

***Interactive comment on* “Coupling a land surface model with a crop growth model to improve ET flux estimations in the Upper Ganges basin, India” by G. M. Tsarouchi et al.**

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Many thanks to both reviewers for their helpful comments. Please find our response following each comment.

Technical corrections:

1. For the figure captions it would be easier for future referencing to use a), b), c) rather than right side, left side, top, bottom (Figs. 1, 4, 5, 6, 7, 8, 10, 11).
2. Figure captions should not contain discussions and judgement statements. As an example in Fig. 7 caption, please keep: “Comparison of the mean annual ET within

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our study area, as derived from JULES-base, JULES-Info and MODIS.” and please delete “JULES-base is constantly overestimating the mean annual ET when compared to MODIS. JULES-Info is matching better the mean annual ET with the MODIS product.” Please do the same for figs. 8 and 9.

3. Standard SI unit symbols should be used: Please change ET unit symbol from mm m⁻¹ to mm month⁻¹ to avoid confusion between meter and month. (P6844 lines:22,24,25,27, P6858 line:17, figs: 5,6,8).

4. Please change “den Hoof” to “Van den Hoof” in the text and the reference (P6846 line: 28, P6850 line:2, P6852 line:9, P6853 line:1, P6856 lines: 5 and 7, P6858 line: 23, P6863 lines:15 and 18).

6. On page 6844 line 10, JULES version number could be mentioned.

Response: All above suggested minor revisions are incorporated in the revised manuscript.

5. About Fig. 2, it would be interesting to see how the land cover map changes throughout the years.

Response: We refer the reviewer to Figure 3 of our previously published paper (Tsarouchi, G., Mijic, A., Moulds, S., and Buytaert, W.: Historical and future land-cover changes in the Upper Ganges basin of India, *Int. J. Remote Sens.*, 35, 3150–3176, 2014.) which shows how the landcover changes throughout the years. Over the period 2000-2008 changes are not particularly visible due to the size the figure is printed on the page. Therefore, we decided to show only one land cover map.

In the text, we added the following sentence: "Figure 2 shows the map developed for year 2000. The temporal changes in land cover over the period 2000-2008 are also presented in the same study by Tsarouchi et al., 2014."

Interactive comment on *Hydrol. Earth Syst. Sci. Discuss.*, 11, 6843, 2014.