (2016) Carbon sequestration in South Africa plantation forests, Progress report number 1. Prepared for PAMSA, February 2016
	D: <i>E.grandis</i> x <i>E.urophylla</i>	0.487	t/m <sup>3</sup>	Du Toit B. et al. (2016) Carbon sequestration in South Africa plantation forests, Progress report number 1. Prepared for PAMSA, February 2016
	D: <i>E.grandis</i> x <i>E.nitens</i>	0.512	t/m <sup>3</sup>	Du Toit B. et al. (2016) Carbon sequestration in South Africa plantation forests, Progress report number 1. Prepared for PAMSA, February 2016
	D: <i>E.grandis</i> x <i>E.camaldulensis</i>	0.588	t/m <sup>3</sup>	Du Toit B. et al. (2016) Carbon sequestration in South Africa plantation forests, Progress report number 1. Prepared for PAMSA, February 2016



Type	Parameter	Value	Units	Data Source
	D: Pinus patula	0.354	t/m <sup>3</sup>	Du Toit B. et al. (2016) Carbon sequestration in South Africa plantation forests, Progress report number 1. Prepared for PAMSA, February 2016
	D: Pinus elliottii (13 yrs)	0.42	t/m <sup>3</sup>	Du Toit B. et al. (2016) Carbon sequestration in South Africa plantation forests, Progress report number 1. Prepared for PAMSA, February 2016
	D: Pinus radiata	0.382	t/m <sup>3</sup>	Du Toit B. et al. (2016) Carbon sequestration in South Africa plantation forests, Progress report number 1. Prepared for PAMSA, February 2016
	D: Pinus taeda (12 yrs)	0.416	t/m <sup>3</sup>	Du Toit B. et al. (2016) Carbon sequestration in South Africa plantation forests, Progress report number 1. Prepared for PAMSA, February 2016
	D: Pinus pinaster	0.44	t/m <sup>3</sup>	Du Toit B. et al. (2016) Carbon sequestration in South Africa plantation forests, Progress report number 1. Prepared for PAMSA, February 2016
	D: Acacia mearnsii	0.655	t/m <sup>3</sup>	Du Toit B. et al. (2016) Carbon sequestration in South Africa plantation forests, Progress report number 1. Prepared for PAMSA, February 2016
Bark fraction				
Default living biomass in other land uses	Bark fraction: default	0.13	fraction	IPCC 2006, V4, Ch12, Table 12.5, default value from notes
	Total biomass: Grassland	6.1	t C/ d.m.	IPCC 2006, V4, Ch6, Table 6.4, Climate: Warm temperate, dry
	Total biomass: Annual Cropland	5	t C/ d.m.	IPCC 2006, V4, Ch5, Table 5.9
	Total biomass: Perennial Cropland	2.1	t C/ d.m.	IPCC 2006, V4, Ch5, Table 5.9, Climate: Temperate
	Total biomass: Other	0		
Default DOM carbon stocks				
	DOM: Broadleaf deciduous	28.2	t C/ha	IPCC 2006, V4, Ch2, Table 2.2, Climate: Warm temperate, dry
	DOM: Needleleaf evergreen	20.3	t C/ha	IPCC 2006, V4, Ch2, Table 2.2, Climate: Warm temperate, dry
Default mass flow fraction for C leaving the mill as a proportion of timber entering the mill under different milling processes. Paper/pulp mill				
	FmCE: Kraft	0.49	fraction	Adu Poku, 2015; Published yield range %: 40-50
	FmCE: Sulphite	0.42	fraction	Adu Poku, 2015; Published yield range %: 29
	FmCE: Soda (Bagasse)	0.62	fraction	Adu Poku, 2015; Published yield range %: 28-42
	FmCE: Thermomechanical	0.11	fraction	Adu Poku, 2015; Published yield range %: 72-95
	FmCE: NSSC	0.13	fraction	Adu Poku, 2015; Published yield range %: 63-76
	FmCE: Mechanical & Kraft	0.36	fraction	Adu Poku, 2015; Published yield range %: 46



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Type	Parameter	Value	Units	Data Source
	FmCE: NSSC & Kraft	0.28	fraction	Adu Poku, 2015; Published yield range %: 57
	FmCSW: Kraft	0.03	fraction	Adu Poku, 2015; Published yield range %: 40-50
	FmCSW: Sulphite	0.01	fraction	Adu Poku, 2015; Published yield range %: 29
	FmCSW: Soda (Bagasse)	0.05	fraction	Adu Poku, 2015; Published yield range %: 28-42
	FmCSW: Thermomechanical	0.04	fraction	Adu Poku, 2015; Published yield range %: 72-95
	FmCSW: NSSC	0.15	fraction	Adu Poku, 2015; Published yield range %: 63-76
	FmCSW: Mechanical & Kraft	0.09	fraction	Adu Poku, 2015; Published yield range %: 46
	FmCSW: NSSC & Kraft	0.09	fraction	Adu Poku, 2015; Published yield range %: 57
	FmCLW: Kraft	0	fraction	Adu Poku, 2015; Published yield range %: 40-50
	FmCLW: Sulphite	0.27	fraction	Adu Poku, 2015; Published yield range %: 29
	FmCLW: Soda (Bagasse)	0.015	fraction	Adu Poku, 2015; Published yield range %: 28-42
	FmCLW: Thermomechanical	0.1	fraction	Adu Poku, 2015; Published yield range %: 72-95
	FmCLW: NSSC	0	fraction	Adu Poku, 2015; Published yield range %: 63-76
	FmCLW: Mechanical & Kraft	0	fraction	Adu Poku, 2015; Published yield range %: 46
	FmCLW: NSSC & Kraft	0.04	fraction	Adu Poku, 2015; Published yield range %: 57
	FHWPrec values for different categories and sources of data for the saw mill default approach.			
	FHWPrec: Sawn wood	0.43	fraction	Mean value. South African Forestry and Forest Industry Facts 1980-2017
	FHWPrec: Sawn wood (Pine)	0.5	fraction	CHRISTIE, S. & SCHOLLES, R. 1995
	FHWPrec: Sawn wood (Eucs)	0.28	fraction	CHRISTIE, S. & SCHOLLES, R. 1995
	FHWPrec: Veneer and plywood	0.46	fraction	UNECE/FAO, 2010
	FHWPrec: Particle board	0.82	fraction	UNECE/FAO, 2010
	FHWPrec: OSB and waferboard	0.9	fraction	UNECE/FAO, 2010
	FHWPrec: Fibreboard (all)	0.85	fraction	UNECE/FAO, 2010
	FHWPrec: Mining timber	0.74	fraction	Median value (data not normally distributed). South African Forestry and Forest Industry Facts 1980-2017
	FHWPrec: Poles	0.83	fraction	Median value (data not normally distributed). South African Forestry and Forest Industry Facts 1980-2017
	fLC96 values for different mill inputs			



Type	Parameter	Value	Units	Data Source
	flC96: Solid wood	0.97	fraction	Skog & Nicholson, 1998
	flC96: Newsprint	0.84	fraction	Skog & Nicholson, 1998
	flC96: Coated paper	0.82	fraction	Skog & Nicholson, 1998
	flC97: Boxboard	0.68	fraction	Skog & Nicholson, 1998
	flC97: Office paper	0.62	fraction	Skog & Nicholson, 1998
	flC97: Mean paper used for pulp	0.74	fraction	Skog & Nicholson, 1998
Fires				
	Extra tropical forest CO2 EF	1569	g/kg d.m. burnt	Andreae and Merlet (2001). IPCC 2006, V4, Ch2, Table 2.5
	Extra tropical forest CH4 EF	4.7	g/kg d.m. burnt	Andreae and Merlet (2001). IPCC 2006, V4, Ch2, Table 2.5
	Extra tropical forest N2O EF	0.26	g/kg d.m. burnt	Andreae and Merlet (2001). IPCC 2006, V4, Ch2, Table 2.5
	Slight loss	0.01	fraction	South Africa 2017 GHI inventory
	Serious damage	0.6	fraction	South Africa 2017 GHI inventory
	Total loss	1	fraction	South Africa 2017 GHI inventory
Biomass burning Post-harvest				
	Biomass burning Post-harvest: Eucalyptus grandis	31.4	t d.m./ha	du Toit et al. (2004) (Knowles & Christie, 2018)
	Biomass burning Post-harvest-spread slash: Eucalyptus grandis	15	t d.m./ha	Nadel (2005) (Knowles & Christie, 2018)
	Biomass burning Post-harvest-piled slash: Eucalyptus grandis	79	t d.m./ha	Nadel (2005) (Knowles & Christie, 2018)
	Biomass burning Post-harvest-mean: Eucalyptus grandis	15.4	t d.m./ha	Nadel (2005) (Knowles & Christie, 2018)
	Biomass burning Post-harvest-harvest residue: Eucalyptus grandis	26	t d.m./ha	Dovey (2012) (Knowles & Christie, 2018)
	Biomass burning Post-harvest-litter: Eucalyptus grandis	24.6	t d.m./ha	
	Biomass burning Post-harvest-litter-sawn timber regime: Pinus patula	15 - 138	t d.m./ha	Ross 2004 (Knowles & Christie, 2018)
	Biomass burning Post-harvest-litter-pulp wood regime: Pinus patula	23 - 53	t d.m./ha	Ross 2004 (Knowles & Christie, 2018)

Type	Parameter	Value	Units	Data Source
	Biomass burning residue-sawn timber regime: Pinus patula	54.6	t d.m/ha	Ross 2004 (Knowles & Christie, 2018)
	Biomass burning residue - pulpwood regime: Pinus patula	55.6	t d.m/ha	Ross 2004 (Knowles & Christie, 2018)
	Biomass burning grassland: firebreaks	10	t d.m/ha	IPCC 2006, V4, Ch2, Table 2.4, All savanna grasslands (mid/late dry season burns)*
Fertilisers				
	EF for N additions from mineral fertilisers, organic amendments and crop residues, and N mineralised from mineral soil as a result of loss of soil carbon	0.01	kg N2O-N (kg N)-1	IPCC 2006 V4, Ch1.1, Table 11.1. Uncertainty range 0.003 - 0.03
	N in synthetic fertiliser (NPK)	0.175	Fraction N	Knowles & Christie, 2018: NPK fertiliser (REF?), Table 7.2. N elemental =5/(5+1+0) * 0.21
Discount for emissions				
	Fires	100		Accounting Rulebook and C tax Bill 2019
schedule 2 of the act	Fertilisation	100		Accounting Rulebook and C tax Bill 2019
SOC values				
	Managed forest - Cold, temperate, dry - High activity clay	50	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Managed forest - Cold, temperate, dry - Low activity clay	33	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Managed forest - Cold, temperate, dry - Sandy soils	34	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Managed forest - Cold, temperate, dry - Volcanic soils	20	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Managed forest - Cold, temperate, dry - Wetland soils	87	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Managed forest - Cold temperate, moist - High activity clay	95	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)



Type	Parameter	Value	Units	Data Source
	Managed forest - Cold temperate, moist - Low activity clay	85	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Managed forest - Cold temperate, moist - Sandy soils	71	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Managed forest - Cold temperate, moist - Spodic soils	115	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Managed forest - Cold temperate, moist - Volcanic soils	130	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Managed forest - Cold temperate, moist - Wetland soils	87	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Managed forest - Warm temperate, dry - High activity clay	38	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Managed forest - Warm temperate, dry - Low activity clay	24	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Managed forest - Warm temperate, dry - Sandy soils	19	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Managed forest - Warm temperate, dry - Volcanic soils	70	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Managed forest - Warm temperate, dry - Wetland soils	88	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Managed forest - Warm temperate, moist - High activity clay	88	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Managed forest - Warm temperate, moist - Low activity clay	63	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Managed forest - Warm temperate, moist - Sandy soils	34	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Managed forest - Warm temperate, moist - Spodic soils	NA	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Managed forest - Warm temperate, moist - Volcanic soils	80	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Managed forest - Warm temperate, moist - Wetland soils	88	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Perennial crop - Cold, temperate, dry - High activity clay	33.56	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)

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Type	Parameter	Value	Units	Data Source
	Perennial crop - Cold, temperate, dry - Low activity clay	22.15	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Perennial crop - Cold, temperate, dry - Sandy soils	22.83	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Perennial crop - Cold, temperate, dry - Volcanic soils	3	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Perennial crop - Cold, temperate, dry - Wetland soils	58.41	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Perennial crop - Cold temperate, moist - High activity clay	63.77	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Perennial crop - Cold temperate, moist - Low activity clay	57.06	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Perennial crop - Cold temperate, moist - Sandy soils	47.66	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Perennial crop - Cold temperate, moist - Spodic soils	77.2	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Perennial crop - Cold temperate, moist - Volcanic soils	87.27	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Perennial crop - Cold temperate, moist - Wetland soils	58.41	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Perennial crop - Warm temperate, dry - High activity clay	25.51	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Perennial crop - Warm temperate, dry - Low activity clay	16.11	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Perennial crop - Warm temperate, dry - Sandy soils	12.76	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Perennial crop - Warm temperate, dry - Volcanic soils	46.99	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Perennial crop - Warm temperate, dry - Wetland soils	59.08	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Perennial crop - Warm temperate, moist - High activity clay	59.084	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Perennial crop - Warm temperate, moist - Low activity clay	42.29	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)



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Type	Parameter	Value	Units	Data Source
	Perennial crop - Warm temperate, moist - Sandy soils	22.83	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Perennial crop - Warm temperate, moist - Spodic soils	NA	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Perennial crop - Warm temperate, moist - Volcanic soils	53.71	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Perennial crop - Warm temperate, moist - Wetland soils	59.07	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Annual crop - Cold, temperate, dry - High activity clay	36.73	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Annual crop - Cold, temperate, dry - Low activity clay	24.24	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Annual crop - Cold, temperate, dry - Sandy soils	24.98	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Annual crop - Cold, temperate, dry - Volcanic soils	14.69	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Annual crop - Cold, temperate, dry - Wetland soils	63.91	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Annual crop - Cold temperate, moist - High activity clay	63.97	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Annual crop - Cold temperate, moist - Low activity clay	57.24	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Annual crop - Cold temperate, moist - Sandy soils	47.81	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Annual crop - Cold temperate, moist - Spodic soils	77.44	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Annual crop - Cold temperate, moist - Volcanic soils	87.54	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Annual crop - Cold temperate, moist - Wetland soils	58.58	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Annual crop - Warm temperate, dry - High activity clay	27.58	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Annual crop - Warm temperate, dry - Low activity clay	17.42	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)



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Type	Parameter	Value	Units	Data Source
	Annual crop - Warm temperate, dry - Sandy soils	13.79	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Annual crop - Warm temperate, dry - Volcanic soils	50.81	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Annual crop - Warm temperate, dry - Wetland soils	63.87	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Annual crop - Warm temperate, moist - High activity clay	58.47	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Annual crop - Warm temperate, moist - Low activity clay	41.86	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Annual crop - Warm temperate, moist - Sandy soils	22.59	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Annual crop - Warm temperate, moist - Spodic soils	NA	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Annual crop - Warm temperate, moist - Volcanic soils	53.15	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Annual crop - Warm temperate, moist - Wetland soils	58.47	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Natural grassland - Cold, temperate, dry - High activity clay	50	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Natural grassland - Cold, temperate, dry - Low activity clay	33	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Natural grassland - Cold, temperate, dry - Sandy soils	34	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Natural grassland - Cold, temperate, dry - Volcanic soils	20	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Natural grassland - Cold, temperate, dry - Wetland soils	87	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Natural grassland - Cold temperate, moist - High activity clay	95	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Natural grassland - Cold temperate, moist - Low activity clay	85	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Natural grassland - Cold temperate, moist - Sandy soils	71	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)



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Type	Parameter	Value	Units	Data Source
	Natural grassland - Cold temperate, moist - Spodic soils	115	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Natural grassland - Cold temperate, moist - Volcanic soils	130	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Natural grassland - Cold temperate, moist - Wetland soils	87	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Natural grassland - Warm temperate, dry - High activity clay	38	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Natural grassland - Warm temperate, dry - Low activity clay	24	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Natural grassland - Warm temperate, dry - Sandy soils	19	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Natural grassland - Warm temperate, dry - Volcanic soils	70	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Natural grassland - Warm temperate, dry - Wetland soils	88	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Natural grassland - Warm temperate, moist - High activity clay	88	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Natural grassland - Warm temperate, moist - Low activity clay	63	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Natural grassland - Warm temperate, moist - Sandy soils	34	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Natural grassland - Warm temperate, moist - Spodic soils	NA	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Natural grassland - Warm temperate, moist - Volcanic soils	80	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Natural grassland - Warm temperate, moist - Wetland soils	88	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Moderately degraded grassland - Cold, temperate, dry - High activity clay	46.4	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Moderately degraded grassland - Cold, temperate, dry - Low activity clay	30.64	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Moderately degraded grassland - Cold, temperate, dry - Sandy soils	31.55	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)



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Type	Parameter	Value	Units	Data Source
	Moderately degraded grassland - Cold, temperate, dry - Volcanic soils	18.56	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Moderately degraded grassland - Cold, temperate, dry - Wetland soils	80.74	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Moderately degraded grassland - Cold temperate, moist - High activity clay	88.16	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Moderately degraded grassland - Cold temperate, moist - Low activity clay	78.89	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Moderately degraded grassland - Cold temperate, moist - Sandy soils	65.89	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Moderately degraded grassland - Cold temperate, moist - Spodic soils	106.72	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Moderately degraded grassland - Cold temperate, moist - Volcanic soils	120.64	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Moderately degraded grassland - Cold temperate, moist - Wetland soils	80.74	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Moderately degraded grassland - Warm temperate, dry - High activity clay	35.492	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Moderately degraded grassland - Warm temperate, dry - Low activity clay	22.42	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Moderately degraded grassland - Warm temperate, dry - Sandy soils	17.75	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Moderately degraded grassland - Warm temperate, dry - Volcanic soils	65.38	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Moderately degraded grassland - Warm temperate, dry - Wetland soils	82.192	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Moderately degraded grassland - Warm temperate, moist - High activity clay	82.72	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Moderately degraded grassland - Warm temperate, moist - Low activity clay	59.22	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Moderately degraded grassland - Warm temperate, moist - Sandy soils	31.96	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)



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Type	Parameter	Value	Units	Data Source
	Moderately degraded grassland - Warm temperate, moist - Spodic soils	NA	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Moderately degraded grassland - Warm temperate, moist - Volcanic soils	75.2	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)
	Moderately degraded grassland - Warm temperate, moist - Wetland soils	82.72	t C/ha	SA NIR 2017 (IPCC 2006 SOC Ref and IPCC 2019 stock change factors)



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## Chapter D: Verification Guidelines for Carbon Sequestration in Forest Plantations

### D.1. Overview

An overview of the verification process is shown in Table D.1. The Carbon Tax Sequestration MRV Tool (referred to as “MRV Tool” throughout this document) is the tool which should be submitted via the NAEIS system. The collection of data and calculation of emissions/removals should follow the rules provided in the Accounting Rulebook (Chapter B) and the methods provided in the Methodological Guidelines for Land Activities in Forest Plantations (Chapter C). The competent authority to undertake the review in this case is the Department of Environment, Forestry and Fisheries (DEFF).

*Table D.1: Overview of verification process.*

Process stage	Details of the validation and verification guideline section	Applicable guideline section
<b>1 Data collection</b>	The taxpayer is required to collect and store relevant data and supporting evidence related to its sequestration. It is regarded as good practice that the facility establishes a Monitoring Plan.	Section D.2
<b>2 Submission of data</b>	The taxpayer is required to complete the self-declaration and MRV Tool and submit the requested documentation on the NAEIS. Taxpayers who have voluntarily submitted an acceptable verification statement on the NAEIS from an accredited or approved Independent Verifier (in accordance with process stages 4 and 5) alongside their MRV Tool, may have their data immediately approved by the DEFF for that facility, provided the requirements of Section D.2 have been met.	Section D.3
<b>3 DEFF review</b>	Once the taxpayer has submitted the required data to the NAEIS, the DEFF will conduct a series of post submittal data and risk assessment checks (see Section D.4.1). The results of the post-submittal checks will be used by the DEFF to determine which taxpayers should undergo inspection or independent verification and which taxpayers should have their MRV Tools approved.	Section D.4
<b>4 Independent verification</b>	If a taxpayer is selected for independent verification, they will be required to select an Independent Verifier approved by the DEFF prior to undertaking the verification assessment based on their competence being aligned to the SANAS accreditation requirements as outlined in Section D.5. This is a transitional arrangement and Independent Verifiers will need to be SANAS accredited from 2023 to undertake independent verification. Additional detail on this is provided in Section D.5. The verification process must be completed within 90 days of notification. Once a signed Verification Opinion and final Verification Report has been issued by the Independent Verifier and the DEFF has conducted final checks on the MRV Tool and Verification Report and is satisfied with the outcome, the MRV Tool outputs will be approved.	Section D.5
<b>5 Data approved</b>	The taxpayers’ MRV Tool is deemed accepted if the DEFF does not respond to the taxpayer with questions for clarification or corrections within 60 days of having received the Verification Report. If a taxpayer is required to undergo independent	Section D.6



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	verification as outlined in Step 4, the DEFF will notify the taxpayer once the MRV Tool has been checked.	
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### D.2. Data collection

Taxpayers must ensure transparency of the MRV Tool by archiving all data, calculations, algorithms, procedures and technical references used to estimate GHG emissions/removals. This information relates to the calculations performed for the listed activities in line with the requirements of the Accounting Rulebook (Chapter B) and the Methodological Guidelines for Land Activities in Forest Plantations (Chapter C). This is done to ensure that verification of submissions made in terms of the C Tax Act can take place. Data Providers must keep a record of the information submitted to the DEFF for at least five years, and at least between two successive independent verifications, and such records must, on request, be made available for inspection by the DEFF.

Documents to be kept are:

- Archiving all reports submitted for at least 5 years or since last independent verification;
- Documents to support the extent of the plantations area and wood/biomass productivity;
- Documentation of assessments made over excluded emission sources (e.g. annual amount of liquid and solid waste);
- Data management system documentation, including descriptions of the processes for data collection, input, calculation, and management;
- Results of any relevant internal audit or third-party verification activities;
- Facility level breakdowns of data used to generate the sequestration estimated in the MRV Tool for forest land and HWP;
- Records of incidents or events on site that may impact on production or other emission/sequestration drivers (e.g. disease or fires);
- Justification of the quantification methodology and emission factors used, including documented references and citations, and root data upon which any site-specific factors were derived;
- Documentation of any key assumptions and uncertainties associated with the sequestration data;
- Description of GHG reduction projects;
- Description of operational incidents that impact GHG performance;
- Explanation of trends in sequestration emissions from historical data and forecasts;
- Supporting MRV Tool detailing source data;
- Green Mamba spreadsheets;
- GIS or paper maps identifying the plantation areas;
- Documentation on system for distinguishing TUP from deforested areas, including remote sensing data to track TUP and deforestation;
- Certification records;
- Correspondence with suppliers of harvested wood and 3<sup>rd</sup> party suppliers (e.g., invoices);
- Correspondence with suppliers of fertilisers (e.g., invoices);
- Self-implemented monitoring plan (optional).



### **D.3. Submission of data**

In accordance with C Tax Act, all taxpayers are required to submit their Sequestration Report on the NAEIS/SAGERS for the preceding calendar year, to the DEFF by 31 March of each year. Taxpayers who have submitted a Verification Report, in accordance with Section D.5 of this guideline, with the submission of their MRV Tool report via the NAEIS, may have their data immediately approved by the DEFF provided that:

- The independent verifier has issued a positive Verification Opinion (See Section D.5 for further detail) and any material misstatements detected in the independent verification process have been rectified;
- The DEFF is satisfied that the Verification Report and opinion produced by the independent verifier is in line with the requirements of the Validation and Verification Guideline; and
- A final check of the MRV Tool by the DEFF is completed.

Taxpayers who have been selected for independent verification, as an outcome of the process outlined in Section D.4.2, should submit the Verification Report to the DEFF within 90 days of being notified of the requirement to undertake independent verification by the DEFF.

#### **D.3.1. Submission reports**

Data Providers are required to submit the following information on the NAEIS by 31 March:

- I) MRV Tool: Taxpayers are required to complete the MRV Tool for each of its facilities.
- II) Self-declaration: As a part of the submission, taxpayers will be required to self-declare on the NAEIS that they have reviewed their MRV Tool for accuracy before submitting onto the NAEIS, and that all information submitted on the NAEIS is truthful, accurate, complete and in compliance with the Carbon Tax Act, to the best of their knowledge.
- III) Verification Reports (Optional): Taxpayers who have voluntarily completed an independent verification exercise in accordance with the Validation and Verification Guideline, may submit their facility level Verification Report and Verification Opinion at this stage of submission. Taxpayers may have their data immediately approved by the Competent Authority for that facility, if they have opted to have their emissions verified, provided the requirements of Section D.3.1 have been met.
- IV) Monitoring Plan (Optional): While it is not mandatory for taxpayers to submit monitoring plans to the competent authority in Phase 1 of the Verification Programme, taxpayers who have monitoring plans in place may do so.

### **D.4. Review by DEFF**

#### **D.4.1. Post submittal checks**

Once the MRV Tool has been formally submitted on the NAEIS, the DEFF will run a number of post-submittal checks to evaluate the validity of submitted data and identify areas where risk of inconsistencies or inaccuracies exist. The post-submittal checks will entail a combination of automated system and manual checks. The outcome of the post-submittal checks will determine whether independent verification required. Examples of the types of checks that will be conducted are outlined


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in Table D.2 below. Examples of other suggested checks which DEFF can undertake to ensure the value ranges are in the correct range are provided in Appendix D.1.

**Table D.2: Examples of checks that will be completed as part of the review by competent authority.**

Type of check	Description	MRV tool reference
<b>Rulebook checks</b>	Check that all rules in the Rulebook have been adhered to.	
<b>Range checks</b>	Determine if Sequestration report data is within the expected range. Make comparisons with IPCC default values.	All sheets
<b>Statistical checks</b>	Evaluate data from similar taxpayers to identify outliers.	
<b>Calculation checks</b>	Check that columns have been added correctly.	All sheets
	Check balance between various input and output parameters	
	Check all appropriate data columns are completed	All sheets
	3rd party checks	
<b>Mass balance checks</b>	Check that the discount factors are correctly applied.	Accounting sheet
	Check the mass of carbon entering the mill is balanced with what is leaving the mills. Sum of inputs (tC) - sum of outputs (tC) = 0	HWP sheet
<b>Afforestation checks</b>	Check that afforested areas are not older than 20 years.	Land gain-loss method
<b>Deforestation and TUP checks</b>	Check the consistency in reporting of TUP and Deforestation areas	
<b>Biomass burning checks</b>	Check ratio of estimated gas emissions are equal to the GWP of that gas	Wildfires; Controlled burning
<b>Methodological checks</b>	Check changes in tier levels, and ensure methods are following IPCC methodology.	
	Ensure correct columns are completed for the selected Tier method	
<b>Unit checks</b>	Ensure consistency in units and check unit conversions.	
<b>Change in ownership and registration checks</b>	Determine if there have been any changes in ownership and whether this has affected outputs.	Verification sheet
<b>Outside data checks</b>	Data checks against an outside source, specifically Green Mamba forms (see Table D.3).	Verification sheet
<b>Missing data checks</b>	Identify gaps in emission/sequestration sources compared to the taxpayer activities.	
<b>Cross checks</b>	Cross-check with new data or common parameters used across sectors against that of other entities in the same sector or sector averages.	
	Cross-check with NGER submissions.	Verification sheet
<b>Boundary checks</b>	Assess whether data captured is in the correct reporting period, and that the data should be included as a part of the facilities data or not.	
	Ensure that roundwood stocks from previous years are not reported twice as input into HWP.	
<b>Trend analysis</b>	Identify unusual or unexpected trends or outliers which may be indicative of errors between years.	
<b>Land area checks</b>	Complete a land change matrix and check all land area is accounted for.	
	Check land change matrix for previous submission to check correspondence between previous and current stratification.	



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**Verification checks**

Checks of the results of a previous verification completed in line with the validation and verification guideline.

In the MRV Tool a Verification sheet has been included (Table D.3). The completion of this sheet is optional but would assist in the verification process and may reduce the change of being selected for an independent review.

Where areas of unexplained risk are detected, the DEFF may contact the taxpayer to resolve failed checks or explain why the failed checks do not indicate an error. This may entail a process of documentation requests by the DEFF for additional evidence to explain sources of error in the Sequestration Report. Where necessary, the DEFF may request an on-site visit to the taxpayer's facility if the documentation provided still does not satisfy the DEFF that the error has been resolved. Taxpayers are given a period of 60 days to address errors otherwise a compliance issue is raised.

Table D.3: Verification table included in the Sequestration tool.

Element	Method	Reported Value	Units	Green Mamba Reference	Notes
Any land acquired or leased?		Yes	-	B.2 Page 3	
Area of land acquired/ leased from a 3rd party	G-L	0	ha	B.2.1 Page 3	Only area associated with purchases HWPs should be reported here
Total area at the beginning or the reporting period	S-D	30	ha	B.6 Page 5	
Area of plantation		0	t	Section C and D, Page 6 - 11	Consider total area by genus/species if possible
Total area by species: Softwood	S-D	[calculate manually]	ha	Section E Page 12	Aggregate softwood areas for comparison with Green Mamba
Total area by species: Eucalyptus grandis	S-D	0	ha	Section E Page 12	Aggregate Eucalyptus grandis areas for comparison with Green Mamba
Total area by species: Other eucalyptus	S-D	[calculate manually]	ha	Section E Page 12	Aggregate other eucalyptus areas for comparison with Green Mamba
Total area by species: Wattle	S-D	[calculate manually]	ha	Section E Page 12	Aggregate wattle areas for comparison with Green Mamba
Total area by species: Poplars	S-D	[calculate manually]	ha	Section E Page 12	Aggregate poplar areas for comparison with Green Mamba
Total area by species: Other hardwood	S-D	[calculate manually]	ha	Section E Page 12	Aggregate other hardwood areas for comparison with Green Mamba
Total volume Consumed and / or Processed from own forest management units		[calculate manually]	m3	Table F.2.2 F.2.2 - Own Consumption and / or Processing	Only consider Total inflow: Mass C Entering the Mill (t) from company owned plantations
Total area affected by wildfires		5	ha	Section H.1 Page 15	Assumed that only wild/accidental fires are reported under Green Mamba



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### **D.5. Independent verification**

#### **D.5.1. Selection of facilities for independent verification**

##### **D.5.1.1. Criteria for selection of independent verification**

There are several factors that the DEFF will consider that may trigger the need for a taxpayer to undergo independent verification of their facility. The main criteria that will be used in this determination includes the following:

- The results of the post-submittal checks completed in Table D.2;
- The completion of the Verification tab in the MRV Tool (Table D.3) and
- The total sequestration - taxpayers with high total sequestration are more likely to be required to undergo independent verification.

##### **D.5.1.2. Notification of independent verification**

Should the taxpayer MRV Tool be selected to undergo independent verification, the DEFF will notify the taxpayer. The notification for independent verification will at a minimum contain the following details:

- Indication of the reason for being selected for independent verification;
- Detail on the timelines for the finalisation of the independent verification process;
- The scope of the independent verification. Independent verification may in certain circumstance focus on specific elements of the Sequestration Reports submitted; and
- Additional administrative guidance on the independent verification process.

#### **D.5.2. Independent verification principles and requirements**

##### **D.5.2.1. Principles of verification**

The principles of verification described below are taken from section 3.1.2 of the Guidelines for Validation and Verification of Emissions (DEFF, 2020). The Independent Verifier shall adhere to the following principles of verification throughout any independent verification engagement:

- I) Independence and objectivity –The Independent Verifier and its verification team shall remain independent of the facility and activity being verified, and free from bias and conflict of interest. The verification teams shall maintain objectivity throughout the verification to ensure that the findings and conclusions will be based on objective evidence generated during the verification.
- II) Ethical conduct - Demonstrate ethical conduct through trust, integrity, confidentiality and discretion throughout the verification process.
- III) Fair presentation - Reflect truthfully and accurately verification activities, findings, conclusions and reports. Report significant obstacles encountered during the verification process, as well as unresolved, diverging opinions among verification team members, the Independent Verifier and the Data Provider.
- IV) Due professional care - Exercise due professional care and judgment in accordance with the importance of the task performed and the confidence placed by the Data Provider and Independent Verifier. Have the necessary skills and competencies to undertake the verification.



#### **D.5.2.2. Scope of verification**

The verification team shall plan and perform the verification to state with a reasonable level of assurance that the aggregated error in the total GHG emissions for the reporting period does not exceed the materiality limit.

These verification guidelines outline the type of verification procedures that shall be conducted (i.e. substantive testing, controls testing, site visit) to achieve a reasonable level of assurance. However, they are not intended to be prescriptive about the exact verification activities to be performed during verification. The exact verification activities shall be conducted based on the lead verifier's professional judgment.

#### **D.5.2.3. Reasonable level of assurance**

The level of assurance refers to the degree of assurance the intended user requires in a verification and this is defined in section 3.1.3 of the Guidelines for Validation and Verification of Emissions (DEFF, 2020).

#### **D.5.2.4. Materiality**

The prescribed materiality limit for independent verification engagements under these guidelines is **5%** based on international standards and norms (DEFF, 2020). The total emissions and removals, i.e. the total "S" value, determined by the independent verifier should not deviate by more than 5% of the taxpayers reported value in order for the verification team to issue a positive Verification Opinion statement).

#### **D.5.3. Independent verification process**

The independent verification process will follow that described in section 3.2 of the Guidelines for Validation and Verification of Emissions (DEFF, 2020).

### **D.6. Data approval**

A taxpayer's MRV Tool is deemed accepted if the DEFF does not respond to the taxpayer with questions for clarification, corrections or instruction for verification within 90 days of the submission. In the instance that a taxpayer is required to undergo independent verification, the DEFF will communicate with the taxpayer on the verification requirements and any necessary instructions and will provide confirmation once the verification process has concluded and the data has been approved by the DEFF.

Once the Sequestration Report is approved it will be submitted to SARS where it will be combined with the company's total fuel combustion related greenhouse gas emissions ("E" in the Carbon Tax Act). SARS will be responsible for checking that if the sequestration ("S") is actually a net emission (i.e.  $S < 0$ ) then  $E - S = E$ .



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## **D.7. References**

DEFF, 2020. Technical Guidelines for Validation and Verification of Greenhouse Gas Emissions: A companion to the South African National Greenhouse Gas Emission Reporting Regulations, Department of Environment, Forestry and Fisheries, Pretoria, South Africa.



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### Appendix D.1

Type of check	Description	MRV tool sheet reference
Area checks	Total area checked against reported area for FM, AR, D (i.e. Total = FM+AR-D).	Facility register; 3 <sup>rd</sup> party register; Land gain-loss method; Land stock-difference method
Afforestation checks	Check that Afforestation area is not older than 20yrs	Land gain-loss method; Land stock-difference method
TUP check	Check that TUP is not more than 5 years	Land gain-loss method; Land stock-difference method, check MRV tool if emission is deducted
Deforestation check	TUP area that was 5 years in previous submission and was not replanted should be now deforestation.	Land gain-loss method; Land stock-difference method
Stratification checks	Check previous submission to check correspondence between previous and current stratification (for C stock change method).	Facility register
Gain-loss method checks	Living Biomass GAIN (ABG+BGB, tC) / Living Biomass LOSS (ABG+BGB, tC) $\pm 1$ (or very close to 1, ideally smaller in sustainable forestry)	Land gain-loss method
	Total of [Total net removal (t CO <sub>2</sub> eq/yr)] / Total of [Total area (of AR, FM)] < approx. 5 (so in practice it should be equivalent to net biomass growth per 1 ha per year, as long as 1tCO <sub>2</sub> = 1 mc of wood), if annual roundwood increment is 10 m <sup>3</sup> that is 10tCO <sub>2</sub> , or slightly higher is entire ABG is included (foliage, roots) 12 tCO <sub>2</sub>	Land gain-loss method
	Total of [Harvest volume (m <sup>3</sup> /yr)] = Total of [Harvest volume (m <sup>3</sup> /yr)] from Afforestation and Forest Management	Land gain-loss method, Green Mamba
Stock difference method checks	Total of [Total net removal (t CO <sub>2</sub> eq/yr)] / Total of [Total area (of AR, FM)] < MAI	Land stock-difference method
	Total of [Harvest volume (m <sup>3</sup> /yr)] = Total of [Harvest volume (m <sup>3</sup> /yr)] from Afforestation and Forest Management	Land stock-difference method, Green Mamba
Reporting and accounting checks	Total accounted amount / Total of [Total area (of AR, FM)] < approx. 5	Reporting & accounting
DOM checks	20 * DOM $\Delta$ C (tC) = DOM (tC/ha) in afforestation	Land gain-loss method; Land stock-difference method
Removals from forest	to be consistent with harvest from CSC biomass (expected approx. Rem >0.9 Harvest). Inflow cannot be bigger than removals	Land gain-loss method; Land stock-difference method
Volume entering the mill	to be consistent with Removal (expected approx. Entering >0.9 Removal)	Land gain-loss method; Land stock-difference method; HWP


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<b>National level checks</b>	At national level, the sum of harvested from eligible must be the sum of inflow reported by all companies	
<b>HWP checks</b>	Total of [Volume Entering the Mill (m <sup>3</sup> )] (HWP sheet) = Total of [Harvest volume Whole tree (m <sup>3</sup> /yr)] from Afforestation and Forest management	HWP
<b>HWP mass balance checks</b>	Sum of inputs (tC) - sum of outputs (tC) = 0	HWP
<b>Biomass burning verification</b>	Ratio of estimated N <sub>2</sub> O emissions/CO <sub>2</sub> emissions = GWP N <sub>2</sub> O	Wildfires; Controlled burning
	Ratio of estimated CH <sub>4</sub> emissions/CO <sub>2</sub> emissions = GWP CH <sub>4</sub>	Wildfires; Controlled burning
	Ratio of estimated N <sub>2</sub> O emissions/CH <sub>4</sub> emissions = GWP N <sub>2</sub> O/ GWP CH <sub>4</sub>	Wildfires; Controlled burning
<b>Fertiliser checks</b>	Verify quantity purchased correspond to usage	Fertilisers

## DEPARTMENT OF HOME AFFAIRS

NO. 1284

04 DECEMBER 2020

## ALTERATION OF FORENAMES IN TERMS OF SECTION 24 OF THE BIRTHS AND DEATHS REGISTRATION ACT, 1992 (ACT NO. 51 OF 1992)

The Director-General has authorized the following persons to assume the forename printed in *italics*:

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85. Sibongiseni Khasana - 930421 0905 086 - 1458 Thabo Street, EMNDENI, 1868 - *Limise*
86. Tessa Monyela - 000307 0499 086 - P O Box 1723, TZANEEN, 0850 - *Bokamoso Tessa*
87. Itumeleng Selinah Moeketsi - 931010 0206 089 - 6393 Tabane Street, GA-RANKUWA, 0200 - *Khumoetsile Itumeleng Selinah*
88. Nthabiseng Gane Mokhatla - 981223 0718 081 - 7015 Extension 13, BOPHELONG, 1911 - *Nthabiseng Jane*

89. Vanilla Veldeen Louw - 930807 0044 084 - 3552 Extension 3, VLAKFONTEIN, 2000 - *Veldeen*
90. Bathobile Ruth Zulu - 850927 0361 084 - Bhomela Location, Ward 25, PORT SHEPSTONE, 4240 - *Bathobile*
91. Sinentokozo Magwaza - 950120 0656 088 - Emile Residence, KWADLANGEZWA, 3150 - *Tutu Sinentokozo*
92. Mmakwena Noko Kendridge Manyelo - 910813 5124 081 - Unit 76, Matopi Eco-Estate Village, Onverwacht, LEPHALALE, 0557 - *Letago Joseph*
93. Mzuvukile Daniel Manxiwa - 830527 5495 088 - 12083 Nhoyo Street, Kwazakhele, PORT ELIZABETH, 6205 - *Mzuvukile*
94. Kaloshi Lavia Radingwana - 891003 5924 085 - Mohlaletse Village, SEKHUKHUNE, 1121 - *Kaloshi Davis*
95. Katlego Monyai - 980204 5706 082 - Stand No 105, MMAMETLHAKE, 0432 - *Jacob Katlego*
96. Rapelang Tholyman Tsotetsi - 890623 5764 081 - Zicole Area, NQUTU, 3135 - *Rapelang Khulekani*
97. Norah Irene Ngongoma - 920609 0850 086 - Burlington Heights, QUEENSBURG, 3651 - *Maningi Norah Irene*
98. Grace Malope - 830318 0786 089 - 12969 Kokela Street, 5 Star Center, MAMELODI EAST, 0122 - *Monoka Grace*
99. Judicious Refilwe Makgotlho - 920514 0441 086 - 1145 Bhele Street, Pimville, SOWETO, 1818 - *Refilwe*
100. Chandre Sandiswa Dyantyi - 021210 1412 089 - 3 St Wenceslas Close, SEAWIND, 7945 - *Chandré*
101. Gcinetheni Zitshelile Magubane - 930903 0950 089 - Ntshiza Area, NKANDLA, 3885 - *Gcina Zinhle*
102. Idumeleng Eva Banda - 951126 0106 080 - 7335 Extension 4, Khutsong Location, CARLETONVILLE, 2499 - *Itumeleng Eva*
103. Sizwe Shezi - 000128 6023 088 - Ashdown Location, PIETERMARITZBURG, 3201 - *Thandisizwe*
104. Martin Frans - 900612 5208 080 - 799 Denniswhiteville, RICHMOND, 7090 - *Nathan Martin*
105. Jennifer Katia Marques Hitge - 900411 0226 084 - 9 Riley Road, BEDFORDVIEW, 2007 - *Jennifer Katia Valentim*
106. Zethu Vigness Ngubeni - 901215 0598 080 - Kwavala Area, LOSKOP, 3330 - *Zethu*
107. Susan Thandekile Mabena - 930611 0312 081 - 28 Mcebi Street, KWATHEMA, 1575 - *Thandekile*
108. Buhlebonke Bulelwa Tapiwa Caine - 870308 0584 080 - 1f Seeiso Street, ATTERIDGEVILLE, 0008 - *Buhlebonke Thabile*
109. Leonard Bongosi Lairi - 770910 5868 086 - 10210 Bacela Street, Zone 7B, SEBOKENG, 1983 - *Leonard Bonginkosi*
110. Ntokozo Goodlove Sibiya - 780611 5690 086 - 94 Camden Avenue, ERMELO, 2751 - *Ntokozo Dingimpilo*
111. Shonisani Anikie Mukwevho - 740810 1252 086 - 9 Ash Street, Noordwyk, MIDRAND, 1686 - *Rebekah*
112. Mpho Makgatho - 960814 0662 082 - Mogodi Village, MPHAHLELE, 0736 - *Mpho Leseilane*
113. Agripha Matsemela Moloi - 720605 5889 089 - 369 Xaba Street, Mofokeng Section, KATLEHONG, 1431 - *Matsemela Agripha*
114. Mphato Public Mphahlele - 750209 6073 083 - P O Box 4709, DITHABANENG, 0805 - *Mphato*
115. Nowanda Qenesile Zulu - 910516 0470 082 - 3125 Zone 2, Zonkezizwe, KATLEHONG, 1431 - *Nowanda Qinisile*
116. Kamogelo Ramatsimele Ria Kgasago - 010825 0510 089 - 870 Zone R, LEBOWAKGOMO, 0737 - *Kamogelo*
117. Fatima Mossa - 010512 0247 082 - 87 Nirvana Drive, LENASIA, 1827 - *Shirzaan*
118. Eduardo Joao Tjimwiza - 981112 5291 089 - 7451 Extension 39, MAHIKENG, 2745 - *Edward John*
119. Jan Skhwela Mmatlati - 780916 5520 088 - 944 Digwale C, MBIBANE, 0449 - *Majesty Skhwela*

120. Sanele Nomeni Mkhwanazi - 990904 5500 082 - 4476 Thusi Village, ERMELO, 2350 - *Sanele Norman*
121. Nontobeko Mkhwanazi - 950519 0417 088 - A481 Octavia Hills, FORDSBURG, 1865 - *Nontobeko Aisha*
122. Aubrey Sibahle Gavu - 841118 5258 085 - 308 Ramblers View, BLOEMFONTEIN, 9301 - *Aubrey Sibahle Luthando*
123. Thembaekele Ngeleza - 910224 5688 085 - 862 Kiwane Location, EAST LONDON, 5200 - *Khayaletu*
124. Shayne Beukes - 920919 5245 087 - Vredekleof Square, BRACKENFELL, 7560 - *Shahir*
125. Laylaa Mohamed - 910409 0030 082 - 6 Chatham Road, HEATHFIELD, 7945 - *Alia*
126. Fabian Nice Cly-Dene Matroos - 930930 0204 084 - 41 St John Street, KEIMOES, 8860 - *Fabian - Nice Cly-Dene*
127. Rethabile Mpipe Bapela - 940928 0632 088 - Ga-Marishane Village, JANE FURSE, 1064 - *Mamphake Rethabile*
128. Kgugelo Menwell Sibanyoni - 950801 5454 088 - Mb337 Ga-Matsepe, TAFELKOP, 0474 - *Kgugelo Manuel*
129. Johannes Sporo Napo - 800708 5520 085 - 1757/17 Westview Estate, PRETORIA WEST, 0185 - *Khomotšo*
130. Oubuti January Dlamini - 911125 5414 084 - 1537 Hospital View, TEMBISA, 1632 - *Nathaniel*
131. Balungile Myeza - 990125 0726 080 - Msunduze Area, NDWEDWE, 4450 - *Balungile Eunice*
132. Lesiba Sefton Phahladira - 960913 5588 084 - 77 Moselesele Street, LOTUA GARDENS, 0025 - *Lesiba*
133. Paula Johanna Ngoma - 940408 0434 082 - 96 Marokolong, HAMMANSKRAAL, 0400 - *Gabriella Mary Paula Aaron*
134. Sebokwana Sara Nkoana - 820824 0787 086 - Stand No 91, Letebejane, MARBLE HALL, 0450 - *Pheladi Sara*
135. Florence Lusiti - 651222 0846 081 - E560 Gili Street, KHAYELITSHA, 7784 - *Nontobeko*
136. Mfan'futhi Isaac Mbebe - 931219 5328 083 - Stand No 408, MATSULU C, 1203 - *Dumisani*
137. Zingisa Jara - 910331 5557 085 - 09 Montclair Road, Unit 06, Claircourt, MONTCLAIR, 4004 - *Fulfillment Zingisa*
138. Nonjongo Verushka Mabokela - 850308 0630 085 - Ny 121 No 37, GUGULETU, 7750 - *Njongo Verushka*
139. Kholiswa Ndungwana - 980314 0845 080 - Phepheni Area, MOUNT AYLIFF, 4730 - *Kholiswa Minentle*
140. Mandla Dlodlu - 980107 5805 087 - Siphofu Location, Ward 13, TURTON, 4186 - *Ayanda Mandla*
141. Keoagile Klaas Kgakatsi - 010127 5349 088 - 10087 March Village, KURUMAN, 8460 - *Loverboy*
142. Gideon Michael Lourens Louw - 010731 5080 088 - 18 College Road, Labiance, BELLVILLE, 7532 - *Legosi*
143. Nontsikelelo Hoffman - 920220 0822 081 - 41 Bettie Street, Kalkfontein, CAPE TOWN, 7580 - *Blessings*
144. Ayanda Khumalo - 830905 0994 083 - 77 West Central Street, Dawn Park, BOKSBURG, 1459 - *Ayanda Khanyisile*
145. Vuyiswa Nhlumayo - 940511 0313 089 - 52 Reginald Street, Extension 13, Clayville, OLIFANTSFONTEIN, 1666 - *Onalenna Vuyokazi*
146. Mavis Mxamli - 990512 0307 088 - Qota Area, NGCOBO, 5050 - *Mavis Namhla*
147. Anna Nyembezi Zikhali - 830519 0502 083 - P O Box 86, MBAZWANA, 3974 - *Anna Zandile*
148. Ledile Antonia Madubanya - 810817 0749 082 - Stand No 26, Mars, MASHASHANE, 0743 - *Lesiba Antonia*
149. Siviwe Mazamisa - 900601 5780 081 - 102 Adriaan Street, Highway Park, MOSSEL BAY, 6506 - *Siviwe Chris*
150. Maisela Zacharia Movundlela - 990916 5675 086 - Mogoto Village, ZEBEDIELA, 0732 - *Happiness Zacharia Maisela*
151. Xolelwa Khungwayo - 930924 5991 084 - 2302 Nekkies West, KNYSNA, 6571 - *Xolela*
152. Zamayedwa Dinca - 950912 6077 081 - 6472 Frans Hoek Street, Asle Park, MOSSEL BAY, 6506 - *Shadrack*

153. Denêil Porhia Gasnola - 940713 0191 081 - 6 Shepherd Way, Westridge, Mitchells Plain, CAPE TOWN, 7785 - *Zariah*
154. Inga Goli - 980501 0836 081 - Stand No 482, Sakwe Park, IDUTYWA, 5000 - *Inganathi Andisiwe Lawrence*
155. Freedom Mkhululi Zuba - 731116 5655 089 - 32-122 Fukutha Street, Makhaza, KHAYELITSHA, 7784 - *Freedom Viwe*
156. Thando Mokoena - 011205 0152 084 - 12 Gabbro Avenue, WALDRIF, 1939 - *Thando Nomalanga*
157. Constance Lenusiah Du Plessis - 010211 0311 085 - 21 Rina Street, EASTLYNN, 0186 - *Caliana*
158. Lesedi Shabangu - 980626 0285 086 - 581 Sabie Avenue, Waterlake Farm Estate, BOSCHKOP, 0182 - *Lesedi Segametsi*
159. Mashpa Precious Makgato - 921224 5843 083 - 174 Banian Street, LOTUS GARDENS, 0025 - *Mashapa Hussain*
160. Nosipho Jiba - 890605 0674 084 - 9612 Xenon Street, Extension 8, Nellmapius, PRETORIA, 0122 - *Ayanda Nosipho*
161. Rasethitje Nancy Mahlaela - 911125 0871 080 - 581 Lesolang Street, Extension 2, MAHUBE VALLEY, 0122 - *Lerato Maria Nancy*
162. Johanna Ngwanaledwaba Mogotlane - 981012 0845 089 - Ga-Mogotlane Village, MOLETLANE, 0697 - *Caroline Hlakamone*
163. Dibb Collett Mohlamonyane - 870908 5454 088 - 465 Jabulane, DENNILTON, 1030 - *Mafofoane Collett*
164. Shannon Stigling - 980403 0877 084 - 13 Faraday Court , Woodlands, MITCHELLS PLAIN, 7785 - *Fazlin*
165. Sydney Moyahabo Moroko - 940127 6029 080 - Inveraan Village, BOCHUM, 0790 - *Sydney Piletsi*
166. Nokozani Surprise Cele - 960329 5352 084 - Zamani Village, UMLAZI, 4066 - *Thokozani Surprise*
167. Cecilia Ayanda Badi - 911126 0337 080 - 518 Afrika Road, ZWELETEMBA, 6852 - *Ayanda Cecilia*
168. Mduduzi Jeffrey Phiri - 790206 5363 087 - 23 Towers , Epheleni, PIETERMARITZBURG, 3201 - *Mduduzi*
169. Natasha Kathleen Bartlett - 900111 0021 085 - 29 Kingfisher Drive, Fourways, JOHANNESBURG, 2055 - *Natasha Kathleen Edith*
170. Reginah Ntswaki Karabo Dithipe - 980414 0405 081 - 9048 Ipopeng Street, Ikageng Location, POTCHEFSTROOM, 2531 - *Karabo*
171. Pontsho Hazel Motaung - 850521 0057 089 - 7 Eland Street, Edelweiss, SPRINGS, 1559 - *Pontsho Hazel Thembi*
172. Calvin Mareme Senong - 990429 5818 086 - Kotsiri Village, SEKHUKHUNE, 1124 - *Calvin Tukisho*
173. Johanna Margaret Constance Anthonie - 360113 0345 087 - 6a Jupiter Road , Surrey Estate, ATHLONE, 7764 - *Jasmine*
174. Alocias Tshepo Modisana - 980831 5219 086 - 263 Herbert Mckenzie, Eersterust, PRETORIA, 0022 - *Alocias*
175. Distance Motliseng Chiloane - 980823 5260 087 - 1700 Maluma Street, MOUNTAIN VIEW, 1133 - *Dustin*
176. Brenda Tau - 840909 0791 083 - Matolokwaneng Village, SEKHUKHUNE, 1129 - *Mokwale Mokwena*
177. Felicity Yvonne Adams - 470218 0593 086 - 13 St Theresa Crescent, Seawinds, CAPE TOWN, 7824 - *Fatima*
178. Maphale Ronny Mogoba - 910525 5872 085 - Ga-Mmela Village, ,EKHUKHUNE, 1124 - *Thato Ronny*
179. Nokwazi Mazibuko - 020304 0114 084 - Wembezi Area, ESTCOURT, 3310 - *Aisha Nokwazi*
180. Nompilo Charity Soni - 850824 0288 088 - 8243a Khambule Street, Zone 6, Diepkloof, SOWETO, 1818 - *Nompilo Zoe Charity*
181. Ruth Lekgala Sebesho - 960910 0676 088 - 942 Block M, SOSHANGUVE, 0152 - *Ruth Makgwagoshila*
182. Nomshado Jaola - 950527 0560 088 - 176 High Street, Rosettenville, JOHANNESBURG, 2190 - *Shado*

183. Magdeline Nelisiwe Thandanani Tau - 990529 0520 080 - 157 Steven Pule Crescent, Extension 11, KAGISO, 1754 - *Ratanang*
184. Ditelo Lerato Seimela - 010817 0192 083 - 2187 Unolwilwiwi Street, RAMAPHOSA, 1460 - *Tetelo Lerato*
185. Ntshembo Jubilant Mpandza - 960912 0698 088 - 449 Sisulu Street, 96 Oranje-Hof Suid, PRETORIA, 0007 - *Hope Jubilant*
186. Hlengiwe Patricia Ntuli - 720222 0841 089 - Block D, EMONDLO, 3105 - *Hlengiwe Nomthandazo*
187. Phomelelo Mashapa - 990302 5717 089 - P O Box 137, MPHAHLELE, 0736 - *Mothwana Phomelelo*
188. Phelokhzi Speelman - 900813 0424 082 - H18 S/Camp, Fisantekral, DURBANVILLE, 7550 - *Phelokazi*
189. Luvuyo Mtati - 011230 5804 083 - Dangwana Area, MOUNT FRERE, 5090 - *Vuyo*
190. Nosipho Ignesia Mfayela - 000208 0336 080 - Mona Area, NDWEDWE, 4342 - *Nosipho Sphindile*
191. Seletane Barnard Maelane - 870102 5345 088 - Stand No 270, Mabitsi B, Ga-Rakgwadi, NEBO, 1059 - *Ralekwe Barnard*
192. Ziqqibo Monelisi Kahla - 850729 5559 088 - Tiki-Tiki Area, TSOLO, 5170 - *Ziqqibo Moneliseki*
193. Dimakatso Kenneth Molefe - 810613 5362 082 - House No 06, Xx-Section, LEROME SOUTH, 0497 - *Kenneth Kenny*
194. Joseph Gobusamang - 660328 5779 083 - House No C119, Magojaneng, KURUMAN, 8460 - *Masilonyane Joseph*
195. Jongikhaya Toni - 960913 5602 083 - 1008 Nyibiba Street, QUEENSTOWN, 5320 - *Bathandwa*
196. Jenevé Geraldine Square - 991210 0288 080 - 22 Ruwenzori, TAFELSIG, 7785 - *Jehaan*
197. Neo Lisa Rebese - 820823 0720 089 - 137 Whisken Avenue, Crowthorne, MIDRAND, 1684 - *Paul Samuel*
198. Makwena Bemis Manamela - 921221 0751 089 - 631 Cranton Court, Francisbaard, ARCADIA, 0700 - *Koketso Bernice*
199. Katleho Moloji - 910927 5494 086 - 4562 Usinga Street, Extension 3, Protea Glen, CHIAWELO, 1819 - *Mamello Jack*
200. Muzomubi Joseph Nene - 820304 5900 083 - 905 Tiberus Flat, Rissik & Devillers Street, JOHANNESBURG, 2000 - *Muzomuhle Joseph*
201. Tubake Rebacca Mabuza - 870907 0636 087 - 12884 Umcimbi Street, KATLEHONG, 1431 - *Tubake Khabonina*
202. Patience Maphaha - 870711 0332 089 - 2 Kock Street, Lambton Gardens, GERMISTON, 1401 - *Pacious N'wamathye Maphaha*
203. Jizani Johanna Kalaote - 910701 0361 081 - 3047 Extension 3, Kokosi Township, CARLETONVILLE, 2515 - *Marinki*
204. Mpho Josiah Mkonyana - 740903 5829 080 - 16429 Extension 4, VOSLOORUS, 1468 - *Fadil Josiah*
205. No-Unitra Sitoto - 880130 0511 089 - 60697 Nomsa Maphongwana Street, Kuyasa, KHAYELITSHA, 7784 - *No-Unitra Ntombi*
206. Rachel Mathapeloe Rabaralela - 870619 0338 081 - 89 Brighton Road, LOMBARDY WEST, 2090 - *Rachel Mathapeloe*
207. Wontsokolo Matyhumza - 740707 1045 082 - 68-18th Avenue, ALEXANDRA, 2090 - *Nontsokolo Nontsikelelo Patricia*
208. Junior Ramadimetja Monama - 951231 0345 082 - 94-11th Avenue, ALEXANDRA, 2090 - *Mpho Dianah Ramadimetja*
209. Sesi Sanna Tsotetsi - 940923 0492 088 - 4680 Linda Motsepe Street, RATANDA, 1441 - *Sesi Sanna Nomusa*
210. Dimakatso Rantsimele - 880430 0434 088 - Phatshima Section, Dinokana Village, ZEERUST, 2865 - *Cecilia Dimakatso*
211. Chad Geduld - 990224 5287 089 - 10 Fennel Crescent, Statice Heights, KEWTOWN, 7764 - *Rafeeq*
212. Mochai Nancy Digangwane - 930207 0223 087 - 833 Segodi Street, Marapong Location, LEPHALALE, 0556 - *Phuti Nancy*

213. Mmapula Sethole - 010501 1577 084 - 0547 Kgaie Section, PHOKENG, 0305 - *Vanessa Mmapula*
214. Esethu-Mahlubi-Namatshawe-Isiphiwo Dlabantu - 830811 0902 086 - 98 Wode House Street, KING WILLIAMS TOWN, 5601 - *Esethu Isiphiwo*
215. Mafanato Mazibi - 001020 1102 083 - Stand No 717, MASWANGANI, 0821 - *Lufuno*
216. Siphosethu Phumla Hlela - 940801 0327 084 - 8533 Knoll Drive, SWEETWATERS, 3201 - *Phumla Siphosethu*
217. Nyefolo Ernestina Mohasoa - 810303 0756 088 - 5632 Bloemside 2, Pieterswatts, HEIDEDAL, 9300 - *Makatleho Ernestina*
218. Molefi John Matebesi - 940602 5642 083 - 2863 Manyatseng, LADYBRAND, 9745 - *Ikaneng John*
219. Lefu Petrus Seoe - 930311 5312 083 - 7100 Phase 4, BLOEMFONTEIN, 9323 - *Life*
220. Gilbert Bontsi - 910912 5761 080 - 5220 Mpho Street, Ipelegeng Location, SCHWEIZER-RENEKE, 2780 - *Gilbert Dollarray*
221. Ernest Matholwane Makofane - 940406 5527 082 - 73 Geogra Crescent, Extension O, COSMO CITY, - *Andrew Ernest Matholwane*
222. Angelina Gumede - 980516 0096 080 - 262 Block 6, Kutloanong, ODENDALSRSUS, 9483 - *Dimakatso Angelina*
223. Mzondeki Petrus Mlotshwa - 890329 5408 089 - 5112 Extension 5, Siyathemba, BALFOUR, 2410 - *Mzondeki Lunga*
224. Sharon Letshego Senokoane - 930105 0091 084 - 54 Geelvis, Bloemside, BLOEMFONTEIN, 9306 - *Letshego Sharon*
225. Refy Mangakane Mampuru - 990526 0739 082 - Moroke Village, DRIEKOP, 1129 - *Refilwe Marutle*
226. Lindi Millicent Bonani - 770525 0264 089 - 25 St Andrews, Wingate Golf Estate, PRETORIA, 0181 - *Nkazimulo Millicent Bonani*
227. Monana Sophy Disemelo - 790919 0417 084 - 939 Dingogong Section, TLOKWENG, 2839 - *Thalitha Sophy*
228. Kebogile John Mokwatsi - 000429 5359 089 - 1863 Mokgareng Village, TAUNG, 8580 - *Kgothalang John*
229. Problem Precious Gumede - 890412 0792 085 - Qoioqolo Place, Umthwalume, UMZINTO, 4200 - *Sanelisiwe Precious*
230. Mahefuza M Salim Tailor - 920122 0161 082 - 3 Arzoo Street, AZAADVILLE, 1754 - *Mahfuza*
231. Prudence Mmaledimo Kgapola - 910912 0295 084 - 95 Mat Avenue, Woodlands Place, WOODMILL, 0042 - *Kholofelo Prudence*
232. Ntombouyo Victoria Ntusikazi - 690402 0628 084 - 321 Mabandla Street, Joe Slovo, PORT ELIZABETH, 6201 - *Ntombovuyo Victoria*
233. Nobuntu Philda Ziqu - 590121 0865 089 - Matyeba Area, TSOLO, 5170 - *Mofezile Philda*
234. Umeshan Sivalingum - 960903 5049 088 - 16 Oranjeriver Drive, Terenure, KEMPTON PARK, 1619 - *Umesshann*
235. Mabhensa Nokukhanya Nxusa - 920207 0708 089 - 299 Meriting, GRASMERE, 1828 - *Nokukhanya*
236. Vuyisa Matshaya - 850628 5814 081 - 4 Hill Street, GRAHAMSTOWN, 6139 - *Libo Vuyisa*
237. Thandiwe Lukhozi - 950731 0671 081 - 31 Brickfield Road, SALT RIVER, 7925 - *Thando Tyson*
238. Nkosingiphile Pinky Mnguni - 960414 0376 088 - Thembeni Cemetery, KWADUKUZA, 4450 - *Pinky Vanessa*
239. Margaret Moreroa - 950604 0612 084 - 8542 Extension 9, Phomolong, MODIMOLLE, 0510 - *Khanyisa Masedi*
240. Marake James Modiba - 000920 5663 082 - Ga-Kgole Village, LESHANE, 0724 - *Mabule James*
241. Maditaolana Evelyn Mashoeng - 760828 0499 081 - 79 Kgotsong, BOTHAVILLE, 9660 - *Mathato Evelyn*

242. Anna Magrietha Isabella Van Der Bank - 720723 0097 085 - 37 Oranjerivier Street , VANDERBILJLPARK, 1911 - *Adélie*
243. Ayabonga Mdingi - 010406 0757 085 - Mantlaneni Area, LUSIKISIKI, 4820 - *Ayabonga Ayabukwa*
244. Elihle Ntunzi - 011228 5346 089 - 37909 Mbotyi Street, Harare, KHAYELITSHA, 7784 - *Elihle Theodore*
245. Floyd Mabitsela - 011116 5044 087 - 9542 Extension 44, SESHEGO, 0742 - *Floyd Kgabo*
246. Naleli Katleho Mosala - 011228 0208 086 - 5342 Mokoena Street, Phahameng, BLOEMFONTEIN, 9323 - *Naledi Katleho*
247. Koketso Custer Mukwevho - 000314 0942 081 - 17310 Extension 89, SOSHANGUVE, 0152 - *Koketso Castea*
248. Lesiba Eugene Mogaila - 900615 6002 089 - 4685 Midge Pupa Street, Extension 31, Leopards Rest Estate, ALBERTSDAL, 1448 - *Thabiso Lesiba*
249. Sello Johannes Mashapa - 881031 5406 086 - 1116 Mahad Magandi Street, MOOKGOPHONG, 0560 - *Pablo Sello*
250. Courtney Nicole Pearce - 981030 0716 084 - 96 Schauder Avenue, Holland Park, PORT ELIZABETH, 6001 - *Kaashiefah*
251. Annah Motshidisi Kajane-Sefafe - 821124 0450 085 - 5324 Peterswart, Bloemside 2, BLOEMFONTEIN, 9323 - *Motshidisi Makhosi*
252. Siphokazi Shield Mokoena - 841111 0221 083 - 38 Manyase Street, Kwanobuhle, UITENHAGE, 6242 - *Siphokazi*
253. Khanyisile Lesedi Patuleni - 980913 5020 084 - 2104 Loch Logan Park, 163 Nelson Mandela Drive, Westdene, BLOEMFONTEIN, 9301 - *Marcus Fahim*
254. Tebogo Marumo Makau - 941223 5543 087 - 58 Candirus Street, Delmore Gardens, BOKSBURG, 1459 - *Tebogo Lenong*
255. Leroy Angelo Jacobs - 790718 5281 085 - 82 Washington Street, Malibu, CAPE TOWN, 8000 - *Layth*
256. Metse Leah Mathabatha - 810704 0789 088 - 49 Loopgraaf Avenue, ELANDSPOORT, 0183 - *Daniel Daniella*
257. Karishma Gwen Govender - 970827 1106 089 - 1420 Wadia Street, Benoni, ACTONVILLE, 1501 - *Zaakirah*
258. Miyelani Ingrid Sejaphala - 970206 0702 083 - 21360 Grapefruit Street, Extension 29, PROTEA GLEN, 1818 - *Dineo Ingrid*
259. Tebogo Rebaone Phiri - 871216 5553 084 - 3023 Nkotswe Street, Zone II, GA-RANKUWA, 0208 - *Purity Rebaone*
260. Mottalepule Edward Moeketsi - 970111 5523 080 - 6310 Unit 7, TEMBA, 0407 - *Edward*
261. Zusiphe Sophaqa - 970712 5828 088 - 4 Thandeka Street, Dunoon, Milnerton, CAPE TOWN, 7441 - *Zusiphe Bathini*
262. Chané Wyngaard - 950920 0376 086 - 11 Albercore Street, Facreton, CAPE TOWN, 7405 - *Imaan*
263. Sherin Razak Ismail - 910322 0166 089 - 41-703 Montford, CHATSWORTH, 4092 - *Zayba*
264. Nonqaba Gwabe - 900508 0622 087 - 1218 Zone 1, WHITTLESEA, 5360 - *Nonqaba Bongeka*
265. Keenen Chad Pypers - 930729 5216 089 - 04 Sonopo Avenue, Blanco, GEORGE, 6579 - *Kiyam*
266. Alice Sondlane - 940811 0504 087 - Stand No 079f, Hoyi Trust, KOMATIPOORT, 1348 - *Alice Eulenda Khethiwe*
267. Devin Diago Benjamin - 000716 5031 084 - 21f Brambleway, Bonteheuwel, CAPE TOWN, 7764 - *Asheeq*
268. Sergio John Stewart - 930116 5043 087 - 23 Sugarloaf Road, MANENBERG, 7764 - *Mu'izz*
269. Mkhululi Mbali - 841112 5442 088 - 66 Beacon Bay, EAST LONDON, 5241 - *Mkhululi Mthetheleli*
270. Mawande Mzuzu - 991219 5590 085 - 1271 Elangeni Street, THOKOZA, 1426 - *Mawande Luis*
271. Erna Engbrech Muller - 430218 0406 080 - 321 Fortuin Street, Pineview, GRABOUW, 7160 - *Sylvia Cynthia*

272. Allucia Malesele Manaileng - 910821 0451 086 - 81400 Molokoloko Street, Extension 3, Ikageng, MAMELODI EAST, 0459 - *Allucia*
273. Andrew Kwazi Gwacela - 921104 5762 089 - P O Box 683, RAMSGATE, 4285 - *Lwazi Andrew*
274. Lenketsang Thomas Leeuw - 791228 5671 086 - 1390 Nyakants Street, THABA NCHU, 9780 - *Lentsekisang*
275. Sisanda Tshomela - 980414 6002 080 - 560 Watervaal Spruit, Extension 9, ALBERTON, 1429 - *Sisanga*
276. Maria Maanyaku Sekgololo - 900715 0880 082 - 107 Moleleki, Extension 1, KATLEHONG, 1431 - *Maria Pikinyane*
277. Michelle Salie - 920204 0650 080 - 20 Mahogan Circle, HANOVER PARK, 7800 - *Zayaan*
278. Sindisa Patricia Mtileni - 840122 0522 082 - P O Box 647, ELIM, 0960 - *Tiyiselani Patricia*
279. Samuel Thato Magano - 840905 5494 087 - 96 Magriet Avenue, Geelhout Park, RUSTENBURG, 0300 - *Thato*
280. Ejellah Maria Kutumela - 860417 0521 083 - 799 Block Gg, SOSHANGUVE, 0152 - *Engelinah Maria*
281. Joyce Mathabathe - 741030 0538 083 - 2036 Cadmilim Lane, Extension 26, Clayville, OLIFANTSFONTEIN, 1666 - *Joyce Glenda Mogomotsi*
282. Makaosazana Harriet Kubheka - 890611 0291 085 - 466 A Shiba Street, Mofolo Village, SOWETO, 1800 - *Makhosazana Mbalenhle Harriet*
283. Naphty Makutu - 820513 5775 085 - Koomfontein Village, BLINKPAN, 2250 - *Mapato Naphty*
284. Abby Gerrit Moolman - 870412 5742 089 - 5 Aster Deurloop Street, , POSTMASBURG, 8470 - *Abe Gerrit*
285. Magalekgobe Ruth Dichaba - 701108 0796 089 - 57 Df Maian Street, JAN KEMPDORP, 8550 - *Peloentle Heart*
286. Phumzile Olga Mthembu - 790520 0422 080 - 441688 Balokwakhe Road, SHONGWENI DAM, 3650 - *Nompumelelo*
287. Thaneshnee Pillay - 960410 0273 085 - 44 Leighlen Road, Glendale Gardens, QUEENSBURG, 4090 - *Kasradeya*
288. Carla Caren Valentine-Abrahams - 980401 0732 085 - 9 A Kanega Way, MANENBERG, 7764 - *Anisha*
289. Grant Aubrey Phalatse - 631220 5957 080 - 10 Mopalami, 480 Lilian Ngoyi Street, , PRETORIA, 0002 - *Grant Aubrey Nailane Teboho*
290. Kamogelo Maxwell Mokale - 900711 5903 086 - 901 Zone 4, SESHEGO, 0742 - *Mathews Madumetja*
291. Lefentse Porutlo Mampane - 810107 0611 080 - 3 Hlapi Street, Rethabile Gardens, POLOKWANE, 0700 - *Elizabeth*
292. Amos Kuane - 720620 5741 081 - 4527 Extension 3, BOIKHUTSO, 2740 - *Molatlhegi Amos*
293. Dikeledi Elizabeth Falla - 891104 0357 089 - 1838 Masimong, WITSIESHOEK, 9870 - *Abhaya*
294. Silindile Gigaba - 980423 0821 080 - Cleveland Place, Glenwood, DURBAN, 4001 - *Noxolo*
295. Angelinah Keneude Molekane - 940220 0344 082 - 617 Ottershaw Farm, TWEESPRUIT, 9770 - *Angelinah Keneuwe*
296. Vusumuzi Morris Khumalo - 990725 5337 088 - 12 Democracy Drive, PHOENIX, 7441 - *Vusumuzi Morris*
297. Carley Petersen - 940614 0450 081 - 77 Rainbow Road, Harmony Village, MITCHELLS PLAIN, 7789 - *Kauthar*
298. Robyn Ashley Abrahams - 950331 0199 082 - 55 Cambridge Way, Portlands, MITCHELLS PLAIN, 7789 - *Rabiya*
299. Tshepiso Mokoena - 991031 0057 089 - 10 Amber Road, MILNERTON, 7440 - *Tshepiso Buhlebenkanyezi*
300. Asanda Skelemane - 911114 0236 080 - 897 Mzilikazi Street, Mlungisi Location, QUEENSTOWN, 5320 - *Asanda Niyokumthemba*
301. Fumani Princepp Masilela - 900528 0255 084 - 835 Shiphalane Street, TSAKANE, 1550 - *Fumani Princess*
302. Margaret Letabo Rapheeha - 981111 0137 081 - 0555 Extension 3, Marapong, LEPHALALE, 0555 - *Winy*

303. Ntomboxolo Shweni - 970609 0285 084 - Gqogorha Street, PHILLIP, 7785 - *Ntomboxolo Tania*
304. Boniswa Ntokozo Gumede - 961207 5619 083 - A 642, UMLAZI, 4001 - *Ntokozo Satisfied*
305. Motmudi Abram Msimanga - 940222 6356 086 - 7060 Extension 4, EVATON, 1984 - *Mothudi Abram*
306. Terence Ramushu - 940219 5786 081 - Manganeng, SEKHUKHUNE, 1124 - *Mahlomagolo Terrence*
307. Ntuthuko Mphuzeni Masuku - 941008 5956 086 - Ekubuseni Area, NONGOMA, 3800 - *Khulekani Sikelela*
308. Tinyiko Ndlovu - 910117 6197 082 - P O Box 1429, HLUVUKANI, 1363 - *Nyiko`*
309. Emanuel Thabo Thaele - 901017 5393 081 - 7527 Zone 8, FICKSBURG, 9730 - *Emanuel Thaele*
310. Refeloe Desrey Catherine Moloji - 920627 0609 088 - Robert Sobukwe Road, BELLVILLE, 7530 - *Refiloe Lesedi*
311. Bhekumuzi Nelson Mhlambi - 921114 5251 082 - 14146 Extension 8b, ORANGE FARM, 1841 - *Bhekumuzi*
312. Mzondeki Jacob Sibaya - 930502 5656 087 - 1497 Extension 4, KESTELL, 9860 - *S'fiso Mzondeki Jacob*
313. Jamesroy Bedford - 860305 5370 087 - 18 Kolobe Retirement Village, Pt 23 Farm, MODIMOLLE, 0510 - *James Roy*
314. Bozeta Williams - 850702 0378 085 - 4 Hendrik Pierneef, New Woodlands, MITCHELLS PLAIN, 7789 - *Bezeata*
315. Jaseem Hendricks - 840525 5576 087 - 42 Melkweg, Rockland, MITCHELLS PLAIN, 7789 - *Yaseen*
316. Gienda Shaney Adams - 730129 0553 085 - 88 Eike Street, Cloeteville, STELLENBOSCH, 7599 - *Glenda Shaney*
317. Thandiwe Hluti - 780209 0455 082 - 10821 Singanzo Street, Phelindaba, BLOEMFONTEIN, 9300 - *Thandiwe*
318. Daniel-Addison Millford Hagley-Regham Mokomane - 990413 5463 085 - 29 Union Street, RIVIERIA, 0100 - *Daniel-Addison Millford*
319. Kekgantshaone Angelinah Segwele - 591030 0857 088 - House No 2156, Unit 5, MOGWASE, 0314 - *Kekgantshaone Angelinah*
320. Nomananda Blossom Mpiyane - 760109 0433 085 - 3 Peck Way, Edgemond, CAPE TOWN, 7441 - *Nomawanda Blossom*
321. Nqubeko Mtolo - 010427 5287 084 - Fareview Location, IXOPO, 3276 - *Nqubeko Elvis*
322. Sandisiwe Angry Zikode - 010819 0574 088 - Moyeni Area, BERGVILLE, 3350 - *Sandisiwe Angie*
323. Pakiso Joseph Metlae - 010724 5561 082 - 1346 G, BOTSHABELO, 9181 - *Keamohetswe Bright*
324. Mahlodi Faith Serumula - 890822 5981 089 - 413 Block Kk, SOSHANGUVE, 0152 - *Mahlodi Tumelo*
325. Siphon Gumede - 900702 5880 085 - Thengani Area, KWANGWANASE, 3973 - *Siphon Sibonokuhle*
326. Qcinani Wendy Hlongwane - 930318 0450 081 - Sandlwane Area, BERGVILLE, 3350 - *Qcinani Wendy*
327. Bhekisephi Njoko - 861006 0607 080 - Mhlonayo, LADYSMITH, 3370 - *Nikiwe Bheksani*
328. Gavin Dean Joshua Jochems - 990628 5163 084 - 42 Texel Street, RUYTERWACHT, 7466 - *Joshua Gavin-Dean*
329. Mahomed Sameer Khan - 931122 5089 087 - 4 Solstice Road, 11 Grand Centre, UMHLANGA RIDGE, 4020 - *Sameer*
330. Mahomed Maheer Khan - 960621 5064 085 - 4 Solstic Road, 11 Grand Centre, UMHLANGA ROCK, 4319 - *Maheer*
331. Gladwell Kgomotso Pete - 780513 5370 083 - House No 2552, Ramolope Section, MARULENG, 0314 - *Gladwell Xolani*
332. Abigail Mary Barron - 930611 0147 081 - 38 Cadillac Street, Beacon Valley, MITCHELLS PLAIN, 7785 - *Aatiqah*
333. Lebogane Constance Chauke - 820908 0849 085 - 66 Cedar Roc, Vorna Valley, MIDRAND, 0100 - *Lebogang Lebalang*

334. Jim Bafana Kwinika - 960806 5489 081 - 554 Crecy, MOOKGOPHONG, 0560 - *Jim Khutšo*
335. Kgotlelo Molehabamgoe Sere Rantloane - 810902 5265 084 - 36 – 7th Street, Houghton Estate, JOHANNESBURG, 2001 - *Kgotlelelo Sere*
336. Kagisho Luvuyo Rantloane - 880412 5771 086 - 31 Rietfontein Road, RIVONIA, 2010 - *Kagiso Luvuyo*
337. Florence Lerato Sedibe - 960625 0310 088 - 49 Linden Road, BRAMLEY, 2090 - *Lerato*
338. Magedi Lebogang Tshebesebe - 950919 1060 087 - Extension 37, Etwatwa, DAVEYTON, 1520 - *Kgotsofalo*
339. Bakhodise Vunani - 840924 5506 089 - 246 Zone 1, GA-RANKUWA, 0208 - *Nkosinathi Lucas Bakhodise*
340. Lebohang Helen Mohale - 960305 0221 086 - 1354 B Hani Street, NKOWANKOWA, 0871 - *Lebohang*
341. Oreng Kebarileng Masenya - 880401 0924 089 - 1905 Unit 8, GA-RANKUWA, 0208 - *Kebarileng Mmamorolo*
342. Joel Kgadishi Dikgale - 940224 5335 087 - 1114 Botswana Street, DAVEYTON, 1520 - *Luci Kailo*
343. Thabiso Kolisile - 000208 5867 089 - , NTABANKULU, 5130 - *Thabiso Ruben*
344. Dimakatso Arcina Boyang - 830702 0451 085 - 103 Daffodil Gardens, PRETORIA NORTH, 0182 - *Gcobile Nono Arcina*
345. Bhakie Brian Bosaman - 920215 5726 089 - 17 Reier Street, Newtown, POSTMASBURG, 8420 - *Bheki Brian*
346. Diva Santos Dos Santos Albano - 780417 0214 082 - 370 Cliff Avenue, Waterkloof Ridge, PRETORIA, 0001 - *Maria Diva*
347. Nomzingiso Sogwangqa - 950606 0752 083 - Ngqutura Area, ENGCOCO, 5050 - *Nomzingiso Nangazo*
348. Lebogang Mhlongo - 821007 5368 081 - 18 Van Zyl, Newlands, ,JOHANNESBURG, 2001 - *Bongani*
349. Masilo Bernard Ntelele - 820103 5437 082 - 1142 D, NAMA KGALE, 1390 - *Lesego Benjamin*
350. Kamogelo Nhose - 980616 0183 084 - 400 Sandpiper Drive, Aspen Hills, NIGEL, 1490 - *Kay Kamogelo*
351. Malaki Jeffrey Mbonani - 900517 5842 087 - 1145 Tweefontein M, Thokoza Bottle Store Street, KWAMHLANGA, 1022 - *Thabang Jeffrey*
352. Mapaseka Getrude Qaba - 970216 0849 081 - 123 Saint Joseph Avenue, EERSTERUST, 0022 - *Mapaseka Maya*
353. Mathabathe Advice Mokoena - 980117 0327 086 - No 5322, LUSAKA, 0100 - *Keletso Advice*
354. Nomawethu Francinah Qambela - 621129 0854 089 - Mt Arthur Area, LADY FRERE, 5410 - *Nomawethu Nomisikhaya*
355. Fhatuwani Ridonga - 861120 0531 081 - 20388 Usinga Street, Mfundo Park, Extension 30, VOSLOORUS, 1475 - *Fhatuwani Patience*
356. Joy Homathamsanqa Mbele - 820107 0932 088 - 14 Sesheke Street, Portion 47, Extension 28, VOSLOORUS, 1400 - *Joy Nomathamsanqa*
357. Temoso Ezekiel Molabe - 011030 5066 083 – Ditwebeleng Village, DRIEKOP, 1129 - *Matlaupe Ezekiel*
358. Ruth Chelo Mogotle - 940515 0810 085 - P O Box 61, LEPHALALE, 0555 - *Maria Morakane*
359. Mothobela Precious Mosima - 950915 0347 087 - 29 Bospatrys Street, LEPHALALE, 0555 - *Precious*
360. Mabitje Robert Magoro - 780414 5562 086 - Seleseng, GA-MPHAHLELE, 0700 - *Mabitje Robert David*
361. Sesongo Shadrack Thothela - 720207 5449 087 - 2752 A Zone 10, MEADOWLANDS, 1863 - *Senonkonyane Shadrack*
362. Lememba David Tshabalala - 510723 5591 086 - 37 – 2nd Street, BURGERSFORT, 2740 - *Lenemba David*
363. Penelope Shaminah Khumalo - 910330 0368 084 - 2832 Sefasonke Section, LEDIG, 0316 - *Lungile*

364. Joanne Ramadimetje Phohu - 900720 1363 088 - Mautane, MPHAHLELE, 0730 - *Joanne*
365. Ramadimetsa Francina Ramela - 960903 0392 087 - Xr 111677, MAMELODI EAST, 0600 - *Ramadimetsa Tshephang*
366. Hendrico Klerk - 931109 5114 080 - 37 Tulp Street, GRAAFF-REINET, 6280 - *Hendrico Gerald*
367. Cynthia Chauke - 011212 1451 085 - Stand No 291, Shabanana Trust, HAZYVIEW, 1240 - *Cynthia Nonhlanhla*
368. Thembokuhle Trom - 971102 5116 081 - 15979 Thabantlenyana Street, Extension 12, KAGISO, 1754 - *Shaun Thembokuhle*
369. Sylvester Kagiso Kgwadi Leputu - 990417 5941 081 - 37 – 9t H Avenue, ALEXANDRA, 2090 - *Makopa Sylvester*
370. Zandile Elisa Zweni - 961115 0264 088 - 83 Soliman Street, Mahadin, POTCHEFSTROOM, 2010 - *Nompumelelo*
371. Johannes Lucas Schutte - 011214 5075 084 - 54 Angeiler Street, BRACKENFELL, 7560 - *Hanu*
372. Bontle Shirley Mararang - 890930 0805 086 - House No E7, Dithakong Village, KURUMAN, 8460 - *Bontle Shearly*
373. Nalisha Singh - 770114 6053 083 - 102 Boyridge, Kenilworth Avenue, MILNERTON, 7441 - *Shah Gershom*
374. Mante Mumty Makgopa - 810503 0410 087 - 3400 / 08 Amur Falcon Street, Elandspoort, PRETORIA, 0180 - *Lethabo*
375. Aaron Raphiri - 000314 5367 086 - Vergelegen C, JANE FURSE, 1085 - *Dihlare Aaron*
376. Abel Mpofo - 990916 5404 081 - 15 Siyabanga Street, Bongoletu, OUDTSHOORN, 6625 - *Abel Terence Ngwenya*
377. Tokelo Edwin Mamphy - 000531 5590 082 - Ga-Mashabela, MARISHANE, 1064 - *Magasane Tokelo*
378. Mohubidu Silver Tsetsewa - 700214 5775 085 - 287 Davinci Fiat, Johan Street, ARCADIA, 0001 - *Mokgase Silver*
379. Itumeleng Decious Marutulle - 920820 5754 088 - Stand No 20244, Sechabeng Section, MADIBONG, 1080 - *Itumeleng Maishataba*
380. Matthew Williams - 941024 5042 082 - 18 Sands Street, Klippoortjie, GERMISTON, 1400 - *Maya*
381. Lerato Gladys Motjati Makola - 811003 0360 084 - 5 Pendering Park, Gamby Street, DORINGPOORT, 0150 - *Lerato*
382. Shireen Lorna Samuels - 761014 0142 083 - 4 Leplate Road, MANNENBERG, 7764 - *Shireen*
383. Nokuzola Jane Cata - 800803 0741 081 - 0707 York Louise, Cnr Kerk & Rissik Street, JOHANNESBURG, 2001 - *Nokuzola Zolani-Mampondomise*
384. Lords Frederickmitchel Ramalepe - 020308 5524 080 - Stand No 12, Medingen Village, GA-KGAPANE, 0800 - *Lord*
385. Zamalinda Cebekhulu - 971027 0333 086 - 680 Old Dunbar Road, CATO MANOR, 4010 - *Zamalinda Zahra*
386. Shiejaan Jacobs - 850715 0323 083 - 7 Benes Street, MAITLAND, 7785 - *Shehaam*
387. Teboho Angeline Hamotseo - 881211 0998 085 - 17 York Street, Waverley, BLOEMFONTEIN, 9300 - *Teboho Matlole*
388. Jack Matholoane Noge - 700426 5700 083 - 25 Pansy Street, Riamar Park, BRONKHORSTSPRUIT, 1020 - *Moagi Jack*
389. Abigail Petersen - 841203 0770 084 - 9 Klipfontein Road, Saartjie Baartman Centre, CAPE TOWN, 7700 - *Abeeda*
390. Nontsikelelo Nonvuyo Ncwadi - 900618 0102 087 - 5 Princess Path, Pinelands, CAPE TOWN, 7405 - *Nontsikelelo Noluvuyo*
391. Luyanda Clive De Villiers Mbanga - 881226 5569 087 - 28 Turffontein Avenue, MILNERTON, 7440 - *Luyanda Clive*
392. Motsane Aubrey Sekgala - 970930 5764 083 - Mphane, LEBOWAKGOMO, 0731 - *Mpono Aubrey*
393. Mantebens Vinolia Mokhutle - 860824 0237 083 - 31 Amampondo Drive, ROOIHUISKRAAL, 0157 - *Mosa Vinolia*
394. Danél Lipan - 990306 0269 087 - 108 Surrey Street, Townsend Estate, GOODWOOD, 7460 - *Geneve*

395. Oneboy Dyantyi - 820205 5741 080 - 6012 Umbashe Street, Extension 6, MFULENI, 1420 - *Tutuse Oneboy*
396. Jonathan James Grimbeek - 951120 5059 089 - 47 Marion Avenue, Glenashley, DURBAN, 4001 - *Jonathan James Dempster*
397. Lewies Witbooi - 720927 5141 083 - 33 Meyer Street, BREDASDORP, 7280 - *Louie Lamar*
398. Thikitha Paulos Mothapo - 901217 5391 081 - Rv 9176, VERGENOEG, 0008 - *Manthata Lesejja*
399. Nomasonto Nhlanhla - 811012 0836 084 - 2054 / 7 Extension 25, EMBALENHLE, 2285 - *Nomasonto Mamie*
400. Ass Mashaba - 000822 0463 080 - 911 Sekgala Street, ETWATWA, 1519 - *Assa*
401. Jenolene April - 000628 0576 080 - 92 Geelhout Street, ROSEDALE, 6529 - *Genolene*
402. Charmaine Klassen - 621030 0828 083 - 1 Volga Street, Endhaven, DELFT, 7100 - *Shanaaz*
403. Nomafu Mary Bhengu - 840803 0449 083 - 23496 Kwampande Location, VULINDLELA, 3201 - *Noma Mary*
404. Noxolo Nickon Xaba - 950629 0325 080 - A 1792 Mbangela Khuzwayo Road, FOLWENI, 4100 - *Noxolo*
405. Motubatse Reginald Mashabela - 920716 5060 080 - Stand No MA 520, TAFELKOP, 0474 - *Separitte*
406. Thabang Mabitse Mashegoane - 991222 6311 089 - Riverside, JANE FURSE, 1085 - *Thabang Malekutu*
407. Thobani Sifiso Ngiba - 960316 6199 085 - Thebmeni Area, STANGER, 4450 - *Thobelani Sifiso*
408. Onkaetse Edwin Marumo - 000814 5897 081 - 69 – 5th Avenue, ROODEPOORT, 1725 - *Onkabetse Edwin*
409. Nyeleti Paell Mashengete - 020814 1066 083 - 21745 Tau Street, MERITING, 9301 - *Nyeleti Pearl*
410. Ntlhagongwe Humphrey Manaka - 941203 5746 088 - 67 Plovers Nest, Parkland Estate, BOKSBURG, 1459 - *Ntlhagongwe Humphrey*
411. Beatrice Monique Solomons - 950528 0061 085 - 24 Pluto Street, Salberay, ELSIES RIVER, 7490 - *Bashirah*
412. Nurse Kutu - 820815 0493 089 - 3247 Dipuo Street, Extension 4, NELLMAPIUS, 0162 - *Neo*
413. Mable Hunadi Koma - 940628 0520 081 - 1161 Cmi Houses, MASHISHING, 1120 - *Bathabile Hunadi*
414. Mohlale Tiny Malatji - 820423 0501 082 - Sehunyane, Driekop, PRAKTISEER, 1150 - *Mamatshaba Tiny*
415. Arabella Nyanisi Mawila - 010919 0483 080 - 2113 B Maxakeni Street, Nkowankowa, TZANEEN, 0850 - *Arabella Michelle*
416. Sekgopa Daniel Magane - 640312 5627 083 - Stand No 40, Motetena Township, GROBLERSDAL, 0470 - *Maraas Daniel Sekgopa*
417. Maxon Tuya - 741120 5265 087 - 3 Laatz Close, NEW GERMANY, 3610 - *Mthuthuzeli Maxon*
418. Audrey Mogomotsi - 880606 1011 088 - 1230 Unit 1, Nyambo Street, Lerato, LEHURUTSHE, 2880 - *Lemogang Audrey*
419. Maphohla Calvinia Kgatle - 980313 0923 087 - 1460 Unit F, MANKWENG, 0727 - *Malaika Calvinia*
420. Mokolomaki Anna Milanzi - 870109 0559 084 - B 003 Swartz Manor, ONVERWAGHT, 0557 - *Mokolomaki*
421. Mpho Kudzai - 850313 5604 085 - 1536 Phalafala Street, TEMBISA, 1632 - *Mpho Orsborne*
422. Belinda Nombuyiselo Ngcanga - 730430 0525 085 - 9468 Site & Service, Buyambo Street, KWAZAKHELE, 6205 - *Zusakhe Belinda*
423. Terryn Abigail Chetty - 980304 0269 084 - 42 Fish Eagle Creek, Dragme Avenue, ROODEPOORT, 1725 - *Tarryn Abigail*
424. Jonathan Tjomeane Tjebane - 751216 5782 084 - 836 Baduza Street, Nhlapo Section, KATLEHONG, 1431 - *Mokone Tjomeane*

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425. Mokgaetji Rebecca Mashishi - 900606 0550 082 - 10049 Hans, MAPELA, 0610 - *Morongwa Rebecca*
426. Thulkile Agnes Mbasha - 820722 0613 080 - Ward 9, EMALANGENI, 4100 - *Thulisile Agnes*
427. Davashlen Moodley - 971217 5187 088 - 4 Rosewood Flat, Jacaranda Avenue, VERULAM, 4339 - *Divika Davashlen*
428. Naledi Lethabo Mogale - 970216 0255 081 - 194 Ramokgopa Street, SAULSVILLE, 0125 - *Remoratile Naledi Lethabo*
429. Taariq Aricum - 980908 5353 089 - 48 Old Trathard Way, Rondeblei Park, MITCHELLS PLAIN, 7785 - *Tyron*
430. Balothile Ernestina Sithole - 780810 0473 080 - Phosani Location, BULWER, 3744 - *Banothile Ernestina*
431. Tarryn Jones - 970709 0697 088 - 5 Paulusberg Road, Heideveldt, ATHLONE, 7764 - *Azrah*
432. Abram Mofokeng - 780829 5665 086 - 14608 Thabang, WELKOM, 9460 - *Abraham Shakes*
433. Gomolemo Magano - 000801 5076 089 - 50084 Ramasung Section, Pella Village, ZEERUST, 2880 - *Magano Herman*
434. Donald Bernad Mokgola - 810818 5593 087 - 1440 Zone 10, Winnie Mandela, TEMBISA, 1632 - *Donald*
435. Rosina Nanaki Mokwena - 980819 0138 088 - 1979 Sinqobile Street, KRUGERSDORP, 1740 - *Lethogonolo Rosina Nanaki*
436. Aymtioa Mashale - 901017 0657 084 - 4049 Tswelopele, TEMBISA, 1632 - *Amicia*
437. Anele Nqiqo Makaluza - 810906 5550 080 - 20897 Solomon Mahlangu Crescent, MANDELA PARK, 7784 - *Anele Nqiqo*
438. Walter Mahlokoane – 750505 5730 080 – Stand No 261, Senzele, DENNILTUN,1036 – *Sogane Walter*

## DEPARTMENT OF HOME AFFAIRS

NO. 1285

04 DECEMBER 2020

## ALTERATION OF SURNAMES IN TERMS OF SECTION 26 OF THE BIRTHS AND DEATHS REGISTRATION ACT, 1992 (ACT NO. 51 OF 1992)

The Director-General has authorized the following persons to assume the surnames printed in *italics*:

1. Christiaan Koen - 930621 5359 086 - Gamaboslaan Unit 2, ORANIA, 8752 - *Van Niekerk*
2. Aslam Bilal Kantwela - 940409 5227 083 - Jacaranda Avenue, Forestdale, DUNDEE, 3000 - *Nkosi*
3. Muziwenele Msingathi Jali - 010509 5492 085 - Zingulubeni Area, MSINGA, 3010 - *Mdlalose*
4. Maila Lucas Mashilane - 860128 5413 081 - 2035 Extension 1, ORANGE FARM, 1841 - *Mabokela*
5. Zimasa Onica Bambisa - 951106 0544 084 - 94 Bathweng Street, Zone 1, DIEPKLOOF, 1862 - *Dangazele*
6. Mabatho Philadelphia Maluleke - 870211 0704 080 - 778 D Zone 5, MEADOWLANDS, 1852 - *Shibambo*
7. Thabo Jacob Dlamini - 941214 5679 088 - 262 / 46 Hunt Street, SMALL FARMS, 1954 - *Dlamini-Hlahane*
8. Ontlametse Ragei Cawe - 811007 0508 089 - 332 Rdp, MOROKWENG, 8614 - *Mooketsi*
9. Solomon Mohau Lekalakala - 970112 5038 087 - 2395 Block Gg, SOSHANGUVE, 0152 - *Ngako*
10. Nono Michael Matsela - 780919 5927 089 - 4149 Zonkezizwe, Zone 1, KATLEHONG, 1431 - *Mokhobo*
11. Nectar Ngwanakang Nonyane - 800512 0385 084 - 13172 Fever Street, Tasbet Park, WITBANK, 1035 - *Maile*
12. Buntu Mdekazi - 940328 6247 082 - A 076 Marathon Squateer Camp, GERMISTON, 1401 - *Madlebe*
13. Nokuthula Nomvula Wellcome Mndawe - 951121 0392 087 - 1259 Section D, MAMELODI WEST, 0122 - *Mathebula*
14. Prudence Mathibe - 731024 0666 087 - 286/44 Block F 1, SOSHANGUVE, 0152 - *Malefane*
15. Botshelo Vernon Sithole - 980721 5111 088 - 1152 Block H, SOSHANGUVE, 0152 - *Moyana*
16. Sabelo Craig Gladwilli Sibiyi - 910702 5871 082 - 072158 Umzinyathi Area, INANDA, 4310 - *Sibisi*
17. Amanda Boitumelo Rakhosi - 990801 0501 083 - 15033 Extension 15, EMBALENHLE, 2285 - *Douw*
18. Christopher Mathupe Tshehla - 780720 5498 083 - 470 Boshoff Street, Extension 6, CHANTELE, 0182 - *Makua*
19. Mpumelelo Blessing Shibase - 940916 5770 086 - Umzinyathi Area, INANDA, 4310 - *Goba*
20. Thokozani Sikhakhane - 741002 5598 081 - 2190 Homedale Place, NWELEND WEST, 4037 - *Makhoba*
21. Sylvester Lerato Mjijima - 840127 5614 081 - D 133 Monde Crescent, Khayamandi, STELLENBOSCH, 7600 - *Mjijima-Bahume*
22. Lesedi Nazia Ndovi - 940322 0551 086 - 99 School Street, MFULENI, 7100 - *Petrus*
23. Tokologo Malatole - 000110 5924 086 - 469 Phadima Section, KATLEHONG, 1431 - *Mogakane*
24. Kufloano Martin Sejake - 980301 5441 080 - 12033 Kraaipan Station, MMABATHO, 2735 - *Mokgele*
25. Sipheshile Thwala - 931212 5694 083 - Ntabenebomvu Area, DUNDEE, 3000 - *Mpungose*
26. Senzo Cedric Ngiba - 830626 5321 086 - Ntshawini Location, KWADUKUZA, 4450 - *Maphumulo*
27. Kwanele Tholomusa Ntokozo Sithole - 000507 5615 087 - Kwahlaza Location, EMPANGENI, 3910 - *Mhlongo*
28. Mbekezeli Francis Ngcobo - 001009 5557 087 - Mashakeni Location, IXOPO, 3276 - *Xulu*
29. Sixolele Solomon Ngiba - 871001 5396 084 - Entshawini Location, KWADUKUZA, 4450 - *Maphumulo*
30. Nqobile Caroline Ngiba - 811123 0321 082 - Entshawini Location, KWADUKUZA, 4450 - *Maphumulo*
31. Tsebo Nkonwana - 921230 5506 083 - 2841 B Luvhola Street, DIEPKLOOF, 1852 - *Makgapheetja*
32. Thabo Mabjaia - 970922 5807 087 - Stand No 2677, MAMELODI EAST, 0122 - *Mabelo*
33. Thabo Harry Phofu - 850404 5978 080 - 535 A Modubu Street, Zone 3, MEADOWLANDS, 1852 - *Molebatsi*
34. Nomthandazo Ncipa - 820608 0769 081 - 4449 Ubuntu Street, PHILIPPI, 7785 - *Mpahleni*
35. Dolly Pumza Sotsaka - 940102 0720 083 - Gallaway Street, HARDING, 4680 - *Jood*
36. Londiwe Innocentia Mponshane - 910720 0802 084 - Port Ford Reserve, ESIKHAWINI, 3887 - *Mathenjwa*
37. Kayaletu Manqana - 770929 5948 086 - Glydesdale Location, UMZIMKHULU, 3297 - *Khanyile*
38. Gift Hlonijo Mahlangu - 010612 5354 089 - 342 Verdepark, PRETORIA, 0082 - *Tlou*

39. Mngqobi Tshireme Mbutso - 000607 5561 081 - Langeni Ward 4, HARDING, 4680 - *Blose*
40. Oratile Phutiayagae - 020104 5475 088 - House No 4032, Nhole, TAUNG, 8584 - *Mahemo*
41. Barend Frederik De Jager - 960922 5412 088 - P O Box 516, STELLA, 8650 - *Van Der Linden*
42. Siphilande Nqobile Msomi - 930926 5904 082 - Ogagwini Reserve, UMZUMBULU, 4105 - *Ndulini*
43. Tshepo Christopher Mongale - 750816 5956 082 - House No Y 100, Bakola Section, GANYESA, 8613 - *Disipi*
44. Storm Ross Herring - 011005 5124 082 - 11 Raymond Crescent, DUYNEFONTEIN, 7441 - *Acey*
45. Lehlohonolo Rakobo - 010513 5051 081 - 700 Klippan Street, Unit 51 Illanga Place, MONTANA, 0182 - *Dikgale*
46. Thembelani Lungisani Skhosana - 010430 5520 082 - Khambi Area, NGENETSHENI, 3100 - *Maphisa*
47. Sboniso Sydney Mgaga - 820214 5689 083 - A 1966 King Bheku, Newtown A, KWAZIMELE, 4360 - *Sibiya*
48. Mxolisi Gracious Khanyile - 920202 5919 088 - A 710 Unit 11, Kholwa Road, KWA MASHU, 4360 - *Ngobese*
49. Spongile Moloi - 921214 0408 081 - 6819 Pooa Street, Extension 2, DUDUZA, 1496 - *Mahlangu*
50. Dikeledi Maki Baloyi - 990506 0897 080 - House No 51, Ramautswe, MAMAMAKHOTENG, 0352 - *Thobejane*
51. Ramaano Mulaudzi - 001220 5913 085 - 1606 Bafana Bafana Street, Payneville, SPRINGS, 1559 - *Ndou*
52. Xoliswa Mkwai - 000323 0966 081 - Trust Area, LADY FRERE, 5410 - *Zondani*
53. Khumbulani Ndawonde - 000311 0174 087 - Machunwini Location, HARDING, 4680 - *Mnomiya*
54. Samkelo Victor Mathebula - 000609 5251 085 - 18989 Ndungwane Street, Extension 6, KWA THEMA, 1575 - *Simelane*
55. Lebogang Merriam Mogorosi - 000304 0911 087 - New Stand, Mahobikraal, MANKWE, 0314 - *Tshose*
56. Andile Zuma - 001116 5433 084 - C 12 Mfolozi Road, KWA MASHU, 4360 - *Dikweni*
57. Nomfundo Cele - 000413 0496 088 - Dlovinga Location, IZINGOLWENI, 4260 - *Xolo*
58. Ncazelo Duma - 000327 5525 081 - Hlathikhulu, PIETERMARITZBURG, 3200 - *Zuma*
59. Nompumelelo Trudy Chauke - 000613 0795 088 - Stand No 2730, MSHOLOZI, 1240 - *Zitha*
60. Ofentse Mfelo - 001201 5532 083 - 911 Thabaneng Section, MARAPYANE, 0431 - *Mosomane*
61. Refilwe Frans Maila - 000310 5834 083 - 1146 Phaphadikota Street, Extension 24, NELLMAPIUS, 0122 - *Mashalane*
62. Khonzuyise Zamakuphi Msomi - 890509 5598 084 - Emaphiepheheni Area, M 28 Road, INANDA, 4310 - *Mathe*
63. Elias Nakedi Matloga - 990302 5904 083 - House No A D 77, Siyahala, ATTERIDGEVILLE, 0008 - *Rametsi*
64. Tebatso Mokonyane - 001217 0358 084 - 2 Andrea Street, Legae La Batho, POLOKWANE, 0699 - *Hlako*
65. Asanda Hadebe - 000215 5613 082 - 3316 Siqalo Street, Zone 3, PIMVILLE, 2094 - *Mpembe*
66. David Mpfu - 991223 5549 083 - Madisha Leolo, ZEBEDIELA, 0737 - *Maile*
67. Madimotse Tsebele Mokoale - 820824 0984 089 - Ga Nchabeleng Village, LEFALANE, 0741 - *Phakoago*
68. Nomvula Pretty Zibula - 960707 0517 084 - P O Box 267, TONGAAT, 4400 - *Mkhwanazi*
69. Sedumedi Stephen Rakuba - 780316 5816 083 - 2215 Lekugung Section, Silverkrans, MADIKWE, 2839 - *Kgaswane*
70. George Mapatje - 830711 5759 087 - 7548 Sebotsa Street, THOKOZA, 1426 - *Majela*
71. Goitseone Theophilus Tokotshane - 970530 5918 083 - 711 Leshobo Village, TAUNG, 8584 - *Tokwe*
72. Richard Happy Mahlangu - 831225 5981 087 - 6368 Block F 4, New Eersterus, HAMMANSKRAAL, 0400 - *Mohlwane*
73. Matsobane Evans Tsela - 821224 5396 083 - 33 Vanzyl Street, Newland, JOHANNESBURG, 2092 - *Hlabela*
74. Ramatsobane Victor Malatji - 801119 5613 087 - 416 Unit D, Temba, HAMMANSKRAAL, 0400 - *Pale*
75. Tabo Sokhanyile - 990126 5739 086 - Manzana Area, MOUNT AYLIFF, 4735 - *Mambi*
76. Makitimela Elias Tshukudu - 760909 5717 089 - Ga Masemola, JANE FURSE, 1085 - *Moshidi*
77. Spongiseni Dubazane - 880722 5334 085 - Dubeni Area, MELMOTH, 3835 - *Buthelezi*
78. Sanele Ngubo - 910216 5578 084 - Cg 1 Demat Road, Welbedacht West, CHATSWORTH, 4092 - *Lembede*
79. Sinothando Siphokazi Matshisi - 000507 0769 087 - 13 Gable Street, VRYBURG, 8600 - *Ngqakaza*
80. Ogone Sebitile - 981212 5462 084 - House No 51 G, DRYHARTS, 8588 - *Monamodi*

81. Nothando Felicity Mlotshwa - 001108 0517 086 - 226 Section C, ELIKWATINI, 1192 - *Masilela*
82. Mndanduleni Jeffrey Mugari - 780611 5536 081 - Ha- Mutsha Village, MAKHADO, 0955 - *Mphephu*
83. Joseph Patamedi Maenetja - 010320 5941 083 - House No 328, Gamakanye, MANKWENG, 0727 - *Moloto*
84. Fortunate Mahlatshe Mathaba - 010527 5664 081 - P O Box 3358, POLOKWANE, 0700 - *Maponya*
85. Bhukumusa Shabangu - 830417 5698 081 - 551 Ditaung Street, Ditaung Street, Mojuteng, NORTHAM, 0360 - *Phakola*
86. Queen Abram Maeko - 810918 5614 089 - P O Box 722, Raditshaba, LIMPOPO, 0718 - *Mathata*
87. Joyce Mabaso - 920227 0585 089 - 3098 Sphamandla, Moleleki Extension 2, KATLEHONG, 1431 - *Gwambe*
88. Magrieta Busisiwe Mtsweni - 880305 0255 081 - Stand No 006, Nooigedacht Farm, BELFAST, 1100 - *Mnguni*
89. Edith Chukudu - 880418 0467 083 - 148 A Mamasianoka Street, Zone 1, Meadowlands, SOWETO, 1852 - *Phadu*
90. Jan-Louis Obed Wall - 890223 5260 089 - 335 B Fisonte Circle, Acacia Park, GOODWOOD, 7460 - *Van Eden*
91. Njabulo Cyril Hlangulela - 950924 5506 085 - Tylors Halt, PIETERMARITZBURG, 3200 - *Zondi*
92. Kopanang Mabaso - 840826 6087 086 - 21059 Moikokoloko Street, Extension 3, Ikageng, MAMELODI, 0122 - *Nyathi*
93. Antony Thabang Kayizana - 780629 5904 083 - P O Box 28, PENGE, 1160 - *Mogofe*
94. Zimele Derrick Dumbu - 780725 5811 086 - 5115 Magogoe Tar, MAHIKENG, 2745 - *Mayisela*
95. Isaac Phaswana Monkangwe - 750605 5945 082 - 1170 Phase 1, MAMELODI EAST, 0122 - *Magopa*
96. Khuliswa Mtshali - 820224 0471 080 - P 43 Enkanini, Siyabonga Street, DUNOON, 7441 - *Mapongwana*
97. Tshogofatso Kelvin Mahlaole - 890412 5816 087 - 7 Cestum Street, FLORA PARK, 0699 - *Matlala*
98. Mandisa Felicity Shoji - 971023 0065 083 - C 68 Coastline Crescent, WINDLESPRUIT, 1426 - *Mlotha*
99. Simpho Stuurman - 940318 5206 080 - 69 Mpopu Street, Nu L , Motherwell, PORT ELIZABETH, 6211 - *Norongo*
100. Andile Rwanqa - 011217 5242 083 - Willowfontein, PIETERMARITZBURG, 3200 - *Bhengu*
101. Nikiwe Mkhabele - 000305 5767 085 - Nkomanini Village, MUTALI, 0870 - *Mabuza*
102. Kholofelo Winston Mkanzi - 941006 5840 086 - 330 Jacob Mare Street, 503 Belvoir Flat, BERA PARK, 0002 - *Kekana*
103. Thabang Witness Leballo - 941118 5588 084 - Stand No 779, Motinti, MOLETJIE, 0742 - *Maluleka*
104. Vuyisile John Tsholo - 921231 5327 082 - 947 Block G, BOTSHABELO, 9781 - *Madika*
105. Andiswa Ngcobo - 980727 5293 081 - Amandawe Mission, Ward 14, SCOTTBURGH, 4180 - *Mbutho*
106. Bonginkosi Walter Ngubeni - 781130 5382 080 - 1682 Extension 2, Vlakfontein, SOWETO, 1852 - *Phakhathi*
107. Mabu Joseph Samson Ngoepe - 850128 5796 081 - P O Box 1356, MOKOPANE, 0600 - *Mathatho*
108. Ntlaletjeng Susan Chuene - 990325 0863 087 - 942 Zone 5 D, Seshego, POLOKWANE, 0700 - *Ngoasheng*
109. Mishack So Nny Mngunu - 680822 5919 083 - 709 D Mandela Village, HAMMANSKRAAL, 0400 - *Mahlangu*
110. Motlogeleng Sefoka - 980518 5189 084 - 26837 Moloise Street, MAMELODI, 0122 - *Moswane*
111. Simphiwe Percival Buthelezi - 981223 5678 082 - Keadsript Location, MSINGA, 3410 - *Zulu*
112. Ntokozo Victorean Sithole - 990226 5280 089 - 293 C Ekuvukeni Area, WASBANK, 2930 - *Mlambo*
113. Nkosinsiphile Mondli Sibisi - 000313 5471 088 - 402810 Richmond Road, CHATSWORTH, 4092 - *Mzimela*
114. Mzamo Justice Mofokeng - 950924 5416 084 - 695 Zazi Road, CLERMONT, 3610 - *Gumede*
115. David Mbongeni Dhlomo - 770322 5241 084 - 1345 Mbazo Street, DLAMINI, 1818 - *Ngema*
116. Vuyelwa Goodness Ntsibande - 871111 0924 085 - 3596 Ndaba Street, Zone 10, MEADOWLANDS, 1852 - *Titisi*
117. Nobuhle Signoria Sukazi - 920126 0729 087 - 17526 Alana Street, Extension 16, PROTEA GLEN, 1818 - *Motha*
118. Thandokwethu Mjuza - 971118 5512 087 - 353 Rdp Marikana, RUSTENBURG, 0300 - *Makom*
119. Obakeng Regionald Moreesele - 881114 5917 086 - 101 Caleb Motshabi, BLOEMFONTEIN, 9300 - *Sebitloane*
120. Unathi Sompunzi - 840522 5829 087 - Godzie Area, TSOLO, 5170 - *Gaya*
121. Bongji Mkhonza - 771229 0340 085 - 11323 Lenong Street, Ivory Park, MIDRAND, 1685 - *Mahlake*
122. Moses Tsietsi Mokwena - 820203 6233 082 - P O Box 9040, BURGERSFORT, 1150 - *Mgiba*
123. Mxolisi Enoch Gaqelo - 840427 6269 087 - 19488 Gqogqora Crescent, PHILLIPI, 7785 - *Nkalweni*

124. Andile Aron Nqanqase - 860416 5898 082 - 55941 Nambuzane Street, Kuyasa, KHAYELITSHA, 7784 - *Tsawe*
125. Katheho Setata - 991221 5202 083 - 7474 Tsotetsi Street, THOKOZA, 1426 - *Mahlaba*
126. Portia Khazamula - 780113 0259 082 - 25 Manyaleti, Poplar Avenue, Craigeeton, FOURWAYS, 2021 - *Jacobs*
127. Emmanuel Motlatsi Walaza - 830825 5780 081 - 13767 / 90 Abigail Mfebe Street, Kagiso Extension 18, KRUGERSDORP, 1754 - *Motene*
128. Dion Andzani Sibuyane - 941127 5774 081 - 268 Joe Slovo, Extension 9, IVORY PARK, 1685 - *Silaulu*
129. Nombuso Bridget Nyawo - 860519 0621 084 - Ogodwayo Area, PONGOLA, 3170 - *Nxumalo*
130. Tebello Victor Letlotlo - 000626 6197 083 - No 12 Democracy Drive, JOE SLOVO, 7441 - *Mahloko*
131. Thando Sibusiso Lushozi - 980617 6281 088 - 2064/1 32 Extension 26, EVANDER, 2280 - *Mphikeleli*
132. Nomfundo Mayise - 980822 1110 080 - P O Box 12, MANDINI, 4490 - *Ndhlouu*
133. Elias Madonsela - 960516 6034 089 - 3184 Section 7, Enkangala, BRONKHORSTSPRUIT, 1021 - *Mbambala*
134. John Obakeng Baloyi - 790520 5919 080 - 30 Jensen Street, ORCHARD, 0180 - *Kgwedi*
135. Nicholus Thembinkosi Nyezi - 960123 5300 080 - 825 Bhima Street, Extension 2, ZITHOBENI, 1024 - *Malinda*
136. Vusumuzi Mbonani - 831027 5758 089 - 154 Enishonalanga Section, TEMBISA, 1620 - *Radebe*
137. Keatumela Jacob Selomane - 990605 5409 089 - 33377 Maganagobuswa, SIYABUSWA, 0472 - *Molefe*
138. Dudu Renneth Maliso - 861203 0358 083 - 44 Enxuweni Section, TEMBISA, 1636 - *Mothebe*
139. Bethusile Betty Margaret Thole - 840830 0587 083 - 13044 Madeun Street, MAEMLODI EAST, 0122 - *Sebanyoni*
140. David Mokoena - 780822 5693 083 - Thabaneng Section, RANKELENYANE, 0284 - *Mahlalela*
141. Terrence Thobela Nduna - 800215 5544 081 - 21024 Richmond Street, Nomzamo, STRAND, 7140 - *Mabayo*
142. Dumisani Nelson Khumalo - 920511 5656 080 - F 4444 Section 6, MADADENI, 2951 - *Mthimkhulu*
143. Jabulani Motau - 941219 5784 085 - P O Box 4265, MPUNDULLE, 1057 - *Mahlangu*
144. Kesaelebogae Makgoe - 000121 5790 088 - 69 A Itirekeng Village, PAMPIERSTAD, 8566 - *Job*
145. Nonhlanhla Fortunate Ncube - 730206 0374 082 - 76 Belfort Road, Northdal, PIETERMARITZBURG, 3200 - *Mbambo*
146. Karabo Sithembiso Tshabalala - 980112 5044 083 - 125 B Kgari Street, Zone 1, DIEPKLOOF, 1864 - *Bapela*
147. Sibongakuye Xulu - 990514 5841 087 - Ntamalala Area, NKANDLA, 3825 - *Sibisi*
148. Simiso Praise Ngiba - 900917 5490 087 - 27 Strathcone Place, Woodland, DURBAN, 4004 - *Ntshingila*
149. Danver Angelo Philander - 920320 5106 082 - 31 Amandel Street, WORCESTER, 6849 - *Carstens*
150. Protus Nkosingiphile Phewa - 880303 5493 088 - House No 24200, Nxala Road, Auckland, MARIANHILL, 3600 - *Ngwane*
151. Goitseone Goodenough Sheikh - 980118 5555 085 - 2 Reid Street, ZEERUST, 2865 - *Sebogodi*
152. Thato Donald Malatji - 920531 5376 083 - 30002 Riba Street, Extension 10, MAEMLODI EAST, 0122 - *Makitla*
153. Samuel Kgomo Tshitavhani - 860313 5632 084 - 771 Block C, MABOPANE, 0190 - *Ditabo*
154. Tshupo Oly Nkosi - 990519 5470 084 - 429 Christassen Street, PRETORIA WEST, 0183 - *Matsemela*
155. Brilliant Thandi Nndwamato - 940215 0497 088 - 145 Govon Mbeki, PORT ELIZABETH, 6001 - *Bvuma*
156. Martins Mmitseng Ntsimane - 911010 5649 089 - E 39 Malebye Street, DIPETLELWANE, 0250 - *Molekoa*
157. Onthatile Mabolle Princess Moshoeshoe - 980524 0236 086 - 498 Brussels Lane, Reedville, SPRINGS, 1559 - *Tlhatsi*
158. Sello Abel Majake - 970306 5274 086 - 39748 Phokeng Village, Thabong, WELKOM, 9460 - *Maruma*
159. Gontse Clifford Molefe - 930913 5754 089 - 1200 Newtown, BAPONG, 0269 - *Raphiri*
160. Taetso Mokgoba Lebogo - 000215 0062 087 - P O Box 727, BOCHUM, 0790 - *Mowasa*
161. Thobekani Mazibuko - 000201 5630 086 - Madolobheni Area, ESTCOURT, 3310 - *Ndlovu*
162. Thabang Dick Motaung - 830110 6016 086 - 2556 Lusaka, Bluegum View, DUDUZA, 1490 - *Mofokeng*
163. Lungelwa Mokoena - 010615 5430 080 - Lokateng Village, MAHIKENG, 2745 - *Bamphitile*
164. Siyalakha Luzuko Mfundo Magula - 971027 5408 081 - 36 Fairfield, 71 Grimhorpe, PIETERMARITZBURG, 3200 - *Notsolo*
165. Tshupo Josias Cokoto - 880531 5253 082 - 36239 Vula Street, Extension 16, TSAKANE, 1550 - *Moagi*

166. Reginald Makhura - 750227 5695 086 - 1921 Block F, SOSHANGUVE, 0152 - *Mankga*
167. Bitl Ntshiyane - 880523 5105 081 - 17 Zenith Road, Vanguard Estate, ATHLONE, 7764 - *Waggie*
168. Daniel Tseko Dikhethe - 810507 5517 085 - 2803 Section J, Palm Vaal, SPRINGS, 1560 - *Tsotetsi*
169. Thobeka Cijana - 970617 0356 086 - Ngudle Area, TSOMO, 5400 - *Hlabeni*
170. Constance Nonzwakazi Madondolo - 680413 0816 084 - 407 Nyokana Road, KOKSTAD, 4700 - *Hlathi*
171. Mcabangiseni Ngcobo - 000103 5572 088 - A 794 Ntokozo Road, KWA MASHU, 4359 - *Nzama*
172. Ngoako Japhter Maloba - 810315 5507 084 - No 23 Extension 14, MOKOPANE, 0600 - *Mogale*
173. Mmashela Unice Tselana - 900511 0658 085 - No 20062, Ga-Mushe, STETLOOP, 0608 - *Komape*
174. Sizwe Isaak Gwebu - 000108 5760 088 - Mabocha Location, BURGERSFORT, 1150 - *Makofane*
175. Sindi Nkonzo - 010106 0274 087 - Weibedutch East, CHATSWORTH, 4092 - *Norjingo*
176. Neo Fortune Mathari - 010312 5149 080 - 3399 Extension 2, Tubatse, BURGERSFORT, 1150 - *Moreku*
177. Sfiso Kenneth Nkosi - 800225 5610 089 - Stand No 1064, Clau-Clau, NELSPRUIT, 1200 - *Mgwenya*
178. Charles Jalous Magoane - 730717 5683 087 - P O Box 9314, BUSHBUCKRIDGE, 1280 - *Ndhlovu*
179. Garnett Hezekiah Sephton - 020121 5415 088 - Plot 25, Mooivallei, POTCHEFSTROOM, 2531 - *Jacobs*
180. Ofentse Molemane - 011114 0560 082 - E 55 Endels Rust, RADITHUSO, 2738 - *Mosala*
181. Letlotlo Mamotlisi Alita Makole - 920224 0690 084 - 1803 Moretooga Street, Phase 8, GA-RANKUWA, 0208 - *Moeketsi*
182. Kidibone Lambani - 960713 0556 080 - Mulima Village, TSHITALE, 0917 - *Choene*
183. Lesetja Albert Makono - 800724 5486 086 - Stand No 709, Kalkspruit, GA-MARABA, 0705 - *Mothoa*
184. Thinasinohando Mbiko Sizwe Nzuzo - 011004 5519 086 - P O Box 486, KWANGWANASE, 3973 - *Mathenjwa*
185. Masego Millencia Peele - 001213 0515 088 - 8359 Bosnia Street, Cosmo City, Extension 7, RANDBURG, 2188 - *Motihabane*
186. Sizwe Gcabashe - 000529 5769 086 - Mbongolwane Area, NDWENDWE, 4342 - *Hlabisa*
187. Elizabeth Lindwe Masinga - 840101 0457 085 - No 538, Block C, KOMATIPOORT, 1340 - *Hlatshwayo*
188. Sandile Junior Zulu - 000704 5911 083 - Ncekwana Reserve, EMPANGENI, 3910 - *Zondi*
189. Ephraim Bafana Makoe - 990817 5362 081 - 5098 Extension 3, Mhlaombi, WINTERVELDT, 0998 - *Masemola*
190. Themba Johannes Ledingoana - 770121 5306 081 - 288/13 Vesting West Street, NATURENA, 2064 - *Nzama*
191. Benny Kgabo Tsebe - 860608 5424 089 - 96 Sower Street, GERMISTON, 1401 - *Teffu*
192. Moses Sheburi - 990909 5886 084 - 3059 Zone 3, LEBOTLWANE, 0411 - *Sebola*
193. Boitumelo Felecia Mlangeni - 910907 0676 085 - 168 Zone 6, Extension 5, SEBOKENG, 1982 - *Thowe*
194. Andile Noluthando Zulu - 000306 5656 088 - 4977 Igwalagwale Street, SOWETO, 1829 - *Khumalo*
195. Daniel Tai-Tai - 801111 5437 088 - 72285 Kanana, SEBOKENG, 1952 - *Dlephu*
196. Faith Tholakele Mthethwa - 841118 0390 081 - Mzingwenya Park, ESIKHAWINI, 3887 - *Mdletshe*
197. Lesego Vincent Sihlangu - 011029 6067 082 - 3700 Emphisweni Street, Vila Liza, BOKSBURG, 1460 - *Biloane*
198. Thabang Songo - 000717 6159 080 - 465 Block G, SOSHANGUVE, 0152 - *Khoza*
199. Gedion Vusi Khoza - 871015 5849 082 - Stand No 2086, Clau-Clau, KABOKWENI, 1245 - *Nkuna*
200. Emmanuel Sthembiso Mthethwa - 800115 5336 084 - 767 Tokologo, MHLUZI, 1053 - *Hlatshwayo*
201. Banele Phake - 950318 5751 082 - 3942 Tsoletsi Street, DUDUZA, 1496 - *Mazibuko*
202. Thandiswa Nxele - 910913 0825 086 - 5661 Extensin 7, Mankahiana Street, DIEPKLOOF, 2189 - *Cossa*
203. Sbusiso Lungelo Nene - 981001 5876 082 - Sweetwaters Location, PIETERMARITZBURG, 3200 - *Mtshali*
204. Nondumiso Precious Mlambo - 881017 0591 089 - Shoba Area, VRYHEID, 3100 - *Zulu*
205. Xolile Princess Mncwabe - 980213 0768 088 - Block C, EMONDLO, 3105 - *Maphisa*
206. Happy Basimane Mojela - 961231 5175 086 - 1225 Chief, Mogale Phase 2, Kagiso li, KRUGERSDORP, 1740 - *Ndlovu*
207. Mokete Simon Mokoena - 770228 5846 089 - 10790 Extension 11, EVATON WEST, 1984 - *Motaung*
208. Piet Masilo Tebogo Makgasha - 990908 5643 081 - Stand No 33, Ga-Matjia, GA-MAMABOLO, 0727 - *Modiba*

209. Joseph Sunnyboy Chauke - 700428 5486 085 - Ga-Ntamaties Village, GOMPIES, 0631 - *Baloyi*
210. Samkelo Shezi - 000819 6030 087 - Dumisa Area, Ward 5, UMZINTO, 4200 - *Khuzwayo*
211. Shabale Mkhohliwe - 000120 5693 086 - Mnyolo Area, NGCOBO, 5050 - *Gcora*
212. Thobeka Innocentia Vilakazi - 000912 0333 084 - 7538 Extension 5, BETHAL, 2310 - *Mnguni*
213. Thabo Jerry Nkuna - 890908 5582 082 - 17540 Mmabatho Street, MAMELODI EAST, 0122 - *Makhubela*
214. Leocadia Lungile Khwela - 950918 0494 081 - P O Box 344, PENNINGTON, 4184 - *Shange*
215. Koketso Francinah Buthane - 010722 0457 082 - 3306 Jv, ATTERIDGEVILLE, 0008 - *Mafokoane*
216. Gladfred Tshepo Mpongwane - 880415 5376 087 - 6545 Zone 12, Extension, SEBOKENG, 1983 - *Rabapane*
217. Dumisa Gift Mankazana - 910510 5352 080 - 5173 Mpane Street, Orlando West, SOWETO, 1806 - *Nhlapo*
218. Thokozani Madontsela - 861203 5636 087 - 15492 Extension 8, ORANGE FARM, 1805 - *Sithole*
219. Koketso Bogopa - 010723 6319 086 - Stand No 3, Rathoke, Section G, MARBLE HALL, 0450 - *Masimini*
220. Simphile Siyabonga Ndimande - 010915 6267 089 - Umbumbulu Area, ISIPINGO RAIL, 4105 - *Mdima*
221. Nomsa Sifaya - 011010 1703 087 - New Rest, STERKSPRUIT, 9762 - *Sikwati*
222. Langelihle Dlamini - 010906 6421 081 - P O Box 702, MTUBATUBA, 3960 - *Sibiya*
223. Lehlohonolo Stephen Mthembu - 910416 5728 081 - 1767 Bishop Street, Boitumelo, SEBOKENG, 1983 - *Motloung*
224. Kamogelo Salamina Marogoa - 960329 0922 089 - 3250 Zone 2, SESHEGO, 0742 - *Kgomo*
225. Buti Johannes Khambule - 760616 5264 083 - No 50 – 18 Th Avenue, ALEXANDRA, 2090 - *Mokoena*
226. Teboho Elias Maseko - 771208 5752 080 - 1219 Sibusiso Street, Dikole Extension 1, KATLEHONG, 1458 - *Diba*
227. Themba Nkosi - 870618 5250 085 - 2846 Katlehong South, KATLEHONG, 1432 - *Msoni*
228. Kgotlaemang Chimane Legote - 660626 5620 086 - 3 Mhala Flats, Bhongweni, RANDFONTEIN, 1760 - *Molete*
229. Lebogang Rodney Marumo - 960412 5312 082 - 2248 Moletsane Street, Mohlakeng, RANDFONTEIN, 1759 - *Mbovu*
230. Thapelo Jack Mnisi - 990605 5427 081 - 922 Extension 21, NELLMAPIUS, 0122 - *Modiba*
231. Anathi Nqatawuli - 990817 5537 088 - Makapusi Village, LADY FRERE, 5320 - *Zepe*
232. Boitumelo Eugene Shisana - 770425 5406 084 - 1197 Block U, MABOPANE, 0190 - *Sekgobela*
233. Vincent Tshagane Mailola - 870312 5431 081 - 245 Block U, SAULSVILLE, 0125 - *Sekele*
234. Thabiso Elias Ramotopo - 900216 5355 089 - 33 Tsheepe Street, SAULSVILLE, 0125 - *Mokwena*
235. Zanele Keith Makebani - 991102 0666 086 - 27281 Tokyo Street, TSAKANE, 1550 - *Nkaiseng*
236. Thembuyise Ntetha - 591106 5500 087 - Nibela Area, HLUHLUWE, 3960 - *Myeni*
237. Joel Richard Mashego - 680707 5548 083 - 3707 – 26 Street, ETWATWA, 1520 - *Ubisi*
238. Luthando Edward Mateane - 871130 5332 086 - 6 De Villiers Street, Southern Wood, EAST LONDON, 5201 - *Ndabeni*
239. Kgotso Mack Moropa - 950219 5662 081 - 406 Eerste Geluk, STEELPOORT, 1133 - *Masehlele*
240. Katleho Masike - 880511 5371 084 - 447 Springbok Street, East Bank, ALEXANDRA, 2090 - *Sopoli*
241. George Monareng - 970617 5929 085 - 588 Block T, SOSHANGUVE, 0152 - *Mutakusi*
242. Mduduzi Mkhonza - 900714 5296 089 - 2539 Emdeni, Kolobe Street, SOWETO, 1868 - *Vilakazi*
243. Cyprian Thembinkosi Ngcozo - 880402 5408 086 - 460 Nhlalakahle, Northdale, PIETERMARITZBURG, 3200 - *Zuma*
244. Nonkoliso Mqadi - 960603 0809 086 - Malwebu Area, BIZANA, 4800 - *Simanga*
245. Bongiswa Mbandezi - 930805 0791 084 - 7228 Zizemele Township, BUTTERWORTH, 4960 - *Nkunzana*
246. Cyreal Mkhonto - 860101 6282 086 - P O Box 7, BUSHBUCKRIDGE, 1280 - *Silubana*
247. Tshepisio Lucas Mokoma - 860103 5283 081 - 617 Khudu Street, BOIKHUTSO, 2740 - *Magasi*
248. Misenhle Mandisa Ngobese - 010128 0551 082 - 82 St Regis, Smith Street, DURBAN, 4001 - *Luthuli*
249. Neo Makola - 980503 0136 082 - 40031 Hospital View, Mapulaneng, BAKENBERG, 0611 - *Rampou*
250. Queen Charmain Cindi - 011030 0252 084 - 37 Khumbuzo Street, KWATHEMA, 1575 - *Modjadji*

251. Mabete Moses Bogale - 781123 5612 085 - 21 Moswana Street, Phase 4, LOTUS GARDENS, 0008 - *Baloyi*
252. Vuyisanani Lennox Mfakadolo - 980709 5191 085 - Ngcothoyi Location, ALICE, 5700 - *Libalele*
253. Mbali Portia Sekgogoba - 971119 04720 087 - 2711 Kopanong Street, Zone 13, SEBOKENG, 1983 - *Mnukwa*
254. Itumeleng Mokgele - 960203 5344 088 - 6 Kappituit, Peleissie, BLOEMFONTEIN, 9300 - *Medupe*
255. Tebogo Mathobela Maseeme - 980512 0870 087 - Cabrieve, Ga-Moloi, NEBO, 1059 - *Kubjane*
256. Mathanzima George Ramohlomani - 910818 5541 085 - 7751 Namibia Square, Phahameng Location, BLOEMFONTEIN, 9300 - *Mthata*
257. Violet Siziba - 820309 0657 083 - Stand No Vb, Mamvuka Village, DZANANI, 5362 - *Musekwa*
258. Sabotsha Brendon Mashala - 990112 5831 081 - 40166 Ga-Rauwe, MOKOPANE, 0610 - *Kwanaite*
259. Mogorosi Andries Masigo - 830911 5298 082 - 9928 Tontobane Street, Extension 6, Boipatong, POTCHEFSTROOM, 2531 - *Bannanye*
260. Stanley Mfanafuthi Mkhize - 840404 5904 089 - 4 Child Road, Aa-519, UMLAZI, 4031 - *Mchunu*
261. Oratile Sandile Senna - 971219 5287 082 - 348 Matsikeng Village, WITSIESHOEK, 9870 - *Msimanga*
262. Zamokuhle Thembellhle Ngcobo - 940928 0464 086 - Hosiya Area, NDWEDWE, 4342 - *Nzama*
263. Oratile Maluleka - 010123 5173 081 - House No 1890, Reyrogile, THABAZIMBI, 0380 - *Marokoane*
264. Thabang Matsobane Masemola - 981212 5632 082 - 14244 Extension 73, POLOKWANE, 0699 - *Manaka*
265. Velo Tshangase - 970317 5294 081 - Gayinyanga Location, Amanndawe, SCOTTBURG, 4180 - *Gumede*
266. Tsholofelo Cynthia Mkwana - 960510 0206 082 - 838a Tshiapa Street, Zone 1, MEADOWLANDS, 1852 - *Khobo*
267. Sinxolo Colombile - 980506 5561 089 - Ngezwa Area, LUSIKISIKI, 4820 - *Mhatu*
268. Zandile Shabalala - 990618 0917 089 - 66 Moma Street, Extension 28, Phase 2, VOSLOORUS, 1475 - *Sibiya*
269. Itumeleng Faku - 861009 5611 081 - 120 Schmidt Street, DANVILLE, 0018 - *Kwafi*
270. Innocentia Siziwe Malaza - 960202 0482 083 - 3930 Malobola Street, ZITHOBENI, 1024 - *Debeila*
271. Mduduzi Abdul Nxakwe - 870412 6025 088 - 3243 Section K, MAMELODI WEST, 0122 - *Mahlangu*
272. Koketso David Mathato - 990314 5048 084 - 176 Mpopotmane Street, Sunvalley, MAMELODI WEST, 0122 - *Mohlakela*
273. Philani Mishack Mbili - 820202 7021 082 - Mthebeni Area, NDWEDWE, 4400 - *Mazibuko*
274. Mzwandile Delani Shezi - 980812 5692 084 - Magwaza Area, NKANDLA, 3855 - *Shange*
275. Daniel Kgomo Morebodi - 901212 5902 086 - 10106 Setihogo, SELEKA, 0600 - *Kgomo*
276. Aluwani Ernest Matumba - 911121 5841 087 - P O Box 3052, DZANANI, 0955 - *Nthangeni*
277. Karabo Leonard Vuma - 831006 5480 084 - Stand No 891 B, MMAMETLHABE, 0432 - *Manamela*
278. Shirwin Hamish Vandrey - 771121 5186 086 - 988 Seeleu Street, Pretorius Park, PRETORIA, 0001 - *Kemoetie*
279. Duncan Cyril Mothoa - 811212 6330 088 - 3024 Phola Park, KWAMHLANGA, 0100 - *Beroka*
280. Thabo Tiisetso Monama - 830519 5366 088 - 1161 Mamba Crescent, DIEPKLOOF, 1862 - *Mothoagae*
281. Thabo Letshedi Phahlamohlaka - 850103 5418 085 - P O Box 1279, SHILWANE, 0873 - *Mawasha*
282. Raesibe Linah Mamabolo - 990101 0515 088 - 3314 Extension 5, MOOKGOPHONG, 0560 - *Pofu*
283. Nondumiso Pearl Mdunge - 840505 0624 082 - 2335 Unit Bb, Imbali, PIETERMARITZBURG, 3200 - *Ngwenya*
284. Isaac Msiza - 790710 5306 087 - Stand No 1836, Phola, KWAMHLANGA, 1022 - *Mtshweni*
285. Calvin Qibelo Mashiane - 010324 5542 081 - 11952 Rentnibileng, BRONKHORSTSPRUIT, 1026 - *Nkambule*
286. Adolph Msiza - 931227 5964 088 - 750 Mobetema Location, WITBANK, 0473 - *Mohlala*
287. Sthembisa Agrippa Msiza - 950829 6019 089 - Stand No 450, Nhiazatshe No 6, ELUKWATHINI, 1192 - *Makhanyi*
288. Monday Paulos Mabuza - 790110 6001 086 - P O Box 1146, UTHOKOZANE, 1346 - *Lubisi*
289. Eva Mogola - 930905 0440 086 - 431 No, Nellmapius, PRETORIA, 0001 - *Siwela*
290. Lucky Masonganye - 830717 5231 084 - Sofasonke Village, ELIM, 0960 - *Hlongwane*
291. Thabiso Crenawena Kgwedi - 980808 5070 081 - 4722 Mount Sharker Street, Extension 4, LENASIA, 1829 - *Madingwane*
292. Tshogofatso Yviah Malau - 981029 5621 083 - Ma 142, TAFELKOP, 0474 - *Mohlosana*
293. Nkisa Nicholars Mamonakwe - 790122 5567 082 - Ga-Mashaegoane, SEKHUKHUNE, 1124 - *Maloma*

294. Bongani Kenneth Ngcobo - 861009 5595 086 - Erf 1521 / 1073, Extension 2, HLANIKAHLE, 1039 - *Mokabane*
295. Poppy Ramatshika - 960525 0623 086 - Stand No 32, Lasvegas Village, MODJADJISKLOOF, 0838 - *Ranama*
296. Maankepeng Patrick Malale - 760422 5271 081 - Stand No 96, TICKYLANE, 0890 - *Mahlakwane*
297. Sifiso Eudy Nkosi - 880708 5787 083 - 34 Ndlazi Street, KWA THEMA, 1575 - *Mgidi*
298. Calvin Phathela - 780910 5081 084 - Stand No 462, Tshituni Village, NZHELELE, 0955 - *Mauda*
299. Simphiwe Patricia Mthembu - 941013 0711 080 - 20 Happiness Village, NIGEL, 1491 - *Dhlamini*
300. Thabang Motthathego - 970701 5723 084 - Tlhaping Section, MADIBOGO, 2772 - *Oepeng*
301. Thulani Stanley Maseko - 820401 5357 080 - 4560 Extension 23, BETHAL, 2310 - *Mahlangu*
302. David Sinky Mphaga - 880904 5746 084 - 1443 Thokoza Section, SIYABUSWA, 0472 - *Mahlangu*
303. Elizabeth Boorman - 461001 0154 088 - 23 Jacob Regop Street, POSTDENE, 8420 - *Borman*
304. Tshiamo Lesetja Keepilwe - 010917 5279 081 - 56 Howard Avenue, ALEXANDRA, 2090 - *Maredi*
305. Nonsapho Lucy Millicent Siko - 010604 0773 082 - 2125 / 53 Kwena Street, Extension 13, OLIEVENHOUTBOSCH, 0175 - *Nyembe*
306. Unarine Ephraim Mbovbu - 970923 5716 088 - A 12 Mawoni, DZANANI, 0955 - *Mamphwe*
307. Zakhele Emanuel Hlatshwayo - 821122 5615 082 - 6645 Mogoshadi Street, Extension 21, MAHUBE VALLEY, 1214 - *Madalane*
308. Ryan Viljoen - 000128 5060 081 - 14 Rhino River Avenue, RUSTENBURG, 0290 - *Henning*
309. Manline Mthintwa Mtsweni - 800225 5641 084 - 5682 Hefero Street, EMALAHLENI, 1039 - *Mathibela*
310. Thabo Ernest Maunye - 740821 5488 089 - P O Box 716, KABOKWENI, 1205 - *Ndhllovu*
311. Sandiso Spongakonke Sithole - 951007 0639 082 - Matshana Reserve, EMPANGENI, 3880 - *Gumede*
312. Khumo Goitsemang Segone - 900504 5243 086 - 17 Kenneth Avenue, VEREENIGING, 1939 - *Rapuleng*
313. Brenda Nolusindiswa Julia - 840916 0269 085 - 24591 Mazibuko Street, KWA THEMA, 1575 - *Bacela*
314. Thubalethu Shange - 980922 5652 085 - Vuma Area, ESHOWE, 3815 - *Ntuli*
315. Zamacephe Nontokoza Mncwabe - 990331 0436 080 - 123593 Cutshwayo, PINETOWN, 3614 - *Makhunga*
316. Joseph Vusi Dhlamini - 750213 5825 089 - Sun City, MKOBOLA, 0450 - *Mabena*
317. Abdul Jerry Ubissi - 991027 5386 085 - 4244 Khaya, DAVEYTON, 1520 - *Hlabangani*
318. Sthandwiwe Nqobile Dlamini - 990406 0709 080 - Nkwezela Location, BULWER, 3244 - *Tshezi*
319. Zolile Jonathan Sijaji - 800717 5741 088 - 23 Mayikhale Street, MOSSELBAY, 6506 - *Loliwe*
320. Mpho Joyce Maine - 831016 0340 084 - 10106 Matsheng, TAUNG, 8580 - *Tsolo*
321. Hendrick Motsumi - 900827 5569 089 - T 1050 Motshillane Section, MADIBOGO, 2776 - *Moholo*
322. Prince Percy Nchimane Hlangoane - 970318 5635 083 - 494 Mapela, GA-MOLEKANE, 1876 - *Makhubela*
323. Rendani Treasure Khoza - 990914 5756 089 - Stand No 693, LENYENYE, 0920 - *Luvhimbi*
324. Tsholofelo Lucy Sehoole - 800223 0670 083 - Stand No 2070, PANKOP, 0414 - *Motsene*
325. Eric Morena Mokwatisi - 900227 5870 084 - 11163 Lekoko, MAHIKENG, 2745 - *Moleleki*
326. Thanduxolo Braveman Dube - 960424 5767 082 - B 2904 Ward 13, OSIZWENI, 2952 - *Cele*
327. Keaobaka Freddy Mmusi - 810218 5834 088 - 52296 A Seweding, MAFIKENG, 2745 - *Thomas*
328. Collen Andile Sikhakhane - 800412 5320 089 - 3348 - 18th Street, Khuma, POTCHEFSTROOM, 2520 - *Ganjana*
329. Boiketlo Matlawa - 010531 5587 086 - D/O, JANE FURSE, 1088 - *Selape*
330. Fannie Patrick Mautlana - 750317 5690 086 - Bothashoek, BURGERSFORT, 1150 - *Kopane*
331. Evidence Matsekolong - 961117 0638 089 - 38316 Extension 18, MAMELODI EAST, 0122 - *Masemola*
332. Tlotliso Humphrey Molwa - 970110 5905 081 - P O Box 1348, BOCHUM, 0790 - *Masipa*
333. Siphamandla Nkululeko Ntombela - 811111 6052 082 - Manzimnyama Location, NKANDLA, 3855 - *Ngobese*
334. Mboheni Ronald Ramatsitsi - 650201 5070 088 - Stand No 169, Block C, MPHENI, 0900 - *Sikhweta*
335. Shimane Mpatoli - 921015 5563 089 - 08 Island Drive, KLIPSPRUIT, 1509 - *Motaung*

336. Charlize Allison Gouws - 970805 0040 087 - 23 Broodboom Street, KUILSRIVER, 7580 - *Brenkman*
337. Kgaugelo Samuel Ndlovu - 820318 5667 088 - 109 Pooe Street, Rockville, SOWETO, 0170 - *Komape*
338. Joshua Thapelo Buthelezi - 990830 5135 084 - 8245 / 23 Extension 36, OLIEVENHOUTBOSCH, 0175 - *Ndhlovu*
339. Pauladene Lollie Stafa - 991011 0256 089 - C 14 Polinyane Street, Ethembeni, PRIESKA, 8940 - *Maritz*
340. Mia Msomi - 850108 0727 083 - Mhlaba-Cross, RiTAVI, 0850 - *Mohlaba*
341. Katlego Joel Mavuso - 850416 5574 081 - Stand No 859, JANE FURSE, 1085 - *Mokgwatsana*
342. Raesibe Sarah Ledwaba - 850910 0523 085 - P O Box 225, SESHEGO, 0742 - *Kgole*
343. Keamogetswe Pheladi Mathobela - 920125 0380 081 - 8915 Block M, MABOPANE, 0190 - *Rantloane*
344. Bongani Edward Kubheka - 031216 5931 089 - 5922 Extension 5, BETHAL, 2310 - *Mlangeni*
345. Kgosietsile Atkins Lerole - 850927 5388 082 - 2368 Block F, KANANA, 0400 - *Mathebula*
346. Buhle Pretty Malatji - 010926 1313 083 - Vezunyawo Village, PIET RETIEF, 2380 - *Nzima*
347. Kamogelo Success Msome - 010806 6205 080 - P O Box 5812, CASTEEL, 1370 - *Mathipa*
348. Bukelani Mchunu - 991029 6136 089 - Hlokozi Location, HIGHFLATS, 3200 - *Msimang*
349. Bhekani Blose - 000317 6314 080 - Elimpondweni Area, NDWEDWE, 4400 - *Maphumulo*
350. Mosukudu Albert Maphoto - 010321 5993 082 - No 10036, GLEN COWIE, 1061 - *Mahloele*
351. Pushetjjo Monakedi - 990414 0789 086 - 3414 Thokozile Zwane Street, Extension 5, KWAKUQA, 1030 - *Mqwathi*
352. Xolani Eric Mbobo - 740203 6308 089 - Ndaleni Location, RICHMOND, 3780 - *Zuma*
353. Thelumusa Mlindeli Zondi - 000924 5452 082 - 101044 Ngubeni Location, PIETERMARITZBURG, 3200 - *Malevu*
354. Matheho Agreenet Mhlabane - 920514 0382 082 - 2926 Extension 1, ORANGE FARM, 1841 - *Mthembu*
355. John Lentikile Moreo - 771224 5327 088 - 2669 Tigane, HARTEBEEFONTEIN, 2700 - *Sedukanele*
356. Simon Moraba - 960522 5603 080 - P O Box 15, BURGERSFORT, 1150 - *Mangwale*
357. Patrick Mojalefa Kgongoana - 860905 5425 086 - 2112 Lusaka Park, Masilo, THEUNISSEN, 9400 - *Moshodi*
358. Njabulo Sibusiso Sibanda - 871225 5302 087 - Stand No 1858, MATSULU, 1203 - *Shekwa*
359. Lerato Luyanda Timba - 010511 1218 084 - Stand No 499, DRIEKOPPIES, 1331 - *Nkosi*
360. Elphus Nhlanhla Nkosi - 010829 6173 082 - 1731 Dlamini D, BADPLAAS, 1190 - *Sibeko*
361. Talente Ndumiso Nzuza - 010625 6057 089 - 736 G 120053 Congo, INANDA, 4310 - *Shange*
362. Karabo Bridget Nare - 010909 1354 083 - Stand No 1423, Madodonga Village, MAKHADO, 0920 - *Rangata*
363. Wisani Mkhabele - 010918 6372 081 - Stand No, Njhakanjhaka Village, MAKHADO, 0920 - *Mthombeni*
364. Meshack Motaung - 940601 5296 080 - 2157 Block 7, AKASIA, 0118 - *Mphela*
365. Lucia Khumbuzile Gumede - 920503 0756 080 - Nkundusi Area, MTUBATUBA, 3935 - *Manqele*
366. Phillie Manqele - 971019 0709 084 - Kwamafunze Location, Elandskop, PIETERMARITZBURG, 3200 - *Nxele*
367. Abram Thema Motsekae - 670202 5596 086 - Tv 1221, Holomusa Section, BEKKERSDAL, 1779 - *Mlambo*
368. Lindokuhle Thulani Ngema - 010721 5150 080 - 4001 Tom-Tom Road, KWANDENGEZI, 3607 - *Mdunge*
369. Ntombizodwa Ivy Mzolo - 700830 0641 087 - 6053 Morailane Street, ORLANDO EAST, 1804 - *Tsatsimpe*
370. Siyanda Mchunu - 000719 5419 085 - A 395 Jabula Road, KWA MASHU, 4360 - *Khanyile*
371. Zandisile Godfrey Mdoda - 610626 5446 087 - 25 Bertram Road, Zwide, PORT ELIZABETH, 6001 - *Mavela*
372. Rankobi Jones Maboe - 810604 6076 086 - 1164 New Stand, HEBRON, 0192 - *Poo*
373. Steve Ngobeni - 740405 5798 083 - 13802 Extension 7, EVATON, 1984 - *Letsoalo*
374. Karabo Jabulane Mohlodi - 930807 5206 084 - 11 Robert Avenue, BENONI, 1500 - *Majola*
375. Sifiso Zungu - 910123 5773 089 - 1045 Block Kk, SOSHANGUVE, 0152 - *Tshamba*
376. Makhosazane Yolanda Nhlapo - 900715 0279 087 - 970 Block K, SOSHANGUVE, 0152 - *Thabethe*
377. Mashudu Muridili - 990420 5927 084 - 352 Block Bb, SOSHANGUVE, 0152 - *Funzani*
378. Dembe Mutshakwa - 971114 5569 086 - Stand No 165, MUKULA, 0950 - *Rafele*

379. Makokotele Smith Seloga - 760720 5832 087 - Mangaheng, SEKHUKHUNE, 1124 - *Makuwa*
380. Sisa Flatela - 821208 5598 087 - 8206 Main Road, Extension 2, DOBSONVILLE, 1863 - *Bidli*
381. Ephraim Jomo Ndhlovu - 981128 5856 085 - 3041 Ramotse Section, BELA-BELA, 0480 - *Setshedi*
382. Paul Timothy John Leeuw - 971112 5714 082 - 8 Glen Street, Richmond Hill, PORT ELIZABETH, 6001 - *Ryan*
383. John Panderhani Mtshali - 870924 5372 089 - 1330 Mokwebo Stand, WINTERVELDT, 0198 - *Mokwebo*
384. Sandile Zamani Nxumalo - 780728 5611 084 - Mjoji Area, NDWEDWE, 4340 - *Shabalala*
385. Mondli Dladla - 880828 5770 085 - Nkunzebomvu, EMPANGENI, 3910 - *Shabalala*
386. Palesa Trulia Cossa - 910327 0538 088 - 5947 Makalima, SEBOKENG, 1913 - *Mothopeng*
387. Zuza Khoza - 800306 5632 081 - 2250 Harry Gwala Street, DAVEYTON, 1520 - *Nkabinde*
388. Mzomuhle Mthiyane - 990718 5601 082 - Mpembeni Reserve, ESIKHAWINI, 3567 - *Khoza*
389. Theminkosi Hlongwane - 991219 5756 082 - 34448 Sankontshe Area, HAMMARSDALE, 3700 - *Zakwe*
390. Sfundo Thamsanqa Phungula - 981018 5471 086 - Sampofu Area, MSINGA, 3010 - *Mntungwa*
391. Thabang Jerry Nameng - 940912 5310 080 - 30 – 12th Avenue, ALEXANDRA, 2090 - *Fannel*
392. Charles Tumelo Namu - 891207 5620 086 - 2859 Ndlaki Street, DAVEYTON, 1520 - *Kodisang*
393. Mathews Miya - 870927 5532 081 - 11 Park Street, RANDFONTEIN, 1760 - *Maloka*
394. Nkosikhona Victor Mthembu - 850220 5507 087 - 32 Plane Street, JOHANNESBURG, 2001 - *Mchunu*
395. Xolani Chris Kraqa - 960810 5508 080 - 3330 Morula Street, Extension 1, PROTEA GLEN, 2001 - *Mboniswa*
396. Nomusa Ronicca Ndebele - 770703 0322 088 - D 611 Dinangwe Road, KWADABEKA, 3610 - *Chonco*
397. Athabile Maseti - 000516 5825 083 - 70064 Zakheni Section, KWAMHLANGA, 1022 - *Ncube*
398. Calvin Thokozani Tshabangu - 000204 5562 085 - 1072 Extension 2, Delpark, DELMAS, 2210 - *Khanye*
399. Lungile Millicent Gumede - 800915 1185 082 - D 458 Mpumalanga Township, HAMMARSDALE, 3700 - *Mdluli*
400. Khomotso Luciano Modyela - 861209 5608 083 - 111 Zone C, Longtilly, NAMAKGALE, 1291 - *Maake*
401. Somila Vani - 000818 0538 087 - P O Box 51, STERKSPRUIT, 9762 - *November*
402. Kate Gopolang Sithole - 910714 0572 086 - 8785 Morula View, MABOPANE, 0190 - *Maleka*
403. Pakiso Steven Sithole - 810123 5315 080 - 919 Evaton North, EVATON, 1984 - *Kunene*
404. Mahlatsi Monyane Ngele - 981118 5531 085 - 8487 Extension 6, Phomolong, MAMELODI EAST, 0100 - *Magolego*
405. Nokwanda Penelope Mzimela - 970626 0735 082 - B 1462 Khokhoba Road, KWAMASHU, 4359 - *Khumalo*
406. Thulani Zulu - 000116 5456 086 - Ph 3 – 712, Block 6, MAMELODI EAST, 0122 - *Maphutha*
407. Kenneth Tumelo Lekgwati - 980628 5601 085 - 26175 Aseletho Street, Extension 8, MAMELODI EAST, 0122 - *Pakadi*
408. Cebo Lehlohono Nyama - 940319 5079 089 - 542 B Mmilo Street, Zone 3, MEADOWLANDS, 1852 - *Lethiba*
409. Mandisa Zamakhuba Sithole - 010919 0282 086 - M 491 Bhungezi Road, KWA MASHU, 4360 - *Mpungose*
410. Annestacia Seudula Mlahleki - 911120 0362 081 - 31 Hlakubela Street, SAULSVILLE, 0125 - *Mashile*
411. Gopolang Mthombeni - 990305 5836 080 - 533 A Rabakala, LETLHBILE, 0195 - *Sepeng*
412. Constance Ngcobo - 650224 0500 081 - 669 Mbali Place, Molweni Area, PINETOWN, 3600 - *Mchunu*
413. Athenkosi Kabane - 860707 5491 088 - 2285 Zelethu Street, Chris Hani, MBEKWENI, 7600 - *Mengcane*
414. Mookamedi Marcus Motube - 890907 5823 082 - House No 159 E, Perth Village, KURUMAN, 8460 - *Bareeng*
415. Zanemvula Bobani - 760206 5595 080 - Kalama Location, KING WILLIAMSTOWN, 5600 - *Stofile*
416. Pearl Refiloe Sedumedi - 930623 0249 080 - 1248 A Zone 9, Meadowlands, SOWETO, 1852 - *Lebakeng*
417. Andiswa Andrew Bhengu - 990912 5868 086 - Amandawe Ward 4, SCOTTBURGH, 4180 - *Nzuza*
418. Senzo Cyril Mpunzi - 980304 5324 082 - Dd 16 Zone 7, Thembaletu, GEORGE, 6530 - *Thelelo*
419. Goodness Siphwe Sambo - 910331 0370 088 - 4293 Zakhe Street, Extension 2, VOSLOORUS, 1475 - *Ntamele*
420. Uyathandwa Quinton Dos Santos - 991209 5867 088 - 208 Tom Street, NEW CROSSROADS, 7750 - *Gcwabe*

421. Thina Majambe - 980622 5774 083 - 8470 Mgwali Street, Extension 6, MFULENI, 7100 - *Metuse*
422. Tshepho Klaas Makalela - 810831 5771 082 - Makiting, MOLETLANE, 0697 - *Maja*
423. Erwin Monare Ramaube - 971109 5514 082 - Tshehwaneng Village, SEKHUKHUNE, 1124 - *Matlala*
424. Gosiamang Philly Makopo Botjoko - 970918 6040 082 - P O Box 621, MARISHANE, 1064 - *Sello*
425. Siyabonga Maseko - 000611 6080 083 - Mansheni Village, NEBO, 1059 - *Kabinde*
426. Precious Ngwanamokone Mamosadi - 000710 1353 089 - No 0426, Lucky, NEBO, 1051 - *Sekwati*
427. Isaac Sambo - 000301 6489 084 - P O Box 412, STEENBOK, 1347 - *Ngomane*
428. Nqaba Pule Nodonti - 960717 6046 087 - 35 Captain Street, MOTHERWELL, 6211 - *Ngoma*
429. Nzuzo Bhengu - 010615 5640 084 - Nxamalala Area, NKANDLA, 3855 - *Goge*
430. Nokuphiwa Fortunate Nxumalo - 000904 1347 080 - P O Box 177, WARTBURG, 3230 - *Shandu*
431. Rachel Makoto Maabela - 001126 0829 087 - No 2280, POLOKWANE, 0700 - *Ramakgolo*
432. Ayanda Mtungwa - 000620 1571 087 - P O Box 183, Gxobanyawe Area, TUGELA FERRY, 3010 - *Thusi*
433. Siyabulela Bizela - 000922 6241 082 - Ndlunkulu Area, ENCOBO, 5050 - *Gcora*
434. Lehlohonolo Richard Sibeko - 970118 5942 087 - 2648 Refengkgotso, DENEYSVILLE, 1932 - *Mokoena*
435. Lindelani Siyabonga Madondo - 950605 5771 080 - 3170 Ncotshane Street, BOCHUM, 3100 - *Mamba*
436. Sabelo Protas Vilakazi - 941103 5597 087 - R 765, UMLAZI, 4001 - *Mgobhozi*
437. Gugu Precious Phewa - 801212 0522 088 - 050254 Ntaka Road, Nyuswa Reserve, BOTHA'S HILL, 3660 - *Ndlovu*
438. Bulelani Peter - 900705 6040 088 - 85 Mankana, Graceland, MOSSELBAY, 6530 - *Maqombo*
439. Michael Koketso Motloutsi - 900506 5487 084 - 5374 Direlago Street, Extension 4, NELLMAPIUS, 0162 - *Kopane*
440. Cornelius Mudau - 770416 5481 086 - 1721 Mushango Village, MUSINA, 0900 - *Motau*
441. Andile Nomsa Mndaweni - 011207 1109 089 - Boshoeck Farm, UTRECHT, 2980 - *Mlambo*
442. Dumisani Andile Makaka - 010402 6415 083 - 2943 Section I, EKANGALA, 1021 - *Lekhuleni*
443. Nkosingiphile Greshender Monaheng - 020210 0279 084 - 426 Mhlanga Street, Extension 2, LANGAVILLE, 1550 - *Mhlanga*
444. Jappie Dumisani Shabalala - 781008 5936 081 - 3866 Extension 23, BETHAL, 2310 - *Ngwenya*
445. Phillip Masango - 780913 5572 086 - 106 Welgedacht Avenue, SPRINGS, 1356 - *Mngomezulu*
446. Nontutuzelo Lydia Ngqeme - 940417 0209 089 - 286 King Street, Diklhake, KOFFIEFONTEIN, 9986 - *Guma*
447. Wendy Sindiswa Gama - 001103 0513 086 - Engodini Area, LOSKOP, 3330 - *Mazibuko*
448. Itumeleng Innocentia Geld - 890919 0346 084 - 1073 Pheilandaba, BETHULIE, 9992 - *Molahloe*
449. Paul Mosia - 760730 5411 089 - 1755 Nyathi Street, Rockville, SOWETO, 1800 - *Ndlovu*
450. Ryan Khumbuza Nomdebevana - 940626 5184 085 - Albertsville Road, PORT SHEPSTONE, 4240 - *Cele*
451. Kedibone Annah Tihako - 630501 1034 086 - House No 147 E, Gamokatedi, KURUMAN, 8460 - *Mongale*
452. Masesi Makhosi Khoza - 700203 1067 084 - Bucanana Village, EMPANGENI, 3880 - *Mchunu*
453. Moses Newson - 701229 5153 082 - 2 Mathanzima Street, KIMBERLEY, 8300 - *Leeu*
454. Phillie Mirriam Mndaweni - 921030 0199 086 - 15737 Allegro Street, BRAAMFISHERVILLE, 1725 - *Nkosi*
455. Matsobane Caiphus Mnisi - 910817 5237 082 - 1460 Vuyelwa Street, Extension 1, KATLEHONG, 1401 - *Ledwaba*
456. Mandlenkosi Hadebe - 970302 5293 085 - T 21 Old Mine, Jameson Park, NIGEL, 1490 - *Dhlamini*
457. Dimpo-Ziphozihle Mutlane - 961106 0614 083 - 21 Poika Place, Extension 4, OLIEVENHOUTBOSCH, 0187 - *Dywili*
458. Arenavho Muofhe - 980517 5718 082 - P O Box 735, VHUFULI, 0971 - *Mathieledzha*
459. Sanele Jerry Masitela - 991006 5386 089 - 2063 Block F, SOSHANGUVE, 0152 - *Mashigo*
460. Gontse Brian Rankapole - 900405 5706 082 - 1164 A Thembehlele Street, Emdeni South, SOWETO, 1717 - *Mogaie*
461. Lloyenda Goitseone Rametsi - 980306 0494 083 - 29 Kerk Street, Jari House, JOHANNESBURG, 2001 - *Lelaka*
462. Ivan Nkosi - 751001 5517 080 - 120 Dlamini 2, BONGIWE STREET, SOWETO, 1717 - *Ntuli*
463. Tswakae Margaret Gloria Ntsutle - 750104 1174 087 - 150 Mount Street, BRYANSTON, 2021 - *Radebe*

464. Thabo Malada - 980617 5801 084 - 4240 Angrabies Drive, WATERFALL, 1682 - *Manyatsa*
465. Lesego Motshidi - 890202 0442 082 - 1358 Moshoele Street, Mapeta, SOWETO, 1818 - *Modise*
466. Timothy Matsupe Molohe - 710919 5654 084 - 18289 Lesika Street, Extension 25, VOSLOORUS, 1475 - *Pitsoane*
467. Phopolo Collen Monageng - 840601 5399 083 - 1511 Moteti, DENNILTON, 1030 - *Namane*
468. Enet Curra Vilakazi - 621010 1382 082 - House no 290, Vergenoeg, KURUMAN, 8460 - *Van Wyk*
469. Welcome Skosana - 000808 6051 086 - 3255 Extension 6, EMPHUMELEWENI, 1039 - *Madlabane*
470. Nokwanda Ndebele - 980919 1283 089 - Mahhashini Area, NONGOMA, 3801 - *Buthelezi*
471. Simphiwe Tankiso Mosia - 990710 5850 082 - Acton Homes Area, BERGVILLE, 3350 - *Dladla*
472. Minenhle Zama Thusi - 960130 0421 084 - 26 Langing, 12 Kings Road, PINETOWN, 3600 - *Mhlongo*
473. Si mphiwe Dladla - 000710 6366 086 - 389 Manzana Street, KIMBERLEY, 8345 - *Vava*
474. S'busiso Mthobisi Buthelezi - 840904 5726 085 - House no 6802, OSIZWENI, 2957 - *Dlamini*
475. Katlego Isaac Makgasha - 931222 5612 084 - Stand no 33, Ga-Matsea, SOVENGA, 0727 - *Modiba*
476. Ayanda Mndaweni - 960123 0375 087 - 15737 Allegro Street, BRAAMFISCHERVILLE, 1864 - *Nkosi*
477. Mxolisi Wilson Yoyo - 570708 5791 080 - 280 River Road, Irene, CENTURION, 0140 - *Sondara*
478. Thomas Kgokong - 710910 6050 083 - 2397 Matlhobolo Section, BATLHAROS, 8476 - *Chere*
479. Asavela Sigebenga - 980803 1016 089 - M 14997 Memani Street, KTC, NYANGA, 7500 - *Ngundze*
480. Poppy Ladylove Khene - 891129 0562 081 - 8372 Kobe Street, Extension 2, DOBSONVILLE, 1863 - *Mavimbela*
481. Brian August - 961124 5419 085 - Meriting, Extension 1, RUSTENBURG, 0300 - *Newson*
482. Demi Rossouw - 970221 0046 084 - 48 Ross Street, CAPE TOWN, 7440 - *Van Zyl*
483. Emmanuel Mhlangi Khumalo - 781110 5800 083 - 441 Inanda Glebe, INANDA, 4309 - *Langa*
484. Ngoako Dorothy Matabola - 020303 0104 087 - Stand no 453 A, Mokopu, RAMOKGOPA, 0811 - *Raphahlelo*
485. Mthokozisi Nyawo - 910821 5772 080 - B 2 Masakhane Village, WITBANK, 1035 - *Ndlovu*
486. Brenda Mienie Masango - 820617 0804 087 - 1875 Block G, SOSHANGUVE, 0152 - *Machika*
487. Fhatuwani Nevhulaudzi - 840804 5397 087 - 42 Tempo Complex, Mozartlane, MIDRAND, 1010 - *Mafenya*
488. Sfiso Halalisani Ngcobo - 801118 5753 083 - 1586 Office Street, CLERMONT, 3610 - *Dladla*
489. Tshogofatso Solly Tsotetsi - 991116 5486 084 - 1967 X 8 Xenon Street, NELLMAPIUS, 0122 - *Mushandana*
490. Nqobile Kunene - 821229 0846 081 - 956 Long-Homes, GREYTOWN, 3250 - *Ndlovu*
491. Percy Bonginkosi Msibi - 991212 5756 087 - XS 11 - 394, MAMELODI EAST, 0120 - *Mazive*
492. Tshepiso Makwana - 961106 5904 083 - 488 Modikwe, WINTERVELDT, 0100 - *Makondo*
493. Lesiba Frans Maleka - 760316 5647 086 - Ga-Mashashane Village, SESHEGO, 0740 - *Mashao*
494. Isaac Mbuyiswa Seutwali - 900605 5601 080 - 101116 Extension 7 B, ORANGE FARM, 1803 - *Mzolo*
495. Thabang Pilane - 950605 5489 089 - 1357 Lekung Street, MAMELODI EAST, 0122 - *Ndhlovu*
496. Siphwe Simelane - 910429 5689 088 - 1744 Plover Street, Extension 3, Ebony Park, MIDRAND, 1685 - *Molefe*
497. Reginah Lebohlang Mariri - 880424 0718 087 - Stand no 12567, Extension 10, EMBALENHLE, 2285 - *Mofoto*
498. Nonjabulo Masombuka - 001225 0726 085 - 55 Siyabiswa D, MDUTJANA, 0472 - *Ngoma*
499. Simbonge Ngidi - 011218 5344 085 - New River Area, INANDA, 4310 - *Nene*
500. Kwazi Vuyo Mthethwa - 990311 5582 088 - H 502 Sibisi Road, HAMMARSDALE, 3700 - *Ndlovu*
501. Ramokone Lisbeth Morudu - 960826 0749 081z - Stand no 284, MMOTONG, 0751 - *Morolong*
502. Kutloano Boleli Lema - 020126 0343 086 - Stand no 441, Podile Village, GA-MOLEPO, 0701 - *Senama*
503. Ophelo Fedel Makgopa - 981007 5237 084 - 3808 Martin Mabitsela, ALEXANDRA, 2001 - *Masenya*
504. Molefi Edwin Mthai - 901113 5208 088 - 8381 Thabang, WELKOM, 9463 - *Lenong*
505. Mmaphefo Maria Mosegaethebe - 720820 0700 088 - 20027 Rasetlang Section, PELLA, 2890 - *Motlhabane*

506. Sonicca Lerato Gumbu - 890810 0796 081 - Madisha-Digoro, ZEBEDIELA, 0631 - *Nkuna*
507. Ayanda Dlamini - 971201 6104 086 - Bhoda Area, UMZIMKHULU, 3297 - *Ngutyana*
508. Nomthandazo Molefe - 011107 1070 085 - 6560 Dudu Road, KWA MASHU, 4020 - *Thungo*
509. Siyanda Osborne Msibi - 010518 6070 089 - House no 1523, Glonoilung, DOORNPOORT, 1490 - *Mashinini*
510. Siyabonga Ayanda Dlulisa - 010514 6343 089 - B 93 Mamba Road, KWA MASHU, 4010 - *Ngcobo*
511. Lifa Mkatshwa - 010909 6225 080 - Stand no 1848, KABOKWENI, 1245 - *Mathabathe*
512. Lusanda Ntobela - 010103 6516 082 - Dumezulu Location, IZINGOLWENI, 4260 - *Xolo*
513. Thapelo Lawrence - 010208 6020 082 - 1172 Zone 20, GA-RANKUWA, 0200 - *Malebye*
514. Joy Ndzo - 011018 1077 089 - 67 Cazablanca Clear Water Estate, BOKSBURG, 1542 - *Mkhonto*
515. Philani Ximba - 810101 7478 080 - Emzisho Location, TUGELA FERRY, 3200 - *Nzama*
516. Phillip Mashego Hlungwane - 790911 5565 082 - 51 Sunbird Street, Rainbow Park, POLOKWANE, 0700 - *Tlaila*
517. Xolane Johannes Zulu - 980517 5182 081 - 712 Block 6, Phase 3, MAMELODI EAST, 0100 - *Maphutha*
518. Mabotlane Lisbeth Masoga - 990613 0653 081 - Thabazimbi Section, HAMMANSKRAAL, 0402 - *Chiloane*
519. Njabulo Siyabonga Vooi - 910703 5584 089 - P O Box 7325, TOKOZA, 1426 - *Nyandeni*
520. Siphokuhle Steven Vuntu - 941012 5445 082 - 109 Lebo Street, KRAAIFONTEIN, 7570 - *Ndlovu*
521. Luyanda Siyanda Teedy Hadebe - 010405 5781 082 - Loskop Village, ESTCOURT, 3310 - *Ngcobo*
522. Zamokuhle Msawakhe Ntuli - 010426 5701 086 - Gudu Area, MONDLO, 3105 - *Sibiya*
523. Mpho John Molatudi - 920319 5507 083 - 54 Phooko, KATLEHONG, 1431 - *Radebe*
524. Charles Tsaepo Moreo - 890531 5468 084 - 1248 Extension 8, TLHABOLOGANG, 2725 - *Thabane*
525. Mncedisi Thabiso Mfene - 970502 5126 082 - 166 B Matswedi Street, MEADOWLANDS, 1720 - *Mofokeng*
526. Andisiwe Dyosi - 010806 0727 089 - 4108 Olga Ncwata Road, SAMORA MACHEL, 7785 - *Mpahlwa*
527. Sibusiso Masondo - 820101 6623 080 - 105 Mtwalime Street, Extension 2, TOKOZA, 1426 - *Ndaba*
528. Matuba Jackson Talane - 760405 6291 083 - Ga-Masemola Village, JANE FURSE, 1060 - *Manala*
529. Denvy Mavabaza - 830321 5830 084 - P O Box 343, NWAMITWA, 0871 - *Maimela*
530. Shayn Gwillim De Lange - 921104 5080 086 - 124 Wessel Street, FAIRLAND, 2030 - *Gwillim*
531. Jacky Makobe - 960811 5643 083 - Moeding, MASEMOLA, 1060 - *Diale*
532. Menelisi Somakahle - 011011 5237 080 - Thonjeni Location, UMZIMKHULU, 3297 - *Jileka*
533. Recardo Derely Sibusiso Zwane - 810214 5404 089 - Unit 14 Samuel Flats, 69 North Rand Road, KEMPTON PARK, 1816 - *Khumalo*
534. S'thembo Nhlangulela - 960110 5919 084 - 1378 Zezi Road, OVERSPILL, 4020 - *Mchunu*
535. Nkosinathi Selby Dube - 840123 5233 089 - A 771 Inanda, NEWTOWN, 4020 - *Xaba*
536. Nhlanhla Dlamini - 911128 5796 088 - S 75 Mhlabumzima, KWADABEKA, 3610 - *Bhengu*
537. Kgopolo Solomon Mosime - 891122 5561 083 - 1009 Bethal Section, LEFARAGATHE, 0301 - *Mahlangu*
538. Mphahle Gift Makota - 710822 5339 088 - Mehlaeng Village, GOMPIES, 0631 - *Munyai*
539. Mnoneleli Rangana - 730224 5812 089 - Ntibane Area, TSOLO, 5170 - *Nkwebi*
540. Tshelo Moatshe - 910312 5339 088 - 60 - 17th Avenue, ALEXANDRA, 2040 - *Mpyatona*
541. Lesego Aubrey Mmusi - 780526 5383 088 - 61 Espirit Estate, SANDTON, 2100 - *Mokone*
542. Kopano Humphrey Mogale-Seelamo - 831125 5707 088 - 913 Maina Street, SCWEIZER RENEKE, 2780 - *Mogale*
543. Emmanuel Thabo Motsweni - 910831 5108 086 - 183 Kwananele, BREYTEN, 2330 - *Khoza*
544. S'ngile Phillip - 930607 0580 081 - 15 Nomvenou Street, Ilitha park, KHAYELITSHA, 7784 - *Mtsila*
545. Kgomo Ronaldo Jautse - 010419 5691 084 - 1760 Meteje Section, TLOKWENG, 2839 - *Lekete*
546. Katlego Portia Mocumi - 890703 0761 082 - House no 982, B Knock, KAGUNG, 8400 - *Magano*
547. Sello Matsemela - 950419 5517 083 - 6751 Unit T, TEMBA, 0407 - *Phoshoko*
548. Sandisiwe Mafanya - 870423 5618 088 - P O Box 424, MTHATHA, 5099 - *Tyekela*

549. Tumelo William Napo - 880825 5766 089 - 226 Extension 1, MAMELODI EAST, 0122 - *Msiza*
550. Masego Monty Peter Maphosa - 900417 5230 088 - 66 Ronny Masioanganye Street, SAULSVILLE, 0125 - *Bopape*
551. Thapelo Happyness Kobe - 970630 0962 084 - P O Box 24, BOCHUM, 0790 - *Mpuru*
552. Mphoyabona Sydney Danisa - 980419 5347 089 - 1245 Zone A, LEBOWAKGOMO, 0737 - *Ncongwane*
553. Letago Betrum Mphahlele - 950919 6031 083 - Mampiri Village, MPHAHLELE, 0736 - *Modipana*
554. Kabelo Samuel Maloma - 881002 5727 086 - 71086 Marumo Street, DAVEYTON, 1520 - *Senong*
555. Tumelo Raphashe Mchunu - 970411 5291 088 - 8097 Zondi Street, DAVEYTON, 1520 - *Mathibe*
556. Tebogo Kekana - 880610 5336 087 - 37072 Lusaka Khuto Street, Extension 22, MAMELODI EAST, 0122 - *Ngubeni*
557. Victor Tabane Mogashoa - 810912 5633 082 - 14625 Kgagodi Street, MAMELODI EAST, 0100 - *Geldenhuis*
558. Joseph Mokhari - 800429 5630 085 - B 22 Nagameng, MDUTJANA, 2472 - *Mohlala*
559. Piet Mandhlazi - 900716 5950 086 - 6054 Sewgapa Street, Extension 7, FREEDOM PARK, 0510 - *Masango*
560. Koketso Thabo Thibedi - 850124 5642 086 - 10222 Zone 1, GA-RANKUWA, 0100 - *Moloisane*
561. Sibongiseni Goodman Nkosi - 831205 5800 081 - H 30 Lindelani, KINGSWAY, 1501 - *Motha*
562. Ntombizodwa Sweetness Dlamini - 720228 0405 080 - 6417 Bandura Street, Extension 11, NELLMAPIUS, 0122 - *Mahlangu*
563. Thalios Kheepe Chelopo - 840721 5382 085 - Mokwasele Village, TZANEEN, 0850 - *Malematja*
564. Kegomoditswe Simon Moutloane - 911015 5096 082 - 1685 Polonia, MMAKAU, 0201 - *Mmoleledi*
565. Yandisa Jada - 821015 0425 087 - 8 Xipula Street, Kwandokuthula, PLETTENBERG BAY, 6600 - *Njovane*
566. Matsobane William Mavalela - 780908 5431 085 - 453 Strekwater, MOKOPANE, 5600 - *Gwagwa*
567. Sduduzo Thango - 010122 5781 083 - Mahlabaneni Area, VRYHEID, 3100 - *Mjijakho*
568. Neo Alfred Moloi - 960312 5400 087 - 18775 Extension 12, ikageng, POTCHEFSTROOM, 2531 - *Mothabe*
569. Keobametse Mokwene - 891202 5655 083 - House no B44, BATTLEMOUNT, 8460 - *Mpuru*
570. Mbongiseni Siphamandla Mbili - 880712 5540 088 - Dududu Road, UMZIMKHULU, 4180 - *Ngcobo*
571. Londeka Lynette Shoji - 950625 0063 085 - Ward 17, Amandawe Mission, SCOTTBURGH, 4180 - *Cele*
572. Bathobile Nonkululeko Jali - 901117 0576 084 - 221 Basden Avenue, Unit 24, Falcon Crest, CENTURION, 3200 - *Nxumalo*
573. Jan Seabelo Molepo - 790706 5826 082 - 670 Block TT, SOSHANGUVE, 0152 - *Seoka*
574. Zisanda Dunga - 000805 0526 089 - All Saints Area, NGCOBO, 5050 - *Macozoma*
575. Anele Gwanya - 000321 5193 081 - 179 Riebeeck Street, GOODWOOD, 7460 - *Nkonyana*
576. Lehlogonolo Josias Chiloana - 920612 5374 086 - 37122 Cornwell Street, TSAKANE, 1550 - *Matea*
577. Thabiso Brenton Tshwenyane - 930223 5639 086 - G127 Kingsway, BENONI, 0100 - *Matsepe*
578. Letshela Walter Kekane - 950516 5603 084 - 7214 Mokaetsi , Extension 30, PRETORIA, 0001 - *Lekalaka*
579. Signey Simphiwe Mashini - 870820 5465 081 - 4849 Extension 14, SECUNDA, 2280 - *Mgaga*
580. Lesedi Kgomoitso Mahlabegwane - 990725 0084 081 - 12 Berghoon, MEREDALE, 2091 - *Rancho*
581. Sonwabiso Buzani - 010919 5560 080 - 3452 Nazo Street, Mike Valley, FORT BEAUFORT, 5720 - *Mathondolo*
582. Aniya Winifred Leslie - 010803 0106 083 - 4 Watermeyer Street, GRAHAMSTOWN, 6139 - *Holder*
583. Nina Olivia Leslie - 990829 0028 088 - 4 Watermeyer Street, GRAHAMSTOWN, 6139 - *Holder*
584. Herman Tsomele Sello - 810530 5683 087 - 1021 Extension 24, Tsunani, GA-RANKUWA, 0208 - *Pule*
585. Luyanda Mbatha - 011116 6070 081 - Nqabeni Location, PIETERMARITZBURG, 3200 - *Ndlovu*
586. Nduduzo Thabiso Makhathini - 010227 5267 080 - Unit 18, Imbali, PIETERMARITZBURG, 3200 - *Mfeka*
587. Tidimalo Mildred Matibako - 010811 1005 089 - Seloshesha Section, MOROKWENG, 8600 - *Phele*
588. Nontokozo Fikile Ndala - 010929 1240 082 - 5026 Two-ling, SIYABUSWA, 0472 - *Masilela*
589. Pfariso Glan Ramutumba - 011017 5883 088 - Dzimaulu Village, MUTALE, 0956 - *Muvhango*
590. Mahlatse Hope Mabulana - 010802 5689 085 - Mahlatse Hope, GA-NTATA, 0535 - *Manyama*

591. Minenhle Zondo - 000329 5925 089 - Mpumuza Location, PIETERMARITZBURG, 3200 - *Ndlovu*
592. Harrold Letsholo Chiloane - 891220 5544 081 - P O Box 161, ENGODINI, 1242 - *Malumane*
593. Siphon Kenneth Zitha - 840113 5342 089 - Stand no 1014, KAMHLUSHWA, 1040 - *Dlozi*
594. Hosea Motlhodi Dlamini - 820824 5787 081 - 288/19 Block BB, SOSHANGUVE, 0152 - *Mathabathe*
595. Sibusiso Magnificent Nkabinde - 950227 5874 085 - 7256 Orongo Street, DAVEYTON, 1520 - *Skosana*
596. Nelisiwe Valencia Kula - 910130 0495 089 - 1194 Isichala Street, Extension 14, Vosloorus, TONGAAT, 1475 - *Sikhosana*
597. Molatodi Stephen Rasenyalo - 800726 5731 080 - 1818 Tweefonteinn K, KWA-MHLANGA, 9781 - *Siluma*
598. Matome Archiruft Thokolo - 880107 6076 085 - Block BB 7, Itereleng, LAUDIUM, 0037 - *Kgatla*
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603. Pitso Clinton Motswagae - 830920 5938 084 - House no 640, Ramokgotsi Section, CHANENG, 0300 - *Phatshwane*
604. Kabelo Johannes Mokgatle - 770912 5874 080 - House no B046, Mogono Section, LUKA, 0314 - *Motsomi*
605. Blessing Phasha - 930404 5613 087 - 206 Ga-Phasha, SEKHUKHUNE, 1124 - *Mohlala*
606. Lebohlang Lidia Phiri - 940110 0276 089 - 604 Stand, DENNILTON, 1030 - *Maphothoma*
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625. Agness Kelebogile Kgotpodimetse - 720516 0732 085 - 436 Modiba Street, GLAUDINAH, 2700 - *Molokwane*
626. Ayanda Thango - 010122 5782 081 - Mahlabimani Area, VRYHEID, 3100 - *Mjijakho*
627. Gopolang Thomas Ramphora - 750314 5731 085 - 356 Visagie Street, PRETORIA, 0001 - *Tjjobonde*
628. Siyabonga Thabani Ngobese - 010102 5436 086 - Eskom No 274132, Dicks Hawet, OSIZWENI, 2940 - *Majola*
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630. Siboniso Christian Sithebe - 891203 5723 087 - No 3107, OSIZWENI, 2952 - *Dlamini*
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636. Pheello Benedict Mbele - 910702 5505 086 - House no 444, WITSIESHOEK, 0870 - *Mofokeng*
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641. Kamvelihle Mabuya - 001104 1051 084 - No 93 Zone 4, CAPE TOWN, 9300 - *Sotashe*
642. Mongezi Benny Mnisi - 000425 6176 084 - No 565, KWAMHLANGA, 1022 - *Motau*
643. Kgothatso Kenny Phahlane - 000626 6055 083 - 2163 Section F, EKANGALA, 1021 - *Kgapula*
644. Manxotwe Maneathi - 510626 0150 081 - Shukunxa Area, QUMBU, 5180 - *Plaatjie*
645. Nomcebo Ntombela - 981231 1085 087 - Balgowanbosch Hoek Farm, HOWICK, 3295 - *Mlotshwa*
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654. Enock Dodana Phungula - 810529 5697 089 - Sh 039 Murogan Road, GLEN HILLS, 4449 - *Qulu*
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656. Yanga Cijana - 000518 5213 088 - Ngudle Area, TSOMO, 5350 - *Hlabeni*
657. Ntshwari Felicia Mabhena - 810807 0319 085 - 145 Section BA, KWA-MHLANGA, 1022 - *Mabitsela*
658. Surprise Gadifele Makiti - 940119 0294 083 - Tau Tlou Village, KEMPTON PARK, 1620 - *Mmotong*
659. Xolane Sidwell Hlongwane - 851119 5345 085 - 19365 Tau Street, ROCKLANDS, 9301 - *Ndungane*
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661. Ngcebo Samantha Maluka - 010608 0300 085 - 36 Minaar Street, BALFOUR, 2410 - *Mashabela*
662. Letlhogile Moses Mohloua - 821213 5299 082 - 333 Matihare Street, Ikageng Location, POTCHEFSTROOM, 2531 - *Motingoe*
663. Masintle Zanele Mazibuko - 860202 0290 081 - 406 Ncala Section, KATLEHONG, 1431 - *Mhlambi*
664. Mothibedi Isaac Majake - 720504 5616 081 - 201 H Section, BOTSHABELO, 9781 - *Lebeko*
665. Thobile Theresa Shoji - 920103 0590 082 - 300123 Ophuthwini Area, INCHANGA, 3610 - *Phewa*
666. Sifiso Madondo - 741014 5552 083 - Lenge Area, WASBANK, 2920 - *Mbatha*
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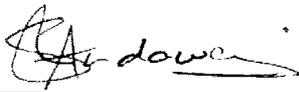
## NON-GOVERNMENTAL ORGANIZATION

NO. 1286

04 DECEMBER 2020

**OFFICE OF HEALTH STANDARDS COMPLIANCE**

I Siphwe Mndaweni hereby publish the Enforcement Policy contained in the Schedule hereto, in terms of regulation 22(2) of the Procedural Regulations Pertaining to the Functioning of the Office of Health Standards Compliance and Handling of Complaints by the Ombud published in *Government Gazette* No. 40396, Notice No. 1365 of 2 November 2016.

**DR SIPHIWE MNDAWENI****CHIEF EXECUTIVE OFFICER: OFFICE OF HEALTH STANDARDS COMPLIANCE**

DATE: 19/11/2020



# OFFICE OF HEALTH STANDARDS COMPLIANCE

Policy title	ENFORCEMENT POLICY		
Policy no	ENF: 001		
Policy version	Version 01	Effective date	Date of Publication
Administrator	Approval date	CEO (signature)	
OHSC	27 November 2019		

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## 1. DEFINITIONS

- 1.1. **“Board”** means the Board of the Office of Health Standards Compliance appointed in terms of Section 79A of the Act;
- 1.2. **“Chief Executive Officer”** means the person appointed as Chief Executive Officer of the Office in terms of Section 79H(1) of the Act;
- 1.3. **“Constitution”** means the Constitution of the Republic of South Africa, Act 108 of 1996;
- 1.4. **“Compliance Enforcement Committee”** means an administrative body established by the Office to adjudicate on formal hearings relating to breaches or non-compliance with the prescribed norms and standards;
- 1.5. **“Early Warning System”** means the surveillance systems that collect information of serious breaches of norms and standards that prompt interventions by the health establishment, the Office or relevant authority;
- 1.6. **“Health Establishment”** means the whole or part of a public or private institution, facility, building or place, whether for profit or not, that is operated or designed to provide inpatient or outpatient treatment, diagnostic or therapeutic interventions, nursing, rehabilitative, palliative, convalescent, preventative or other health services;
- 1.7. **“Inspector”** means a person appointed as an inspector in terms of Section 80(2) of the Act;
- 1.8. **“Minister”** means the Minister responsible for Health;
- 1.9. **“Norms and Standards”** means the norms and standards prescribed by the Minister in terms of Section 90(1)(b) and (c) of the Act;
- 1.10. **“Office / OHSC”** means the Office of Health Standards Compliance established by Section 77(1) of the Act;

- 1.11. **“Ombud”** means a person appointed as an Ombud in terms of Section 81(1) of the Act;
- 1.12. **“person-in-charge”** means a person designated by the relevant authority, as a person in charge of a health establishment;
- 1.13. **“Policy”** means this Enforcement Policy of the Office;
- 1.14. **“Reasonable time”** means refers to the amount of time that is fairly required to do whatever is required to be done, conveniently under the permitted circumstances. For the purpose of the Office, reasonable time shall be any time frame within which a health establishment is required to perform a specific action and communicated accordingly;
- 1.15. **“Regulations”** means the Procedural Regulations Pertaining to the Functioning of the Office of Health Standards Compliance and Handling of Complaints by the Ombud;
- 1.16. **“Relevant Authority”** refers to provincial department of health, district health authority, municipal authority or executive management authority in the private sector;
- 1.17. **“the Act”** means the National Health Act, 2003 (Act No. 61 of 2003); and
- 1.18. **“User”** means the person receiving treatment in a health establishment, including receiving blood or blood products, or using a health service, and if the person receiving treatment or using a health service is—
- (a) below the age contemplated in section 129 of the Children’s Act 38 of 2005, **“user”** includes the person’s parent or guardian, or another person authorised by law to act on the first mentioned person’s behalf; or
  - (b) incapable of taking decisions, **“user”** includes the person’s spouse or partner or, in the absence of such spouse or partner, the person’s parent, grandparent, adult child or brother or sister, or another person authorised by law to act on the first mentioned person’s behalf.

## **2. BACKGROUND**

- 2.1 The Office of Health Standards Compliance was established by section 77(1) of the National Health Act, 2003 (Act No. 61 of 2003), which recognised the need to foster good quality health services. The rationale behind the establishment of the Office was to put in place institutional mechanisms, to advise on how to improve quality of care, monitor, enforce and report on non-compliance with the prescribed norms and standards.
- 2.2 The norms and standards for different types of health establishments were developed to ensure that users receive health services at the acceptable standard.
- 2.3 The following are some of the activities that the Office is enjoined to perform as part of its responsibilities—
- a. Inspect health establishments to ensure compliance with the prescribed norms and standards;
  - b. Certify health establishments found to be compliant with the prescribed norms and standards;
  - c. Enforce compliance with the prescribed norms and standards;
  - d. Provide guidance and support on the interpretation and application of the prescribed norms and standards; and
  - e. Investigate complaints relating to the breaches of the prescribed norms and standards.

## **3. THE PURPOSE OF THE ENFORCEMENT POLICY**

- 3.1 The purpose of the Enforcement Policy is to set out the approach to be followed by the Office in enforcing compliance by health establishments with the prescribed norms and standards to guide its employees, the Board as well as the categories of health establishments to whom the prescribed norms and standards apply.
- 3.2 This Enforcement Policy also sets out the roles and responsibilities of the stakeholders.

#### 4. APPLICABLE LEGISLATION

- 4.1 The Constitution of the Republic of South Africa, Act 108 of 1996;
- 4.2 The National Health Act, 2003 (Act No. 61 of 2003), as amended;
- 4.3 Promotion of Access to Information Act, 2000 (Act No. 2 of 2000);
- 4.4 The Protection of Personal Information Act, 2013 (Act No. 4 of 2013);
- 4.5 Promotion of Administrative Justice Act, 2003 (Act No. 3 of 2000);
- 4.6 Criminal Procedure Act, 1977 (Act No. 51 of 1977);
- 4.7 Norms and Standards Regulations applicable to different categories of health establishments, 2016; and
- 4.8 Procedural Regulations Pertaining to the Functioning of the Office of Health Standards Compliance and Handling of Complaints by the Ombud, 2016.

#### 5. PRINCIPLES OF ENFORCEMENT

In exercising its enforcement powers and to promote the statutory objective of promoting and protecting the health and safety of users, the Office has adopted the following five (5) principles in its daily operations and regulatory decisions—

<b>5.1 Accountability</b>	The prescribed norms and standards are explicit benchmarks for health establishments that are objectively assessed and held accountable for compliance.
	Clear, specific, and explicit obligations are placed on health establishments through the norms and standards, assessment tools and procedures. Furthermore, regulatory findings and decisions are published, as required by the Regulations.
<b>5.3 Targeting</b>	Enforcement shall target health establishments and part thereof which poses a risk to users of health care services.
	The response as well as the use of enforcement powers must be assessed by the Office to be proportionate to the circumstances of an individual case. Where the health establishment can remedy the breach and the risk to users is not immediate, the Office shall give the health establishment an opportunity to remedy the breach before taking enforcement action.
<b>5.5 Consistency</b>	

senior outcomes, and ensure that regulatory enforcement processes are consistent and decisions predictable and fair (similar actions in similar circumstances to achieve similar results).

## **6. SCOPE AND APPLICATION**

6.1 This policy shall be applicable to—

- 6.1.1 The OHSC Board;
- 6.1.2 Employees of the OHSC;
- 6.1.3 Health establishments; and
- 6.1.4 Relevant authorities.

## **7. COMPLIANCE MONITORING**

7.1 The Office monitors compliance with the norms and standards in several ways including, but not limited to—

- 7.1.1 Inspections;
- 7.1.2 Complaints investigations; and
- 7.1.3 Early warning system.

## **8. EDUCATION, ADVICE AND GUIDANCE ON COMPLIANCE**

8.1 The purpose of education, advice and guidance is to—

- 8.1.1 raise awareness of all stakeholders' rights and obligations in relation to the prescribed norms and standards;
- 8.1.1 support the person in charge of the health establishments on how to comply with the norms and standards and other applicable legislation; and
- 8.1.3 empower and capacitate health establishments to address breaches of norms and standards within a reasonable time and achieve compliance.

## **9. INSPECTIONS**

9.1 The purpose of inspections is to assess the extent of compliance by health establishments with the prescribed norms and standards and to provide support where necessary.

## 9.2 Inspectors appointed by the Office may—

- 9.2.1 Inspect health establishments in accordance with the Inspection Strategy of the Office;
- 9.2.2 Question any person who is believed to have in her or his possession any relevant information;
- 9.2.3 Request documents from the person in charge of a health establishment;
- 9.2.4 Take samples of any substance or relevant photographs; and
- 9.2.5 Issue a compliance notice to the person in charge of a health establishment if the health establishment is found to have breached any norms and standards.

## 10. RESPONSE TO NON-COMPLIANCE

The health establishment is responsible to take reasonable time and appropriate action to remedy any identified breaches of norms and standards. If a health establishment fails to correct any identified breaches of norms and standards, a compliance notice will be issued to a health establishment.

## 11. COMPLIANCE NOTICE

- 11.1 A compliance notice shall be issued by an inspector to a health establishment that is found to have breached the prescribed norms and standards.
- 11.2 The health establishment will be expected to comply with the conditions set out in the compliance notice prior to the Office taking any enforcement action.
- 11.3 A compliance notice shall stipulate the time frame within which remedial action must be taken to correct the identified breaches to the norms and standards.

## 12. ENFORCEMENT

### 12.1 PURPOSE OF ENFORCEMENT

- 12.1.1 The primary purpose of enforcement is to—
  - a) enforce compliance by health establishments with the prescribed norms and standards;
  - b) protect users and health care personnel from harm and the risk of harm caused by non-compliance by health establishments with prescribed norms and standards;
  - c) ensure that users receive health services of acceptable standard and that health care personnel work in a safe environment.

## 12.2 CRITERIA FOR ENFORCEMENT

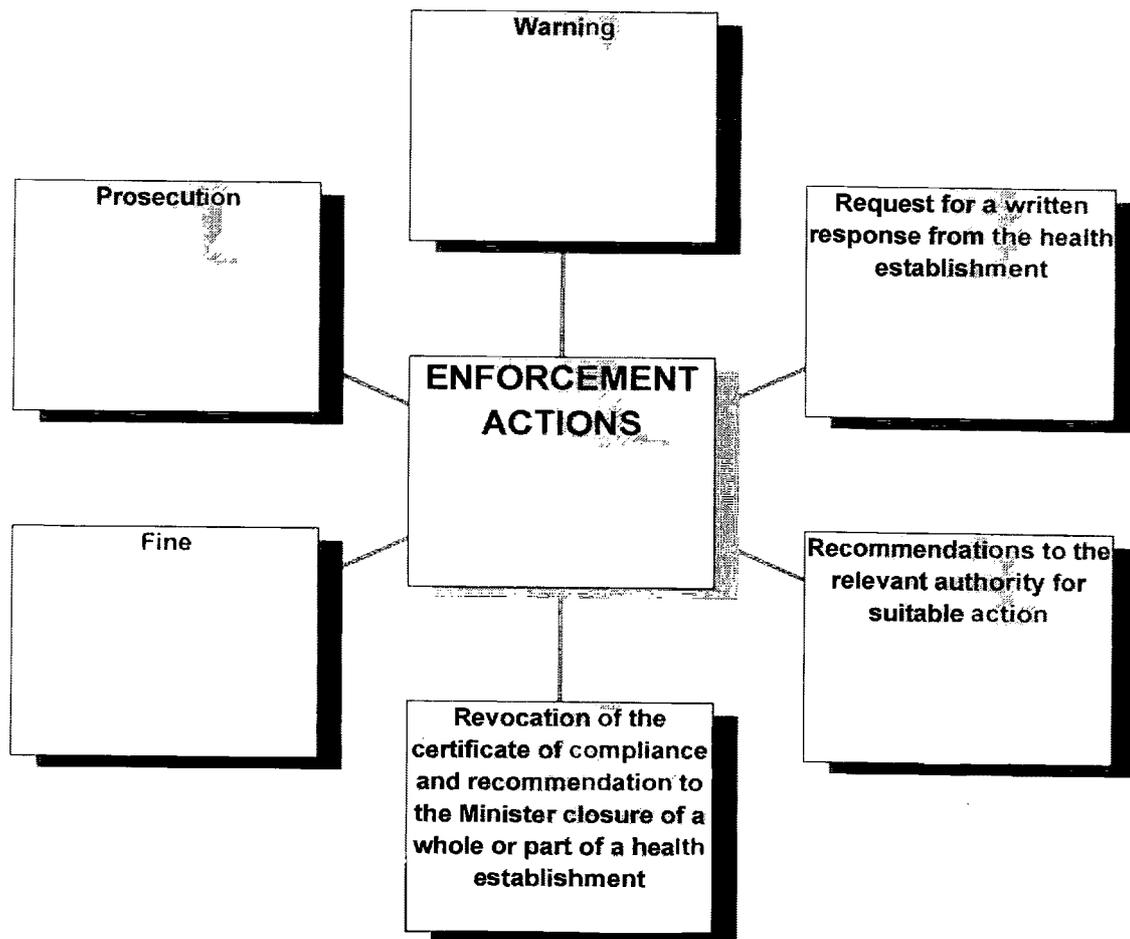
12.2.1 In deciding the most appropriate action to take, the Office may be guided by the following considerations—

- a) The impact of the breach on the provision of health care service delivery;
- b) Any injury, loss, damage or death resulting from the breach;
- c) The health establishment or person in charge blameworthiness or the degree within which they should be held accountable for the breach;
- d) The compliance history of the health establishment;
- e) Any mitigating or aggravating factors, including efforts undertaken by the person in charge of the health establishment to prevent / control the risk;
- f) Whether the breach is imminent.

## 13. ENFORCEMENT ACTIONS

The below diagram outlines the enforcement actions enjoined on the OHSC by the National Health Act, 2003 (Act No. 61 of 2003) —

### Diagram 1 - Enforcement actions



### 13.1 WRITTEN WARNING

13.1.1 If a health establishment fails to comply with a Compliance Notice issued by an inspector, the Office shall issue a written warning to the person in charge of the health establishment.

13.1.2 The written warning shall include a time frame within which compliance must be achieved.

13.1.2 Failure by the person in charge to respond to a written warning within the reasonable time would lead to the matter being referred for other enforcement processes.

### **13.2 REQUEST FOR A WRITTEN RESPONSE FROM A HEALTH ESTABLISHMENT**

13.2.1 Where appropriate, the Office shall request for a written response from the health establishment, providing reasons for the continued non-compliance.

13.2.2 The request for a written response from the Office will also set out the consequences of failure to respond.

### **13.3 RECOMMENDATION TO THE RELEVANT AUTHORITY FOR SUITABLE ACTION**

13.3.1 The Office shall recommend, to the relevant authority, any appropriate or suitable action to be taken against the person in charge of a health establishment or the health establishment.

13.3.2 The Office shall monitor all recommendations sent to the relevant authority and report to the Minister on the implementation thereof.

### **13.4 REVOCATION OF A COMPLIANCE CERTIFICATE AND RECOMMENDATION FOR TEMPORARY OR PERMANENT CLOSURE OF A HEALTH ESTABLISHMENT OR PART THEREOF.**

13.4.1 Where a health establishment fails to comply with a Compliance Notice issued by an Inspector, the Office may revoke the certificate of compliance issued to a health establishment and recommend to the Minister to temporarily or permanently close a health establishment or a part thereof that constitutes a serious risk to the users.

13.4.2 Health establishments shall be afforded an opportunity to be heard prior to revocation of a compliance certificate or recommendation to the Minister for temporary or permanent closure of a health establishment or part thereof, that poses a risk to the users.

13.4.3 The recommendation to the Minister shall include all the information contained in regulation 27(2) of the Regulations, to enable the Minister to make a decision.

**13.5 FINE**

- 13.5.1 Prior to imposing a fine, the Office shall afford the health establishment an opportunity to submit a request for leniency.
- 13.5.2 The fine, if imposed, will be subject to the thresholds determined by the Minister by notice in the *Government Gazette*.
- 13.5.3 The health establishment shall pay the imposed fine into a designated account within twenty (20) working days of the decision.
- 13.5.4 Banking details for payment of fines shall be provided by the Office.

**13.6 PROSECUTION**

- 13.6.1 Where an alleged breach of prescribed norms and standards is considered to amount to a criminal offence, the Office shall refer the matter to the National Prosecuting Authority for consideration and possible criminal prosecution.
- 13.6.2 The Office shall also refer for prosecution any offences in terms of the Act.
- 13.6.3 The decision to prosecute lies solely with the National Prosecuting Authority after considering all the relevant factors relating to the alleged offence or offences.

**14. FORMAL HEARING**

- 14.1 The Office shall notify the health establishment of its intention to revoke the certificate of compliance or to impose a fine, as the case may be, and initiate a hearing which must be presided by a suitable person appointed by the Chief Executive Officer, to allow the health establishment an opportunity to make representations before taking a final decision.
- 14.1.1 The person appointed as a presiding officer for the hearings shall not have a personal interest in the matter or be in any way associated with any of the parties.

14.1.2 The hearings shall be open to the public, subject to the determination of the presiding officer.

14.1.3 The presiding officer shall communicate the decision on the hearing to the Office, person in charge of a health establishment as well as the relevant authority within the prescribed timeframe.

14.1.4 Notice of hearing—

- a) notice of hearing shall be given to both the Office and the health establishment to prepare for the hearing.
- b) notice of hearing or notice of the Office's intention to revoke a certificate of compliance or to impose a fine would be deemed to have been received by the party or parties; as the case may be, if such notice was—
  - i. sent to the registered postal or physical address of either party and there is sufficient proof thereof;
  - ii. sent to either party's official fax number and there is a fax transmission as proof that the fax was sent or received;
  - iii. hand-delivered and signed for at either party's registered business address; or
  - iv. sent by e-mail to either party's official email address.
- c) Where there is proof that the notice of hearing was delivered late, the receiving party may request extension of time or postponement of the hearing, which may not be unreasonably denied.

## 15. APPEAL

15.1 An appeal against any decision of the Office must be in writing and lodged, with the Minister, within thirty (30) days from the date of gaining knowledge of the decision.

15.2 The Minister shall, upon receipt of the notice of appeal, appoint an *ad hoc* tribunal to hear the appeal.

15.3 The procedure and conduct of the appeal must be determined by the *ad hoc* tribunal.

15.4 There is no right of appeal to the Minister in relation to a conviction for an offence, if prosecuted.

**16. PUBLICATION OF TRIBUNAL DECISIONS AND REPORTS**

16.1 The Office shall publish the decisions of the *ad hoc* tribunal in the *gazette* within twenty-five (25) working days from the date of the decision.

16.2 All other reports relating to the outcome of the hearings conducted and recommendations made to the Minister or other relevant authorities shall be published on the Office’s website every six months.

**17. ROLES AND RESPONSIBILITIES OF STAKEHOLDERS**

<p><b>17.1 Health establishments, person-in-charge, and employees</b></p>	<ul style="list-style-type: none"> <li>• Familiarise themselves with prescribed norms and standards.</li> <li>• Comply with the prescribed norms and standards.</li> <li>• Cooperate with the Office and its employees.</li> </ul>
<p><b>17.2 Relevant Authorities</b></p>	<p>Ensure that breaches of the prescribed norms and standards are dealt with as and when referred by the Office.</p>
<p><b>17.3 Users</b></p>	<ul style="list-style-type: none"> <li>• Provide inspectors with required information</li> <li>• Report breaches of norms and standards / non-compliance by health establishments</li> </ul>
<p><b>17.4 The Office</b></p>	<ul style="list-style-type: none"> <li>• Inspect compliance with the norms and standards</li> <li>• Guide health establishment on compliance with the norms and standards</li> <li>• Enforce compliance with the norms and standards</li> <li>• Issue certificates of compliance to compliant health establishments</li> </ul>

**18. REVIEW OF THE ENFORCEMENT POLICY**

This Policy shall be reviewed as and when necessary.

**19. PUBLICATION OF THE ENFORCEMENT POLICY**

A copy of this Policy must be published in the *Government Gazette* and also made available at the Office’s official website: <http://www.ohsc.org.za>.

## DEPARTMENT OF PUBLIC WORKS AND INFRASTRUCTURE

NO. 1287

04 DECEMBER 2020

**NOTICE OF EXPROPRIATION IN TERMS OF SECTION 7(1) OF THE  
EXPROPRIATION ACT, 63 OF 1975 ("THE EXPROPRIATION ACT")**

**WHEREAS ON 30 SEPTEMBER 2016 THE MINISTER OF PUBLIC WORKS ("THE MINISTER")** approved an application in terms of section 26 of the Electricity Regulation Act, 4 of 2006 ("the Electricity Act") by Eskom Holdings SOC Limited ("Eskom"), read with section 2 of the Expropriation Act read with section 25(1) of the Constitution, for the expropriation of certain servitudes ("the land rights"), the total extent of which appear more fully from SG diagram 1232/2014 dated 21 January 2015 ("the SG diagram") and described in this notice, across the land being part of the farm Nooitgedacht number 664, in the Sundays River Valley Local Municipality, Division of Uitenhage, held under Title Deed number P27811/2014 (now described as Title Deed Number T27811/2014CTN) and in extent 249.3714 hectare ("the property"), owned by Staufen Investments (Pty) Ltd ("the company"), with registration number 2001/026710/07;

**AND WHEREAS ON 25 SEPTEMBER 2018** The High Court (Eastern Cape Local Division, Port Elizabeth) under case number 756/2017 dismissed the company's application to review and set aside the Minister's decision to approve Eskom's application;

**AND WHEREAS ON 25 MARCH 2020** the appeal of that judgment and order was dismissed by the Supreme Court of Appeal under case no. 200/2019;

**NOTICE IS HEREBY GIVEN** in terms of section 7(1) of the Expropriation Act

**TO:**

The owner of the property

Staufen Investments (Pty) Ltd

22 Bournemouth Street

Summerstrand

Port Elizabeth

(Being its registered address)

By registered post

**AND TO:**

The company's attorneys

Schoeman Oosthuisen Inc.

167 Cape Road

Mill Park

Port Elizabeth

(Ref. Mr S. Oosthuisen)

By hand

**AND TO:**

The Land Use and Planning Directorate: Nelson Mandela Bay Metropolitan Municipality

Sunday's River Valley Local Municipality

Sarah Baartman District Municipality

By hand

**AND TO:**

All other persons claiming any right to or interest in the property described in this notice whether by virtue of registration or otherwise, and particularly any lessee, buyer or builder contemplated in section 9(1)(d) of the Expropriation Act

By publication in the Government Gazette and "The Eastern Province Herald" and "Die Burger" newspapers.

1. **DESCRIPTION AND EXTENT OF THE LAND RIGHTS OVER THE PROPERTY**

- 1.1 an electrical substation, represented by the lines depicted on the SG diagram (schedule A hereto), as described in servitude note 9 to the SG diagram, in extent 1,0000 hectare;
- 1.2 the right to convey electricity over the property by means of 132 kV and 22 kV overhead power lines represented by the lines depicted on the SG diagram, as described in the servitude notes numbers 1 to 8 in the SG diagram and in the extent and width as stated in the servitude notes;
- 1.3 a right of way (access road) 6 m wide represented by the curved line S1-S2 on the SG diagram as depicted in servitude note 10 to the SG diagram representing the centreline of a servitude road;
- 1.4 the ancillary rights set out in schedule B hereto.

2. **DATE OF EXPROPRIATION AND EXERCISE OF LAND RIGHTS OVER THE PROPERTY BY ESKOM**

2.1 The Minister's decision of 30 September 2016 is the effective date of expropriation;

2.2 Eskom was exercising the land rights over the property at the time that the company took possession and transfer of the property.

3. **COMPENSATION**

3.1 The Department of Public Works will compensate the company in terms of section 11 of the Expropriation Act in an amount of R1 294 711.01 (one million two hundred and ninety-four thousand seven hundred and eleven rand and one cent)

3.2 The company's attention is drawn to section 9(1)(a)(b),(c),(d)(i)(ii)(iii) and (e) and section 12(3)(a)(ii) of the Expropriation Act which provides as follows:

*"9(1) An owner whose property has been expropriated in terms of this Act, shall, within 60 days from the date of notice in question, deliver or cause to be delivered to the Minister written statement indicating –*

*(a) if any compensation was in the notice of expropriation offered for such property, whether or not he accepts that compensation and, if he does not accept it, amount claimed by him as compensation and how much of that amount represents each of the respective amounts contemplated in section 12(1)(a)(i) and (ii) or (b) and full particulars as to how such amounts are made up;*

*(b) if no such compensation was so offered, the amount claimed as compensation by him and how much of that amount represents each of the respective amounts contemplated in section 12(1)(a)(i) and (ii) or (b) and for particulars as to how such amounts are made up;*

*(c) if the property expropriated is land and any amount is claimed in terms of paragraph (a) or (b), full particulars of all improvements thereon which, in the opinion of the owner, affect the value of such land;*

*(d) if the property being expropriated is land –*

*(i) which prior to the date of notice was leased as a whole or in part by unregistered lease, the name and address of the lessee, and accompanied by the lease or certified copy thereof, if it is in writing, or for particulars of the lease, if not in writing;*

*(ii) which, prior to the date of notice, was sold by the owner, the name and address of the buyer, and accompanied by the contract of purchase and sale or certified copy thereof;*

*(iii) on which a building has been erected which is subject to a builder's lien by virtue of the written building contract, the name and address of the builder, and accompanied by the building-contract or certified copy thereof;*

*(e) the address to or at which the owner desires that further documents in connection with the expropriation may be posted or delivered or tended:*

*Provided that the Minister may at his discretion extend the said period of sixty days, and that, if the owner requests the ministry in writing within 30 days as from the date of notice to extend the said period of sixty days, the Minister shall extend such period by a further sixty days*

...

*12(1)...*

*(2)...*

*(3)(a)*

*(i)...*

*(ii) if the owner fails to comply with the provisions of section 9 (1) within the appropriate period referred to in the said section, the amount so payable shall during the period of such failure and for the purpose of the payment of interest be deemed not to be an outstanding amount."*

**4. RESPONSE ADDRESSEE**

All responses to this notice must be addressed to:

Mr J. Van Der Walt

Regional Manager

Department of Public Works and Infrastructure

Eben Donges Building

Corner of Robert and Hancock Streets

Port Elizabeth

Tel: 041-408 2002

Cell: 082 772 5924

Fax: 041-484 4226

Email: [Johan.VanDerWalt@dpw.gov.za](mailto:Johan.VanDerWalt@dpw.gov.za)

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MS PATRICIA DE LILLE, MP

**MINISTER OF PUBLIC**

**WORKS AND**

**INFRASTRUCTURE**

SIGNED at CAPE TOWN on this 12<sup>th</sup> day of November 2020.

**SCHEDULE A**

ATTACH THE SG DIAGRAM

**SCHEDULE B**

1. The servitudes depicted in schedule **A** include the following ancillary rights:
  - 1.1 the right to maintain, repair alter or inspect a substation and all work necessary or ancillary thereto;
  - 1.2 the right to erect structures, conductors, cables, or appliances and, without limitation, everything else as may be necessary or convenient in exercising the right of servitude and that structure-supporting mechanisms (the rights/infrastructure under sub-paragraph 1.1 and this sub-paragraph are collectively referred to as "the Goods") may reasonably extend beyond the servitude area when it is necessary to safely secure the Goods;
  - 1.3 the right to enter and be upon the property at any time in order to construct, erect, operate, use, maintain, repair, re-erect, alter or inspect the Goods or in order to gain access to any adjacent property in the exercise of similar rights;
  - 1.4 the right to use existing roads and gates giving access to and running across the property and to erect in any fence such gates as may be

necessary or convenient to gain access to or exit from the property and the Goods or in order to gain access to any adjacent property in the exercise of similar rights;

- 1.5 the right to remove any trees, bush, material, grass or structures and the right to cut or trim any tree, bush or grass within the servitude or restricted area in order to comply with the appropriate restrictions; and
- 1.6 every ancillary right necessary or convenient for the proper exercise of the servitudinal rights granted to Eskom.

SERVITUDE DIAGRAM

M.E.H. SULTER & SON  
LAND SURVEYORS  
(UIT664D)

SIDES metres	ANGLES of DIRECTION	CO-ORDINATES Y System : WG. 25°	
		Constants	X
		- 50 000,00	+ 3710 000,00
AB	121,44	49 20 20 A	- 8 646,10 + 1 485,03
BC	154,27	324 39 30 B	- 8 553,98 + 1 564,16
CD	37,39	29 30 50 C	- 8 643,22 + 1 690,00
DE	27,44	357 34 40 D	- 8 524,80 + 1 722,54
EF	201,33	318 15 20 E	- 8 525,96 + 1 749,95
FG	105,40	6 39 50 F	- 8 760,01 + 1 900,17
GH	38,35	21 47 50 G	- 8 747,78 + 2 004,86
		H	- 8 733,54 + 2 040,47
		J	- 8 771,66 + 1 890,95
JK	116,62	9 18 10	
KL	39,13	21 54 40 K	- 8 752,81 + 2 006,04
		L	- 8 738,21 + 2 042,34
		M	- 9 157,37 + 1 952,89
MN	400,52	82 58 20	
NP	45,60	22 16 10 N	- 8 759,86 + 2 001,89
		P	- 8 742,58 + 2 044,09
		Q	- 9 155,48 + 1 965,15
OR	397,86	82 58 40	
RS	34,05	22 05 50 R	- 8 750,60 + 2 013,79
		S	- 8 747,49 + 2 046,08
		T	- 9 157,57 + 1 977,13
TU	399,38	83 00 50	
UV	23,99	21 14 20 U	- 8 761,16 + 2 025,71
		V	- 8 752,47 + 2 048,07
		W	- 10 255,64 + 2 717,54
WX	415,87	106 51 36	
XY	258,88	113 02 10 X	- 8 900,63 + 2 306,89
YZ	79,74	202 00 20 Y	- 8 662,39 + 2 205,59
		Z	- 8 692,27 + 2 131,66
		A1	- 6 900,93 + 2 826,52
A1B1	408,19	242 26 55	
B1C1	345,16	227 27 00 B1	- 8 149,43 + 2 175,17
C1D1	340,02	283 10 20 C1	- 8 403,70 + 1 941,76
D1E1	20,16	20 30 10 D1	- 8 734,77 + 2 019,25
		E1	- 8 727,71 + 2 038,13
		F1	- 7 859,95 + 1 907,14
FIG1	292,34	234 15 40	
GIH1	360,34	323 26 30 G1	- 8 097,24 + 1 736,38
		H1	- 8 311,88 + 2 025,82
		K1	- 8 673,96 + 2 016,54
K1L1	100,00	291 53 00	
L1M1	100,00	21 53 00 L1	- 8 766,75 + 2 053,81
M1N1	100,00	111 53 00 M1	- 8 729,48 + 2 146,61
N1K1	100,00	201 53 00 N1	- 8 636,69 + 2 109,33
		S1	- 8 685,08 + 1 823,55
S1S2	231,75	6 28 00	
		S2	- 8 658,99 + 2 053,83
		U1	- 57 272,96 + 110,92
		U1	- 60 792,60 + 3 130,48

Description of beacons:

a,j,m,q,t,w,a1.....Not beaconed  
All other beacons are ..... 20mm Iron Peg

Servitude Notes:

- 1) The lines a-B-C-D-E-F-G-H represent the centre lines of electric powerline servitude 18,00m wide.
- 2) The lines j-K-L represent the centre lines of electric powerline servitude 18,00m wide.
- 3) The lines m-N-P represent the centre lines of electric powerline servitude 18,00m wide.
- 4) The lines q-R-S represent the centre lines of electric powerline servitude 18,00m wide.
- 5) The lines t-U-V represent the centre lines of electric powerline servitude 18,00m wide.
- 6) The lines w-X-Y-Z represent the centre lines of electric powerline servitude 31,00m wide.
- 7) The lines a1-B1-C1-D1-E1 represent the centre lines of electric powerline servitude 18,00m wide.
- 8) The lines f1-G1-H1 represent the centre lines of electric powerline servitude 18,00m wide.
- 9) The figure K1 L1 M1 N1 represents a servitude area 1,0000 hectare in extent.
- 10) The curved line S1-S2 represents the centre of a servitude road 6m wide.

All over:-

Farm No.664

situate in Sundays River Municipality  
Administrative District of Uitenhage  
Province of The Eastern Cape  
Surveyed in November 2014

by me,

P.D. Sultter  
Professional Land Surveyor 0

This diagram is annexed to No. dated i.f.o.	The original diagram is No. 5561/1998 annexed to Transfer No. 1999. 58088	File: Uitege 664 S.R. No.569/2014 Comp. BO-6A (4333) BO-6AAB (4334) BO-6ABA (4335) BO-6ADC (4337) LPI C0760050
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S.G.No.  
1232/2014  
Approved  
*Natende*  
for  
SURVEYOR  
GENERAL  
2015-01-21

Sheet No. 1  
of 2 Sheets

DATE 2015-01-22



## DEPARTEMENT VAN OPENBARE WERKE EN INFRASTRUKTUUR

NO. 1287

04 DESEMBER 2020

**KENNISGEWING VAN ONTEIENING INGEVOLGE ARTIKEL 7(1) VAN DIE  
ONTEIENINGSWET, 63 VAN 1975 ("DIE ONTEIENINGSWET")**

**AANGESIEN DIE MINISTER VAN OPENBARE WERKE ("DIE MINISTER") OP 30 SEPTEMBER 2016** 'n aansoek ingevolge artikel 26 van die Electricity Regulation Act, 4 van 2006 ("die Electricity Act"), deur Eskom Holdings SOC Limited ("Eskom"), gelees met artikel 2 van die Onteieningswet gelees met artikel 25(1) van die Grondwet, vir die onteiening van sekere serwitute ("die grondregte"), waarvan die totale grootte duideliker blyk uit SG-diagram 1232/2014 gedateer 21 Januarie 2015 ("die SG-diagram") en in hierdie kennisgewing beskryf, oor die grond wat deel is van die plaas Nootgedacht nommer 664, in die Sondagsriviervallei Plaaslike Munisipaliteit, Afdeling Uitenhage, gehou kragtens Transportakte nommer P27811/2014 (nou beskryf as Transportakte Nommer T27811/2014CTN) en groot 249.3714 hektaar ("die eiendom"), besit deur Staufen Investments (Pty) Ltd ("die maatskappy"), met registrasienommer 2001/026710/07, goedgekeur het;

**EN AANGESIEN OP 25 SEPTEMBER 2018** Die Hooggeregshof (Oos-Kaapse Plaaslike Afdeling, Port Elizabeth) onder saaknommer 756/2017 die maatskappy se aansoek afgewys het om die Minister se besluit om Eskom se aansoek goed te keur, te hersien en ter syde te stel;

**EN AANGESIEN OP 25 MAART 2020** die appèl teen daardie uitspraak en bevel deur die Hoogste Hof van Appèl afgewys is onder saaknommer 200/2019; 200/2019;

**WORD KENNIS HIERBY GEGEE** ingevolge artikel 7(1) van die Onteieningswet

**AAN:**

Die eienaar van die eiendom

Staufen Investments (Pty) Ltd

Bournemouthstraat 22

Summerstrand

Port Elizabeth

(synde sy geregistreerde adres)

Per geregistreerde pos

**EN AAN:**

Die maatskappy se prokureurs

Schoeman Oosthuisen Ing.

Kaapweg 167

Mill Park

Port Elizabeth

(Verwys: Mr S. Oosthuisen)

Per hand

**EN AAN:**

Die Direkoraat Grondgebruik en Beplanning: Nelson Mandelabaai Metropolitaanse Munisipaliteit

Sondagsriviervallei Plaaslike Munisipaliteit

Sarah Baartman-distriksmunisipaliteit

Per hand

**EN AAN:**

Alle ander persone wat aanspraak maak op enige reg op of belang in die eiendom wat in hierdie kennisgewing beskryf word, uit hoofde van registrasie of andersins, en in die besonder enige huurder, koper of bouer beoog in artikel 9(1)(d) van die Onteieningswet.

Per publikasie in die Staatskoerant en die koerante "The Eastern Province Herald" en "Die Burger".

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1. **BESKRYWING EN GROOTTE VAN DIE GRONDREGTE OP DIE EIENDOM**

- 1.1 'n Elektriese substasie, voorgestel deur die lyne aangedui op die SG-diagram (Bylae A hierby), soos beskryf in serwituutnota 9 by die SG-diagram, groot 1,0000 hektaar.
- 1.2 Die reg om elektrisiteit oor die eiendom te gelei deur middel van 132 kV en 22 kV oorhoofse kraglyne voorgestel deur die lyne aangedui op die SG-diagram, soos beskryf in die serwituutnotas nommers 1 tot 8 in die SG-diagram en tot die grootte en breedte soos in die serwituutnotas vermeld.
- 1.3 'n Reg van weg (toegangspad) 6 m breed voorgestel deur die geboë lyn S1-S2 op die SG-diagram soos aangedui in serwituutnota 10 by die SG-diagram, wat die middellyn van 'n serwituutpad voorstel.
- 1.4 Die bykomende regte in Bylae B hierby uiteengesit.

2. **DATUM VAN ONTEIENING EN UITOEFENING VAN GRONDREGTE OP DIE EIENDOM DEUR ESKOM**

- 2.1 Die Minister se besluit van 30 September 2016 is die effektiewe datum van onteiening.
- 2.2 Eskom het die grondregte op die eiendom uitgeoefen toe die maatskappy besit en oordrag van die eiendom geneem het.

3. **VERGOEDING**

- 3.1 Die Departement van Openbare Werke sal die maatskappy ingevolge artikel 11 van die Onteieningswet vergoed teen 'n bedrag van R1 294 711.01 (een miljoen twee honderd vier-en-negentig duisend sewe honderd en elf rand en een sent)
- 3.2 Die maatskappy se aandag word gevestig op artikel 9(1)(a), (b), (c), (d)(i), (ii) en (iii) en (e) en artikel 12(3)(a)(ii) van die Onteieningswet, wat soos volg bepaal:

*9(1) 'n Eienaar wie se goed ingevolge hierdie Wet onteien is, moet binne sestig dae vanaf die betrokke kennisgewingsdatum aan die Minister lewer of laat lewer 'n skriftelike verklaring waarin aangedui word –*

*(a) indien in die onteieningskennisgewing vergoeding vir die goed aangebied is, of hy daardie vergoeding aanneem of nie, en, indien hy dit nie aanneem nie, wat die bedrag is wat hy as vergoeding eis en hoeveel van daardie bedrag elk van die onderskeie bedrae beoog in artikel 12(1)(a)(i) en (ii) of (b) verteenwoordig en volledige besonderhede betreffende die samestelling van daardie bedrae;*

*(b) indien geen sodanige vergoeding aldus aangebied is nie, wat die bedrag is wat hy as vergoeding eis en hoeveel van daardie bedrag elk van die onderskeie bedrae beoog in artikel 12(1)(a)(i) en (ii) of (b) verteenwoordig en volledige besonderhede betreffende die samestelling van daardie bedrae;*

*(c) indien die goed wat onteien word, grond is, en 'n bedrag ingevolge paragraaf (a) of (b) geëis word, volledige besonderhede van alle verbeteringe daarop wat, na die oordeel van die eienaar, die waarde van dié grond raak;*

*(d) indien die goed wat onteien word, grond is –*

*(i) wat voor die kennisgewingsdatum in sy geheel of vir 'n deel verhuur is by wyse van 'n ongeregisteerde huurkontrak, die naam en adres van die huurder, vergesel van die huurkontrak of 'n gewaarmerkte afskrif daarvan, indien die kontrak op skrif is, of volledige besonderhede van die kontrak, indien dit nie op skrif is nie;*

*(ii) wat voor die kennisgewingsdatum deur die eienaar verkoop is, die naam en adres van die koper, tesame met die koopkontrak of 'n gewaarmerkte afskrif daarvan;*

*(iii) waarop 'n gebou opgerig is wat onderworpe is aan 'n retensiereg ten gunste van 'n bouer uit hoofde van 'n skriftelike boukontrak, die naam en adres van die bouaannemer, tesame met die boukontrak of 'n gewaarmerkte afskrif daarvan;*

*(e) die adres, waarheen of waar, na die eienaar verlang, verdere stukke in verband met die onteiening gepos of oorhandig of aangebied kan word:*

*Met dien verstande dat die Minister na goeddunke genoemde tydperk van sestig dae kan verleng, en dat, indien die eienaar die Minister binne dertig dae vanaf die kennisgewingsdatum skriftelik versoek om genoemde tydperk van sestig dae te verleng, die Minister daardie tydperk met 'n verdere sestig dae moet verleng.*

...

*12(1)...*

*(2)...*

*(3)(a)*

*(i)...*

*(ii) indien die eienaar versuim om binne die toepaslike tydperk bedoel in artikel 9(1) aan die bepalings van genoemde artikel te voldoen*

*die bedrag wat aldus betaalbaar is, gedurende die tydperk van sodanige versuim vir die doeleindes van die betaling van rente geag word nie 'n uitstaande bedrag te wees nie.*

4. **ADRES VIR ANTWOORDE**

Alle antwoorde op hierdie kennisgewing moet gerig word aan:

Mnr J. van der Walt

Streekbestuurder

Departement van Openbare Werke en Infrastruktuur

Eben Döngesgebou

Hoek van Robert- en Hancockstraat

Port Elizabeth

Tel: 041 408 2002

Sel: 082 772 5924

Faks: 041 484 4226

E-pos: Johan.VanDerWalt@dpw.gov.za

---

ME PATRICIA DE LILLE, LP

**MINISTER VAN OPENBARE  
WERKE EN  
INFRASTRUKTUUR**

GETEKEN te KAAPSTAD op hede die 12de dag van November 2020.

**BYLAE A**

HEG DIE SG-DIAGRAM AAN

**BYLAE B**

1. Die serwitute aangedui in Bylae **A** sluit die volgende bykomstige regte in:
  - 1.1 die reg om 'n substasie in stand te hou, te herstel, te verander of te inspekteer, en alle werk wat nodig of bykomstig daarby is;
  - 1.2 die reg om strukture, geleiers, kables of toestelle op te rig en, sonder beperking, enigiets anders wat nodig of gerieflik is by die uitoefening van die reg van serwituut, en daardie struktuursteunende meganismes (die regte/infrastruktuur ingevolge subparagraaf 1.1 en hierdie subparagraaf word gesamentlik "die Goedere" genoem) kan redelikerwys tot buite die serwituutgebied strek wanneer dit nodig is om die Goedere veilig te bevestig;
  - 1.3 die reg om die eiendom te eniger tyd binne te gaan en daarop te wees ten einde die Goedere te bou, op te rig, te bedryf, te gebruik, in stand te hou, te herstel, her op te rig, te verander of te inspekteer of ten einde toegang tot enige aangrensende eiendom te kry by die uitoefening van soortgelyke regte;

- 1.4 die reg om bestaande paaie en hekke te gebruik wat toegang tot die eiendom verleen en daaroor loop en om in enige heining sodanige hekke op te rig as wat nodig of gerieflik is om toegang tot of uitgang uit die eiendom en die Goedere te kry of ten einde toegang tot enige aangrensende eiendom te kry by die uitoefening van soortgelyke regte;
- 1.5 die reg om enige bome, bosse, materiaal, gras of strukture te verwyder en die reg om enige boom, bos of gras te sny of te snoei binne die serwituut of beperkte gebied ten einde aan die toepaslike beperkings te voldoen; en
- 1.6 elke bykomstige reg wat nodig of gerieflik is vir die behoorlike uitoefening van die serwituutsregte wat aan Eskom verleen is.

SERVITUDE DIAGRAM

M.E.H. SULTER & SON  
LAND SURVEYORS  
(UIT664D)

SIDES metres	ANGLES of DIRECTION	CO--ORDINATES Y System : WG. 25° X	
		Constants :	
AB	121,44	49 20 20	A - 8 646,10 + 1 485,03
BC	154,27	324 39 30	B - 8 553,98 + 1 564,16
CD	37,39	29 30 50	C - 8 643,22 + 1 690,00
DE	27,44	357 34 40	D - 8 624,80 + 1 722,54
EF	201,33	318 15 20	E - 8 625,96 + 1 749,95
FG	105,40	6 39 50	F - 8 760,01 + 1 900,17
GH	38,35	21 47 50	G - 8 747,78 + 2 004,86
			H - 8 733,54 + 2 040,47
JK	116,62	9 18 10	J - 8 771,66 + 1 890,95
KL	39,13	21 54 40	K - 8 752,81 + 2 006,04
			L - 8 738,21 + 2 042,34
MN	400,52	82 58 20	M - 9 157,37 + 1 952,89
NP	45,60	22 16 10	N - 8 759,86 + 2 001,89
			P - 8 742,58 + 2 044,09
OR	397,86	82 58 40	Q - 9 155,48 + 1 965,15
RS	34,85	22 05 50	R - 8 760,60 + 2 013,79
			S - 8 747,49 + 2 046,08
TU	399,38	83 00 50	T - 9 157,57 + 1 977,13
UV	23,99	21 14 20	U - 8 761,16 + 2 025,71
			V - 8 752,47 + 2 048,07
WX	1415,87	106 51 36	W - 10 255,64 + 2 717,54
XY	258,88	113 02 10	X - 8 900,63 + 2 306,89
YZ	79,74	202 00 20	Y - 8 662,39 + 2 205,59
			Z - 8 692,27 + 2 131,66
A1B1	408,19	242 26 55	A1 - 6 900,93 + 2 826,52
B1C1	345,16	227 27 00	B1 - 8 149,43 + 2 175,17
C1D1	340,02	283 10 20	C1 - 8 403,70 + 1 941,76
D1E1	20,16	20 30 10	D1 - 8 734,77 + 2 019,25
			E1 - 8 727,71 + 2 038,13
F1G1	292,34	234 15 40	F1 - 7 859,95 + 1 907,14
G1H1	360,34	323 26 30	G1 - 8 097,24 + 1 736,38
			H1 - 8 311,88 + 2 025,82
K1L1	100,00	291 53 00	K1 - 8 673,96 + 2 016,54
L1M1	100,00	21 53 00	L1 - 8 766,75 + 2 053,81
M1N1	100,00	111 53 00	M1 - 8 729,48 + 2 146,61
N1K1	100,00	201 53 00	N1 - 8 636,69 + 2 109,33
S1S2	231,75	6 28 00	S1 - 8 685,08 + 1 823,55
			S2 - 8 658,99 + 2 053,83
			U1 28 No. 55 Δ - 57 272,96 + 110,92
			U1 31 No. 58 Δ - 60 792,60 + 3 130,48

S.G.No.

1232/2014

Approved

*[Signature]*

for  
SURVEYOR  
GENERAL

2015-01-21

Sheet No. 1  
of 2 Sheets

*[Stamp]*  
DATE 2015-01-22

Description of beacons:

a.j.m.q.t.w.a1.....Not beaconed  
All other beacons are ..... 20mm Iron Peg

Servitude Notes:

- 1) The lines a-B-C-D-E-F-G-H represent the centre lines of electric powerline servitude 18,00m wide.
- 2) The lines j-K-L represent the centre lines of electric powerline servitude 18,00m wide.
- 3) The lines m-N-P represent the centre lines of electric powerline servitude 18,00m wide.
- 4) The lines q-R-S represent the centre lines of electric powerline servitude 18,00m wide.
- 5) The lines t-U-V represent the centre lines of electric powerline servitude 18,00m wide.
- 6) The lines w-X-Y-Z represent the centre lines of electric powerline servitude 31,00m wide.
- 7) The lines a1-B1-C1-D1-E1 represent the centre lines of electric powerline servitude 18,00m wide.
- 8) The lines F1-G1-H1 represent the centre lines of electric powerline servitude 18,00m wide.
- 9) The figure K1 L1 M1 N1 represents a servitude area 1,0000 hectare in extent.
- 10) The curved line S1-S2 represents the centre of a servitude road 6m wide.

All over:--

Farm No.664

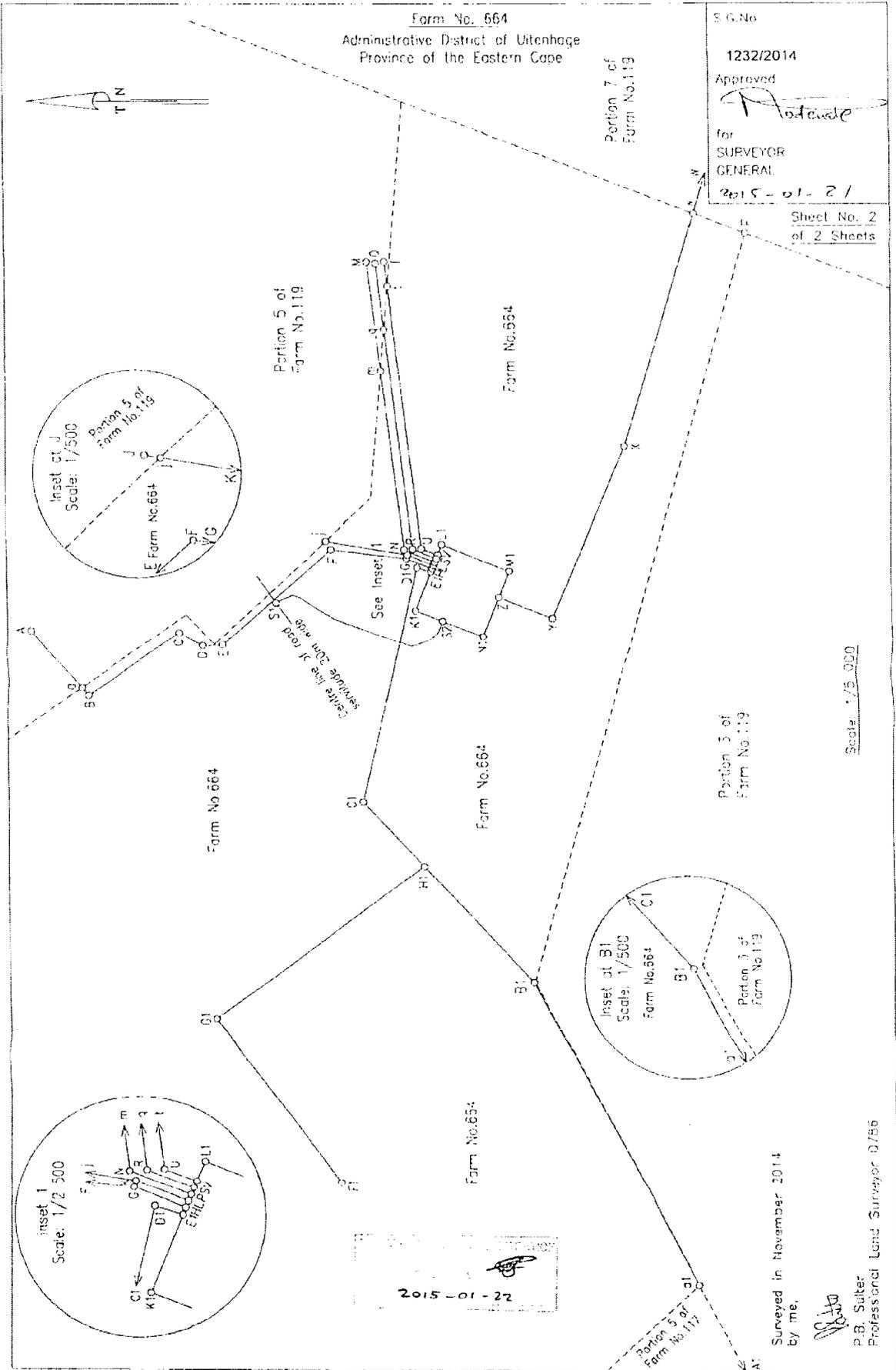
situate in Sundays River Municipality  
Administrative District of Uitenhage  
Province of The Eastern Cape  
Surveyed in November 2014

by me,

*[Signature]*  
P.B. Sultter  
Professional Land Surveyor 0

This diagram is annexed to No. dated i.f.o.	The original diagram is No. 5561/1998 annexed to Transfer No. 1999. 58088	File: Utige 664 S.R. No. 569/2014 Comp. B0-6A (4333) B0-6AAB (4334) B0-6ABA (4335) B0-6ABC (4337) LPI C0760000
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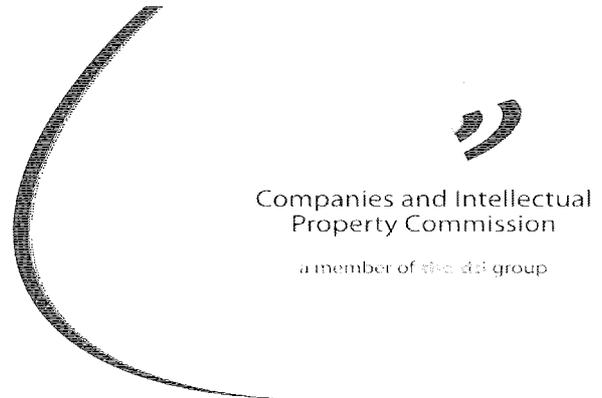
M.E.H. SULTER & SON  
LAND SURVEYORS  
(U/1664D)



## DEPARTMENT OF TRADE AND INDUSTRY AND COMPETITION

NO. 1288

04 DECEMBER 2020



**CO OPERATIVES THAT HAVE BEEN REMOVED FROM THE REGISTER OF CO-OPERATIVES BY CONVERSION TO ANY OTHER FORM OF JURISTIC IN TERMS SECTION 62 & 64 OF THE CO-OPERATIVE 14 OF 2015, AS AMENDED.**

1. FARMERS HOPE CO-OPERATIVE LIMITED (2014012973/24)
2. MCGREGOR KOÖPERATIEWE WYNMAKERY BEPERK (1948000003/24)
3. ROODEZANDT KOÖPERATIEWE WYNMAKERY BEPERK (1953/000001/24)
4. UBUNTU PROPERTY AND BUILDING MAINTENANCE PRIMIMARY CO-OPERATIVE LIMITED (2015004799/24)
5. VIDA MOSA MANUFACTURING CO-OPERATIVE LIMITED (2014/016634/24)
6. BANDILE CATTLE FARMING PRIMARY CO-OPERATIVE LIMITED (2012/10342/24)
7. VHUHULWANE MULTI-PURPOSE PROJECTS PRIMARY CO-OPERATIVE LIMITED (2012005457/24)
8. MOKOPU GROUP CO-OPERATIVE LIMITED (2014/001486/24)
9. QUALITY BAKERS PRIMARY COOPERATIVE LIMITED (2018/001453/24)

Notice is hereby given in terms section 26(2) of the Co-operatives Amendment Act, **No 6 of 2013**, that the names of the above mentioned co-operatives have been converted into another Juristic form by way of special resolution.

REGISTRAR OF CO OPERATIVES  
Office of the Registrar of Co operatives  
Dti Campus  
77 Meintjies Street  
Pretoria  
0002

Private Bag X237  
Pretoria  
0001

**DEPARTMENT OF WATER AND SANITATION: CORRECTION NOTICE:**

In Ordinary *Government Gazette* No. 43872, Government Notice No. 1179, published on 06 November 2020: Replace page 71 (Table 1) with the following page;

Table 1: Summary of Water Resource Classes for each IUA and the Target Ecological Category (TEC) for priority biophysical river and estuary nodes

Integrated Unit of Analysis (IUA)	Water Resource Class for IUA	Quaternary Catchment	RU	Resource Name	Biophysical Node Name	TEC	% nMAR*
A1 Berg Estuary	II	G10M	A1-E01	Berg (Groot)	Bxi1	C	52
A2 Langebaan	II	G10M	A2-E04	Langebaan	Bxi3	C	N/A
A3 West Coast	III	G21A	A3-R01	-	Bviii3	D	14.6
		G21B	A3-R02	Sout	Bviii10	D	16.4
D8 Upper Berg	II	G10A	D8-R01	Berg	Bvii13	C	98
		G10A	D8-R02	Berg	Bvii1	C	27
		G10C	D8-R03	Berg	Biii3	D	53
D9 Middle Berg	III	G10C	D9-R04	Pombers	Bviii11	C	366
		G10D	D9-R05	Kromme	Bvii3	D	89
		G10D	D9-R06	Berg	Bvii5	D	49
C5 Berg Tributaries	II	G10E	C5-R07	Klein Berg	Biii4	C	82
		G10G	C5-R08	Vier-en-Twintig	Bi1	B/C	23
B4 Lower Berg	III	G10J	B4-R09	Berg	Bvii6	D	52
		G10K	B4-R10	Berg	Bvii12	D	51
D10 Diep	III	G21D	D10-R11	Diep	Bv1	D	66
		G21D	D10-R12	Diep	Biv6	D	68
		G21F	D10-E03	Rietvlei/ Diep	Bxi7	D	78
E11 Peninsula	II	G22B	E11-R13	Hout Bay	Bviii6	D	97
		G22A	E11-R14	Silvermine	Bvii20	C	98
		G22A	E11-E04	Wildevölvlei	Bxi14	D	107
E12 Cape Flats	III	G22D	E12-R15	Keysers	Bvii7	D	93
		G22K	E12-E05	Zandvlei	Bxi9	D	93
		G22K	E12-E05	Zeekoevlei	Bxi9	D	N/A
D6 Eerste	III	G22F	D6-R16	Eerste (Jonkershoek)	Biii6	C	93
		G22G	D6-R17	Klippies	Biv8	D	77
		G22H	D6-E06	Eerste	Bxi3	D	90
D7 Sir Lowry's	II	G22J	D7-R18	Lourens	Bvii21	D	114
		G22K	D7-R19	Sir Lowry's Pass*	Bviii9	C	84
		G40A	D7-R20	Steenbras	Bvii22	B/C	81
		G22J	D7-E07	Lourens	Bxi4	C	85

\*Note: This is based on the estimated/simulated flow requirement in the system to meet downstream TECs as well as with current demands. Note that this will differ from the minimum flow requirement to meet the EWR at any given node. In some cases, the flow is above 100% of natural due to the impact of releases to meet downstream demands.

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**GENERAL NOTICES • ALGEMENE KENNISGEWINGS**

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**DEPARTMENT OF AGRICULTURE, LAND REFORM AND RURAL DEVELOPMENT****NOTICE 683 OF 2020****GENERAL NOTICE IN TERMS OF THE RESTITUTION OF LAND RIGHTS ACT, 1994 (ACT NO. 22 OF 1994)**

Notice is hereby given in terms of Section 11 (1) of the Restitution of Land Rights Act, 1994 (Act No. 22 of 1994) that a claim for the restitution of land rights on the following properties have been lodged with the Regional Land Claims Commissioner: KwaZulu-Natal and that the Commission on Restitution of Land Rights will further investigate the claim in terms of provisions of the Act in due course:

<b>Property</b>	:	<b>Portion 6 (Remaining Extent) of the farm Reserve No. 16 No. 15836</b>
<b>Extent of property</b>	:	<b>14069, 8687 ha</b>
<b>Magisterial District</b>	:	<b>Ingwavuma</b>
<b>Administrative District:</b>	:	<b>KwaZulu-Natal</b>
<b>Current Title Deed No.</b>	:	<b>T14456/2003</b>
<b>Current Owner</b>	:	<b>Ingonyama Trust-Trustees</b>
<b>Bonds &amp; Restrictive Conditions (Interdicts)</b>	:	<b>None</b>
<b>Claimant</b>	:	<b>Mhlushwa Ndlanzi on behalf of the Mbodla Community</b>
<b>Date claim lodged</b>	:	<b>31 December 1998</b>
<b>Reference number</b>	:	<b>KRN6/2/2/E/15/0/0/18</b>

Any party/parties who have an interest in the above-mentioned properties is hereby invited to submit, within **30 days** from the date of publication of this notice, any representations and/ or information which shall assist the Commissioner in proving or disproving this claim.

Should no information and/ or representations from the affected party/ parties be forthcoming within the stipulated period, the affected party/parties shall be *ipso facto* barred from further doing so and the Commission shall continue with the subsequent processes towards completion of the investigation.

Any comments and information should be submitted to:

The Regional Land Claims Commissioner: KwaZulu-Natal  
Private Bag X9120  
Pietermaritzburg 3200

Tel: (033) 355 - 8400  
Fax: (033) 342 - 3409

Submissions may also be delivered to Second Floor, African Life Building, 200 Church Street, Pietermaritzburg.

**LEBJANE MAPHUTHA**  
**REGIONAL LAND CLAIMS COMMISSIONER: KWAZULU NATAL**  
**DATE:**

**DEPARTMENT OF AGRICULTURE, LAND REFORM AND RURAL DEVELOPMENT  
NOTICE 684 OF 2020**

**GENERAL NOTICE IN TERMS OF THE RESTITUTION OF LAND RIGHTS ACT, 1994 (ACT NO. 22 OF 1994)**

Notice is hereby given in terms of Section 11 (1) of the Restitution of Land Rights Act, 1994 (Act No. 22 of 1994) that a claim for the restitution of land rights on the following properties have been lodged with the Regional Land Claims Commissioner: KwaZulu-Natal and that the Commission on Restitution of Land Rights will further investigate the claim in terms of provisions of the Act in due course:

<b>Property</b>	:	<b>Those portions of Durban, commonly known as:</b>
		<b>1. Bud Road (Shack 1), Cato Manor;</b>
		<b>2. Cabazini (Shack 2), Cato Manor;</b>
		<b>3. Cabazini (Shack 3), Cato Manor; and</b>
		<b>4. Bud Road (Shack 4), Cato Manor</b>
<b>Magisterial District</b>	:	<b>Ethekwini</b>
<b>Claimant</b>	:	<b>Punyuka Ngcobo Bhekumuzi Ngcobo Zwelithini Cele</b>
<b>Date claim lodged</b>	:	<b>7 June 1996 4 May 1998</b>
<b>Reference number</b>	:	<b>KRN6/2/2/E/8/817/2716/2687</b>

Any party/parties who have an interest in the above-mentioned properties is hereby invited to submit, within **30 days** from the date of publication of this notice, any representations and/ or information which shall assist the Commissioner in proving or disproving this claim.

Should no information and/ or representations from the affected party/ parties be forthcoming within the stipulated period, the affected party/parties shall be *ipso facto* barred from further doing so and the Commission shall continue with the subsequent processes towards completion of the investigation.

Any comments and information should be submitted to:

The Regional Land Claims Commissioner: KwaZulu-Natal  
Private Bag X9120  
Pietermaritzburg 3200

Tel: (033) 355 - 8400  
Fax: (033) 342 - 3409

Submissions may also be delivered to Second Floor, African Life Building, 200 Church Street, Pietermaritzburg.

**LEBJANE MAPHUTHA  
REGIONAL LAND CLAIMS COMMISSIONER: KWAZULU NATAL  
DATE:**

**DEPARTMENT OF AGRICULTURE, LAND REFORM AND RURAL DEVELOPMENT**  
**NOTICE 685 OF 2020**

**GENERAL NOTICE IN TERMS OF SECTION 11A (2) OF THE RESTITUTION OF LAND RIGHTS ACT,  
NO 22 OF 1994 (AS AMENDED)**

**WHEREAS** a land claim was lodged by Chief G D Zulu, which claim was published in terms of section 11 (1) of the Restitution of Land Rights Act, No. 22 of 1994 (as amended), under Notice No. 132 published in Government Gazette No. 30680 of 25 January 2008, hereinafter referred to as "the Act".

and

**WHEREAS** during further investigation of the land claim in so far as it relates to the properties referred to below, the Regional Land Claims Commissioner, has reason to believe that sufficient properties have been acquired by the State towards settlement of the claim,

**NOW THEREFORE NOTICE** is hereby given in terms of Section 11A (2) of the Act that at the expiry of 60 days from the date of the publication of this notice in the Government Gazette, the notice of the claim previously published under the terms of section 11 (1) of the Act under Notice No. 132 in Government Gazette No. 30680 dated 25 January 2008, will be withdrawn unless cause to the contrary is shown to the satisfaction of the Regional Land Claims Commissioner.

The details of the Gazette No. 30680 dated 25 January 2008, including the following:

<b>Reference No.</b>	<b>KRN6/2/2/E/20/0/5</b>
<b>Claimant</b>	<b>Chief G. D. Zulu on behalf of the Nodunga Community</b>
<b>Property Description</b>	<b>See attached schedule</b>
<b>Total extent</b>	<b>See attached schedule</b>
<b>Owner</b>	<b>See attached schedule</b>
<b>Date Submitted</b>	<b>13 June 1997</b>

Any party who may have an interest in the above-mentioned land claim is hereby invited to make representations, within 60 days from the publication of this notice, as to why the claim should not be withdrawn in terms of section 11A (3) of the Act. The representations must be forwarded to

The Regional Land Claims Commissioner: KwaZulu-Natal  
Private Bag X9120  
Pietermaritzburg 3200

Tel: (033) 355 - 8400  
Fax: (033) 342 - 3409

Submissions may also be delivered to African Life Building, Second Floor, 200 Church Street, Pietermaritzburg 3201

**LEBJANE MAPHUTHA**  
**REGIONAL LAND CLAIMS COMMISSIONER: KWAZULU NATAL**  
**DATE:**

**SCHEDULE**

<b>NO.</b>	<b>PROPERTY DESCRIPTION</b>	<b>EXTENT</b>	<b>CURRENT TITLE DEED NO.</b>	<b>CURRENT OWNER</b>	<b>BONDS &amp; RESTRICTIVE CONDITIONS (INTERDICTS)</b>
1	The farm Lot 1 Glendale No. 3646	40, 4686 ha	T37196/1997	Ranjeth Ramsoomer and Sunitha Ramsoomer	None
2	The farm Keate Road-Glendale No. 16536	6, 2913 ha	T23504/1994	Republic of South Africa	K735/1994RM
3	Portion 1 of the farm Lot 20 Glendale No. 3572	20, 1392 ha	T37245/1994	ELCSA Property Management Co	None
4	Portion 1 of the farm Lot 13 Glendale No. 3640	4, 0469 ha	T16006/1981 T61461/2001 T20565/1987	Paripurinama Ramsamy Abishaikam Cyril Kistnasamy	VA783/2000
5	The farm Deate Road-Glendale No. 16540	0, 2081 ha	T23504/1994	Republic of South Africa	K735/1994RM
6	Portion 56 of the farm The Prospect No. 3295	71, 8031 ha	T30522/2002	F C Trust-Trustees	None
7	Portion 1 of the farm Lot E No. 3557	101, 1715 ha	T30522/2002	F C Trust-Trustees	None
8	The farm Zev No. 13032	7, 6398 ha	T37914/2003	Vijay Kalipershad Shureed Kalipershad Mayawathee Kalipershad	None
9	Portion 1 of the farm Dingwall No. 3909	5, 6315 ha	T26251/2001	Navitha Gujraj	None
10	The farm Lot 10 No. 2242	121, 4058 ha	T11062/1996 T12780/1980 T20798/1989 1T2496/1980 T27601/1994	Langalake Dennis Mzoneli Godfrey Qonda Mzoneli Siyabonga Lionel Mzoneli Chatwind Tamba Mzoneli Aubrey Mzoneli	None
11	The farm Lot D No. 3581	16, 1659 ha	Not Registered		
12	The farm Lot 12 Glendale No. 3650	40, 4686 ha	T10229/1997 T10229/1997 T10193/1996 T49208/2001 T13659/1988 T13659/1988 T17784/1996 T17784/1996 T17786/1996 T17786/1996 T17787/1996	Beharilal Harilall Shoba Harilall Parusram Bansilal Radhakrishnan Sunjevey Murugan Radhakrishnan Sunjevey Murugan Coopama Selvum Murugan Bridhelall Bansilall Lilie Bansilall Mathadin Bansilall Bimaladevi Bansilall Tharawathy Bansilall	B1306/1990 B33152/2003

NO.	PROPERTY DESCRIPTION	EXTENT	CURRENT TITLE DEED NO.	CURRENT OWNER	BONDS & RESTRICTIVE CONDITIONS (INTERDICTS)
			T27671/1996 T27673/1996 T35978/1999 T56445/2003 T56445/2003 T5961/1963 T7037/1987 T8070/1946 T8719/1965 T8719/1965 T8719/1965 T8719/1965 T8719/1965 T8719/1965 T8719/1965 T8719/1965 T8719/1965	Rampierie Bansilall Anwanthi Sookraj Sathish Sooklal Harichund Namnath Sushila Namnath Bansilal-Trustees Premilall Baboothial Mohanlall Peary Oobrajee Choonilall Kunthi Bahadurlall Rajcoomar Rajthey Ugalal	
13	The farm Lot 13 A No. 8693	125, 4527 ha	T14240/1977 T1572/1934 T1572/1934 T1572/1934 T1572/1934 T1572/1934 T1572/1934 T1572/1934 T16094/1979 T3347/1979 T36549/1993 T6141/1979 T6310/1962 T656/1983 T73416/2003	Mpiyonke Bafana Macaheni Magamu Mgana Mpana Ndakwa Nkunafa Shobana Dube Sibusiso Michael Dube Mbabo Nkulumo Dube Bheki Boginkosi Dube Mzonjani Dube	None
14	Remainder of Portion 2 of the farm Krans Kloof D No. 3523	183, 0471 ha	T4696/2007	Hollyberry Props 22 (Pty) Ltd	K389/1997s
15	Portion 2 of the farm Helen No. 17152	85, 3602 ha	T22883/1998	Winfrieda Sibusisiwe Lushaba and Dugmore Simosezwe Simphiwe Lushaba	B19742/1998
16	Portion1 of the farm Weltevreden No. 1409	97, 2933 ha	T19891/1998	Subramani Nagiah and Christine Selvagonum Nagiah	I-2502/2006AT B17862/1998

NO.	PROPERTY DESCRIPTION	EXTENT	CURRENT TITLE DEED NO.	CURRENT OWNER	BONDS & RESTRICTIVE CONDITIONS (INTERDICTS)
17	Remainder of the farm Lot 9 B No. 7684	37, 9463 ha	T1230/1970	Victor Mdoda Nxaba	None
18	Portion 2 of the farm Lot 9 B No. 7684	8, 0937 ha	T16766/2000 T16766/2000 T16766/2000 T16766/2000 T16766/2000 T2897/1967	Sibongile Hazel Matiwane Lawrence Mfamvumile Matiwane Clerine Matiwane Makhosazana Valerie Sishi Muzi Edmund Sishi Siphon Russel Mbonambi	VA1499/2004 VA949/1996
19	Portion 3 of the farm Lot 9 B No. 7684	8, 0938 ha	T32970/1997	Patricia Merri-Edith Zimbili Nxaba	None
20	Portion 6 of the farm Lot 9 B No. 7684	37, 9473 ha	T1228/1970	Alexander Clement Nxaba-Trustees	None
21	Portion 7 of the farm Lot 9 B No. 7684	37, 9491 ha	T3007/1983	Alexander Clement Nxaba-Trustees	VA1737/1997
22	Portion 2 of the farm Lot 12D No. 2433	4, 0469 ha	T2457/1995	Subramoney Kuppusamy Naicker	K1530/1972s K1516/2002s
23	Portion 3 of the farm Lot 12D No. 2433	4, 0469 ha	T9943/1974	Salama Naicker	VA2839/2006
24	Portion 4 of the farm Lot 12D No. 2433	8, 0937 ha	T29198/1994 T29198/1994 T949/2005 T949/2005 T949/2005 T949/2005	Durga Muruges Naicker Kamala Naicker Selvanaigee Govender Strinavasen Naicker Dhanalutchmee Naicker Sundrambal Naicker	None
25	Portion 6 of the farm Lot 12D No. 2433	13, 3548 ha	T2296/1972 T7898/1993 T7898/1993 T7900/1993	Rajdev Gokul Rajdev Gokul Lalitha Gokul Roshan Devchand	None
26	Portion 7 of the farm Lot 12D No. 2433	13, 3546 ha	T66064/2005	Kelly Jonathan Smith	None
27	Portion 13 of the farm Lot 12D No. 2433	13, 7814 ha	T15493/1982	Kavelpathy	K1434/2002s
28	Remainder of the farm Tiffany No. 17200	775, 7192 ha	T29233/1998	Tongaat-Hulett Group Ltd	None
29	Portion 6 of the farm Tiffany No. 17200	137, 8806 ha	T35685/1998	Amon Jabula Tembe and Nomthandazo Dorothy Tembe	None
30	Portion 8 of the farm Tiffany No. 17200			Not Registered	
31	Portion 9 of the farm Tiffany No. 17200			Not Registered	
32	Portion 10 of the farm Tiffany No. 17200			Not Registered	
33	Portion 11 of the farm Tiffany No. 17200			Not Registered	
34	Portion 12 of the farm Tiffany No. 17200			Not Registered	
35	Remainder of Portion 1 of the farm No. 14A No. 2264	42, 6058 ha	T1739/1964	Rajmuni Taramathee Hiralall	None

NO.	PROPERTY DESCRIPTION	EXTENT	CURRENT TITLE DEED NO.	CURRENT OWNER	BONDS & RESTRICTIVE CONDITIONS (INTERDICTS)
				Neemchund Isurdayal Doolmathie Nundalall Isur Dayal Sewlochini	
36	Portion 2 of the farm No. 14A No. 2264	90, 8902 ha	T1069/1963 T1070/1963 T1071/1963 T1076/1965 T13965/1985 T13965/1985 T14463/1979 T17182/1974 T20540/1969 T20576/1992 T2296/1972 T2296/1972 T25781/1992 T2655/1994 T2655/1994 T28238/1990 T7899/1993 T88/1993	Dolly Jasodra Chandravathy Gayathar Badul Bhugeloo Sunpersad Ookah Karansingh Komal Sarasvati Goolam Hoosen Mitha Pooran Gokul Hansraj Gokal Mooniamah Chetty Vijay Kalipershad Mayawathee Kalipershad Gopichand Gopichand Pooran Gokul Saraspathi Devnath	I-2504/2000AT I-7967/2003AT B14255/1985 B7115/1991 VA396/21992
37	Portion 3 of the farm No. 14A No. 2264	20, 15648 ha	T37867/1995	Dayanandhen Rajaruthnam Moodley	None
38	Portion 4 of the farm No. 14A No. 2264	1, 2141 ha	T9318/1959	Glenville Indian School Board	None
39	Portion 1 of the farm Lot 12A No. 2424	4, 0469 ha	T2331/1994	Lutchman Woodraj and Leelabathy Woodraj	B3511/1994
40	Portion 2 of the farm Lot 12A No. 2424	6, 0703 ha	T16766/1994	Ranjith Lochanram	None
41	Portion 3 of the farm Lot 12A No. 2424	10, 1172 ha	T6353/1981	Bridglal	None
42	Portion 5 of the farm Lot 12A No. 2424	8, 0937 ha	T19024/1969	Kissoon	None
43	Portion 7 of the farm Lot 12A No. 2424	8, 0938 ha	T14114/1993	Pulmathi Ramdeen	None
44	Portion 8 of the farm Lot 12A No. 2424	8, 0938 ha	T14114/1993	Pulmathi Ramdeen	None
45	Portion 10 of the farm Lot 12A No. 2424	14, 5628 ha	T24287/1980 T6284/1991 T6284/1991	Mohanlall Rajcoomar Mohanlall Rajcoomar Thonawattee Rajcoomar	K1644/2006s
46	Remainder of the farm Hlabathini No. 14379	237, 5723 ha		Not Registered	
47	Portion 1 of the farm Hlabathini No. 14379	33, 9389 ha		Not Registered	

NO.	PROPERTY DESCRIPTION	EXTENT	CURRENT TITLE DEED NO.	CURRENT OWNER	BONDS & RESTRICTIVE CONDITIONS (INTERDICTS)
48	Portion 2 of the farm Hlabathini No. 14379	33, 9389 ha		Not Registered	
49	Portion 3 of the farm Hlabathini No. 14379	33, 9389 ha		Not Registered	
50	Portion 4 of the farm Hlabathini No. 14379	33, 9389 ha		Not Registered	
51	Portion 6 of the farm Hlabathini No. 14379	33, 9389 ha		Not Registered	
52	Portion 7 of the farm Hlabathini No. 14379	13, 7046 ha		Not Registered	
53	Remainder of the farm South Mocha No. 2409	15, 6857 ha	T7550/1963	Moonsamy Reddy	I-1571/1978LG
54	Portion 1 of the farm South Mocha No. 2409	1, 6187 ha	T29256/1987	Govindamma Loganathan Kuppusamy Parvathiammal Kuppusamy Dick Kuppusamy Govender Rajaluxmi Govender Thiamma Kuppusamy	None
55	Remainder of Portion 5 of the farm South Mocha No. 2409	13, 0448 ha	T11108/1957	Govindasamy	I-1571/81978LG I-4792/1994LG/23/6/1994-11108/1957T
56	Portion 7 of the farm South Mocha No. 2409	2, 0234 ha	T37194/1997	Ranjeth Ramsoomer and Sunitha Ramsoomer	I-4792/1994LG-23/6/1994/17752/1976T
57	Portion 8 of the farm South Mocha No. 2409	8, 1951 ha	T19003/1998 T19003/1998 T19003/1998 T19003/1998 T2093/1984 T2273/1975 T265/1980 T266/1980 T5100/1965 T5100/1965 T5100/1965	Chainwathee Singh Bhagwanthie Sigapaul Birball Sigapaul Nirend Singh Damarupurshad Basanth Ramdas Narain Ramsuruj Narain Ramsuruj Narain Matadin Ramsuruj Narain Boodhanee	None
58	Portion 9 of the farm South Mocha No. 2409	4, 0473 ha	T19003/1998 T19003/1998 T19003/1998 T19003/1998 T2093/1984 T2273/1975 T265/1980 T266/1980	Chainwathee Singh Bhagwanthie Sigapaul Birball Sigapaul Nirend Singh Damarupurshad Basanth Ramdas Narain Ramsuruj Narain Ramsuruj Narain	I-4792/1994LG-23/6/1994

NO.	PROPERTY DESCRIPTION	EXTENT	CURRENT TITLE DEED NO.	CURRENT OWNER	BONDS & RESTRICTIVE CONDITIONS (INTERDICTS)
			T5100/1965 T5100/1965 T5100/1965	Matadin Ramsuruj Narain Boodhanee	
59	Portion 10 of the farm South Mocha No. 2409	3, 3725 ha	T10950/1976 T19003/1998 T19003/1998 T19003/1998 T19003/1998 T2093/1984 T265/1980 T266/1980 T5100/1965 T5100/1965 T5100/1965	Rajpathi Chainwathee Singh Bhagwanthie Sigapaul Birball Sigapaul Nirend Singh Damarapurshad Ramsuruj Narain Ramsuruj Narain Matadin Ramsuruj Narain Boodhanee	None
60	Portion 11 of the farm South Mocha No. 2409	2, 0235 ha	T3415/1955	Kranskloof Indian School Board Trust	I-1571/1978LG I-4792/1994LG-23/6/1994-3415/1955T
61	Portion 12 of the farm South Mocha No. 2409	2, 0234 ha	T29256/1987	Govindamma Loganathan Kuppusamy Parvathiammal Kuppusamy Dick Kuppusamy Govender Rajaluxmi Govender Thiamma Kuppusamy	I-4792/1994LG-23/6/1994-29256/1987T
62	Remainder of Portion 14 of the farm South Mocha No. 2409	4, 0469 ha	T11638/1965 T75195/2003	Subramani Pillay	None
63	Remainder of Portion 16 of the farm South Mocha No. 2409	4, 3777 ha	T29257/1987	Govindamma Sagadevan Govender Rajamah Govender	I-1571/1978LG I-4792/1994LG-23/6/1994-29257/1987T
64	Portion 17 of the farm South Mocha No. 2409	2, 0234 ha		Not Registered	I-4792/1994LG-23/6/1994
65	Portion 18 of the farm South Mocha No. 2409	6, 8797 ha	T62985/2002	Sivakumaran Naidoo	B37466/2002
66	Portion 19 of the farm South Mocha No. 2409	5, 9513 ha	T62985/2002	Sivakumaran Naidoo	B37466/2002
67	Portion 20 of the farm South Mocha No. 2409	4, 9851 ha	T32913/1993	Dharmalongam Govender and Padmini Govender	None
68	Portion 22 of the farm South Mocha No. 2409	4, 9851 ha	T18730/1988	Manikam Farms cc	None
69	Portion 23 of the farm South Mocha No. 2409	2, 8328 ha	T31904/1992	Govindamah Rajarathenum	None
70	Portion 24 of the farm South Mocha No. 2409	4, 0469 ha	T11637/1965	Govindamma Pillay	I-14607/1999AT

NO.	PROPERTY DESCRIPTION	EXTENT	CURRENT TITLE DEED NO.	CURRENT OWNER	BONDS & RESTRICTIVE CONDITIONS (INTERDICTS)
			T15487/2005		
71	Portion 18 of the farm Welverdiert No. 2632	3, 9978 ha	T10206/1996	Dhluarchuram Sewmungal and Shanilla Sewmungal	None
72	Portion 19 of the farm Welverdiert No. 2632	4, 8685 ha	T6647/1992	Soobramoney Pandaram	B8577/1992
73	Portion 20 of the farm Welverdiert No. 2632	9, 9685 ha	T19206/1967 T19206/1967 T19206/1967 T19462/1971 T19206/1967 T56109/2004 T51001/1999 T51001/1999	Munsamy Soobramoney Madraimma Mariamma Minatchamma Pillay Minatchamma Pillay Dhoropathy Perumal Krishna Moonsamy	None
74	Portion 22 of the farm Welverdiert No. 2632	6, 0703 ha	T59155/1999	Sipo James Mthembu	B27485/1999
75	Portion 24 of the farm Welverdiert No. 2632	11, 7349 ha	T26/2007	Colin David Evans	VA2632/2007
76	Portion 25 of the farm Welverdiert No. 2632	7, 9668 ha	T1791/1994	John Robin Charles Farran	None
77	Portion 26 of the farm Welverdiert No. 2632	12, 4765 ha	T22461/2007	Colin David Evans	None
78	Portion 28 of the farm Welverdiert No. 2632	13, 9500 ha	T8839/1964 T8970/1969	Anandaye Abramiammal	I-1556/1978LG
79	Portion 30 of the farm Welverdiert No. 2632	0, 4047 ha	T26364/2000	Dumisani Richard Banda and Eunice Nomvula Banda	None
80	Portion 31 of the farm Welverdiert No. 2632	52, 6830 ha	T28428/2003	Mgigimbe Communal Property Association	None
81	Portion 32 of the farm Welverdiert No. 2632	51, 3523 ha	T35684/1998	Thabang Josiah Makamole and Elibeth Zitusile Makamole	B27385/1998
82	Remainder of Portion 33 of the farm Welverdiert No. 2632	15, 4959 ha	T17926/2007	Yogan Properties cc	None
83	Portion 36 of the farm Welverdiert No. 2632	0, 8094 ha	T7920/1956	Kikimbee Social and Educational Society	I-1556/1978LG
84	Portion 51 of the farm Welverdiert No. 2632			Not Registered	
85	Portion 3 of the farm Krans Kloof C No. 2884	4, 0469 ha	T25622/1999	Arthur Michael Laing and Queen Jubblinen Laing	None
86	Portion 9 of the farm Krans Kloof C No. 2884	2, 0235 ha	T1038/1940	Roman Catholic Church	I-3555/1977LG EX135/1989-11/4/989-1038/940T
87	Portion 10 of the farm Krans Kloof C No. 2884	12, 1406 ha		Not Registered	
88	Portion 14 of the farm Krans Kloof C No. 2884	4, 0471 ha	T17574/1971	Henry Oliver Laing	None
89	Portion 15 of the farm Krans Kloof C No. 2884	16, 1885 ha	T39255/2004	Sani Communal Property Association	None
90	Portion 17 of the farm Krans Kloof C No. 2884	8, 0937 ha	T12680/2001	Queen Jubblinen Laing	I-2020/2001c

NO.	PROPERTY DESCRIPTION	EXTENT	CURRENT TITLE DEED NO.	CURRENT OWNER	BONDS & RESTRICTIVE CONDITIONS (INTERDICTS)
			T12681/2001 T12681/2001 T12679/2001 T13679/2001 T12680/2001	Arthur Michael Laing Queen Jubblinen Laing Arthur Michael Laing Queen Jubblinen Laing Arthur Michael Laing	VA2402/1998
91	Portion 18 of the farm Krans Kloof C No. 2884	6, 1760 ha	T10347/1985	Isobel Jasmin	K514/1997s
92	Portion 21 of the farm Krans Kloof C No. 2884	11, 5115 ha	T16395/1993 T16395/1993 T4153/1996	Jayprakash Pundit Priscilla Pundit Marjorie Gordon	K507/1997s
93	Portion 22 of the farm Krans Kloof C No. 2884	0, 2023 ha	T27983/1981	Telkom SA Ltd	None
94	Portion 23 of the farm Krans Kloof C No. 2884	2, 7770 ha	T3214/1997	H Collins & Sons (Pty) Ltd	K536/2000s
95	Portion 24 of the farm Krans Kloof C No. 2884	0, 8094 ha	T9281/1997	Fatima Bibi Desai and Ahmed Desai	None
96	Portion 25 of the farm Krans Kloof C No. 2884	1, 8421 ha	Not Registered		
97	Portion 1 of the farm Wellvale No. 6454	24, 2812 ha	T6234/1983	Veeramma Moodley	B24234/1998
98	Remainder of Portion 2 of the farm Wellvale No. 6454	8, 0938 ha	T3694/1945	Anga Muthen	I-2588/1978LG
99	Remainder of Portion 3 of the farm Wellvale No. 6454	34, 6936 ha	T18559/2007	Yogan Properties cc	None
100	Remainder of Portion 4 of the farm Wellvale No. 6454	17, 6509 ha	T11598/2006	Balvirsingh Bodasingh and Sarojini Bodasingh	B78332/2006 B78333/2006 B78334/2006
101	Remainder of Portion 5 of the farm Wellvale No. 6454	71, 8206 ha	T14064/1974 T5356/1972 T9049/1986	Lutchmanasamy Konan Muniamma Eadhev Singh Sugar Estate (Pty) Ltd	B10204/1975 B11409/1986 B16646/1994 VA3578/2004
102	Portion 6 of the farm Wellvale No. 6454	8, 0937 ha	T35830/2007	Janet Theresa Landey	K3328/2007s
103	Portion 7 of the farm Wellvale No. 6454	4, 0469 ha	T66948/2005	J G B Dev (Pty) Ltd	None
104	Portion 8 of the farm Wellvale No. 6454	8, 0937 ha	T35830/2007	Janet Theresa Landey	K3329/2007s
105	Remainder of Portion 9 of the farm Wellvale No. 6454	8, 1162 ha	T19784/1982	Poonendra Artheemulam	None
106	Portion 10 of the farm Wellvale No. 6454	8, 0937 ha	Not Registered		
107	Portion 11 of the farm Wellvale No. 6454	10, 1172 ha	Not Registered		
108	Portion 12 of the farm Wellvale No. 6454	6, 0704 ha	T47723/2002	Suemesni Chinniah	None
109	Portion 13 of the farm Wellvale No. 6454	6, 0704 ha	T29040/1991 T32428/2003 T32428/2003 T945/1951 T945/1951 T945/1951	Atchamma Naidoo Parthasarathy Pillay Sarathathie Pillay Ramsamy Nookiah Butchiah	None

NO.	PROPERTY DESCRIPTION	EXTENT	CURRENT TITLE DEED NO.	CURRENT OWNER	BONDS & RESTRICTIVE CONDITIONS (INTERDICTS)
110	Portion 14 of the farm Wellvale No. 6454	6, 0704 ha	T47218/2000 T47219/2000	Yogambaram Kisten Moodley	None
111	Remainder of Portion 15 of the farm Wellvale No. 6454	0, 0285 ha	T13046/1981	Nookamma Moodley	None
112	Portion 16 of the farm Wellvale No. 6454	4, 0469 ha	T21185/2007	Vadival Govender	None
113	Portion 18 of the farm Wellvale No. 6454	4, 3562 ha	T29040/1991 T32428/2003 T32428/2003 T945/1951 T945/1951 T945/1951	Atchamma Naidoo Parthasarathy Pillay Saraspahie Pillay Ramsamy Nookiah Butchiah	I-3913/2001AT
114	Portion 19 of the farm Wellvale No. 6454	4, 0469 ha	T19784/1982	Poonendra Artheemulam	None
115	Portion 20 of the farm Wellvale No. 6454	2, 4281 ha	T2722/1985	Narayanasami Pillay and Kanniamah Pillay	None
116	Portion 21 of the farm Wellvale No. 6454	2, 4281 ha	T2722/1985	Narayanasami Pillay and Kanniamah Pillay	None
117	Portion 22 of the farm Wellvale No. 6454	4, 0469 ha	T26393/1987	Jaswanthee Khader	None
118	Portion 23 of the farm Wellvale No. 6454	6, 4092 ha	T22779/1995	Dayanandhen Rajaruthnam Moodley	None
119	Portion 24 of the farm Wellvale No. 6454	4, 0469 ha	T22779/1995	Dayanandhen Rajaruthnam Moodley	None
120	Portion 25 of the farm Wellvale No. 6454	8, 0937 ha	T16586/1985	Ramjith Gobind and Rajpathi Gobind	None
121	Portion 26 of the farm Wellvale No. 6454	4, 0516 ha	T11748/1972	Govindasamy Subramoney Naidoo Perumal Vijia Sithambaram Gooindamma Loganathan Eagambaram Pushpa	I-2588/1978LG
122	Portion 27 of the farm Wellvale No. 6454	8, 1506 ha	T35830/2007	Janet Theresa Landey	None
123	Portion 28 of the farm Wellvale No. 6454	8, 2360 ha	T49576/2002	Manivasagen Pillay	B2531/2003
124	Portion 29 of the farm Wellvale No. 6454	14, 2596 ha	T66948/2005	J G B Dev (Pty) Ltd	None
125	Remainder of Portion 30 of the farm Wellvale No. 6454	8, 2243 ha	T14984/1998 T39366/1997 T39366/1997 T6305/1987	Hardeya Manboth Kistan Moodley Subbama Moodley Basmathi Rampurshad	None
126	Portion 31 of the farm Wellvale No. 6454	6, 1727 ha	T4407/1954	Kistan	I-2588/1978LG
127	Portion 32 of the farm Wellvale No. 6454	2, 4460 ha	T1084/1958	Kistan	I-2588/1978LG
128	Portion 33 of the farm Wellvale No. 6454	10, 4412 ha	T13528/1973 T24492/1984	Pushpavathiamma Narainsamy Moodley	I-2588/1978LG K691/1974s

NO.	PROPERTY DESCRIPTION	EXTENT	CURRENT TITLE DEED NO.	CURRENT OWNER	BONDS & RESTRICTIVE CONDITIONS (INTERDICTS)
			T3725/1946 T3725/1946 T3725/1946 T3725/1946	Ramsamy Lingapa Munusamy Maduray	
129	Portion 34 of the farm Wellvale No. 6454	4, 1332 ha	T7106/1958	Armugam	None
130	Portion 37 of the farm Wellvale No. 6454	5, 1022 ha	T47723/2002	Suemeshni Chinniah	None
131	Portion 38 of the farm Wellvale No. 6454	2, 0818 ha	Not Registered		
132	Portion 39 of the farm Wellvale No. 6454	8, 0712 ha	T12288/1981 T25653/1981 T4260/1974 T4260/1974 T4261/1974 T4261/1974 T4261/1974 T4261/1974 T4261/1974 T4261/1974 T4261/1974	Kabootari Chandra Kumari Maharaj Cedhmathie Rajendrapersad Sewpursat Maharaj Jankydevi Kabootari Mahadev Maharaj Vivakanandh Sewpursat Maharaj Roopnarain Vishnodutt	None
133	Portion 40 of the farm Wellvale No. 6454	4, 3321 ha	T26/2007	Colin David Evans	VA2632/2007
134	Remainder of Portion 41 of the farm Wellvale No. 6454	13, 2741 ha	T26/2007	Colin David Evans	VA2632/2007
135	Portion 42 of the farm Wellvale No. 6454	8, 0937 ha	T26/2007	Colin David Evans	VA2632/2007
136	Portion 43 of the farm Wellvale No. 6454	16, 1874 ha	T62820/2001	Mandlenkosi Derrick Lushaba	None
137	Portion 44 of the farm Wellvale No. 6454	3, 0743 ha	T18559/2007	Yogan Properties cc	None
138	Portion 46 of the farm Wellvale No. 6454	8, 0937 ha	T32480/2005	Driftwood Bricks and Blocks (Edms) Bpk	None
139	Portion 47 of the farm Wellvale No. 6454	8, 3150 ha	T3205/2006	Reshad Shaik and Faeza Shaik	None
140	Portion 48 of the farm Wellvale No. 6454	8, 2852 ha	T17638/1985	Parthasarathy Pillay and Saraspathie Pillay	None
141	Portion 49 of the farm Wellvale No. 6454	8, 2361 ha	T9383/1983	Palaniveloo Valiathum Moodley	B25533/1992
142	Portion 50 of the farm Wellvale No. 6454	2, 0235 ha	T14791/1969	Woodithparsad Rampersad Siwan Nathoo	I-2588/1978LG
143	Portion 52 of the farm Wellvale No. 6454	6, 0703 ha	T18753/1969 T18753/1969 T18753/1969 T18753/1969 T18753/1969 T18753A/1969	Munsamy Soobramoney Madraimmal Lutchmee Ramaye Munsamy	None

NO.	PROPERTY DESCRIPTION	EXTENT	CURRENT TITLE DEED NO.	CURRENT OWNER	BONDS & RESTRICTIVE CONDITIONS (INTERDICTS)
			T18753A/1969 T18753A/1969 T18753A/1969 T18753A/1969 T18753/1969 T56105/2004 T18753A/1969 T56106/2004 T19462/1971 T51000/1999 T51000/1999	Soobramoney Madraimmal Lutchmee Ramaye Minatchamma Pillay Minatchamma Pillay Minatchamma Pillay Mariamma Mariamma Dhoropathy Perumal Sriram Moonsamy	
144	Portion 54 of the farm Wellvale No. 6454	13, 2741 ha	T26/2007	Colin David Evans	VA2632/2007
145	Portion 55 of the farm Wellvale No. 6454	6, 0703 ha	T14693/1982	Visvanathan Naicker	VA1011/2005
146	Remainder of Portion 56 of the farm Wellvale No. 6454	33, 1784 ha	T7858/1959	Kistan	I-2588/1978LG
147	Portion 57 of the farm Wellvale No. 6454	2, 1246 ha	T11188/1985	Sagadeva Pillay and Tholasyamma Pillay	None
148	Portion 58 of the farm Wellvale No. 6454	4, 0469 ha	T14984/1998 T2558/1985	Hardeya Manboth Laukoosh Rampurshad Rampurshad	K1532/1972s
149	Portion 59 of the farm Wellvale No. 6454	17, 4128 ha	Not Registered		
150	Portion 1 of the farm Lot D No. 3518	2, 0234 ha	T9800/1981	Barruth Gujraj	B10258/1984
151	Portion 2 of the farm Lot D No. 3518	46, 1181 ha	T32358/20047	Refocus & Upliftment Foundation Trust-Trustees	VA2655/2007
152	Portion 4 of the farm Lot D No. 3518	40, 4686 ha	T1260/1954 T22718/1995 T22718/1995 T2921/1997 T33515/1988	Madramoothu Vasanthagokilan Moodley Gonasagri Moodley Nadarajan Moodley Kasavan Moodley	None
153	Remainder of Portion 5 of the farm Lot D No. 3518	32, 3749 ha	T29663/1988	Dorasamy Moodley	None
154	Portion 9 of the farm Lot D No. 3518	14, 1640 ha	Not Registered		
155	Portion 12 of the farm Lot D No. 3518	24, 2812 ha	T12227/1966 T12227/1966 T1457/1966 T14916/1995 T14915/1995 T17631/1975	Kisten Subramoney Venkatasen Narayanasamy Mohanlall Diaram Thara Diaram Muthusamy Naidoo	None
156	Portion 16 of the farm Lot D No. 3518	42, 9024 ha	T17797/1996	Palaniveloo Valiathum Moodley and Ponaseamma Moodley	None

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157	Portion 17 of the farm Lot D No. 3518	20, 2343 ha	T24908/1991	Savanthalai Moodley	None
158	Portion 19 of the farm Lot D No. 3518	20, 2345 ha	T10075/1960	Arnajellam Gounden	None
159	Portion 21 of the farm Lot D No. 3518	10, 5218 ha	T7198/1976	Janki	VA1193/1995
160	Portion 22 of the farm Lot D No. 3518	20, 2343 ha	T7440/1993	Subramoney Munien cc	B7382/2005
161	Portion 23 of the farm Lot D No. 3518	8, 0937 ha	T2456/1995	Kuppusamy	None
162	Portion 27 of the farm Lot D No. 3518	6, 0703 ha		Not Registered	
163	Portion 28 of the farm Lot D No. 3518	8, 1639 ha		Not Registered	
164	Portion 29 of the farm Lot D No. 3518	5, 6864 ha		Not Registered	
165	Portion 30 of the farm Lot D No. 3518	2, 3811 ha		Not Registered	
166	Portion 31 of the farm Lot D No. 3518	1, 9795 ha		Not Registered	
167	Portion 32 of the farm Lot D No. 3518	9, 4632 ha		Not Registered	
168	Portion 33 of the farm Lot D No. 3518	19, 8504 ha		Not Registered	
169	Portion 34 of the farm Lot D No. 3518	9, 0615 ha		Not Registered	
170	Portion 35 of the farm Lot D No. 3518	22, 3279 ha		Not Registered	
171	Portion 36 of the farm Lot D No. 3518	20, 2343 ha		Not Registered	
172	Remainder of the farm Kranskloof B No. 2631	15, 2565 ha	T13975/1998	Woogandran Reddy	VA1267/2003
173	Remainder of Portion 4 of the farm Kranskloof B No. 2631	17, 4015 ha	T2355/1965 T37192/1997 T37192/1997	Ramsoomer Maharaj Kishore Kishore Navithree Kishore	None
174	Portion 6 of the farm Kranskloof B No. 2631	8, 9032 ha	T7617/1963	Perumal Govender	None
175	Portion 7 of the farm Kranskloof B No. 2631	4, 0469 ha	T9592/1973 T30616/1998	Chinappen Govender	B22472/1984 B6526/1982 VA2135/1998
176	Portion 9 of the farm Kranskloof B No. 2631	12, 1405 ha	T18549/1987	Narayansamy & Sons (Pty) Ltd	None
177	Remainder of Portion 11 of the farm Kranskloof B No. 2631	26, 2418 ha	T13976/1998	M Reddy Family Trust-Trustees	VA2553/2004
178	Remainder of Portion 12 of the farm Kranskloof B No. 2631	20, 4164 ha	T13975/1998	Woogandran Reddy	VA1267/2003
179	Portion 13 of the farm Kranskloof B No. 2631	12, 1406 ha	T11825/1979	Ramsamy Govender	B19463/1989
180	Portion 14 of the farm Kranskloof B No. 2631	6, 0703 ha	T25289/1983	Soobramoney Govender	B27136/1998
181	Portion 15 of the farm Kranskloof B No. 2631	6, 0703 ha	T34949/1999	Paramanatha Pappa Reddy and Sasenayagee Redy	None
182	Portion 16 of the farm Kranskloof B No. 2631	6, 0703 ha	T9249/1980	Surinarani Reddy	None
183	Portion 20 of the farm Kranskloof B No. 2631	6, 0703 ha	T39976/2003	Ramiah Narayansamy Naidoo and Marieamma Naidoo	B22357/2003
184	Portion 24 of Portion 8 of the farm Kranskloof B No. 2631	2, 0234 ha	T70272/2002	Petros Hlanganisani Khanyile	B41936/2002

NO.	PROPERTY DESCRIPTION	EXTENT	CURRENT TITLE DEED NO.	CURRENT OWNER	BONDS & RESTRICTIVE CONDITIONS (INTERDICTS)
185	Portion 28 of the farm Kranskloof B No. 2631	6, 0703 ha	T2265/1982	Munsamy, Govender & Sons (Pty) Ltd	None
186	Portion 29 of the farm Kranskloof B No. 2631	2, 9071 ha	T25289/1983	Soobramoney Govender	B27136/1998
187	Portion 30 of the farm Kranskloof B No. 2631	3, 7375 ha	T34949/1999	Paramanantha Pappa Reddy and Sasenayagee Reddy	None
188	Portion 31 of the farm Kranskloof B No. 2631	3, 4300 ha	T9249/1980	Surinarani Reddy	I-1557/1978LG
189	Portion 33 of the farm Kranskloof B No. 2631	6, 8502 ha	T1039/2003	Vadival Rajan Govender	None
190	Portion 34 of the farm Kranskloof B No. 2631	2, 0234 ha	T7189/1995	Nagah Reddy Family Trust-Trustees	VA190/2004
191	Portion 3 of the farm Vlak Spruit No. 1178	66, 0067 ha	T8187/1944	Roopsingh Sudamasingh-Trustees	I-417/1977LG
192	Remainder of Portion 4 of the farm Vlak Spruit No. 1178	9, 3632 ha	T10329/1977 T13868/1971 T13868/1971 T13870/1971	D M Kajee Family Trust-Trustees Fatima Khatija Murugan Koopsamy Pillay	I-417/1977LG K1153/1977L
193	Remainder of Portion 7 of the farm Vlak Spruit No. 1178	19, 8296 ha	T25056/1993	Behary Lal Bharuth and Shantiedevi Bharuth	B36122/1993 K1565/1984s
194	Remainder of Portion 9 of the farm Vlak Spruit No. 1178	12, 6338 ha	T23931/2006	Etienne Charles Mallandain	B30331/2006
195	Portion 10 of the farm Vlak Spruit No. 1178	2, 0157 ha	T8187/1944	Roopsingh Sudamasingh-Trustees	I-417/1977LG
196	Portion 11 of the farm Vlak Spruit No. 1178	40, 4863 ha	T1540/1993 T1540/1996 T20051/1996 T20051/1996	Kanapathy Govender Dayaneedhie Govender Patchappen Pillay Indhrani Pillay	I-5774/1996c-19/7/1996- K4/1973L B21701/1996
197	Remainder of Portion 17 of the farm Vlak Spruit No. 1178	16, 3531 ha	T21581/1993 T32328/1988 T32328/1988	Moira Mahadeo Behary Lal Bharuth Shantiedevi Bharuth	VA3142/2003
198	Remainder of Portion 18 of the farm Vlak Spruit No. 1178	3, 8812 ha	T54158/2003	Danipershad Rosan Ganasee	None
199	Portion 19 of the farm Vlak Spruit No. 1178	24, 2946 ha	T2808/2000	Manipersad Rosan Ganasee	I-5484/1986c-8/7/86- K672/982s B1928/2000 B30602/1994 K1572/1984s
200	Portion 21 of the farm Vlak Spruit No. 1178	12, 2635 ha	T10/2004	Peter Harold Jacobs	B12/2004
201	Remainder of Portion 23 of the farm Vlak Spruit No. 1178	22, 2238 ha	T8402/1983	Bell Estate (Pty) Ltd	I-2355/1990c-25/4/1990- 8402/1983T B50623/2004 B953/1985 K1636/1984s
202	Portion 26 of the farm Vlak Spruit No. 1178	86, 3574 ha	T8187/1944	Roopsingh Sudamasingh-Trustees	I-417/1977LG

NO.	PROPERTY DESCRIPTION	EXTENT	CURRENT TITLE DEED NO.	CURRENT OWNER	BONDS & RESTRICTIVE CONDITIONS (INTERDICTS)
203	Remainder of Portion 27 of the farm Vlak Spruit No. 1178	12, 0835 ha	T3057/1975	Rajagopal Subramani	I-417/1977LG B12876/1979
204	Portion 28 of the farm Vlak Spruit No. 1178	9, 5439 ha	T9732/1980	Brooklyn Sugar Estate cc	B25547/1998
205	Portion 31 of the farm Vlak Spruit No. 1178	27, 9233 ha	T10855/1978	Patchappen Pillay	B21701/1996 VA2483/2004
206	Portion 33 of the farm Vlak Spruit No. 1178	2, 2844 ha	T12470/1965 T15960/2001 T19077/1980 T20034/1982 T8246/2005	Thavagie Naicker Kamala Naicker Kamala Naicker Shunmugham Pillay Coopsamy Masilamoney Naicker	VA374/2007
207	Portion 34 of the farm Vlak Spruit No. 1178	33, 8848 ha	T2918/1937	Boodhia	I-417/1977LG B1373/1938 B582/1959
208	Portion 35 of the farm Vlak Spruit No. 1178	48, 0246 ha	T2918/1937	Boodhia	I-417/1977LG B1373/1938 B582/1959
209	Portion 36 of the farm Vlak Spruit No. 1178	4, 5409 ha	Not Registered		
210	Portion 37 of the farm Vlak Spruit No. 1178	4, 0469 ha	T13225/1972 T16525/1966 T16525/1966 T23930/2006 T563/1997 T563/1997	Beharilal Rajdew Ramkilawan Bhagirathie Rankilawan Bhagirathie Rankilawan Brian Cobus Charles Mary Margareth Charles	VA1581/2006 VA25/1989-13225/1972T
211	Portion 38 of the farm Vlak Spruit No. 1178	4, 0469 ha	T11312/1992	Manigammal Pillai	None
212	Portion 40 of the farm Vlak Spruit No. 1178	3, 8704 ha	T196/1982	Muthusamy	I-417/1977LG
213	Portion 41 of the farm Vlak Spruit No. 1178	3, 8704 ha	T13471/1973	Kishore	I-417/1977LG B13888/1973
214	Portion 42 of the farm Vlak Spruit No. 1178	3, 8704 ha	T13472/1973	Ishwarlall	I-417/1977LG B13888/1973
215	Portion 43 of the farm Vlak Spruit No. 1178	4, 7585 ha	T32444/2005	Reshan Govender and Gregory Gonaseelan Govender	B14640/1986
216	Portion 45 of the farm Vlak Spruit No. 1178	0, 4047 ha	T10650/1978	Bissoondar Bissoondar	None
217	Portion 46 of the farm Vlak Spruit No. 1178	12, 7657 ha	Not Registered		
218	Portion 47 of the farm Vlak Spruit No. 1178	6, 3828 ha	Not Registered		
219	Portion 48 of Portion 21 of the farm Vlak Spruit No. 1178	20, 2344 ha	T6553/2005	Padmini Naicker	None
220	Portion 49 of the farm Vlak Spruit No. 1178	3, 2764 ha	T11004/1971	Roopsingh Sudamasingh-Trustees	I-417/1977LG

NO.	PROPERTY DESCRIPTION	EXTENT	CURRENT TITLE DEED NO.	CURRENT OWNER	BONDS & RESTRICTIVE CONDITIONS (INTERDICTS)
					EX317/1985-14/6/85-11004/971T
221	Remainder of Portion 50 of the farm Vlak Spruit No. 1178	12, 0284 ha	T13683/1993	Anupbal Rajdew and Sushila Sewchander Ramdeen Rajdew	None
222	Remainder of Portion 51 of the farm Vlak Spruit No. 1178	9, 7672 ha	T6193/1998	Harilall Rajdew and Shareen Rajdew	B5922/1998
223	Portion 52 of the farm Vlak Spruit No. 1178	1, 0112 ha	T9236/1984	Bell Estate (Pty) Ltd	I-2355/1990c-25/4/1990-9236/1984T I-417/1977LG
224	Portion 53 of the farm Vlak Spruit No. 1178	1, 0112 ha	T223/1994	Bell Estate (Pty) Ltd	None
225	Portion 54 of the farm Vlak Spruit No. 1178	2, 5238 ha	T30272/1989 T18746/2007	Devikarani Govender	None
226	Portion 55 of the farm Vlak Spruit No. 1178	4, 0469 ha	T13680/1993	Haripersad Rajdew and Indira Rajdew	B19763/1993
227	Portion 61 of the farm Vlak Spruit No. 1178	33, 1252 ha	T41657/2002 T48759/2001	Manipersad Rosan Ganasee	K740/1985s
228	Portion 62 of the farm Vlak Spruit No. 1178	4, 0469 ha	T9901/1986	Winston Isaac Abrahams	None
229	Portion 63 of the farm Vlak Spruit No. 1178	7, 6890 ha	T13681/1993 T13681/1993 T16527/1966 T64225/2004 T63653/2006 T63653/2006	Haripersad Rajdew Indira Rajdew Santhi Ramroop Barrie Hugh Edgley Barrie Hugh Edgley Bevan Gareth Edgley	B19763/1993
230	Portion 64 of the farm Vlak Spruit No. 1178	0, 2626 ha	T13682/1993	Haripersad Rajdew and Indira Rajdew	B19763/1993
231	Portion 65 of the farm Vlak Spruit No. 1178	0, 7733 ha		Not Registered	
232	Portion 67 of the farm Vlak Spruit No. 1178	1, 2419 ha	T27520/1984	Republic of South Africa	None
233	Portion 70 of the farm Vlak Spruit No. 1178	0, 9609 ha	T6192/1998	Arumugam Sivagopal and Dhanalutchmee Sivagopal	None
234	Portion 79 of the farm Vlak Spruit No. 1178			Not Registered	
235	Portion 80 of the farm Vlak Spruit No. 1178			Not Registered	
236	The farm Douglas No. 3644	40, 4686 ha	T11378/1964 T11378/1964 T11378/1964 T11378/1964 T11597/1980 T18102/1993 T20466/1985 T24175/1969	Roshanlal Meghrajh Mahadev Manilall Rajamani Pavithram Ellaya Vinotham Chinsamy	None

NO.	PROPERTY DESCRIPTION	EXTENT	CURRENT TITLE DEED NO.	CURRENT OWNER	BONDS & RESTRICTIVE CONDITIONS (INTERDICTS)
			T24175/1969 T24175/1969 T24175/1969 T22797/1985 T22797/1985 T27073/1991 T2755/1979 T36091/1994 T4851/1971 T4851/1971 T4851/1971	Subramoney Thawdoo Jayaganum Barnabas Ellaya Veronica Soobramony Marieama Naicker Adhimoolam Vinotham Yerramah Perumal Rajamani Murugan	
237	Remainder of the farm Lot 8A No. 2434	58, 9797 ha	T12762/1965 T12762/1965 T12762/1965 T12764/1965 T12764/1965 T19378/1988	Huripurshad Surujparsad Sunthparsad Rampursad Kirpaul Narayanee	K270/1966s
238	Portion 2 of the farm Lot 8A No. 2434	10, 1172 ha	T15962/1979	Nundukessar Deonarain	None
239	Portion 3 of the farm Lot 8A No. 2434	6, 0703 ha	T10555/1970 T10555/1970 T10555/1970 T11573/1987 T5868/1979 T6411/1983	Hariduwar Mungree Dhanaswer Mungre Nundkumar Mungre Mahendari Mungre Premlie Dookhanee	None
240	Portion 5 of the farm Lot 8A No. 2434	24, 2812 ha	T30272/1989 T18764/2007 T3676/1948 T3676/1948	Devikarani Govender Runganaikloo Runganaikloo Simadhri	None

**DEPARTMENT OF AGRICULTURE, LAND REFORM AND RURAL DEVELOPMENT  
NOTICE 686 OF 2020**

**GENERAL NOTICE IN TERMS OF THE RESTITUTION OF LAND RIGHTS ACT  
1994, (ACT No. 22 OF 1994) AS AMENDED.**

Notice is hereby given in terms of Section 11(1) of the Restitution of Land Rights Act, 1994 (Act No. 22 of 1994), as amended. This claim for the restitution of land rights have been submitted to the Regional Land Claims Commissioner for the Western Cape. The particulars regarding this claim are as follow:

Claimant : Mr. J. J Mars

ODI's : Francois Willem Mars, Izaak Cupido Mars, Petrus Hendrik Mars and Dirk Jan Mars

Property Description : Farm Groenfontein No. 96 Ceres, measuring 7166.6506ha and Farm Knorlfontein No. 140 Ceres measuring 2323.67139 ha.

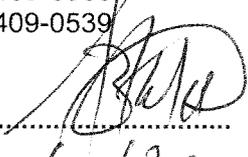
Date Submitted : 27 February 1996

Reference no : KRK6/2/3/A/24/0/0/7 (M152)

The Regional Land Claims Commission will investigate this claim in terms of provisions of the Act in due course. Any party who has an interest in the above-mentioned land is hereby invited to submit, within 14 days from the publication of this notice, any comments / information to:

The Regional Land Claims Commission: Western Cape  
Private Bag X9163  
Cape Town  
8000

Tel: (021)409-0300  
Fax: (021)409-0539

CHECKED.....

DATE..... 04/11/2020

APPROVED.....

DATE..... 2020/11/11

**Mr. L.H Maphutha**  
**Regional Land Claims Commissioner**

**DEPARTMENT OF AGRICULTURE, LAND REFORM AND RURAL DEVELOPMENT  
NOTICE 687 OF 2020**

**GENERAL NOTICE IN TERMS OF SECTION 11(1) OF THE RESTITUTION OF LAND RIGHTS ACT  
(No. 22 OF 1994) AS AMENDED**

Notice is hereby given in terms of Section 11(1) of the Restitution of Land Rights Act (No. 22 of 1994), as amended to publish notice in the Government Gazette in respect of the claim lodged on behalf of the Saron community with the following claim reference numbers: F284 & F460 lodged on 11<sup>TH</sup> August 1998 & 28<sup>TH</sup> December 1998 (respectively). The particulars regarding this general notice are as follows:

Dispossessed person

Saron community

Property Description

Refer to table below for description of claimed properties, extents and current owners

#	Property	Current Land Use	Owner/s	Extent
1.	Remaining Extent of the farm Saron No. 40, Tulbagh Registration Division (RD)	Open and Fallow Land – Commonage	Drakenstein Municipality	3305.0595 Hectares
2.	Remaining Extent of Portion 2 of the farm Saron No. 40, Tulbagh Registration Division (RD)	Religious Purposes	Nederduitse Gereformeerde Kerk (NGK)	10.27840 Hectares
3.	Remaining Extent of Portion 3 of the farm Saron no. 40, Tulbagh Registration Division (RD)	Municipal Works Area or Site	Nasionale Behuisingsraad	6.2683 Hectares
4.	Erven 414 to 533, Saron (Extension 1 – formerly erf no. 535, Saron Township) Tulbagh RD	Residential Purposes	Private Individual Members of Saron Community & Drakenstein Municipality	Various properties with different extents
5.	Portion 6 of the farm Saron No. 40, Tulbagh Registration Division (RD)	Business Area or Site	Mr. Sarel J. Vermeulen	1032 m <sup>2</sup>
6.	Erf no. 537, Saron Township [a consolidation of erf no. 412 & erf no. 536, Saron]	Educational Purposes	Saron Primary School (i.e. Western Cape Department of Education)	6.7109 Hectares
7.	Erf no. 537, Saron Township [a consolidation of erf no. 412 & erf no. 536, Saron]	Educational Purposes	Roodezandt Secondary School (i.e. Western Cape Department of Education)	

Dates of Dispossession

Dispossession occurred between 1927 &amp; 1987

Rights lost

Beneficial and undisturbed occupation rights &amp; Agricultural rights in land and animal husbandry

Reference Number : KRK 6/2/2/A/1/0/0/1 (F284) & KRK 6/2/3/A/41/241/0/18 (F460)

The Regional Land Claims Commission investigated this claim in terms of provisions of the Act. Any party who has an interest in the above-mentioned land is hereby invited to submit, within 14 days from the publication of this notice, any comments/information to:

The Regional Land Claims Commission: Western Cape  
Private Bag X9163  
CAPE TOWN, 8000  
Tel: (021) 409 0300; Fax: (021) 424 5146

MR. B. MARS  
CHIEF RESTITUTION ADVISOR

MR. L.H. MAPHUTHA  
REGIONAL LAND CLAIMS COMMISSIONER

CHECKED *BMA* .....

APPROVED *[Signature]* .....

DATE *15/9/2020* .....

DATE *2020/11/09* .....

**DEPARTMENT OF AGRICULTURE, LAND REFORM AND RURAL DEVELOPMENT  
NOTICE 688 OF 2020**

**GENERAL NOTICE IN TERMS OF THE RESTITUTION OF LAND RIGHTS ACT 1994, (ACT No. 22 OF 1994) AS AMENDED.**

Notice is hereby given in terms of Section 11 (1) of the Restitution of Land Rights Act 1994 (Act 22 of 1994) as amended, that a Land Claim for Restitution of Land Rights has been lodged by Ms. Notaru Venus Kula as direct descendant and on behalf of the direct descendant of Mr. Cekiso Piccanin Maqoko for No. 48 Riebeeck Street in Cape Town also known as Erf 1537 Cape Town situated in the City of Cape Town under Cape Town Metro, Western Cape

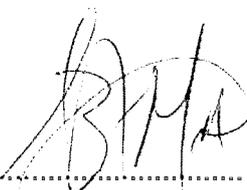
Reference Number	:	K622
Dispossessed Party	:	Mr. Cekiso Piccanin Maqoko
Claimant	:	Ms. Notaru Venus Kula
Property Description	:	Erf 1537 Cape Town, City of Cape Town (also known as No. 48 Riebeeck Street in Cape Town
Extent	:	176m <sup>2</sup>
Capacity	:	Tenancy
Date of Occupation	:	1950
Date of Dispossession	:	1960
Current Owners	:	Municipality of Cape Town
Date Submitted	:	6 February 1997

The Regional Land Claims Commission investigated this claim in terms of provisions of the Act. Any party who has an interest in the above-mentioned land is hereby invited to submit, within 60 days from the publication of this notice, any comments / information to: The Regional Land Claims Commission: Western Cape, Private Bag X9163, Cape Town, 8000, Tel no: (021) 4090300 and Fax no: (021) 424-5146

Mr. L. H. Maphutha  
Regional Land Claims Commissioner

APPROVED ..... 

DATE ..... 2020/10/21

CHECKED..... 

DATE..... 04/9/2020

**INDEPENDENT COMMUNICATIONS AUTHORITY OF SOUTH AFRICA  
NOTICE 689 OF 2020**



Independent Communications Authority of South Africa  
111, 113, 115, 117, 119, 121, 123, 125, 127, 129, 131, 133, 135, 137, 139, 141, 143, 145, 147, 149, 151, 153, 155, 157, 159, 161, 163, 165, 167, 169, 171, 173, 175, 177, 179, 181, 183, 185, 187, 189, 191, 193, 195, 197, 199, 201, 203, 205, 207, 209, 211, 213, 215, 217, 219, 221, 223, 225, 227, 229, 231, 233, 235, 237, 239, 241, 243, 245, 247, 249, 251, 253, 255, 257, 259, 261, 263, 265, 267, 269, 271, 273, 275, 277, 279, 281, 283, 285, 287, 289, 291, 293, 295, 297, 299, 301, 303, 305, 307, 309, 311, 313, 315, 317, 319, 321, 323, 325, 327, 329, 331, 333, 335, 337, 339, 341, 343, 345, 347, 349, 351, 353, 355, 357, 359, 361, 363, 365, 367, 369, 371, 373, 375, 377, 379, 381, 383, 385, 387, 389, 391, 393, 395, 397, 399, 401, 403, 405, 407, 409, 411, 413, 415, 417, 419, 421, 423, 425, 427, 429, 431, 433, 435, 437, 439, 441, 443, 445, 447, 449, 451, 453, 455, 457, 459, 461, 463, 465, 467, 469, 471, 473, 475, 477, 479, 481, 483, 485, 487, 489, 491, 493, 495, 497, 499, 501, 503, 505, 507, 509, 511, 513, 515, 517, 519, 521, 523, 525, 527, 529, 531, 533, 535, 537, 539, 541, 543, 545, 547, 549, 551, 553, 555, 557, 559, 561, 563, 565, 567, 569, 571, 573, 575, 577, 579, 581, 583, 585, 587, 589, 591, 593, 595, 597, 599, 601, 603, 605, 607, 609, 611, 613, 615, 617, 619, 621, 623, 625, 627, 629, 631, 633, 635, 637, 639, 641, 643, 645, 647, 649, 651, 653, 655, 657, 659, 661, 663, 665, 667, 669, 671, 673, 675, 677, 679, 681, 683, 685, 687, 689, 691, 693, 695, 697, 699, 701, 703, 705, 707, 709, 711, 713, 715, 717, 719, 721, 723, 725, 727, 729, 731, 733, 735, 737, 739, 741, 743, 745, 747, 749, 751, 753, 755, 757, 759, 761, 763, 765, 767, 769, 771, 773, 775, 777, 779, 781, 783, 785, 787, 789, 791, 793, 795, 797, 799, 801, 803, 805, 807, 809, 811, 813, 815, 817, 819, 821, 823, 825, 827, 829, 831, 833, 835, 837, 839, 841, 843, 845, 847, 849, 851, 853, 855, 857, 859, 861, 863, 865, 867, 869, 871, 873, 875, 877, 879, 881, 883, 885, 887, 889, 891, 893, 895, 897, 899, 901, 903, 905, 907, 909, 911, 913, 915, 917, 919, 921, 923, 925, 927, 929, 931, 933, 935, 937, 939, 941, 943, 945, 947, 949, 951, 953, 955, 957, 959, 961, 963, 965, 967, 969, 971, 973, 975, 977, 979, 981, 983, 985, 987, 989, 991, 993, 995, 997, 999

**NOTICE OF PUBLIC HEARINGS: INQUIRY INTO SUBSCRIPTION  
TELEVISION BROADCASTING SERVICES**

The Independent Communications Authority of South Africa (“the Authority”) hereby give notice to convene oral hearings on the draft findings document on the Inquiry into Subscription Television Broadcasting Services in accordance with Section 4B of the Independent Communications Authority of South Africa Act, read with section 67(4) of the Electronic Communications Act.

The Authority published the Discussion Document on the Inquiry into Subscription Television Broadcasting Services in Government Gazette 41070 Government Notice 642 of 25 August 2017. The closing date for submissions was 31 October 2017 extended to 04 December 2017. The Authority received eighteen (18) submissions.

Following submissions received from the stakeholders concerning the Discussion Document, the Authority held public hearings from 7 to 11 May 2018.

On 12 April 2019, the Authority published a draft Findings Document<sup>1</sup>, and the deadline for written representations thereon was 21 June 2019, which was subsequently extended by notice to 27 August 2019 and finally 4 October 2019.

By the closing date, the Authority had received comments from sixteen (16) stakeholders. The Authority will hear all stakeholders that have submitted written representations in relation to the draft Findings Document and indicated its interest in participating at hearings.

<sup>1</sup> Government Gazette No. 42391

The hearings will be held in a hybrid model by means of face-to-face and virtually as follows:

**Date: 12-15 JANUARY 2021**

**Venue: ICASA BLOCK C AUDITORIUM**

**350 Witch-Hazel Avenue, Eco Point Office Park**

**Eco Park, Centurion**

The virtual link will be forwarded to all parties closer to the day of the hearings. Interested members of the public may request the link to the hearings from [CNkosi@icasa.org.za](mailto:CNkosi@icasa.org.za)

## **SCHEDULE**

### **Day 1: 12 January 2021**

<b>Registrations</b>	08h00 – 09h00
<b>Chairperson's opening address</b>	09h00 – 09h10
1. World Rugby	09h10 – 10h40
2. SANZAAR	10h40 – 12h10
<b>BREAK</b>	<b>12h10 – 13h00</b>
3. SROC	13h00 – 14h30
<b>End of day 1</b>	

### **Day 2: 13 January 2021**

<b>Registrations</b>	08h00 – 09h00
<b>Chairperson's opening address</b>	09h00 – 09h10

1. LaLiga	09h10 – 10h40
2. MMA and SOS	10h40 – 12h10
<b>BREAK</b>	<b>12h10 – 13h00</b>
3. SABC	13h00 – 14h30
<b>End of day 2</b>	

**Day 3: 14 January 2021**

<b>Registrations</b>	08h00 – 09h00
<b>Chairperson's opening address</b>	09h00 – 09h10
1. PSL	09h10 – 10h40
2. SARU	10h40 – 12h10
<b>BREAK</b>	<b>12h10 – 13h00</b>
3. etv	13h00 – 14h30
<b>End of day 3</b>	

**Day 4: 15 January 2021**

<b>Registrations</b>	08h00 – 08h30
<b>Chairperson's opening address</b>	08h30 – 09h00
1. Multichoice	09h00 – 13h00
<b>End of day 4</b>	

Presenters are requested to make available **9 copies** of the presentation to panel members.

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Any enquiries concerning this notice must be submitted in writing (e-mail) to:

Ms. Honey Makola  
Project Manager  
Tel: 012 568 3665  
[HMakola@icasa.org.za](mailto:HMakola@icasa.org.za)

or

Ms. Caroline Nkosi  
Project Administrator  
Tel: 012 568 3037  
[CNkosi@icasa.org.za](mailto:CNkosi@icasa.org.za)

All media enquiries should be directed to:

**Mr Paseka Maleka**  
012 568 3455  
079 509 0702  
[PMaleka@icasa.org.za](mailto:PMaleka@icasa.org.za)



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**Dr. Keabetswe Modimoeng**

Chairperson

Date: 11/11/2020

**NON-GOVERNMENTAL ORGANIZATION  
NOTICE 690 OF 2020**



26 Victoria Link Street, Route 21 Corporate Park, Nellmapius Road, Irene.  
Postal Address: PO Box 60114, Pierre van Ryneveld, Centurion 0046  
Tel: +27 (0)12 345 6360 Fax: +27 (0)12 345 6359  
Website: www.savc.org.za

**REGISTRAR: MR MONGEZI MENYE**

**9 November 2020**

VC/1

**VETERINARY AND PARA-VETERINARY PROFESSIONS ACT, 1982  
APPOINTMENT/ DESIGNATION OF PERSONS TO SERVE AS MEMBERS OF THE SOUTH  
AFRICAN VETERINARY COUNCIL**

For general information it is made known that the following person elected and appointed as member of the South African Veterinary Council to fill a vacancy caused by the resignation of an elected member of Council and that his term of office will commence on 17 November 2020 and will end on 31 July 2022 in terms of the Veterinary and Para-Veterinary Professions Act, 1982 (Act no 19 of 1982), as amended:

**One veterinarian:**

Dr OJ Botha Unit 7 Newmark office park Silverlakes road Silverlakes

Kind regards

**NAME SURNAME Mongezi Menye  
Position Registrar**

**SOUTH AFRICAN RESERVE BANK  
NOTICE 691 OF 2020**

**Notice and Order of Forfeiture**

Notice of Forfeiture to the State of money in terms of the provisions of Regulation 22B of the Regulations ("the Exchange Control Regulations") made under Section 9 of the Currency and Exchanges Act, 1933 (Act No. 9 of 1933), as amended, as promulgated by Government Notice No. R.1111 of 1961-12-01 in respect of the money of:

**Ms Xiaoxia Wang  
(Passport number EA0700045)**

of:

P O Box 90642  
Garsfontein  
0042

**Be pleased to take notice that:**

1. The Minister of Finance has, by virtue of the provisions of Regulation 22E of the Exchange Control Regulations delegated all the functions and/or powers conferred upon the Treasury by the provisions of the Exchange Control Regulations [with the exception of the functions and/or powers conferred upon the Treasury by Regulations 3(5) and (8), 20 and 22, but which exception does not include the functions and/or powers under Exchange Control Regulations 22A, 22B, 22C and 22D], and assigned the duties imposed thereunder on the Treasury, to, *inter alia*, the Governor or the Deputy Governor of the South African Reserve Bank.
2. By virtue of the functions, powers and/or duties vested in me, in my capacity as the Deputy Governor of the South African Reserve Bank, in terms of the delegation and assignment of the functions, powers and/or duties referred to in 1 above, I hereby give notice of a decision to forfeit to the State the following money and I hereby declare and order forfeit to the State the following money, namely:
  - 2.1 the amount of R38 128.04 being capital standing to the credit of the Respondent, in account number 9220261398, held with the ABSA Bank Limited, together with any interest thereon and/or other accrual thereto.
3. The date upon which the money specified in 2 above is hereby forfeited to the State is the date upon which this Notice of Forfeiture is published in this Gazette.
4. The money specified in 2 above shall be disposed of by deposit thereof to the National Revenue Fund.
5. This Notice also constitutes a written order, as contemplated in Regulation 22B of the Exchange Control Regulations, in terms of which the money specified in 2 above is hereby forfeited to the State.
6. Signed at Pretoria on this 16th day of November 2020



**K Naidoo  
Deputy Governor  
South African Reserve Bank**

**SOUTH AFRICAN RESERVE BANK  
NOTICE 692 OF 2020**

**Notice and Order of Forfeiture**

Notice of Forfeiture to the State of money in terms of the provisions of Exchange Control Regulation 22B made under Section 9 of the Currency and Exchanges Act, 1933 (Act No. 9 of 1933), as amended, as promulgated by Government Notice No. R.1111 of 1961-12-01 in respect of the money of:

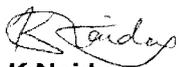
**Mr Mingqiang Xue**  
**(Passport Number G40373189)**

of:

18 Crownwood Road  
Ormonde  
2091

**Be pleased to take notice that:**

1. The Minister of Finance has, by virtue of the provisions of Exchange Control Regulation 22E delegated all the functions and/or powers conferred upon the Treasury by the provisions of the Exchange Control Regulations [with the exception of the functions and/or powers conferred upon the Treasury by Exchange Control Regulations 3(5) and (8), 20 and 22, but which exception does not include the functions and/or powers under Exchange Control Regulations 22A, 22B, 22C and 22D], and assigned the duties imposed thereunder on the Treasury, to, *inter alia*, the Governor or the Deputy Governor of the South African Reserve Bank.
2. By virtue of the functions, powers and/or duties vested in me, in my capacity as the Deputy Governor of the South African Reserve Bank, in terms of the delegation and assignment of the functions, powers and/or duties referred to in 1 above, I hereby give notice of a decision to forfeit to the State the following money and I hereby declare and order forfeit to the State the following money, namely:
  - 2.1 the amount of R22 549.43, in account number 9276546140 held with ABSA Bank Limited standing to the credit of Mr Mingqiang Xue with passport number G40373189, together with any interest thereon and/or other accrual thereto.
3. The date upon which the money specified in 2 above is hereby forfeited to the State is the date upon which this Notice of Forfeiture is published in this Gazette.
4. The money specified in 2 above shall be disposed of by deposit thereof to the National Revenue Fund.
5. This Notice also constitutes a written order, as contemplated in Exchange Control Regulation 22B, in terms of which the money specified in 2 above is hereby forfeited to the State.
6. Signed at Pretoria on this 18th day of November 2020.



**K Naidoo**  
**Deputy Governor**  
**South African Reserve Bank**

**STATISTICS SOUTH AFRICA  
NOTICE 693 OF 2020**

THE HEAD: STATISTICS SOUTH AFRICA notifies for general information that the Consumer Price Index is as follows:

Consumer Price Index, Rate (**Base Dec 2017=100**)

**2018:**

Rate: **October 2020 – 3.3**

## DEPARTMENT OF TRADE, INDUSTRY AND COMPETITION

## NOTICE 694 OF 2020

STANDARDS ACT, 2008  
STANDARDS MATTERS

In terms of the Standards Act, 2008 (Act No. 8 of 2008), the Board of the South African Bureau of Standards has acted in regard to standards in the manner set out in the Schedules to this notice.

## SECTION A: DRAFTS FOR COMMENTS

The following draft standards are hereby issued for public comments in compliance with the norm for the development of the South Africa National standards in terms of section 23(2)(a) (ii) of the Standards Act.

Draft Standard No. and Edition	Title, scope and purport	Closing Date
SANS 62031 Ed 2	<i>LED modules for general lighting - Safety specifications.</i> Specifies general and safety requirements for light-emitting diode (LED) modules, i.e. LED modules without integral control gear for operation under constant voltage, constant current or constant power, and self-ballasted LED modules for use on d.c. supplies up to 250 V or a.c. supplies up to 1 000 V at 50 Hz or 60 Hz.	2021-01-10
SANS 1676-5 Ed 1	<i>Acoustics - Laboratory measurement of sound insulation of building elements Part 5: Requirements for test facilities and equipment.</i> Specifies laboratory test facilities and equipment for sound insulation measurements of building elements, such as components and materials, building elements, technical elements (small building elements) and sound insulation improvement systems.	2021-01-10
SANS 29383 Ed 2	<i>Terminology policies - Development and implementation.</i> Provides policy makers in governments, administration, non-profit and profit organizations with guidelines and a methodology for the development and implementation of a comprehensive policy concerning the planning and management of terminology.	2021-01-05
SANS 3082 Ed 1	<i>Iron ores - Sampling and sample preparation procedures.</i> Provides the underlying theory, the basic principles for sampling and preparation of samples, and the basic requirements for the design, installation and operation of sampling systems for mechanical sampling, manual sampling and preparation of samples taken from a lot under transfer in order to determine the chemical composition, moisture content, size distribution and other physical and metallurgical properties of the lot using ISO 3852:2007 (Method 2).	2021-01-05
SANS 10139 Ed 4	<i>Code of practice for design, installation, commissioning and maintenance of fire detection and alarm systems in non-domestic premises.</i> Provides recommendations for the planning, design, installation, commissioning and maintenance of fire detection and fire alarm systems in and around buildings, other than dwellings.	2021-01-05
SANS 9994 Ed 4	<i>Lighters - Safety specification.</i> Establishes requirements for lighters to ensure a reasonable degree of safety for normal use or reasonable foreseeable misuse. It also applies to all-flame producing products commonly known as cigarette lighter, cigar lighters and pipe lighters. Does not apply to matches nor other flame producing products intended solely for igniting materials other than cigarette lighter, cigar lighters and pipe lighters.	20021-01-13
SANS 4701 Ed 2	<i>Iron ores and direct reduced iron - Determination of size distribution by sieving.</i> Specifies the methods to be employed for determination of size distributions by sieving of iron ore and direct reduced iron (exclude briquetted iron), utilizing sieves having aperture sizes of 36 micrometers or larger.	2021-01-05
SANS20380 Ed	<i>Public swimming pools - Computer vision systems for the detection of drowning accidents in swimming pools - Safety requirements and test methods.</i> Describes the minimum operational, performance and safety requirements and test methods for computer vision systems used to detect drowning accidents, does not apply to the systems used in domestic swimming pools and pool basins with a surface area of less than 150 m <sup>2</sup> .	20021-01-13

SANS 13934-1 Ed 2	<i>Textiles - Tensile properties of fabrics Part 1: Determination of maximum force and elongation at maximum force using the strip method.</i> Specifies a procedure to determine the maximum force and elongation at maximum force of textile fabrics using a strip method. It is mainly applicable to woven textile fabrics.	2021-01-10
SANS 105-X12 Ed 4	<i>Textiles - Tests for colour fastness Part X12: Colour fastness to rubbing.</i> Specifies a method for determining the resistance of the colour of textiles of all kinds, including textile floor coverings and other pile fabrics, to rubbing off and staining other materials. It is applicable to textiles made from all fibres in the form of yarn or fabric, including textile floor coverings, whether dyed or printed.	2021-01-12
SANS 10105-2 Ed 4	<i>The use and control of fire-fighting equipment Part 2: Fire hose reels and above-ground hydrants.</i> Covers the requirements for the installation and inspection and use of fire hose reels and hydrants.	2021-01-12
SANS 10105-1 Ed 4	<i>The use and control of fire-fighting equipment Part 1: Portable and wheeled (mobile) fire extinguishers.</i> Gives the requirements for the selection, installation, inspection and use of portable and mobile fire extinguishers.	2021-01-12
SANS 52386 Ed 2	<i>Chemicals used for treatment of water intended for human consumption - Copper sulfate.</i> Applicable to copper (II) sulfate pentahydrate used for treatment of water intended for human consumption. Describes the characteristics and specifies the requirements of copper (II) sulfate pentahydrate and refers to the corresponding analytical methods. It gives information for its use in water treatment. It also determines the rules relating to safe handling and use of copper (II) sulfate pentahydrate.	2021-01-13

### SCHEDULE A.1: AMENDMENT OF EXISTING STANDARDS

The following draft amendments are hereby issued for public comments in compliance with the norm for the development of the South African National Standards in terms of section 23(2)(a) (ii) of the Standards Act.

Draft Standard No. and Edition	Title	Scope of amendment	Closing Date
SANS 60335-2-39 Ed 5.1	<i>Household and similar electrical appliances - Safety Part 2-39: Particular requirements for commercial electric multi-purpose cooking pans.</i>	Amended to update the normative reference, change the terms and definitions, marking and instructions, heating, void, screw and connection and bibliography.	2021-01-05
SANS 1209 Ed 1.2	<i>Pipe holderbats</i>	Amended to delete the appendix on "notes to purchasers".	2021-01-13
SANS 1467 Ed 1.3	<i>Narrow bandsaw blades.</i>	Amended to delete the appendix on "notes to purchasers".	2021-01-13
SANS 10368 Ed 2.1	<i>Transport of low-hazard goods in bulk - Emergency information for road vehicles.</i>	Amended to update referenced standard, the requirements for emergency instructions, and the sub-clause on general in annex A.	2021-01-10
SANS 680 Ed 3.1	<i>Glazing putty for wooden and metal window frames.</i>	Amended to update referenced standards, and to delete the annex notes to purchasers.	2021-01-10

### SCHEDULE A.2: WITHDRAWAL OF THE SOUTH AFRICAN NATIONAL STANDARDS

In terms of section 24(1)(C) of the Standards Act, the following published standards are issued for comments with regard to the intention by the South African Bureau of Standards to withdraw them.

Draft Standard No. and Edition	Title	Reason for withdrawal	Closing Date

## SECTION B: ISSUING OF THE SOUTH AFRICAN NATIONAL STANDARDS

### SCHEDULE B.1: NEW STANDARDS

The following standards have been issued in terms of section 24(1)(a) of the Standards Act.

Standard No. and year	Title, scope and purport
SANS 20700:2020 Ed 1	<i>Guidance for Management Consultancy Services.</i> Provides guidelines for the effective delivery of management consultancy services.
SANS 61851-21-2:2020 Ed 1	<i>Electric vehicle conductive charging system - Part 21-2: Electric vehicle requirements for conductive connection to an AC/DC supply - EMC requirements for off-board electric vehicle charging systems.</i> Defines the EMC requirements for any off-board components or equipment of such systems used to supply or charge electric vehicles with electric power by conductive power transfer (CPT), with a rated input voltage, according to IEC 60038:2009, up to 1 000 V AC or 1 500 V DC and an output voltage up to 1 000 V AC or 1 500 V DC.
SATS 62196-3-1:2020 Ed 1	<i>Plugs, socket-outlets, vehicle connectors and vehicle inlets - Conductive charging of electric vehicles - Part 3-1: Vehicle connector, vehicle inlet and cable assembly for DC charging intended to be used with a thermal management system.</i> Applies to accessories and cable assemblies with the same configuration as specified in IEC 62196-3:2014 with rated operating voltage not exceeding 1 500 V DC and a rated current not exceeding 500 A.
SATS 33053:2020 Ed 1	<i>Information technology - Process assessment - Process reference model for quality management.</i> Defines a process reference model for the domain of quality management.
SANS 15489-1:2020 Ed 2	<i>Information and documentation - Records management.</i> Defines the concepts and principles from which approaches to the creation, capture and management of records are developed.
SANS 290:2020 Ed 3	<i>Mineral insulating oils - Management of polychlorinated biphenyls (PCBs).</i> Covers requirements for the management of dielectric fluid that contains PCBs, PCB-contaminated or pure PCB material, and other material that comes into contact with PCB fluid.
SANS 52903:2020 Ed 2	<i>Products used for treatment of water intended for human consumption - Powdered activated carbon.</i> Applicable to powdered activated carbon used for treatment of water intended for human consumption.
SANS 114:2020 Ed 2	<i>Laboratory glass and plastics ware - Principles of design and construction of volumetric instruments.</i> Sets out principles for the design of volumetric instruments manufactured from glass or from plastics in order to facilitate the most reliable and convenient use to the intended degree of accuracy.
SANS 60893-3-4:2020 Ed 1	<i>Insulating materials - Industrial rigid laminated sheets based on thermo setting resins for electrical purposes - Part 3-4: Specifications for individual materials - Requirements for rigid laminated sheets based on phenolic resins.</i> Gives the requirements for industrial rigid laminated sheets for electrical purposes based on phenolic resin and different reinforcements.
SANS 61897:2020 Ed 1	<i>Overhead lines - Requirements and tests for Aeolian vibration dampers.</i> Applies to aeolian vibration dampers intended for single conductors or earth wires or conductor bundles where dampers are directly attached to each subconductor.
SANS 61851-21-1:2020 Ed 1	<i>Electric vehicle conductive charging system - Part 21-1: Electric vehicle on-board charger EMC requirements for conductive connection to an AC/DC supply.</i> Gives requirements for conductive connection of an electric vehicle (EV) to an AC or DC supply.
SANS 50334:2020 Ed 1	<i>Gas pressure regulators for inlet pressures up to 100 bar.</i> Specifies constructional, functional, testing, marking, sizing and documentation requirements of gas pressure regulators and applies to regulators which use the pipeline gas as a source of control energy unassisted by any external power source.
SANS 61643-341:2020 Ed 2	<i>Components for low-voltage surge protection - Part 341: Performance requirements and test circuits for thyristor surge suppressors (TSS).</i> Specifies standard test circuits and methods for thyristor surge suppressor (TSS) components.

Standard No. and year	Title, scope and purport
SANS 50901:2020 Ed 2	<i>Chemicals used for treatment of water intended for human consumption - Sodium hypochlorite.</i> Describes the characteristics of sodium hypochlorite and specifies requirements and the corresponding test methods for sodium hypochlorite.
SANS 60282-1:2020 Ed 5	<i>High-voltage fuses Part 1: Current-limiting fuses.</i> Applies to all types of high-voltage current-limiting fuses designed for use outdoors or indoors on alternating current systems of 50 Hz and 60 Hz and of rated voltages exceeding 1 000 V.
SANS 61400-25-1:2020 Ed 5	Wind energy generation systems - Part 25-1: Communications for monitoring and control of wind power plants - Overall description of principles and models. <i>Focuses on the communications between wind power plant components such as wind turbines and actors such as SCADA systems.</i>
SANS 50902:2020 Ed 2	<i>Chemicals used for treatment of water intended for human consumption - Hydrogen peroxide.</i> Describes the characteristics of Hydrogen peroxide and specifies the requirements and the corresponding test methods for hydrogen peroxide.

## SCHEDULE B.2: AMENDED STANDARDS

The following standards have been amended in terms of section 24(1)(a) of the Standards Act.

Standard No. and year	Title, scope and purport
SANS 62386-103:2020 Ed 4.3	<i>Digital addressable lighting interface - Part 103: General requirements-Control devices. Consolidated edition incorporating amendment No.3.</i> Amended to update definitions, and the clauses on method of operation, and on definition of commands.
SANS 60325-2-5:2020 Ed 3.1	<i>Household and similar electrical appliances - Safety Part 2-5: Particular requirements for dishwashers. Consolidated edition incorporating amendment No.1.</i> Amended to update the clauses on moisture resistance and construction, to add the figures on arrangement of work surface for spillage test on built-in dishwashers and arrangement of work surface for spillage test on built-in dishwashers in partially door opened position, and to update the annex on detergent and rinsing agent.
SANS 60947-2:2020 Ed 5.1	<i>Low-voltage switchgear and controlgear Part 2: Circuit-breakers. Consolidated edition incorporating amendment No.1.</i> Amended to update the scope, referenced standards, the clauses on product information, constructional and performance requirements and on tests, and the annexes on co-ordination between a circuit-breaker and another short-circuit protective device associated in the same circuit, on circuit-breakers incorporating residual current protection, on additional requirements for circuit-breakers intended for connection of aluminium conductors, test sequence for circuit-breakers for IT systems, electromagnetic compatibility (EMC) - Requirements and test methods for circuit-breakers, on glossary of symbols and graphical representation of characteristics, circuit-breakers not fulfilling the requirements for overcurrent protection, on modular residual current devices (without integral current breaking device), on electromagnetic compatibility (EMC) - Additional requirements and test methods for devices not covered by annex B, annex F and annex M, on instantaneous trip circuit-breakers (ICB), on DC circuit-breakers for use in photovoltaic (PV) applications, and on circuit-breakers incorporating residual current protection with automatic re-closing functions.
SANS 62386-102:2020 Ed 2.1	<i>Digital addressable lighting interface Part 102: General requirements - Control gear. Consolidated edition incorporating amendment No.1.</i> Amended to update the definitions, the clause on method of operation, and to delete figures 6-10 (fading levels) and tables 9-103 (parameters for test sequence).
SANS 122:2020 Ed 1.4	<i>Pressure-sensitive adhesive tapes for electrical purposes (Metric units). Consolidated edition incorporating amendment No.4.</i> Amended to update the scope, definitions, and the requirements for cores, and for packaging, and to delete the annex on notes to purchasers.

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No. 43962

PART 3 OF 3

**SCHEDULE B.3: WITHDRAWN STANDARDS**

In terms of section 24(1)(C) of the Standards Act, the following standards have been withdrawn.

<b>Standard No. and year</b>	<b>Title</b>

If your organization is interested in participating in these committees, please send an e-mail to [Dsscomments@sabs.co.za](mailto:Dsscomments@sabs.co.za) for more information.

**SCHEDULE 5: ADDRESS OF THE SOUTH AFRICAN BUREAU OF STANDARDS HEAD OFFICE**

Copies of the standards mentioned in this notice can be obtained from the Head Office of the South African Bureau of Standards at 1 Dr Lategan Road, Groenkloof, Private Bag X191, Pretoria 0001.

**DEPARTMENT OF TRANSPORT****NOTICE 695 OF 2020****AIR SERVICE LICENSING ACT, 1990 (ACT NO.115 OF 1990)  
APPLICATION FOR THE GRANT OR AMENDMENT OF DOMESTIC AIR  
SERVICE LICENCE**

Pursuant to the provisions of section 15 (1) (b) of Act No. 115 of 1990 and Regulation 8 of the Domestic Air Regulations, 1991, it is hereby notified for general information that the application details of which appear in the appendix, will be considered by the Air Service Licensing Council. Representation in accordance with section 15 (3) of the Act No. 115 of 1990 in support of, or in position, an application, should reach the Air Service Licensing Council. Private Box X 193, Pretoria, 0001, within 21 days of date of the publication thereof.

**APPENDIX I**

(A) Full name and trade name of the applicant. (B) Full business or residential address of the applicant. (C) Class of licence applied for. (D) Type of air service to which application applies. (E) Category of aircraft to which application applies.

**(A) ISARail SA (Pty) Ltd.** (B) Unit D1 Kempton Park Campus, Atlas Road, Bonaero Park, Kempton Park, 1620. (C) Class III. (D) Type G3, G4, G5 & G10. (E) Category H1.

**(A) Cape Town Airlines (Pty) Ltd; Escape Airways.** (B) Unit 12, Provden Park 2, Aviation Crescent, Airport City, Western Cape, 7525. (C) Class I & II. (D) Type S1, S2, N1, N2. (E) Category A1.

**(A) Vharanani Aviation (Pty) Ltd; Vharanani Aviation.** (B) 18 Hume Road, Dunkeld West, Johannesburg, 2196. (C) Class II. (D) Type N1. (E) Category A1 & A2.

**APPENDIX II**

(A) Full Name and trade name of the applicant. (B) Full business or residential address of the applicant. (C) The Class and number of license in respect of which the amendment is sought (D) Type of air service and the amendment thereto which is being applied for (E) Category of aircraft and the amendment thereto which is being applied for.

**(A) Absolute Flight Services (Pty) Ltd.** (B) Hangar 103, South Side, Lanseria International Airport. (C) Class II; N964D. (D) Type N1 & N2. (E) Category A1, A2 & A3. **Changes to the MP:** R Grove replaces R. Geldenhuys as the RP: Aircraft.

**(A) Airwork Africa (Pty) Ltd.** (B) Suite 4, Hangar 38, Wonderboom Airport, Pretoria, (C) Class II & III; N1162D & G1163D. (D) Type N1, N2, G3, G7, G8, G15 & G16 (Ship to Shore). (E) Category H1 & H2. **Changes to the MP:** Anine Bothman is appointed as the Air Service Safety Officer & Quality Assurance Manager & Tavia van Deventer as the RP: Flight Operations.

**AIR SERVICE LICENSING ACT, 1990 (ACT NO.115 OF 1990)**  
**APPLICATION FOR THE GRANT OR AMENDMENT OF DOMESTIC AIR**  
**SERVICE LICENCE**

**APPENDIX II**

(A) Full Name and trade name of the applicant. (B) Full business or residential address of the applicant. (C) The Class and number of license in respect of which the amendment is sought (D) Type of air service and the amendment thereto which is being applied for (E) Category of aircraft and the amendment thereto which is being applied for.

**(A) Avcon Jet Africa (Pty) Ltd; Avcon Jet Africa.** (B) Ground Floor, Main Terminal Building, Grand Central Airport, New Road, Midrand. (C) Class II; N1133D. (D) Type N1 & N2. (E) Category A2, A3 & A4. **Changes to the MP:** A. Louw is appointed as the RP: Aircraft, L. H. Enslin as the RP: Flight Operations & G. Appelo as the Air Service Safety Officer.

**(A) BAC Helicopters CC.** (B) Office 3, Virginia Airport, 220 Fairway, Durban North, 4051, KZN. (C) Class II & III; N1105D & G1106D. (D) Type N1, N2, G3, G4, G5, G8, G10, G15 & G16 (RPAS). (E) Category H1 & H2. **Changes to the MP:** A. Bell is appointed as the RP: Flight Operations & B. Hatfield as the Air Service Safety Officer.

**(A) Comair Flight Services (Pty) Ltd: Comair Flight Services / CFS.** (B) Hangar 106, Gate 14 (South Side), Lanseria International Airport. (C) Class II; N1015D. (D) Type N1 & N2. (E) Category A1, A2, A3 & A4. **Changes to the MP:** R. B. Ives replaces A. Steyn as the RP: Flight Operations & P. R. Groves replaces A. Reeves as the RP: Aircraft.

**(A) Helicopter Charter and Training CC.** (B) 20 Boeing Road, Walmer, Port Elizabeth Airport, Port Elizabeth. (C) Class II & III; N565D & G573D. (D) Type N1, G10 & G15. (E) Category H2. **Changes to the MP:** J. J. Cronje replaces J. L. Huddleston as the Chief Executive Officer & **change to Members & Voting Rights:** J. L. Huddleston has 70%, L. Huddleston has 10% & T. Meyer has 20%.

**(A) Indwe Aviation (Pty) Ltd; Indwe Aviation.** (B) George Airport, George, 6530. (C) Class II & III; N1116D & G1117D. (D) Type N1, N2, G2, G3, G10, G15 & G16 (Powerline inspections, Ship to shore & Offshore operations). (E) Category H1. **Changes to the MP:** G. P. Oosthuizen replaces C. P. Sherwood as the RP: Aircraft.

**(A) MCC Aviation CC; MCC Aviation.** (B) Hangar 43, Gate 5, Lanseria International Airport, Lanseria. (C) Class II & III; N751D & G934D. (D) Type N1, N2, G2, G3, G4, G8, G10, G11, G14, G15 & G16 (RPAS). (E) Category A1, A2, A3, A4, H1 & H2. **Changes to the MP:** L. Hafkamp is appointed as the RP: Flight Operations

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**BOARD NOTICES • RAADSKENNISGEWINGS**

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**BOARD NOTICE 141 OF 2020**

Building 2 Greenstone Hill Office Park Emerald Boulevard Modderfontein  
PO Box 8237 Greenstone 1616 Johannesburg South Africa  
Tel 087 940 8800 Fax 087 940 8873 E-mail [board@irba.co.za](mailto:board@irba.co.za)  
Internet [www.irba.co.za](http://www.irba.co.za)

**AMENDMENTS TO PART 4B OF THE CODE OF PROFESSIONAL CONDUCT FOR  
REGISTERED AUDITORS TO REFLECT TERMS AND CONCEPTS USED IN  
INTERNATIONAL STANDARD ON ASSURANCE ENGAGEMENTS 3000 (REVISED)**

In accordance with the provisions of Section 10(1)(a) of the Auditing Profession Act, 2005 (Act 26 of 2005), the Independent Regulatory Board for Auditors (IRBA) hereby publishes revisions to the IRBA Code of Professional Conduct for Registered Auditors (IRBA Code).

**1. PART 4B TO REFLECT TERMS AND CONCEPTS USED IN INTERNATIONAL  
STANDARD ON ASSURANCE ENGAGEMENTS 3000 (REVISED)**

Please be advised that amendments to Part 4B of the IRBA Code are now available and may be downloaded from the IRBA website at <https://www.irba.co.za/guidance-for-ras/ethics:-the-rules-and-the-code/the-irba-code-revised-2018>.

Part 4B relates to independence for assurance engagements with respect to underlying subject matter covering periods beginning on or after 15 June 2021. Otherwise, the revisions will be effective as of 15 June 2021. Early adoption will be permitted.

For further assistance, enquires may be directed to Mr I Vanker, Director Standards, at the IRBA. Alternatively, please send an email to [standards@irba.co.za](mailto:standards@irba.co.za).

**Jenitha John**  
**Chief Executive Officer**

**BOARD NOTICE 142 OF 2020****ALLIED HEALTH PROFESSIONS COUNCIL OF SOUTH AFRICA**

6 CASTELLI, IL VILLAGGIO, 5 DE HAVILLAND CRESCENT SOUTH, PEREQUOR TECHNOPARK, PRETORIA, 0184

Telephone: (012) 349 2331 Facsimile: (012) 349 2327

Email: [registrar@ahpcs.co.za](mailto:registrar@ahpcs.co.za)

Website: [www.ahpcs.co.za](http://www.ahpcs.co.za)

**DEFINITION**

1. In this notice, “the regulations” means the Regulations pertaining to the Allied Health Professions Act (63/1982), as amended, and published in terms of Government Notice No R 127 of 12 February 2001.

**2021 ANNUAL FEES**

2. The amounts of the fees referred to in 37(1) and (2), 38, 39, 40, 41 and 42 (1) and (2) of the regulations, have been determined by Council as shown in the table below.
3. These amounts apply to annual fees in respect of the calendar year 1 January 2021 to 31 December 2021, which are due on 1 January 2021, and which must be received by the Council by 31 March 2021 (final date for payment); note fee increase thereafter as per the table below in the respective categories.

**FEES TABLE**

<u>Description</u>	<u>Fee Payable</u> <u>(Rands)</u>
Application fee for temporary registration	2535
Registration fee for temporary registration	2200
Examination fee for persons who are temporarily registered	5000
Application and registration fee for first year students	575

<b>Annual student registration fee for years subsequent to the first year</b>	<b>500</b>
<b>Fee for late registration as student</b>	<b>4225</b>
<b>Student restoration fee</b>	<b>575</b>
<b>The amount the council may advance to the registrar in cash</b>	<b>2000</b>
<b>Annual registration fee in respect of one profession where fees are paid on or after 1 January and before 1 April</b>	<b>2200</b>
<b>Annual registration fee in respect of one profession where fees are paid on or after 1 April and before 1 May</b>	<b>2535</b>
<b>Annual registration fee in respect of one profession –where fees are paid on or after 1 May and before 1 June</b>	<b>2990</b>
<b>Annual registration fee in respect of one profession where fees are paid on or after 1 June</b>	<b>3685</b>
<b>Annual registration fee in respect of two professions where fees paid on or after 1 January and before 1 April</b>	<b>4400</b>
<b>Annual registration fee in respect of two professions where fees are paid on or after 1 April and before 1 May</b>	<b>5070</b>
<b>Annual registration fee in respect of two professions where fees are paid on or after 1 May and before 1 June</b>	<b>5980</b>
<b>Annual registration fee in respect of two professions where fees are paid on or after 1 June</b>	<b>7370</b>
<b>Annual registration fee in respect of three or more professions where fees are paid on or after 1 January and before 1 April</b>	<b>6600</b>
<b>Annual registration fee in respect of three or more professions where fees are paid on or after 1 April and before 1 May</b>	<b>7600</b>
<b>Annual registration fee in respect of three or more professions where fees are paid on or after 1 May and before 1 June</b>	<b>8975</b>
<b>Annual registration fee in respect of three or more professions where fees are paid on or after 1 June</b>	<b>11050</b>

<b>Senior citizen fee (70 to 74 years) per profession</b>	<b>-50%</b>
<b>Senior citizen fee (+75 years) per profession</b>	<b>280</b>
<b>Application fee where applicant does not possess the prescribed qualification</b>	<b>2535</b>
<b>Council fee for the conduct of examination where the applicant has a foreign qualification or is applying for restoration</b>	<b>5000</b>
<b>Professional board examination fee in terms of section 4(d) and 10D(c) of the Act</b>	<b>5000</b>
<b>Professional board fee for issuing of a certificate</b>	<b>870</b>
<b>Fee for issue of a registration certificate</b>	<b>870</b>
<b>Restoration application fee</b>	<b>2535</b>
<b>Restoration fee in the case of non-payment of fees by the practitioner or student</b>	<p>(i) twice the amount of the current annual registration fee as a restoration fee where the practitioner or student applies for restoration within six months of the date of his or her de-registration; or</p> <p>(ii) three times the amount of the current annual registration fee as a restoration fee where the practitioner or student applies for restoration after six months of the date of his or her de-registration</p>
<b>Restoration fee in the case of disciplinary action by the council against the practitioner or student.</b>	(i) four times the current annual registration fee where

	<p>the person applies for restoration after six months from the date of de-registration but within 12 months of the date of deregistration; or</p> <p>(ii) five times the current annual registration fee where the person applies for restoration after 12 months of the date of de-registration</p>
Fee payable to the council by a first-year student upon first application for registration as a student	575
Fee payable to the council an intern for each year of registration as an intern beyond the first year.	1010
Fee for the issue to a practitioner of duplicate letters of registration or certificates by the registrar.	870
<p>Allowances (honoraria) payable by the Council in respect of -</p> <p>(a) the attendance of meetings of the council, executive committee of the council and professional boards by members of the council, the executive committee of the council or professional boards are as follows—</p> <p>(i) to the chairperson and vice-chairperson of the council, members of the executive committee of the council and chairpersons of the professional boards</p> <p>(ii) to the vice-chairpersons of the council and professional boards, other council and professional board members</p> <p>(b) the attendance of other meetings such as that of the Finance Committee or the Education Committees of the council</p>	<p>R2640 per meeting</p> <p>R2175 per meeting</p> <p>R2175 per meeting</p>
Allowance payable where a member of the council or	In accordance with

<p>professional board prefers to use his or her own transport in order to attend meetings out of Pretoria or to attend other council business at places not more than 750 kilometres distant from his or her ordinary residence</p>	<p>the current travel allowances published by the South African Revenue Services on its website but not exceeding the amount of the economy class airfare that would have been payable had the member travelled by air to the meeting</p>
<p>Extract from the register</p>	<p>N/A</p>
<p>Professional board examination fee</p>	<p>5000</p>
<p>Fee for bioethics and jurisprudence examination</p>	<p>620</p>
<p>Fee for conducting a review of an external educational institution</p>	<p>Actual costs plus 25%</p>
<p>Allowance (honorarium) payable by the Council in respect of visits to external education institutions for review purposes</p>	<p>5335</p>
<p>Fee for an application for the opening of a new register</p>	<p>130 000</p>
<p>Accreditation fees payable to the council for continuing professional development activities -</p> <p>Level 1: Activities encompassing non-measurable outcomes-</p> <p><u>Large groups(100 delegates or more):</u></p> <p>(i) Conferences or seminars; (ii) Congresses; (iii) Symposia; (iv) Web-based seminars; (v) International conferences</p> <p><u>Small groups (less than 100 delegates):</u></p> <p>(i) Formally organised meetings by professional societies; (ii) Structured small group discussions with a minimum of three practitioners involved; (iii) Case study discussions with a minimum number of three practitioners involved; (iv) Formally organised special purpose lectures; (v) Formally organised special purpose lectures that are not part of a business meeting; (vi) Interest groups meeting less than six times per year</p>	<p>3100</p> <p>520</p>

<p><b><u>Other:</u> (i) membership of an association/society; (ii) serving on professional bodies</b></p> <p><b>520</b></p> <p><b>Level 2: Activities encompassing measurable outcomes –</b>  <b>(These activities include those that have a clearly measurable outcome or formal evaluation process after the activity)</b></p> <p><b>(i) involving less than 10 persons</b></p> <p><b>(ii) involving 10 to 20 persons</b></p> <p><b>(iii) involving 20 to 30 persons</b></p> <p><b>(iv) involving more than 30 persons</b></p> <p><b>1050</b></p> <p><b>2100</b></p> <p><b>2600</b></p> <p><b>4150</b></p> <p><b>Level 3: Activities associated with formally structured learning programmes</b></p> <p><b>(This is structured learning, namely a formal programme presented by an Education and Training Quality Assurance body-accredited, National Department of Higher Education registered- and Allied Health Professions Council–approved training or educational institution with a measurable outcome)</b></p> <p><b>NO CHARGE</b></p> <p><b>Other matter not covered by the above considered by any CPD committee</b></p> <p><b>AHPCSA DISCRETION</b></p>	
<p><b>Fee for issuing a letter of good standing</b></p>	<p><b>870</b></p>



**DR LOUIS MULLINDER**

**REGISTRAR: ALLIED HEALTH PROFESSIONS COUNCIL OF SOUTH AFRICA**