

Interactive comment on “The European flood risk directive: challenges for research” by E. Mostert and S. J. Junier

Anonymous Referee #1

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Overall this manuscript is NOT acceptable in its current form. The significant problems that this manuscript shows demands a thorough rewrite and some further research. However, I do like the idea of this paper very much and it is worth pursuing for publication in HESS. There is great value in looking at the FRD, reviewing important concepts, drawing out links between the implementation of FRD and current research practice. I have 5 key points:

(1) The manuscript started out reasonably well (although the 2nd sentence “it has proven impossible to eradicate them completely” is really quite naive and I can’t see this being appreciated by readers of HESS. I did like section 2, which was informative, concisely and effectively written. However then the manuscript goes rapidly downhill.

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There is a leap into summary reviews of a list of concepts to do with flood risk (measuring flood risk, maps, plans, uncertainties, risk and uncertainty comm., trust, collab., interdiscip. Research, particip. Research). While these have some value as stand alone discussion paragraphs they are no way linked to or drawn out of the preceding discussion in section 2. They are not really ‘research challenges’ either. Especially in the way they are currently written. They are thus mini reviews with no clear purpose and i find this section poorly constructed and considered.

(2) I do not find it useful that the authors take so much care to separate out research science and practice as the two are inextricably linked – especially when it comes to things like flood risk (“The purpose of this paper is to ... discuss the challenges that the FRD poses to research”). I think that the message of this manuscript needs to be reconsidered or is wrongly phrased. I think that a more interesting question and one that could easily be answered with much of the material presented here, is to focus on what research needs to be done in order to implement the FRD. This has a different focus from the above.

(3) My suggestion for rewriting section 3 of this manuscript in a more useful way: (i) Summarise what is demanded by the FRD – carefully draw out x key research areas and show clearly how these come out of the FRD (in a table). (ii) Then review current research practice in each of these areas in turn. For each: a. What is the state of the art? (with many examples from the large literature base on flood risk! The current background literature review is poorly populated) b. What do you need to do to implement FRD needs into practice within Europe based on above c. What challenges remain + implications and directions for future research d. Recommendations for research practice to Member States

(4) I was a bit surprised that so little of the review considered Member States current flood risk practice. I would expect to see a table with several examples of how it was being done now. This certainly does not need to be accusatory or exhaustive in any way, but would be very informative in terms of the context of the FRD. Why not ask

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Member States about this or flood risk researchers? Why not take quotes from current literature/policy document base? There is not enough on this.

(5) The scan presented in Appendix A is really not very useful. So few key words have been used and it would be more useful to look in more depth at some of the articles being published in the literature, like every other review paper would normally do! Why not construct a table showing some of the recent key paper in these areas and what they are saying – what is the key research being done in these areas. Would make for a better comparison.

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., 6, 4961, 2009.

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