



Comment on hess-2021-138

Anonymous Referee #1

Referee comment on "Misinterpretation of hydrological studies in the Lancang-Mekong Basin: drivers, solutions and implications for research dialogue" by Wenling Wang et al., Hydrol. Earth Syst. Sci. Discuss., <https://doi.org/10.5194/hess-2021-138-RC1>, 2021

The study by Wang et al. with the title of "*Misinterpretation of hydrological studies in the Lancang-Mekong Basin: drivers, solutions and implications for research dialogue*" describes the politicization of hydrological science. The study then explains the drivers and intended consequences. Although the study makes good points in politicizing the hydrological science, the paper will probably make the readers confused about how this research contributes to the special issue of "socio-hydrology and transboundary rivers." To make this contribution, the authors need to improve the literature review, which is currently very weak. Then, the submitted paper should mention the research gap. Thus, I highly suggest the submitted paper goes through a major revision at this stage with my following comment.

- My general comment is that the authors improve the writing of the submitted paper. In particular, please avoid using long sentences.
- The abstract is highly weak in terms of how the submitted paper contributes to socio-hydrology and transboundary rivers.
I suggest removing the first sentence in the abstract. It has a loose connection with the rest of the abstract. Improve the last sentence in the abstract so that you can say
- The introduction needs to discuss the purpose of socio-hydrology and how this paper is connected to this purpose.
- Line 27: what do you mean by socio-hydrology perspective? How does this perspective help you with your research?
- Line 39: typo error. The introduction is 1, and this title should be 2.
- Lines 42-46: the authors already claimed that they use the socio-hydrology perspective. Thus, they should mention the difference between socio-hydrology and hydro-sociology. Accordingly, the reason they use socio-hydrology perspective.
- Line 48: improper references. Generally, the document really lacks a literature review on socio-hydrology. You may improve your literature review by the following studies and citing them:

- Di Baldassarre, G., Viglione, A., Carr, G., Kuil, L., Salinas, J. L., & Blöschl, G. (2013).

Socio-hydrology: Conceptualising human-flood interactions. *Hydrology and Earth System Sciences*, 17(8), 3295–3303. <https://doi.org/10.5194/hess-17-3295-2013>

- Ghoreishi, M., Razavi, S., & Elshorbagy, A. (2021). Understanding Human Adaptation to Drought: Agent-Based Agricultural Water Demand Modeling in the Bow River Basin, Canada. *Hydrological Sciences Journal*.

- Elshafei, Y., Sivapalan, M., Tonts, M., & Hipsey, M. R. (2014). A prototype framework for models of socio-hydrology: Identification of key feedback loops and parameterisation approach. *Hydrology and Earth System Sciences*, 18(6), 2141–2166. <https://doi.org/10.5194/hess-18-2141-2014>

- Gonzales, P., & Ajami, N. (2017a). Social and Structural Patterns of Drought-Related Water Conservation and Rebound. *Water Resources Research*, 619–634. <https://doi.org/10.1002/2017WR021852>.

- Lines 48-49: “many authors” needs proper references.
- Lines 49-50: what do you mean by calling uncertainty , politics, and power as variables?
- Line 51: it seems that the reference is irrelevant to this sentence. You may cite the following study:
 - Wei, J., Ghoreishi, M., Souza, F., Lu, Y., & Tian, F. (2020, May). Socio-hydrological approach to understand conflict and cooperation dynamics in transboundary rivers. In *EGU General Assembly Conference Abstracts*(p. 7148).
- Lines 51-52: proper references for “To date ... assumption”
- Lines 52-59: an example of a long sentence that confuses the readers.
- Lines 60-62: ver unclear sentence.
- Line 117: if you mean baker (2021) by “authors”, use “the author”
- Lines 124-126: not clear why “full trust is troublesome”
- Line 334: At the end, the conclusion leaves the readers what the contribution of this paper to socio-hydrology is. I highly suggest adding a section to clarify this point.