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Hydrology and Earth System Sciences Discussions

Interactive comment on "A framework for global river flood risk assessments" *by* H. C. Winsemius et al.

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The authors present a framework for global river flood risk assessment. The paper is very timely and well written but deals with a lot of different aspects making it sometimes difficult to evaluate any given element. In a sense, each aspect presents limitations and could be operated differently and therefore criticized. Having said that I believe the elements presented are sound and altogether give one possible answer to addressing the problem, which is clearly stated in the paper's conclusion actually.

I think this paper deserves publication in HESS after revision of some concerns highlighted below.

* The paper is relatively long but I'm aware that it might be difficult to put all of it in a more concise form; however I feel the paper would benefit from this.

* 1 km seems still quite coarse, although that might be the highest resolution available for most data required at the moment. Is there any indication about what would be the desirable resolution (100-150 m???).

* In general, I'm wondering whether there could be a brief paragraph on the accuracy of each component - are these assessed in any way? How good are some of the different elements/models compared to field data?

* Following on from the above comment, is it possible to use data from a real flood event and simulate this using the proposed framework in order to assess the accuracy?

* How much difference can be expected from the use of other GCMs/scenarios?

* In the Bangladesh validation case especially, the simulated area looks underestimated by a substantial amount. Can the authors explain this?

* Do the authors expect end-users of this product or is the main target the research community?

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., 9, 9611, 2012.