

## ***Interactive comment on “Comparison of global inventories of monthly CO emissions derived from remotely sensed data” by D. Stroppiana et al.***

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We acknowledge the referee for his/her valuable comments. The manuscript has been revised accordingly. As requested, we have included the GFED3 inventory in place of the previous GFED2 and we have added some discussion on the reasons, which might lead to the difference observed among the inventories. Below the answers to the specific comments.

Referee #1-general comment. This paper compares five global inventories of CO emissions from biomass burning and reports large global and continental differences between them. A strength of the paper is that the five inventories indeed use very different

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approaches, making for an interesting comparison. A weakness is that the comparison does not go much beyond a simple description of the differences. Little insight is given into the causes of the differences as a guide for reducing uncertainties in the future. This paper will provide a useful reference as statement on the uncertainty in biomass burning emissions; aside for that, I don't see it contributing much to resolving the problem. Also the writing has many grammatical and stylistic mistakes. I rate this paper “not great but publishable”.

AUTHORS- We discussed more in depth the plausible causes of the differences observed among the inventories. As the referee states, the strength of the comparison is the range of methods compared in our study but at the same time it makes it more difficult to univocally identify the source(s) behind the difference. In particular, we revised the discussion section of the manuscript with the objective of properly addressing this comment.

Referee #1-1. Title should mention that the comparison is for biomass burning emissions.

AUTHORS- Following the referee's comment, we have changed the title into “Comparison of global inventories of CO emissions from biomass burning derived from remotely sensed data”.

Referee #1-2. A number of global biomass burning inventories for CO have been published, and citing those inventories along with perhaps their global numbers would provide broader context for this paper. The Bian et al. JGR 2007 paper discussing the effect of uncertainty in biomass burning inventories on global CO models is probably of relevance.

AUTHORS- We reviewed the literature with particular attention to the work from Bian et al. (2007) suggested by the referee and references cited in it. We revised our manuscript also in the light of these new references.

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Referee #1-3. GFED3 has now been released and comparison to GFED2 should at least be discussed.

AUTHORS- Following comments by both referees we decided to replace GFED2 with the new GFED3 dataset of CO emissions. The tables, figures and text have been changed accordingly.

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