Natural Hazards and Earth System Sciences Discussions

Nat. Hazards Earth Syst. Sci. Discuss., author comment AC3
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Reply on RC2

Fausto Guzzetti

Author comment on "Invited perspectives: Landslide populations – can they be predicted?" by Fausto Guzzetti, Nat. Hazards Earth Syst. Sci. Discuss., https://doi.org/10.5194/nhess-2021-39-AC3, 2021

Response to the comments of the second reviewer

I read with interest this invited perspective that is concise, clear, and well-focused in its purpose. The article is aligned with the goals of the 20th anniversary of the journal Natural Hazards and Earth System Sciences (NHESS) Special Issue. The discussed topic is relevant.

I am pleased that the reviewer has found the manuscript of interest and the topic relevant, and I thank the reviewer for the positive comments and the useful recommendations.

However, there are few minor points that could be improved, and therefore help the readers to better catch the message of the entire work. I summarize these in the following points:

I respond to the comments of the reviewer below.

"the point of view of the organization", in this case, "Dipartimento della Protezione Civile" of Italy, should be further described, with just 2-3 more sentences (but we cannot enlarge too much the work giving the SI purpose of two-pages limit) on the operational point of view of landslide prediction & mitigation framework. The authors are curious to see and learn from the Italian case study.

I have considered this comment thoroughly and, I have decided not to discuss the point of view of the Italian "Dipartimento della Protezione Civile" of Italy" for two reasons. First, the paper is meant to be general, and not focused on Italy and on what the Italian Civil Protection does – or does not – to address landslide risk in Italy. Second, I am not really entitled to provide the official perspective of the "Dipartimento della Protezione Civile".

Line 42: when discussing "remote sensing imagery" I suggest mentioning the name (within brackets) of the remote sensing technologies (which are commonly used in preparing landslide maps).

I have edited the text as requested. The new text reads "The increasing availability of remote-sensing imagery (optical, SAR, LiDAR), some of which is repeated over time and free of charge (Aschbacher, 2017), opens …".

Line 63-64: the authors indicated that the number of studies projecting the future occurrence of landslides is increasing; here few key citations are necessary (we can exceed with citations since they are not included in the two-pages limit).

I have added the requested references. The new text reads "The literature on the analysis of historical landslide records remains scarce (Rossi et al., 2010), but the number of studies projecting the future occurrence of landslides is increasing (Gariano et al. 2017; Peres and Cancelliere, 2018; Schlögl and Matulla, 2018; Patton et al. 2019; Schlögel et al. 2020; Gariano and Guzzetti, 2021)".

Line 77, and in general in the entire work: the landslide types are not discussed or classified; this could be an interesting point for NHESS readers, but I understand that giving the limit of 2 pages and the focus of the work, maybe it is difficult to address. However, I would suggest thinking if there is a possibility to speculate a little on this, simply mentioning some landslide type when citing the literature.

As the referee has indicated, it would have been very difficult to address the many issues related to the prediction of the hazards posed by different landslide types in a very short article. However (a) I maintain that the content of the manuscript is general and applies to most landslide types; and (b) I now specify in the text that the manuscript deals with all landslide types.