

## Reply on RC2

Leon M. Hermans et al.

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Author comment on "Power and empowerment in transdisciplinary research: a negotiated approach for peri-urban groundwater problems in the Ganges Delta" by Leon M. Hermans et al., Hydrol. Earth Syst. Sci. Discuss., <https://doi.org/10.5194/hess-2021-419-AC2>, 2021

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We thank Referee 2 for a very helpful review. The points raised are valid and we hope that by addressing them, we can deliver on the potential that Referee 2 sees for a valuable contribution.

### **OVERARCHING CONCERNS (four bullets raised, we follow the same sequence below):**

- *The 'why' of the paper is not clear.* Referee 1 made a similar point. We agree and propose to address this in the way that we outline in response to Referee 1, revising the Introduction of the paper. The suggestions by Referee 1 and Referee 2 for this are slightly different, but we expect that, starting with the challenge on groundwater management in peri-urban areas, the 'why' becomes clearer and more relevant for HESS readership.
- *Incorporate a greater focus on NA.* We will add more information on the negotiated approach (NA) in Section 2, and will see if we can be more to the point in the review of transdisciplinary research (TDR). This then may also help to give the NA more weight and visibility, as an 'equal' counterpart to TDR. We think that it may be better to align Table 2 exclusively with the NA, and not use it to compare/merge NA and TDR. Both referees indicate this was confusing.
- *More emphasis on power and empowerment is needed in Sections 3 – 6. Gender equality was mentioned but what about other power dynamics (literacy, influence, etc).* We agree that this will help to sharpen the focus on power and empowerment. We have more information on these other power dynamics and can include this in a revised version in Sections 5 and 6.
- *Sections 3 to 6 could be better organized / structured.* We agree. Section 3 and 4 will have to be revised into a shorter Methodology section in Section 3 and a case intro in Section 4. The organization of especially Section 3 may further benefit from moving the background sub-section on periurban groundwater management (which is now section 3.1) to Section 2 (as a new section 2.1). This also fits with the new outline foreseen in response to Referee 1 comments. Sections 5 and 6 were structured to follow the main phases in the negotiated approach. We think that we can keep this structure, but we agree that we should make it clearer that this is the way these two sections are organized.

### **OTHER COMMENTS (seven bullets in review, we follow the same sequence**

**below):**

- Revise objective of the paper: We will put the case experiences that are the basis for our paper more clearly – and earlier – into Section 1. This would fit with the revised Introduction (see our response to Referee 1).
- Elaboration of TDR in context of human-water systems is lacking: Indeed we have not discussed this explicitly. Rather, in the discussion of TDR, we have often prioritized work related to water-human systems. We can make this clearer, separating the “water-TDR” more from the more generic works on TDR.
- Suggestion to add maps: In this paper, we only refer to the project sites in fairly general terms. We have taken care to report the essential information and to remove the sensitive parts from our case descriptions. Discussions of power and empowerment may have unforeseen future effects on local stakeholders. Therefore, we opted for a more anonymized case discussion. Part of this is not to add maps (even if we do have those). We realize that this is not very water-tight, and that a diligent researcher could probably still retrieve in which villages we have been working with our project team. Still, we believe it is the better choice for this manuscript. Hence, we prefer not to include maps.
- Add details on trust/confidence building: We can add more details as requested.
- Exclusion of migrants: We agree that acknowledging this is important. This is the reason that we have included this in our description of the process in Section 6. We can highlight this more, also in a more generalizable way in Section 7. It underscores the need for, but also practical limitations of, a stakeholder analysis for both NA and TDR. (Our stakeholder analysis at the start of the process, was done and did help us to identify the presence and importance of migrants in a significant part of the village. Still, eventually we could not include them fully in our project, for practical reasons and resource limitations. See also lines 405 – 410 of the original manuscript.)
- Task 1 in Table 3, assessment of competence and willingness: The competence and willingness of stakeholders were primarily assessed via site visits and discussions with community stakeholders early in the project. These visits started before actual site-selection, and conversations and visits continued to cover these aspects afterwards in early project stages. We can clarify this in the descriptions for Phase A in the two Sections 5 and 6.
- Task 7, problems with limited project timespan: We can elaborate on this in Sections 5 and 6, in the sub-sections for Phase C. (the problems that we see, are that the groundwater problems and negotiations cannot be resolved in 4-5 years’ time. Ideally, the project is part of a longer-term process that continues, with maybe some external support from mediators and/or other researchers, well after 5-year project timelines. This need for longer-term process rather than 3-5-year projects is a limitation that is more often observed for TDR an NA processes alike).

**GRAMMAR / TYPOS:**

Thank you for noting those. We will fix them.