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Hydrology and Earth System Sciences
Discussions

Interactive comment on "Hydrological Modeling in an Ungauged Basin of Central Vietnam Using SWAT Model" *by* A. Rafiei Emam et al.

Anonymous Referee #2

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General comments

In as much as I understand that English is not the mother tongue of the authors, there are too many typos and grammatical errors. This is really distracts from the review process. The manuscript must be proofread and edited by a professional. The decade of prediction in ungauged basin has provided several approaches to deal with the prediction of hydrological fluxes of water in poorly gauged and ungauged basins. I do not see what contribution this manuscript brings forth. The approach adopted by the authors rather than reducing uncertainty, increases it. Instead of using the regionalisation method to generate runoff, they should use SWAT to identify model parameters in the relevant catchment that has sufficient data. Those parameters can then be transferred to the ungauged catchment. In addition, the procedure followed to calibrate and validate runoff, crop yield and ET is inadequate. 1st, use the quantitative statistics and

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performance ratings recommended by Moriasi et at (2007) to evaluate the model simulation. 2nd, the authors should use a multi-objective calibration approach (Bekele and Nicklow, 2007). Please see Sther et al, 2008, to see how to present the input data.

The bias correction of Modis 16 is inadequate.

Specific comments

There are several minor correction that are hardly relevant since so much work needs to be done.

Bekele, E.G. and Nicklow, J.W., 2007. Multi-objective automatic calibration of SWAT using NSGA-II. Journal of Hydrology, 341(3), pp.165-176. Moriasi, D.N., Arnold, J.G., Van Liew, M.W., Bingner, R.L., Harmel, R.D. and Veith, T.L., 2007. Model evaluation guidelines for systematic quantification of accuracy in watershed simulations. Transactions of the ASABE, 50(3), pp.885-900. Stehr, A., Debels, P., Romero, F. and Alcayaga, H., 2008. Hydrological modelling with SWAT under conditions of limited data availability: evaluation of results from a Chilean case study. Hydrological sciences journal, 53(3), pp.588-601.

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