Natural Hazards
and Earth System
Sciences
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Discussions

Interactive comment on "Statistical modeling of rainfall-induced shallow landsliding using static predictors and numerical weather predictions: preliminary results" *by* V. Capecchi et al.

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article

Author Comments to review by Dr. J. Schmidt

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We thank Dr. Jochen Schmidt for his relevant and useful comments.

Conventions adopted in this document:
Bold is used for Referre's comments
Italic is used to cite parts of the manuscript or other
Plain text is used for the responses to the Referre's comments

According to the Referee's text we organized our comments in the following issues:

- **Some of the English language is grammatically incorrect and should be improved on. I recommend a thorough rewrite by a native speaker.**
  We acknowledge that the English language is poor and we apologize if it is grammatically incorrect in some parts of the text. I contacted the Copernicus Copy-Editing Staff. They took a look to the discussion paper and, according to their assessment, they say that *"a standard copy-editing of the final version of the paper should be sufficient while a rewrite is not necessary"*. The standard copy-editing will be performed by the Copernicus Staff itself.

- **The abstract it is poorly written, e.g. description of the study findings is**

missing, and generally English is poor. The abstract should be rewritten.

Part of the abstract has been rewritten, including the description of the study results. For what concerns the English language see the comment above.

- **The introduction needs to be completely rewritten. [. . .] Best practice for a introduction is to explain the 'why' of the study, i.e. explaining the motivation and how the study contributes to the wider international research.**

The introduction has been consistently rewritten keeping in mind these guidelines: (i) describe the motivation of the paper, (ii) explain why the question raised is important, (iii) describe what is currently known about the topic, (iv) describe the approach we adopted in a sufficient detail and (v) briefly mention the results and conclusions of the paper.

A text with the revisions between the first version of the paper and this latter has been uploaded.

- **The last paragraph of the introduction, explaining the paper structure, is unnecessary and can be deleted.**

This paragraph was removed from the text.

- **The used data on landslide occurrence is not well described (if at all). In the section 'Materials and Methods', a new section needs to be included describing (the generation of) the used landslide maps. What was the mapping method used? What exactly was mapped (which landslide feature, e.g. run-out)?**

All the details available on the landslides data were added to the text. Anyway no new section was added, since information are scarce, but details on the generation of the used landslide maps were added at the end of each single event section.

Initiation points at the center of the scarp were used as landslide observations to determine landslide-affected grid cells. This information was added to the text.

- **Sections 2.1: Could you give indication of the events return periods?**

The indication of the events return periods has been reported for the 25OCT2011 event,

whereas for the 18MAR2013 event it was not possible to estimate return periods due to the lack of long consistent time series in the area. Nevertheless an estimate of the recurrence interval has been provided.

- **The paper does not very well describe how the predicted dataset, the landslide layers were separated into a training and validation dataset. This needs to be better described in the appropriate paper sections.**

Due to the corrections requested by the Referee # 1, this point was substantially revised if compared to the first version of the paper. See section "Materials and methods" (in particular sub-section "Description of the statistical modeling of landslide hazard") for details on how landslide layers were separated into a training and validation dataset.

- **Maps in Figures: scalebar/scale is missing. Also you should use the same projection**

North arrow and scalebar was added to Figure 1.

- **Figure 2: very poor figure! Needs to show extent of the WRF simulations!**

Figure 2 was removed and the extent of the WRF simulations has been integrated in Figure 1.