

Interactive comment on “The African contribution to the global climate-carbon cycle feedback of the 21st century” by P. Friedlingstein et al.

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Comment on the African contribution to the global climate-carbon cycle feedback

This is a pretty well written paper addressing the issue of potential feedbacks of the carbon cycle on 21-st century climate in Africa. The authors use one of the few coupled systems, IPSC-CM4-LOOP, with the vegetation model ORCHIDEE. They find a small contribution of the African biosphere to the feedback of about 26 Gt C or 6 ppmv. This is in the smaller range of the C4MIP models, as was the global contribution of this model configuration.

This result is worth publishing, but I find the paper a bit shallow in its precise treatment of the causes. I have the feeling the authors felt the same and have therefore included

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the IMOGEN results as compensation. This unfortunately brings in an additional objective in the paper of comparing the HDCM3 climate with IPSC model which confuses the reader towards the end even more.

I suggest to take out this bit (p 4853 l21-27 and p 4854). As a remedy against the perceived lackluster analysis of I would also like to see a more detailed analysis of the contribution of different African vegetation types, biomes to the feedback, so that a more coherent picture can be given of what type contributes how much, and importantly how that differs between vegetation types.

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