

**Editor's comment on**

**A. Bayer, M. Lindeskog, T.A.M. Pugh, P. Anthoni, R. Fuchs and A. Arneth**

**“Uncertainties in the land use flux resulting from land use change reconstructions and gross land transitions”**

**Earth System Dynamics Discussions, doi:10.5194/esd-2016-24**

December 22, 2016

As editor I thank the authors for carefully addressing the issues raised by the reviewers. In particular I appreciate the inclusion of the LUH2 dataset into the revised manuscript.

For preparing the final version of your paper, I would like to point your attention to the paper by Hansis et al. (2015) that also addresses several types of uncertainties (harvest, legacy fluxes, initial state). I suggest to compare your numbers for uncertainties with theirs in the discussion.

**MINOR REMARKS:**

- Line 137: Since the datasets are so basic for your paper, I suggest you shift table S1 listing the dataset characteristics from the supplement to the paper itself. Or you merge it with table 1 that contains overlapping information.
- Lines 178/179: Would it be useful to name explicitly in which “several aspects” the data sets differ?
- Line 249: What is the meaning of the abbreviation “CFT”?
- Line 644: Uncertainties in emissions from land use change arising from different grid resolutions have been estimated in the paper by Wilkenskjeld et al. (2014) that you already cite in different contexts.
- Figs. 1 and 2: The grey color in your plots is hardly recognizable. I suggest to use another color.
- All Figures: Please consider whether you want to use a larger font in the figures, it may happen that in the final paper the figures are so small that labels are hardly readable.

**LITERATURE:**

Hansis, E., S. J. Davis, and J. Pongratz (2015), Relevance of methodological choices for accounting of land use change carbon fluxes, *Global Biogeochem. Cycles*, 29, 12301246, doi:10.1002/2014GB004997.

I wish a happy Christmas!

Christian Reick