

Interactive comment on “Investigating basin-scale water budget dynamics in 18 rivers across Tibetan Plateau through multiple datasets” by Wenbin Liu et al.

Anonymous Referee #2

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General comments: accepted after minor revision. This manuscript investigated the dynamics of water budgets of the 18 river basins over Tibetan Plateau (TP) by multi-source datasets including in situ observations, satellite retrievals, reanalysis outputs and land surface model outputs. The actual evapotranspiration was estimated using a water balance-based two-step procedure which considered the changes in basin-scale water storage at the annual scale. Their results show that precipitation is the major contributor to the runoff in TP basins and the weakening East Asian Monsoon mainly affected the increased water budget components. It offers a helpful insight towards understanding the water and energy budgets and sustainability of water resource management practices in the data-sparse TP region based on the current-existing multi-

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source datasets. Overall, the topic and results of the manuscript are very interesting and meaningful, and fit well with the scope of HESS. It is also well-written and organized. I have also noticed that the manuscript is a resubmission. After reading the review comments and the corresponding responses in the last time, I found the manuscript has been significantly improved. In my opinion, the manuscript could be considered for publication after some minor revisions this time.

Specific comments: Some typo errors given below need to be further corrected. For example, 1. Lines 226-228: The sentence “It has been demonstrated cannot be neglected . . .” should be re-written.

2. Lines 294-295, 306, 307 and 307: The unit of statistical indicators should be unified, such as “RMSE=8.34 mm/month” in line 294, “RMSE=5.69 mm month⁻¹”. The authors should change them in the whole manuscript.

3. Line 343-352, these sentences should be rewritten to make them more readable.

4. Lines 346, the use of “~” and “ãÄ” should also be unified for the entire manuscript.

5. Line 350, Table 1 or Table 2?

6. Lines 420: “change” should be “changes”.

7. Line 562: “indicates”??

Please also note the supplement to this comment:

<https://www.hydrol-earth-syst-sci-discuss.net/hess-2017-429/hess-2017-429-RC2-supplement.pdf>

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., <https://doi.org/10.5194/hess-2017-429>, 2017.

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