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Discussions
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Interactive comment on "Benchmarking an operational procedure for rapid risk assessment in Europe" *by* Francesco Dottori et al.

Anonymous Referee #1

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The paper proposes a procedure for rapid flood impact assessment using a set of simulation models and a library of pre-processed flood inundation maps. Forecasted peak discharges are matched with corresponding flood maps from the library and mosaiced to provide a large-scale inundation map. This inundation map is then used to assess the impact of the flood in terms of population affected and economic damage.

The procedure is applied to the Balkan flood in May 2014 and the plausibility of the results is checked using observed and reported data. In this context also the limitations of the procedure are discussed. In view of an increasing importance of considering consequences within risk oriented flood management the paper addresses a relevant topic and could make a valuable contribution to the field. It is therefore suitable to be published in NHESS.

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Discussion paper

However, there are a number of points which should be taken into consideration to make the paper stronger. The most important ones are: 1) What is the definition of risk used in the paper? It would be more appropriate to use e.g. impact forecasting, particularly in the title and throughout the mansucript.

2) What is the benchmark you use? I think also this term is not very appropriate in the title because actually no benchmark is available. I would suggest to reword the title 'An operational procedure for rapid flood impact assessment in Europe'

3) The main achievement of the flood impact forecasts is currently not sufficiently elaborated. The focus shut be on the added value of the impact forecasts: i.e. the evaluation of consequences. Knowing the consequences of the flood in advance allows to take cost-benefit considerations into account which in turn allows to prioritize emergency and response measures. You should then also discuss issues concerning the protection of human life against economic loss.

4) Background information on different components of the system is sparse. For instance no information is given on the DEM used. Also, the model approach for flood impact assessment remains obscure. This should be clearly improved.

5) Figures 4, 5 and 6 should be combined in a multi panel graph for better comparison between the different settings.

Further remarks are given in the annotated PDF file.

Please also note the supplement to this comment:
http://www.nat-hazards-earth-syst-sci-discuss.net/nhess-2016-338/nhess-2016-338-RC1-supplement.pdf

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