

Interactive comment on “Understanding the water cycle over the upper Tarim basin: retrospect the estimated discharge bias to atmospheric variables and model structure” by Xudong Zhou et al.

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We appreciate the reviewer’s high evaluation on our paper. We consider the mathematical formulations important in the model set-up and the expressions of them helpful for readers understand more easily the ways we took in our simulation. While, we did not emphasize the formulations in this paper mainly for the following two reasons. (1) The major novelty of this paper is the analysis of bias from different sources. The idea is to find the possible process which is missing (e.g. human interventions) or largely biased (e.g. precipitation or evapotranspiration) in the simulation. The goal is achieved by a set of comparisons between our model outputs and theoretical values (Budyko hy-

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pothesis) and other reference works. The bias in any single formulations or parameters may not exert such large variations in the final results. (2) We use references instead of giving a few generalized formulations for the model description because we think the general idea has been presented in the words and people can find the corresponding references for details. This way is better for readers with different interests.

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