

Interactive comment on “Tailoring seasonal climate forecasts for hydropower operations in Ethiopia’s upper Blue Nile basin” by P. Block

Anonymous Referee #3

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The paper is a welcome contribution to the research in use of climatic and meteorological forecasts in operational water management. In particular I subscribe to the conclusion that while direct use of a forecast product may produce mixed results, the customised use of a forecast product can still prove very beneficial.

General comments: The title is promising too much since Ethiopian hydropower is only taken as a hypothetical demonstration case study. The reservoirs have not been built and the reservoir/hydropower dam characteristics and economic model seem to be based on the 1964 USBR report. Consider cutting Ethiopian’s etc. from the title, or in Discussion section come back to the actual hydropower development (plans) in Ethiopia including challenges in Nile basin geo-political context.

Alternatively to excluding the above normal rainfall predictions, the ensemble predictions could be used for refined decision making, e.g. by selecting probability threshold for in/exclusion of forecasts. Consider discussing/mentioning this in the Discussion section

p3774, l19-22: The choice of using observed temperature instead of climatological values for the actual forecasts is not logic as main comparison in the paper is between actual forecast and non-forecast/climatological forecast, not with perfect forecast. Although it is stated here in brackets that differences are small, curiosity towards results with actual precip forecasts and climatological temperature input remains. Especially as in the end of the paper wet forecasts are disregarded, so dry forecasts, in which the differences between observed temperature and climatic temperature are relatively more important, make the positive difference.

p3777, l8-10: Based on figure 4, one better performing, two (almost) equal performing, and one worse performing actual forecast, value of using actual forecasts is not yet clear.

Detailed comments: p3766, l 18: exhibits should be exhibit p3767, l2: ..even in regions of scarcity. Is there a reference available? p 3768, l21: .., and are joined.. p3770, l23/24: reference? p3772, l6/7: Is it just a 1 to 1 translation? Please describe. p3773, l18-20: spatial resolution of observed precip? p3789, l18: reference Ziervogel is missing p3802, fig 11: Figures are too small/do not print well, a) and b) in the caption have been mixed: a) shows benefits, b) shows reliability.

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Interactive Discussion

Discussion Paper

