

Biogeosciences Discuss., author comment AC1  
<https://doi.org/10.5194/bg-2022-218-AC1>, 2023  
© Author(s) 2023. This work is distributed under  
the Creative Commons Attribution 4.0 License.

## Reply to RC1 and RC2

Iñaki Urzainki et al.

---

Author comment on "A process-based model for quantifying the effects of canal blocking on water table and CO<sub>2</sub> emissions in tropical peatlands" by Iñaki Urzainki et al.,  
Biogeosciences Discuss., <https://doi.org/10.5194/bg-2022-218-AC1>, 2023

---

Reviewer 2 found an error in the mathematical formulation of the model. We agree with Reviewer 2 that the error exists, and that the simulations need to be re-computed. It is likely, as Reviewer 2 also suggests, that the missing terms do not greatly impact the results of the study, although it is impossible to know in advance.

The changes needed to fix the error take longer than the few weeks that we had to respond to the Reviewers' comments. Therefore, we could not fix the model and run the simulations again at this stage of the publication process. Nevertheless, we would like to continue with the process, if that would be possible, and send the revised version of the manuscript when it is ready. We leave this matter to the Editor's criterion.

Despite the mathematical error, Reviewer 2 submitted the comments to the article because he "believed that this paper could make a valuable contribution to the literature after this error is corrected". We carefully responded to both Reviewers' comments. You may find the detailed response as an attachment. In the Appendix to the document, we detail and clarify the mathematical error discovered by Reviewer 2, and we propose the new parameterizations that will be part of the revised work.

Please also note the supplement to this comment:

<https://bg.copernicus.org/preprints/bg-2022-218/bg-2022-218-AC1-supplement.pdf>