

Interactive comment on “Changes of evapotranspiration and water yield in China’s terrestrial ecosystems during the period from 2000 to 2010” by Y. Liu et al.

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We sincerely appreciate your efforts to review our manuscript and give us the constructive suggestions. The following is the answer one by one: 1. Provide more discussions on scientific issues related to ET and water yield in China. For example, some climate models suggest that the global water cycle is projected to be intensified by climate change. How does this study support this argument? How does this argument vary in different regions (basins) in China with different conditions (e.g., soil water, climate, vegetation type)? Answer: The response of water to climate change is widely concerned. There are many studies to address this issue in recent years. Our results

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showed that climatic and vegetation (LAI) variability have intensified the terrestrial water cycle in China which was consistent with previous studies. We will compare our results with previous studies and give some discussions. 2. The authors did a good job in reviewing literature. However, in discussion, the authors emphasized more on similarities with earlier studies. What are the differences? What is new in this study? What are new insights provided? Answer: This is a good suggestion. In the previous version of the manuscript, we emphasized the similarity of outputs from this and previous studies. In the revision, we will deeply discuss the differences between our study and earlier studies and the causes for these differences. We will highlight the new insight of this study into the effects of climatic variables and LAI on the water cycle of terrestrial ecosystems in China. 3. As the input data in land cover, leaf area index, meteorological data are with biases and uncertainties, a sensitivity test on the model’s response to the biases and uncertainties will be helpful. Answer: Thanks for this important comment. We are conducting sensitivity analysis to assess how possible uncertainties in LAI and meteorological data affect calculated ET and water yield, respectively. And we will add this part to the new version of the revised manuscript.

The response to the specific comments is in the supplement.

Please also note the supplement to this comment:

<http://www.hydrol-earth-syst-sci-discuss.net/10/C3377/2013/hessd-10-C3377-2013-supplement.pdf>

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