

Interactive comment on “Global carbon budget 2014” by C. Le Quéré et al.

Anonymous Referee #2

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Le Quéré et al. deliver another update for the global carbon budget. Since the main text of the manuscript changes little from previous years and has been reviewed multiple times, the manuscript is already in good shape.

As a first time reviewer of this living data set, however, I am able to find few things that in my opinion can help improve this manuscript.

I am unable to document small suggested changes in the manuscript so I am attaching a scanned version of the annotated pages of the manuscript. Hopefully, my hand writing is clear enough.

My major comments are ...

1. As a reader, I was confused when I read the part describing the river flow of DIC/DOC from land into the ocean. This is a natural flux, of course. And, the

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manuscript is about the change in carbon budget quantities. We already know that the perturbations to the quantities of the global carbon budget are riding on top of already big natural fluxes. In this context, and in absence of any equations containing the riverine flux of DIC/DIC, I wasn't able to follow the text properly. I suggest some additional equations in the manuscript to clarify the text around riverine flux of DOC/DIC. Please see the attached annotated pages of the manuscript.

2. There are many places in the manuscript where units can help. Please see the attached annotated pages of the manuscript.

3. At a number of places in the manuscript correlation between quantities is mentioned. However, it isn't clear that the correlation is for annual or decadal values or over what time period. Please see the attached annotated pages of the manuscript.

Interactive comment on Earth Syst. Sci. Data Discuss., 7, 521, 2014.

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Earth Syst. Sci. Data Discuss., 7, 521–610, 2014
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Global Carbon Budget 2014
C. Le Quéré et al.

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This discussion paper has been under review for the journal Earth System Science Data (ESSD). Please refer to the corresponding final paper in ESSD if available.

Global carbon budget 2014

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Fig. 1.