

Dear Editor and Authors,

I have read your responses to my comments as well as I have reviewed the second version of the manuscript. I appreciate the careful consideration, thorough replies and additions to the manuscript to improve its readability. I acknowledge that physical bias correction in ESM's may help to improve strong bias, and represent a suitable mechanism to correct biogeochemical results, which are strongly linked with physical features (hydrology and circulation), and understand that those corrections justify the motivation to perform the present study.

However, as a modeler of small-scale regional domains, the results of the global models (used by the IPCC in CMIP*) and their significant (huge) biases in biogeochemical variables (even with the bias corrections made) leave me concerned about their limitations for future period studies. Of course, I understand the need to conduct studies like the present manuscript and to continue improving the ESM models.