Interactive comment on “Hess Opinions: Socio-economic and ecological trade-offs of flood management – benefits of a transdisciplinary approach” by Karl Auerswald et al.

Anonymous Referee #1

Received and published: 26 November 2018

This is a nice opinion paper, which discusses the side of effects of structural flood protection. It starts from the recently discussed issue of the safe-development paradox (levee effect) and moves towards a more critical assessment of ecological impacts. The argument is not new, as vast literature is available, but this is a commentary and the main arguments are well supported by the cited literature. Indeed, there is still a major lack of fundamental understanding of these issues, and more transdisciplinary research is needed.

I have two main comments that I hope can help improve this opinion paper. First, I think the paper would benefit from at least a paragraph in which the negative (environmental and social) impacts of structural flood protection are more fairly compared to the positive (economical) effects, e.g. growth or development. Second, as the paper suggests a transdisciplinary research agenda, I think that the authors should be aware that Di Baldassarre et al. (2013) published a paper on the same journal (Hess) arguing for transdisciplinarity for a better understanding of deltas and floodplains as human-environment systems. I also suggest a few more references on the topic that might help the revision of this manuscript.

Suggested references


