

Manuscript Evaluation Criteria

Principal Criteria	Excellent (1)	Good (2)	Fair (3)	Poor (4)
Scientific Significance: Does the manuscript represent a substantial contribution to scientific progress within the scope of Hydrology and Earth System Sciences (substantial new concepts, ideas, methods, or data)?	X			
Scientific Quality: Are the scientific approach and applied methods valid? Are the results discussed in an appropriate and balanced way (consideration of related work, including appropriate references)?	X			
Presentation Quality: Are the scientific results and conclusions presented in a clear, concise, and well-structured way (number and quality of figures/tables, appropriate use of English language)?		X		

Access Review, Peer-Review & Interactive Public Discussion (HESSD)

Manuscripts submitted to HESS at first undergo a rapid access review by the editor (initial manuscript evaluation), which is not meant to be a full scientific review but to identify and sort out manuscripts with obvious major deficiencies in view of the above principal evaluation criteria.

If they are not immediately rejected, they will be published on the Hydrology and Earth System Sciences Discussions (HESSD) website, the discussion forum of HESS, where they are subject to full peer-review and Interactive Public Discussion.

In the full review and interactive discussion the referees and other interested members of the scientific community are asked to take into account all of the following aspects:

1. Does the paper address relevant scientific questions within the scope of HESS?
 - **Study addresses questions of sustainable water allocation and consumption as relates to hydrology, so fits well in the scope of HESS**
2. Does the paper present novel concepts, ideas, tools, or data?
 - **The paper introduces various novel ideas especially for dealing with data scarcity both in quality and quantity, e.g. the delineation of the watershed using a graduated system.**
 - **The adaptation of the swat model for dealing with uncertainty in inputs is also a welcome novel concept**
3. Are substantial conclusions reached? **yes**

4. Are the scientific methods and assumptions valid and clearly outlined?
 - **The methodology for the explicit consideration of the stakeholder needs a little more description. The differences and the interactions of the players is not precisely enumerated**
5. Are the results sufficient to support the interpretations and conclusions?
 - **Yes, results are satisfactory**
6. Is the description of experiments and calculations sufficiently complete and precise to allow their reproduction by fellow scientists (traceability of results)?
 - **Description is reproducible for researchers with comparable level of computational knowhow especially in geospatial manipulations**
7. Do the authors give proper credit to related work and clearly indicate their own new/original contribution?
 - **The author has duly acknowledged other literature**
8. Does the title clearly reflect the contents of the paper?
 - **The title is slightly misleading, the Pangani basin (fig 1) cuts across Tanzania and Kenya only and not the entire East Africa region.**
9. Does the abstract provide a concise and complete summary?
 - **abstract is ok**
10. Is the overall presentation well structured and clear?
 - **The structure of the paper is good, but the amount of details needs to be sieved, and only the important processes described**
11. Is the language fluent and precise? **OK**
12. Are mathematical formulae, symbols, abbreviations, and units correctly defined and used? **OK**
13. Should any parts of the paper (text, formulae, figures, tables) be clarified, reduced, combined, or eliminated?
 - **The methodology is too much stuff, it needs to be reduced,**
 - **only non-common procedures needs to be highlighted**
 - **There is no indication on the effectiveness of the introduced correction factor for the input, ie have not been tested vis-a-vis the non corrected model**
14. Are the number and quality of references appropriate?
 - **A few non quality references have been included, suggest use of only peer - reviewed literature.**

15. Is the amount and quality of supplementary material appropriate?

- **Supplementary material is adequate and relevant**

OVERALL ASSESSEMENT

The study introduced some interesting insights into the hydrological modeling of large scale catchments with data scarcity. The methodology is however not precisely written (too much information) and there maybe need to reduce the amount of details.

I therefore recommend the publishing of the paper with minor revisions