Hydrol. Earth Syst. Sci. Discuss., https://doi.org/10.5194/hess-2017-748-RC1, 2018 © Author(s) 2018. This work is distributed under the Creative Commons Attribution 4.0 License.



Interactive comment on "Socio-hydrological spaces in the Jamuna River floodplain in Bangladesh" by Md Ruknul Ferdous et al.

Anonymous Referee #1

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This is an interesting work based on a strong empirical and field based work. While I enjoyed reading the work, I was bothered by the concept of "socio-hydrological space" that the authors are pushing for. Why not just call it "social-hydrological system"? By calling it a "socio-hydrological space," what new things become possible that couldn't be achieved when you just simply call it socio-hydrological system? The notion of system has been around for long and it is exactly what the authors are trying to do. A system refers to an "integrated whole" and is composed of several interacting parts or elements. Of course, this assumes the presence of a boundary delineating which parts are inside the system and which are outside of it. And this boundary can be of different forms: spatial boundary, organizational boundary, ecological boundary, you name it. People specify these boundaries in an attempt to analyze and address spe-

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cific research questions. So, system boundary is arbitrary and a system can be also nested within a higher level system. Let me challenge the authors. Can you define a larger socio-hydrological space that includes those three socio-hydrological spaces you described in the paper? I'm sure you could if you're comparing larger-level spaces between two very different regions. So, why not just use the term system? In social-ecology, they use the term "social-ecological system." They don't use "social-ecological space."

I also would like to see more discussion on how flood coping strategies vary by SHS1-SHS3. The authors do describe something, but not detailed enough. More details on how individual level strategies (cropping pattern, migration strategies, home flood-proofing) and group-level strategies (activities organized by communities) should be provided.

Figure 2 needs some improvement. Hard to see dotted line (levee). Hard to see boundaries of SHS1-3. If printed in B&W, these can't be distinguished.

I am also bothered by expressions like "adaptation space" and "levee effect space" in page 4. Adaptation and levee effect are emergent phenomena generated by system dynamics. I don't know what you mean by these can be rendered in terms of SHS.

Quite a few awkward grammars here and there. E.g., "channels more and more move into" (page 8).

In page 15, the authors say "the concept provides a methodological and theoretical advance in the socio-hydrology.." I am not convinced why this is so.

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