

De Angeli – revised version

Thanks for your thorough revision of the manuscript and the clear explanation / justification in the rebuttal. I agree with the points you make in the rebuttal and see the paper now as a more useful contribution to the field. There are a few areas where I see some small but important room for improvement. If you address the following four points, I will be happy to accept the paper. (Line numbers below refer to the revised version of the manuscript without tracked changes.)

1) I still think your statements about the field of drought research are not always fully correct and you do not always provide justification for your statements (e.g. l.179-180: “methods frequently fall short of genuinely integrating stakeholder input”), but I also recognise that an outsider perspective can be useful and an perspective paper does not require a full review of the current state-of-the art.

One example where you can easily make a change is L.32-33: “drought hazards primarily modelled as hydrological processes (Mishra and Singh, 2010, 2011)” > please add “meteorological”, because many drought (impact) studies even skip hydrology and go directly from the climatic anomaly to the impacts, so this sentence should be rephrased to: “modelled as meteorological and/or hydrological processes”

2) The way that you mix up drought (impact) research with modelling is still confusing. In the rebuttal you write that in response to Reviewer 1, comment 6: “one of the dimensions we explore is modeling, understood in a broad way that encompasses not only quantitative approaches but also more qualitative and interpretive ones. In this broader perspective, modeling is considered a major part of the co-creation of most knowledge related to drought impacts.” But qualitative approaches is not what the reader would think when you talk about modelling.

In the revised paper you write: “In the field of integrated water resource management knowledge co-creation is often addressed by referring to the concepts of collaborative modelling or co-modelling (Basco-Carrera et al., 2017). This concept involves the collaborative construction of models, which can be physical, conceptual, or computational representations of a system, process, or phenomenon.” (l.55-58). Good that you add this definition and I agree that co-modelling can be one aspect that is sometimes used in co-creation, but in the next paragraph you then write:

“... co-modelling of i) drought impacts, ii) water infrastructure planning, and iii) water use under scarcity conditions. The first body of literature includes studies aimed at increasing stakeholders’ participation in drought plans with a variety of approaches.” (l.61-63). The examples you give in the paragraph after are not all modelling studies, not even with the broad definition you gave before.

I think it is best to leave the modelling focus in Section 3.4 and frame the rest of the paper more broadly. So I suggest that you replace the word “modelling” with knowledge, research, analysis, or something similar, and co-modelling with co-creation (you now seem to use them interchangeably) throughout the manuscript except when you explicitly mean quantitative numerical modelling. For example on l.32, 49, 94, 217, 228, 255-256, 271, 359. The definition and explanation in lines 302-307 are helpful and this applies well to Section 3.4, but the other sections should be more general. In the Introduction you can write that in the perspective you discuss drought impact studies in general first and then zoom in to focus on one approach that is often used, namely modelling.

3) In line 115, you list the two last disciplines as “Critical Water Studies, and Science and Technology Studies (STS)”, but in line 126 you state that Critical Water Studies is part of Science and Technology Studies (STS) and in line 134 you mention the wider STS. This is confusing (and as a side-note, you don’t need to introduce the abbreviation STS twice). What would help is turning the discussion of the dimensions of Critical Water Studies and STS around, so that you can start with the broader STS and then zoom in to Critical Water Studies. If that is difficult, you need to at least change l.134 from “STS provides an insightful self-reflection” to “The wider field of STS provides an insightful self-reflection”.

4) In line 140, you need to refer back to the previous section by saying that the five dimensions are based on the five research fields highlighted in the previous section. This was already pointed out by Reviewer 1 in Comment 2.

Textual comments:

- L.103: “we identified and discussed” > “we identify and discuss”
- L.109-110: “Next, in Sect. 4, we discuss the limitations of transdisciplinary approaches to drought” > “Next, in Sect. 4, we discuss the limitations of transdisciplinary approaches to drought, related to the five key dimensions”
- L.222: “team” > do you mean stakeholders? Or research team? Or a combination? Please specify.
- L.248: “it’s crucial” > “it is crucial”