

Geosci. Model Dev. Discuss., referee comment RC1
<https://doi.org/10.5194/gmd-2021-343-RC1>, 2022
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Comment on gmd-2021-343

Anonymous Referee #1

Referee comment on "LAND-SUITE V1.0: a suite of tools for statistically based landslide susceptibility zonation" by Mauro Rossi et al., Geosci. Model Dev. Discuss.,
<https://doi.org/10.5194/gmd-2021-343-RC1>, 2022

Landslide susceptibility analysis predicts where landslides are likely to occur, which is very important for human. There have been many methodologies to assess landslide susceptibility. However, a standardized methodology, procedure and software for susceptibility assessment is still required. This study developed suite of tools for statistically-based landslide susceptibility modelling. However, the current version looks like a specification and the scientific contributions need to be stressed. In addition, how does this software provide a standardized susceptibility analysis or how can people use it at a standard way? The differences between this study and Bornaetxea et al. (2018) should be well presented. The authors stated that LAND-SUITE provides a tool that can assist the user to reduce some common source of errors coming from the data preparatory phase, and to perform more easily, more flexible and more informed statistically based landslide susceptibility applications. But I cannot get such information. How can this tool help to reduce the errors in the data preparation and why is this tool more informed?

Major concerns:

Abstract:

- Line 10: The authors stated that some physically based models are available. What is the purpose of this statements?
- What is the limitations of LAND-SE? What is the difference between LAND-SUITE and LAND-SE?
- Some results and conclusions in the specific applications should be added in the abstract.

Introduction:

- Line 59: shows why the authors further developed the LAND-SUITE model? If so, more details should be given rather than only cite the table in the existing literature.
- Line 64: the advantage of LAND-SUITE over LAND-SE should be stressed.

Data requirements and specifications

- This section needs to be reorganized. Currently it is not logical and difficult to get the central information.

Software description

- A simple schematics can be provided to show the link of three modules.
- A table can be added to show the functions of each module.

LAND-SUITE application

- The authors need to present how to use this tool at a standard way in the applications rather than just show some results.

Final remarks

- Some prospects and limitations can be provided in this section.

Code availability

- I cannot access the software via the doi: 10.5281/zenodo.5650810.

Minor concerns:

Line 25-30: add some references

Line 41: add some references

Line 41: "are available"?

Line 49: propose -> proposed

Line 55, give the version of R