



environment, forestry & fisheries

Department:
Environment, Forestry and Fisheries
REPUBLIC OF SOUTH AFRICA

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 ₂ emissions	Gases	Forest activity
S_{HWP}	Sawnwood, wood-based products, pulp and paper	CO ₂	All but excluding deforestation
ΔC	Aboveground biomass (AGB)	CO ₂	All
	Belowground biomass (BGB)	CO ₂	All
	Deadwood and litter (DOM)	CO ₂	All*
	Mineral soils (SOC)	CO ₂	All# except deforestation
S_{fire}	Wildfires	CO ₂ , CH ₄ , N ₂ O	Reported but not accounted
	Controlled burning	CO ₂ , CH ₄ , N ₂ O	Reported but not accounted
S_{fert}	Emissions associated with application of fertilisers	N ₂ O	Reported but not accounted
F_{SOM}	Mineralisation losses associated with SOC loss (related to soil management)	N ₂ 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/1¹¹, 2CMP/7 and 8), the voluntary market principles and climate change policy drivers behind the C Tax Act 2019.

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