Dear Dr. Stefan Uhlenbrook,

Thanks for your insightful comments and suggestions to improve our paper. According to the comments, a point-by-point reply was as followed. The replies followed by every point using italic style.

Comments to the Author:

First, I would like to offer my apologies to the authors that it took so long to finalize assessment. The authors replied to all issues raised by the reviewers and revised the paper is a satisfactory manner. The paper is now almost ready for publication in HESS. I would like to consider the authors the following points; this will cause a lot of additional work for the authors:

- Evaporation by forest (as well as other land uses) is dependent of the species; forest is not the same as forest. Would the conclusions of the paper still apply, if more appropriate, local species for dry land conditions would be used? What does that mean for future land use management in the basin?

Reply: We agree with the editor that evaporation by forest (as well as other land uses) is dependent on the vegetation species. Stand age, density, and leaf area index could also influence on evaporation. In this paper, a method was developed based on the sensitivity of land use

change to actual evapotranspiration (Zhang et al., 2001) which only take into account land use area on a larger scale. Owing to local species adapting to local climate, suitable water could meet the growth of the species. In the future, local species rather than exotic species should be planted. The conclusion from the paper will also apply if local species for dry land conditions would be used. According to the comment, we insert a sentence "planting local species rather than exotic species" in the Section 5 Conclusion, Line 12.

- This paper is about land use, avoid the term land cover when you discuss the same thing.

Reply: We have corrected the term "land cover" in the revised manuscript according to the comment.

- Figure 8 shows in a few cases that the calculated transpiration is up to 200 mm/a higher than P-Q. How can you explain that

Reply: P-Q represents ET + change in soil water storage. For wet years, change in soil water storage is likely to be positive, thus P-Q is likely to be much higher than actual ET. In lines 6-10 of page 13, "In the model, recharge to groundwater and change of soil water storage might be ignored for water balance at a meso-scale catchment (Sun et al., 2005). Moreover, uncertainty of the model would be exaggerated when applied to small catchments, such as BCZ catchment (65.2 km^2) and TM catchment (3.4 km^2). " A few cases in Figure 8 show exactly BCZ

catchment and TM catchment in different years, and the calculated transpiration is up to 200 mm/a higher than P-Q.

- One reviewer suggest a number of additional references some also published as open access papers (thus easy accessible for the reader) and the authors have not included them.

Reply: We have added most of the references that reviewer #1 suggested in the revised manuscript (please see Material and Methods). We prefer not to cite the references that Reviewer #1 mentioned, but not direct relating to the methods used in our paper.

- The tables in figure 3 and 9 have the same info as graphics, correct? Thus, why both?

Reply: You are right. We removed the Table from the current version of revised manuscript.

The paper is very well written and clear (note that I am not a native English speaker), however, there a few sentence that need attention (e.g. work has been done ‘in’ the study area and not ‘on’ the study area; space before a bracket etc.). It should be read by a native speaker to eliminate these typos.

Reply: The current version of the revised manuscript has been edited by a native English speaker.

Please let us know if you have further questions.

Kind regards,

Jiangkun Zheng