

## Author's Comments to nhess-2018-93

We would like to thank the Editor and both reviewers for their thorough and constructive feedback. Please find our responses to the minor issues below:

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### Editor Comments:

Dear authors,

You provided a suitable reply to all the comments raised by the reviewers. At this point, the article should be ready for publication. I would, therefore, suggest checking two minor issues (very easy to address):

(1) Discussion and Conclusion are merged. I would recommend to separate these, leaving one short chapter (chapter. 5) to the conclusion.

(2) Figure 6: is there a legend to add showing the colour ranges?

Dear Prof. Tarolli,

we very much appreciate your positive response to the revised version of the manuscript.

ad (1):

We have separated the chapters Discussion and Conclusion as proposed.

ad (2):

We argue that a legend to Figure 6 is not really useful and of little value for the reader due to several reasons:

- These heat maps are intended to convey hot spot regions (illustrated exemplarily for two selected incidents), rather than presenting specific data.
- Heat maps (and consequently their legends) are strongly dependent on the parametrization of the rendering algorithm (e.g. the radius used for plotting).
- Also, the units would be quite confusing in this case – for instance, for the right heat map, the unit would be "*diversion time fraction of daily base travel time / ( day \* person \* area)*", which is then aggregated over all agents and spatially aggregated over the heatmap raster. We have added a statement on the relative information contained in the maps ("darker means higher") to both parts of the map.

Note that for interested readers, data on home locations of affected persons of the synthetic population are provided as an interactive Leaflet map (Supplement 2).

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## **Report #1 (Referee #2: E. Schmaltz)**

Dear authors,

Dear Editor,

I have reviewed the revised version of the manuscript 'On the nexus between landslide susceptibility and transport infrastructure – an agent-based approach'. Based on the significant improvements that have been made compared to the first version and the high quality of the manuscript, I suggest to consider the revised version of the manuscript for publishing.

Best regards

Elmar Schmaltz

Thank you.

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## **Report #2 (Anonymous Referee #1)**

Dear Authors

Thank you very much for the effort you put in the revised manuscript. I think the revision has significantly improved the quality and comprehensibility of the article. I also believe that the article will be an enrichment for the community; therefore I recommend a publication in NHESS.

PS: I found two minor technical corrections which probably can be addressed during the editorial phase:

- 1) on page 5 line 22, please remove "(maybe citation here on one of the landslide studies)";
- 2) please increase the font size of Figure 3.

Thank you. We have (1) removed the passage and (2) increased the font size of figure 3.

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On behalf of all co-authors,  
Matthias Schlögl