

***Interactive comment on “An ecohydrological sketch of climate change impacts on water and natural ecosystems for The Netherlands: bridging the gap between science and society” by J. P. M. Witte et al.***

**Anonymous Referee #1**

Received and published: 18 July 2012

General comments

The paper by Witte et al. presents an ecohydrological sketch-map that enables decision-makers to assess climate change effects on ecosystems in The Netherlands. Instead of relying solely on modeling techniques (which has been shown insufficient to assess impacts of climate change at regional scale), the sketch-map is based on the combination of modeling results, literature review and process-knowledge of experts. The Authors use the Dutch delta as a representative example to investigate

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the impact of two climate scenarios (dry, wet) on ecohydrological systems such as heathlands, grasslands, and bogs. The paper represents a substantial contribution to the topic of decision-making in the face of climate change uncertainty (with focus on impacts on ecohydrological systems) and addresses a relevant question within the scope of HESS. The Authors present valid methods to reach substantial conclusions by providing a comprehensive literature review on merits and drawbacks of modeling techniques in the context of ecohydrological feedbacks and climate change. Further, the compilation of the map is described in detail. I recommend the manuscript for publication after minor revision with regard to the paper structure, which jumps back and forth between introduction, method, results, and discussion. While the application of a classic manuscript outline is challenging for the present paper, it should be linked to the stated study goals, which are “(1) to provide insight into the usability of current models for climate change projections, and (2) to [...] compile a sketch map [...]”. In this context, the literature review on modeling techniques, for example, can be considered the method rather the introduction. Please refer to the attached supplementary document for further details.

Please also note the supplement to this comment:

<http://www.hydrol-earth-syst-sci-discuss.net/9/C3091/2012/hessd-9-C3091-2012-supplement.pdf>

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Interactive comment on Hydrol. Earth Syst. Sci. Discuss., 9, 6311, 2012.