

Interactive comment on “Continental Portuguese Territory Flood Social Susceptibility Index” by N. Grosso et al.

Anonymous Referee #2

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In this work the authors introduce a Social Susceptibility Index for Portuguese Territory, using a methodology already applied elsewhere (mostly US and in some parts of Europe). I have found the idea of the work to be appealing, also in terms of expected impacts. This is not an easy task and I would encourage this effort. Nevertheless, I cannot recommend publication without a very deep revision and major improvements. The material in the paper is potentially interesting for publication in NHEESD, but the presentation and the discussion requires further thoughts. Also the English should be strongly ameliorated. I'm not a native speaker but in some parts is not easy for me to understand what the authors would explain and assess. At the moment is very hard for a reader to understand if the information here reported deserve publication.

As the other reviewer has already highlighted, the lack of any validation could seriously
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invalidated the results here presented. This issue need to be conveniently addressed or at least more in depth discussed. The authors have mentioned this issue just in the conclusion (but I think that it could deserved a broader discussion

I have seen that the most part of the authors have contributed to a similar discussion in NHEESD about vulnerability index (Jacinto et al 2014 Nat. Hazards Earth Syst. Sci. Discuss., 2, 7521-7552, 2014 www.nat-hazards-earth-syst-sci-discuss.net/2/7521/2014/ doi:10.5194/nhessd-2-7521-2014). I suggest to highlight and strengthen the link with the other paper.

Specific comments Sec. 3.1 This section should be strongly shortened and its main scope should be clarified Sec. 3.2 Census of 2001 cannot likely reflect some major changes happened in the society (I suppose even in Portugal) in the last 15 years How do the authors choose the characterization of each variable (minus/plus...) ? Sec. 3.3 Could the authors better explain what d they mean with 'expert analysis' at line 24 The authors should better highlight what's the most innovative aspects of their method and what's different and new with respect to the method previously proposed by Feteke 2010 over Germany. I don't sincerely understand the novelty of this approach (out of the application onto the Portuguese territory). Please clarify Sec.5 The authors state that "The PCA based technique avoided successfully most of the subjective selection processes based on expert analysis methodologies that can add bias to the final index, based on personal assumptions.". However, if I correctly understood the expert analysis play a key role in attributing the susceptibility characterization (minus/plus... see sec.3.2). The authors should better clarify this point

Finally, as already mentioned, the validation issue should be more widely treated and discussed

Interactive comment on Nat. Hazards Earth Syst. Sci. Discuss., 2, 7553, 2014.