

Interactive comment on “Anthropogenic CO₂ emissions in Africa” by J. G. Canadell et al.

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General Comments This paper presents an updated estimate of carbon emissions from fossil fuels and land use change for Africa during 2000-2005. The paper places African emissions in the context of global emissions, suggests that while emissions are low, the growth rate has been comparable to the global emissions, and further uses the Kaya identity to identify the drivers of emissions. It is a good regional summary of the situation in Africa. I have no major concerns about the paper. I have only one comment, outlined below.

Specific Comments 1. Page 4400, lines 1-4: The rate of deforestation for shifting cultivation was obtained by the difference between the total deforestation rate of natural forests (1980-2005) and rate of increase in area of croplands. This is an interesting way to estimate shifting cultivation. But it assumes perfect information. Differences be-

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tween the FRA estimates of deforestation and FAOSTAT estimates of cropland change could also be a result of errors. Indeed, the FAO itself, in their independent remote sensing analysis conducted during the FRA2000 study, suggested big uncertainties in dry tropical Africa. Has the situation improved sufficiently in FRA 2005 to warrant such an assumption of perfect information? Nevertheless, can you report on how much of total deforestation was estimated to be a result of shifting cultivation? How does this compare to Lanly's estimate of 13.8% for 1988-1997 for Tropical Africa? (<http://www.fao.org/docrep/article/wfc/xii/ms12a-e.htm>). Also, how much of the African emissions was a result of shifting cultivation versus clearing for permanent agriculture versus logging?

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