

Interactive  
Comment

## ***Interactive comment on “Anthropogenic CO<sub>2</sub> emissions in Africa” by J. G. Canadell et al.***

**J. G. Canadell et al.**

Received and published: 27 February 2009

Response to Reviewer 1 N. Ramankutty (Referee) navin.ramankutty@mcgill.ca Received and published: 6 January 2009

In order to address to the questions by Navin Ramankutty we have added the following paragraphs in the revised text:

Top of page 5 Inserted after first sentence. The estimate assumes that both of these reported rates are accurate, whereas, they are quite uncertain (Lanly 2003). The percentage of deforestation attributed to shifting cultivation by this estimate, however, is similar to the percentages reported by Lanly (2003) (see below).

Page 6, 5th paragraph. Inserted the following before “The establishment of plantations”; The fraction of deforestation for shifting cultivation decreased from ~70% for the years 1975-1997 to only 3% for the period 2000-2005. The reduction is sharper than that reported by Lanly (2003), who compared the years

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around 1980 (64%) with the period 1988-1997 (14%).

Page 6: replaced the last sentence of 5th paragraph with: Most of the emissions were from deforestation for agriculture (41% for permanent croplands; 48% for shifting cultivation). Industrial wood harvest accounted for 11% of the total net flux in this period.

Anonymous Referee #2 Received and published: 7 December 2008 I only have several minor comments:

1) P4399 L14 the reference of Raupach et al (2007) is missing. Authors: Added.

2) P4399 L17 Briefly describe the C tracking model before discuss its update. Authors: Done

The model is a bookkeeping model based on a series of response curves that track the carbon in living vegetation, dead plant material, wood products, and soils for each hectare of land cultivated, harvested, or reforested. (Houghton and Hackler 2006).

3) P4402 L2-4 This paragraph should be moved to the caption of Figure 3. Authors: Moved.

4) P4402 L5 3.1.1; should be 3.2; Noted. This is an issue for the layout people of the journal.

5) P4404 L4 Fig.6; as referred in the text is missing. Authors: Done

6) Fig. 1: The author might want to extend the x axis instead of putting a number of 110.1; for South Africa, which is a little bit confusing.

Authors: This comment and additional comments from internal review has prompted us to redraw figure one and integrate the two panels in one single panel. We have also added an additional paragraph in the Discussion section (second one) that explains the negative correlation between FF and LUC&F emissions. Given emissions from South Africa are double than the second highest emitter, we still cut the full extent of

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the column for South Africa to keep the proportions with the rest of countries shown in the figure. The number on top of the column indicates the true value. We have added a note in the figure legend that explains the meaning of the value on top of the column.

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Interactive comment on Biogeosciences Discuss., 5, 4395, 2008.

**BGD**

5, S3146–S3148, 2009

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