



environment, forestry & fisheries

Department:
Environment, Forestry and Fisheries
REPUBLIC OF SOUTH AFRICA

In South Africa, it is estimated that ca. 68% of paper is recycled⁶, 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 CO₂).** 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.

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