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Interactive comment on "Water-level attenuation in broad-scale assessments of exposure to coastal flooding: a sensitivity analysis" *by* Athanasios T. Vafeidis et al.

Anonymous Referee #2

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I totally agree with referee #1, who has already expressed clearly and with good arguments what were my thought after reviewing this manuscript. The paper is really well written, what makes it easy to read, and the topic is of interest to a broader community. However, it is simplistic in the analysis, and the results don't give any new insights to the current state of the art. The authors use the flood module of DIVA, a large-scale coastal impact assessment tool to estimate the reduction on studied impacts (area and population exposure, and damages) for different water level attenuation rates on a global scale (based on a literature review), which are considered homogeneous and not dependent on the actual land use. Based on their results they highlight the importance of accounting for the effects of hydrodynamic processes on global scale analysis,

something that it is already known for the community (although avoided due to computational constrains). However, it is lacking for any validation data, and it also dismiss other sources of uncertainty such as the one introduced by a coarse digital terrain model (DTM), the damage functions, etc. (Moel et al. 2011). I believe this work could be a great base to develop new methodologies for global scale coastal flooding assessments, however I doubt if it brings new contribution to the community knowledge in its current state.

References Moel H., Aerts, J.C.J.H. (2011). Effect of uncertainty in land use, damage models and inundation depth on flood damage estimates.