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Hydrology and Earth System Sciences
Discussions

Interactive comment on "Norms and values in socio-hydrological models" *by* Mahendran Roobavannan et al.

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This paper did a review of socio-hydrology (SH) modeling with a focus on several place-based studies. Based on the review, the authors pointed out the importance of social norms and values in SH models. At the end, the paper proposed potential future pathways of SH models and discussed the challenges to generalize SH models. The manuscript is well written and it is on a topic of interest to the HESS journal audiences. I have the following comments that I hope the authors could address in the revision.

Specific comments:

1. The paper explains the review case studies in multiple sessions with too much details. The focus of the paper should be the knowledge generated from those case

studies. Maybe the authors can find a way to generalize the information provided by these studies.

2. In section 2.2, maybe the authors should add the following reference, since this study is also using the idea of community sensitivity to do SH modeling.

Chen, X., D. Wang, F. Tian, and M. Sivapalan (2016), From channelization to restoration: Sociohydrologic modeling with changing community preferences in the Kissimmee River Basin, Florida, Water Resour. Res., 52, doi:10.1002/2015WR018194.

3. Section 2.3: Roobavannan et al. (2017) is still in review, so it is hard to assess the review materials in this manuscript.

4. Line 288-294: The paper suggested that environment awareness and community sensitivity are both following the general logic of the VBN theory. So maybe the authors can unify the norm/value parameters to one and provide a clear definition based on the VBN theory.

5. Line 448-453: van Emmerik et al. (2014) uses environment awareness, not community sensitivity.

6. Line 511-513: For the three listed river basins, please add the countries they are located in.

7. Line 521: Typo: "Elshafiei". These three references have been repetitively mentioned in this manuscript over 10 times. I think the focus of the paper should be the scientific knowledge that can push SH modeling forward, not the three case studies.

8. Figure 5: The paper spends a fair amount of paragraphs to talk about the parameter "community sensitivity", but the analysis provided by the study is using "environment awareness", which I believe is a different parameter. Following my previous comment, maybe the authors should add explanations about the differences between these two parameters and try to generalize the parameters, which would be a part of the SH generalization process.

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