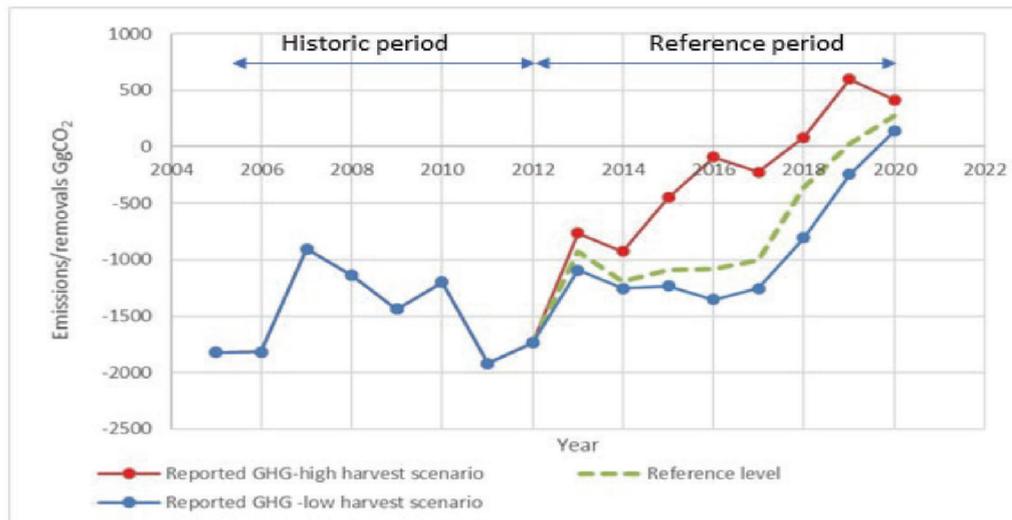




## environment, forestry & fisheries

Department:  
Environment, Forestry and Fisheries  
REPUBLIC OF SOUTH AFRICA

**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: