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Natural Hazards and Earth System Sciences
Discussions

Interactive comment on "Assessment of island beach erosion due to sea level rise: The case of the Aegean Archipelago (Eastern Mediterranean)" *by* Isavela N. Monioudi et al.

Anonymous Referee #1

Received and published: 9 December 2016

The manuscript details a study that (a) provides a record of the spatial characteristics of the Aegean Archipelago beaches (Greece); and (b) assesses the erosion and temporary inundation/flood risks of the Aegean beaches under different scenarios of SLR, using ensembles of cross-shore (1-D) morphodynamic models (validated, to an extent, by physical experiments) and empirically-derived estimations of wave run up-induced flooding. The manuscript is well written and referenced. It presents an interesting approach for the rapid assessment of the vulnerability of a large number of beaches at a regional level using minimal environmental information. In this sense, the presented approach is very useful and can breach the gap between coastal scientists/engineers and coastal managers and can be used in a variety of coastal regions. I recommend

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Discussion paper

publication following some clarification and minor editing corrections

I would like the authors to clarify in the manuscript the drivers/components of the short-term sea level increases. Do they refer to extreme sea levels due to storm surges and waves (e.g. is wave setup included) or to storm surge alone?

Pg.3, Lines 18 – 20 There are refs to US$ and then to €İt is confusing. Please clarify; this may be confusing for the reader.

Also Pg. 8, Lines 21 - 22 12 SLR scenarios are mentioned, but only 11 are detailed.

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