

Hydrol. Earth Syst. Sci. Discuss., author comment AC8
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Comment on hess-2022-185

Elias Nkiaka et al.

Author comment on "Evaluating the accuracy of gridded water resources reanalysis and evapotranspiration products for assessing water security in poorly gauged basins" by Elias Nkiaka et al., Hydrol. Earth Syst. Sci. Discuss.,
<https://doi.org/10.5194/hess-2022-185-AC8>, 2022

Dear Editor-in-Chief,

We wish to thank you once again for offering us another chance to revise our manuscript (**hess-2022-185**). We detail below all of the revisions that we have undertaken in response to your recommendations.

With kind regards

Elias Nkiaka (on behalf of the co-authors).

Both reviewers were satisfied with the revisions we made earlier! The Editor also appreciated our detailed and constructive responses to the referees' comments and Editors' decision is publish subject to revisions.

Response to Editors' comments

Comment: In your revision, please discuss carefully about the uncertainty underlying the data products (precipitation, ET and TWS) and also the used model parameterisations.

Response: Thanks for highlighting this issue. In the methods section, we highlighted the uncertainty estimates in precipitation products L284 – 287 and L287 – 290 for TWS (GRACE).

For evapotranspiration estimates, we feel that evaluating the performance of the different products with respect to ET_{WB} using different error metrics (bias and RMSE) provide sufficient information on the uncertainties inherent in the different products.

As for model parameterisations, we acknowledged in various sections of the manuscript that model parameterisation has an important influence on the overall performance of the model. See L92 – 96 and L496 – 500.

However, we feel that investigating the parameterisations schemes underpinning the different hydrological and evapotranspiration models was not one of the objectives of this study. As such, we wish to decline to comment further on this specific issue raised by the Editor.

Comment: I also agree with Reviewer 2 remark on changing the terminology from "ungauged" to "poorly gauged". This is because you have some datasets on discharge in your basins and that can qualify as "poorly gauged" catchments, rather than totally gauged.

Response: Thanks very much for insisting on this point. We have now replaced "ungauged" with "poor gauged" throughout the manuscript. A total of 15 replacements were made.

Please also note the supplement to this comment:

<https://hess.copernicus.org/preprints/hess-2022-185/hess-2022-185-AC8-supplement.pdf>