

***Interactive comment on “Global estimates of C  
stock changes in living forest biomass:  
EDGARv4.3 – 5FL1 time series from 1990 to 2010”  
by A. M. R. Petrescu et al.***

**Anonymous Referee #2**

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The authors should better focus the scope of the paper. Is it the scope to show differences between the IPCC GPG for LULUCF and the 2006 IPCC Guidelines? are those differences due to improvements between "old" and "new guidelines"? should those guidelines be further developed to be suitable for preparing estimates under any national circumstance?

The paper would benefit from an improvement of the language. Moreover, consistency in the use of words and symbols should be kept throughout the paper e.g. annex I countries vs Annex I Parties; wood fuel vs fire wood; H= annually extracted volume, roundwood + Wf, m3 yr<sup>-1</sup> vs H= annually extracted volume, R<sub>w</sub> + W<sub>f</sub>, m3 yr<sup>-1</sup>

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The transparency of results would be improved by providing a table with results computed at national level for the years 1990 2000 2005 and 2010; moreover a section where providing information on method applied for calculating fire emissions is needed.

In figure 2, 3 and 4 Russia appears twice, as single country and together with Europe. it is a double accounting?

In figure 1 a generic reference to UNFCCC 2011 is provided for a series of data. Which lands have been included? which pools?

The text refers the estimates to forest land remaining forest land category while it should be total forest land since net deforestation (deforestation+reforestation) is calculated.

About net deforestation, did the author consider to add to the net deforestation the data on forest expansion provided by the FRA FAO reports? This would make the net deforestation "less net" giving more realistic picture of the emissions produced.

When applying the IPCC 2003 method the authors: - added belowground biomass to gains and did not consider losses from belowground biomass due to fire and harvesting; - did not apply the same carbon fraction when estimating fire emissions; - Considering that it is assumed that the whole biomass of an harvested tree is either transformed in roundwood or fuelwood the biomass expansion factor should not apply unless there is not enough fuelwood to account for wood losses due to roundwood production (in this case the BEF should only be applied to the portion of roundwood in excess).

Twice the authors refer to Pan et al. (2011) reporting that they calculated "the gross deforestation for the tropical regions and included into Gains the deforestation for boreal and temperate regions" I guess they would say that Pan et al. included as gains the forest expansion that is occurring in boreal and temperate regions.

In the section on methods for calculating the harvest the authors reported: "The grow-

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ing stock was taken from the FRA 2010 country reports, estimated for the year 2005 (FAO, 2010)." For which year estimate? the 2005? how 1990, 2000 and 2010 have been estimated? Why does this information is reported in the harvest section instead of in the deforestation one?

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