

Point-by-point Response:

Comment 1: Thank you for submitting a revised version of your manuscript submitted to Biogeosciences. Although the manuscript improved a lot, it is still not suitable for publication. You have not made my task easy by providing a track-change version that did not have all the changes present in the clean manuscript.

Response: Regarding the track-change version, we did not include one in the last round, hence it must have been an old version that was used. We are sorry for the inconvenience and will attach one for the latest round (including the changes made here).

First, it appears that despite earlier comments in-text citations are still not ordered chronologically and the list of references not properly formatted (e.g. abbreviated journal titles, subscripts and superscripts). Please closely follow the instructions to authors.

Response: The authors are sorry to hear that there were still issues with the in-text citation and list of references. Instead of using a third-party reference management tool, all references have now been added manually, which should have fixed the issue.

Comment 2: Second, about CO₂ uptake in the ocean. The sentence in the introduction reads:

"Furthermore, nearly 40% of anthropogenic carbon dioxide (CO₂) emissions have been taken up by the ocean through air-sea gas exchange between 1750 and 2020 (Friedlingstein et al., 2022)..."

I commented earlier:

"- 33: Not 30%. According to Friedlingstein et al. (2022): 26% over the period 1850-2021.""

Your reply:

"Thank you for this comment, the authors reviewed the paper from Friedlingstein, 2022. After reviews, and based on the Table 8 data, the authors estimated that oceans absorbed nearly 40% of the fossil CO₂ emissions between 1750 and 2020 ($180/460 = 0.391 \sim 39\%$)."

I am afraid that your review of the paper by Friedlingstein is incorrect. You overlooked emissions from land use change. The ocean uptake during the period 1750 and 2020 is therefore $180/(460+235)$ or about 26%. Please revise accordingly. The sentence should read:

"Furthermore, about 26% of anthropogenic carbon dioxide (CO₂) emissions have been taken up by the ocean through air-sea gas exchange between 1750 and 2020 (Friedlingstein et al., 2022)..."

Response: Thank you for your clarifications. We have changed the sentence accordingly: “Furthermore, about 26% of all anthropogenic carbon dioxide...”

Third, I did not notice an incorrect sentence in the introduction:

"The CO2 reduction pledges by the signatory states of the 2015 Paris Agreement aim to"

That was not the aim of the pledges (actually Nationally determined contributions) submitted in 2015. The aim to limit global warming to 1.5 or 2°C is a longer-term aim. So I suggest:

"The aim of the 2015 Paris Agreement is to..."

Response: The sentence has been changed as suggested: “The aim of the 2015 Paris Agreement is to minimise the negative impacts of global warming...”