

**Response to editor:**

We want to thank the editor for his constructive and swift review of our manuscript. We cannot thank enough the efforts of the reviewers and the editor to largely improve the quality of our manuscript.

**Editor comment:**

"I wish to thank the two referees who provided excellent, in-depth assessments of the manuscript. I also thank the authors for responding to the concerns and suggestions raised – a response that generally agrees to add additional material where suggested while largely rejecting the suggestions to remove material. With this approach the necessary focus (that both reviewers agree is needed) will not be achieved (given that the paper already contains much disparate material). Hence, I want to steer the authors towards greater focus which inevitably requires disconnecting with certain concepts that do not do much to advance the substance of the case study (another argument that comes out in the reviews)."

**Author response:**

The authors convened to accept the suggestions to remove material derived from the scenario exploration exercise, and focus instead on the decision space of the urban water systems elicited by the participatory modelling workshops. Also, we refocused our analysis towards the concept of crossroads, which led us to background some concepts we used from political ecology and socio-hydrology as described in detail in our second response.

**Editor comment:**

"I suggest you make the "crossroads" theme your central theme and bring in other concepts as auxiliary, but secondary concepts (I take it this is what you write in response to reviewer 2, point 4). If Leach et al. really is vital for your narrative then make it more prominent as a unifying framework, but at the expense of connecting with socio-hydrology for example. After all, you are analysing an interesting case from a critical water research perspective drawing on political economy (though this could be strengthened as per reviewer 2) and political ecology (which connects to the hydrosocial tradition but doesn't really require this as a concept). And you are connecting to phenomena discussed by socio-hydrology, but you can relate to these phenomena without connecting to socio-hydrology. Realising this will liberate you from some of the concepts and enable the necessary focus in research gap, contribution, theory engagement, case analysis etc. demanded especially by reviewer 2. I would also follow reviewer 2 in saying that the participatory modelling should not be a focus per se, but you should bring in this experience in describing the "crossroads" and controversy moments. Reviewer 1, too, suggests that the participatory modelling should perhaps be

another paper, so here you just need to draw on that experience for telling the story that has been emerging. In this light I would perhaps leave out Table 1. If Figure 4 is to stay, then the whole narrative needs to be developed towards this point.”

**Response:**

The authors accept the suggestion of the editor of making the crossroads theme our central theme of the manuscript. We made other concepts such as the supply-demand cycle and the reservoir effect auxiliary to this end. In this way, we made more prominent the critical political economy perspective as suggested by both reviewers in section 4.1 of the manuscript. We also revised, improved and enhanced Section 4.2 on participatory modelling to better contribute to the story we are telling on the urban water system crossroads. To that end, we also removed Table 1 and our analysis of the scenario exploration exercise. However, we think Figure 4 can contribute to the crossroads story. Therefore, we decided to keep it, but, as suggested by the editor, redeveloped the text so that the narrative synchronises with it.

**Editor comment:**

“Instead of section 2, which opens connections to many concepts but doesn’t do all of them justice (as the reviewers state), I would foreground the theory that is most vital for your narrative. In that respect, integrating disciplines perhaps isn’t the right focus for the narrative.”

**Response:**

The authors reconsidered the main focus of Section two. We acknowledged that due to the many concepts we were working on, we did not do them justice to foreground the research gap, contribution and theory engagement. Instead of integrating disciplines as the focus of Section 2, we realized that since our main theme was the crossroads, we needed to engage with literature that explains why systems remain without change and what could be the factors of change. Therefore, we foregrounded the role of water conflicts and grassroots movements as an underresearched theme that needs to be studied with a transdisciplinary approach.