

Below we respond to the editor decision and reviewer comments

Editor Decision: Publish subject to minor revisions (further review by Editor) (13 Jan 2017) by Hannah Cloke

Comments to the Author:

The Referees find your manuscript to be of good quality and suggest only one minor point that requires addressing before publication. Please check this and revise your manuscript accordingly.

Response:

Dear editor, below we respond to the issue raised by one of the reviewers and we have uploaded an updated supplement. We would like to thank you for the handling of the manuscript

Reviewer Jiangfeng Wei:

Thank the authors for addressing all those comments.

The section 2 of the Supplement is interesting. It discusses the arguments of Läderach and Sodemann (2016) point-by-point. I have a question on Figure S5 and Table S1. According to my understanding of their description, case 2 should have the same cumulative P or E as case 1, i.e., $41.1 (10^3 \text{ km}^3)$. I don't know why you got a value of $12.7 (10^3 \text{ km}^3)$. Similar for case 4 relative to case 3.

Response:

The description of some cases is open to different interpretation due to the fact that they are internally conflicting. In case 2 we cannot both have a globally average precipitation of $1.37 (10^3 \text{ km}^3 \text{ day}^{-1})$ and an atmospheric water volume of $12.7 (10^3 \text{ km}^3)$. We decided to assume the upper bound of the atmospheric reservoir to be $12.7 (10^3 \text{ km}^3)$. However, we could have alternatively assumed the flux of $1.37 (10^3 \text{ km}^3 \text{ day}^{-1})$ to be applicable in all cases and derive the storage from that starting point instead. This is similarly true for cases 3 and 4. However, we agree with Jiangfeng Wei that it would have been clearer to use the value of $1.37 (10^3 \text{ km}^3 \text{ day}^{-1})$ for all four cases and derive the resulting atmospheric storage over time. We have updated the supplement accordingly, but the conclusions regarding these cases has remained unchanged.