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Reply on RC1

Maria Francesca Ferrario

Author comment on "Landslides triggered by the 2015 M_w 6.0 Sabah (Malaysia) earthquake: inventory and ESI-07 intensity assignment" by Maria Francesca Ferrario, Nat. Hazards Earth Syst. Sci. Discuss., <https://doi.org/10.5194/nhess-2022-69-AC1>, 2022

I wish to thank the anonymous reviewer for his/her thoughtful comments, which helped in improve the quality of the manuscript. Here I provide a point-to-point answer to all the comments raised by reviewer 1. Original comments are shown in *italic*, while my answer is in plain text.

RC1: Anonymous Referee #1, 01 Apr 2022

Database construction and distribution analysis of landslides triggered by large earthquakes are of great significance. In this manuscript, landslides triggered by a large earthquake in 2015 was taken as the object, and a relatively detailed and complete landslide distribution map was established. Then, the distribution law of landslides was analyzed, and the comparison with other large earthquake-triggered landslides was carried out. I have only one suggestion, and that is that it looks like this study is missing a scientific discussion section, although there is a section titled Results and Discussion. In fact, it's mostly results, not discussions. It is recommended to separate the two and discuss from more aspects, such as data, methods, results, etc., and compare with other earthquake cases and previous work to analyze the advantages and disadvantages of this work. In addition, there is a need to have a prospect for future work.

Agreed. I now separate Section 4 (results) from Section 5 (discussion). In the results, I describe the spatial distribution of landslides (Section 4.1) and the scaling relations among LND, LAP and ESI-07 intensity (Section 4.2).

The new structure of the Discussion section is as follows:

- 5.1 From the 2015 Sabah earthquake toward a generalization. Here I discuss the results obtained on the Sabah earthquake, and specifically the relations among LND/LAP and ESI-07, by comparing them with the 2008 Wenchuan earthquake. This section should be the ground on which a wider study can be realized, investigating all the existing earthquake-induced landslide inventories, to obtain more reliable empirical relations.
- 5.2 Comparing the 2015 Sabah case study with worldwide data. This is the former Section 4.3, where I put the Sabah case history in a broader context, investigating the distribution of number of landslides and affected area with respect to earthquake magnitude.
- 5.3 Challenges and prospect for future work. I added this section, summarizing the challenges due to input data and methodological steps. I also stress what I believe is

the main novelty of the current work, that is the derivation of scaling relations among LAP/LND and ESI-07 intensity.