

Comments to the author:

Dear author,

Thank you very much for this revised manuscript that answers in detail all reviewer's comment . I just would like you to consider the following additional comments from my side :

- On p.6, you mention that «the hydrological dataset used for HBM in this study is derived from the same sources as for other models » but you also mention just before that the runoffs are different. Can you specify more precisely what is the nature of the hydrological datasets, besides runoffs, that are the same for all models?

Thank you for pointing to this. This was missphrased (only the runoff data differs!):
We changed

“As HBM is an operational setup, it is straight forward for its implementation to utilize the respective runoff data set for this purpose. Thus HBM differs from the other models with respect to the used data. Nonetheless, the hydrological dataset used for HBM in this study is derived from the same source as for other models, i.e. E-HYPE forecasts (Donnelly et al., 2016).”

to (corrections in red)

As HBM is an operational setup, it is straight forward for its implementation to utilize the respective runoff data set for this purpose. Thus HBM differs from the other models with respect to the used **runoff** data. Nonetheless, the hydrological dataset used for HBM in this study is derived from the same source as for other models, i.e. E-HYPE forecasts (Donnelly et al., 2016). Nonetheless, the hydrological dataset used for HBM in this study is derived from the same source as for other models, i.e. E-HYPE forecasts (Donnelly et al., 2016), **but did not undergo the harmonization procedure during the compilation of the official BMIP runoff data set. All other forcing data are exactly the same as for the other models.**

- On p.12, you discuss the «development of SSTs»; I don't really understand what «development of SSTs» mean. SSTs do not develop, they are always present with higher or lower values. Do you mean the development of SSTs extrema, or something similar? Or maybe, you should replace «development» by «evolution»?

We completely agree and replaced “development” by “evolution”

- Regarding the 2nd comment of the 2nd reviewer, please consider adding in the manuscript some details you present here but not in the text, e.g. your « Reply 2), 3) and 4).

We have now included the information now in the main text on page 12 (lines 157-159; line 167)

Minor comments :

- On p.20, remove the comma after « the operational setup HBM »
- On p.27, l.585, add a space in « theseaded »
- On p.27, l.585, change « The, overall, ... » for « Thus, overall, ... »

Thank you. We adopted the corrections in the text.