

Hydrol. Earth Syst. Sci. Discuss., referee comment RC1  
<https://doi.org/10.5194/hess-2021-419-RC1>, 2021  
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## Comment on hess-2021-419

Roman Seidl (Referee)

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Referee 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-RC1>, 2021

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**Review for the manuscript:** *Power and Empowerment in Transdisciplinary Research: A Negotiated Approach for Peri-Urban Groundwater Problems in the Ganges Delta.*  
(hess-2021-419)

### General impression

The authors make an important contribution to the field of transdisciplinary research concerning groundwater problems. They show the relevance of power issues in local settings and report impressive and informative research. Basically, I think this manuscript is worth publishing. However, suggest some substantial changes to the text. The main idea I would like to put forth is to turn around the whole story. While reading I asked myself several times and with every page more intensely, what the heck is the problem they address in this paper?

### Main suggestion

Therefore, I suggest starting with the problem description from the project reports and clearly flesh out the problem at hand. Otherwise – as it is now – the text crawls through the td-literature and states that power issues have not approached in a valid way. I asked myself, for what do the authors need the td and power knowledge? What is their challenge they need to work on? I honestly think it makes more sense to describe the problem first and then turn to methods and approaches (td), which can then be reviewed and found to be only partly helpful. However, this must be shown concretely, not stated in abstract terms. Currently the manuscripts provides a review of td-literature, which shows the authors have read it, but one wonders what for? Why is the project focusing on power, first of all? One could e.g. follow the order:

- Ground water problems at a local scale (case study areas) involve various agents
- Power issues among these agents – as emerging from the cases
- Solutions for addressing these groundwater and power issues by 'td' and 'negotiated approach'

Probably, this way the differences and synergies between the both approaches become clearer. Currently I still wonder what that is all about. (Table 2 is not very helpful to get this sorted. In all tables it should be clear what is TDR and what is from NA).

### **Some further remarks as they refer to the text:**

Page 2, line 50ff: "local water users and state actors also need to be empowered" here I asked myself the first time: WHY and for/to WHAT? What should those agents be empowered to be capable of?

Page 2, line 51: typo "among"

Page 2, line 56: indicate NA as acronym for the Negotiated Approach once and use it afterwards. Currently it is used inconsistently.

Page 4, line 126: here a reference to companion modeling or td-modeling makes sense

Page 6, line 182: why prisoner's dilemma ? What is the exact situation and why this analogy?

Page 7, line 209: "to address peri-urban groundwater problems in cities in Bangladesh and India." – which problems? Please specify from the start what kinds of problems are addressed.

Page 7, line 214: "The project started with the ambition to combine transdisciplinary research and the negotiated approach" Why? This is not clear because neither the groundwater problem nor the agent-constellation and power issues are described as of yet.

Page 8, first paragraph: This is an interesting and challenging arrangement. That is, the project internal setting was twofold: concerning civil society (society partners) and the research team. Two more sentences could be added here to elaborate on this constellation and its challenges...

Page 9, line 270 ff. Here the groundwater issues become more clear. It's about risks from arsenic contamination. When it comes to pro- and anti-groups – were there also indifferent and/or ambivalent groups/agents?

Page 10, line 309: this is an important issue – the timing and the alignment of timing in a project with societal partners.

Page 11, line 315 ff.: Still it is not clear what is the source of the arsenic risk!

Page 14, line 415: what is JJS? See also line 477

Page 14, line 426: point iii – delete the space before “waste”

Page 18, line 550: “less explicit attention” –well, maybe.