

***Interactive comment on “Assessing the potential hydrological impact of the Gibe III Dam on Lake Turkana water level using multi-source satellite data” by N. M. Velpuri and G. B. Senay***

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Dear authors,

I read your paper with interest. I am quite impressed about the quality of the three reviews and of your detailed responses.

Three additional comments:

-1- The use of the term “closed-basin” is not entirely clear; as this term is also used for river basins that are fully committed (and not ending in a lake). Here you mean

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an endorheic basin. This concept should be mentioned in the article, and could be included as a key word. (Include key words!)

-2- It is unclear how the dams are being operated in the model runs; it would be interesting to know. What drives the releases, are reservoir levels kept high, and how does the reservoir storage fluctuates in the various climate scenarios. Also we would like to know the additional evaporation losses due to and from Gibe III reservoir – these are the consumptive losses that matter.

-3- The big impact on Lake Turkana will not come from the dams themselves but whether or not water will be diverted for irrigation. I have understood that there are plans to irrigate up to 90,000 ha in the Omo basin. Perhaps this can be mentioned in the concluding section.

I would like to encourage the authors to submit a revised version, taking into account all the comments received, and in line with your detailed responses.

Pieter van der Zaag

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