Paper Title: " Rapid Landslide Risk Zoning toward Multi-Slope Units around the Neikuihui Tribe for Preliminary Disaster Management "

Reviewer #1:

Comment	Author's Response
Thanks to the authors for answering all comments raised in the first round of reviews in an adequate manner. Please note that line numbers refer to the version containing authors* tracked changes. I do have some additional comments, which need further clarification. Many of them are of a merely technical nature. However, I do advise to revise parts of the discussion section to be more precise and explicit about benefits and limitations of the method.	Authors appreciate the comments and carefully examine the manuscript for the suggestions as follows:
1. l.16: "assess" or "integrate" instead of "apply the susceptibility, ..." 2. l.94: To whom does "They are" refer to in this sentence? This is unclear, please rephrase. 3. l.98: I suggest to use " basis" instead of "basement" 4. l.100: I'm wondering if it is sufficiently clear to a wider audience, what a "CS map" is. I suggest add a half sentence explaining the actual type of output in this type of topographic map. See also the next point. 5. Figure 2 (c) and (d): A continuous scale legend is somewhat	1. "assess" is used as suggested. 2. We rephrase the sentence as "The most residents are aborigines in Taiwan." 3. "basis" is used instead of "basement". 4. Asahi (2014) proposed a CS (Curvature-Slope) map which can be made of altitude, curvature, and slope degree. Fig. 2c is provided with color attributes suggested by Asahi (2014) that Light Blue indicates valleys and Light Red indicates the ridge. 5. The ranges between ridge and valley is added as suggested. The

unorthodox for discrete features ranging from "Ridge" to "Valley". Using Ridge and Valley is fine, but I suggest to also add the actually plotted variables (i.e. their ranges) there. Also, if Figs. (c) and (d) are included for comparative purposes, wouldn't it be better to use the same color palette?

6. l.146: "Martinello et al. (2020) brought the Imera Settentrionale watershed in northern Sicily, Italy, as the research scope ..." is a somewhat strange sentence. Why not just "Based on an analysis of the Imera Settentrionale watershed in northern Sicily, Italy, Martinello et al. (2020) found slope units to be superior for representing landslide susceptibility as, as opposed to (I suppose: grid cells) due to (reason here)".

7. l.186: lowercase s in susceptibility

8. l.188: I would replace "The statistical one uses numerous landslides to analyze the corresponding unstable slopes." with "Statistical approaches require representative landslide inventories as training data set which are used to characterize the corresponding unstable slopes."

9. - l. 188f: "Factors such as topographical and geological conditions were marked with weights and rankings statistically, leading to objective results in practice." This sentence is unclear. Is this a general description following up on the description of statistical methods? Than the tense should be present tense. Or was this done

authors suggest keep the original color attributes of CS and RED maps since the main comparative purpose is trying to identify the similar topographic feathers from different maps.

6. The sentence is modified as "Based on an analysis of the Imera Settentrionale watershed in northern Sicily, Italy, Martinello et al. (2020) found slope units to be superior for representing landslide susceptibility as a real spatial scale in geomorphological form."

7. Modified as suggested.

8. Modified as suggested.

9. The sentence is modified as "Factors such as topographical and geological conditions are marked with weights and rankings in the statistical method, leading to objective results in practice."

in this study? If yes, how?	10. Modified as suggested.
10. - l. 191: lowercase s in susceptibility	11. The sentence is modified as "Then susceptibility of the landslide was evaluated with the Logistic regression, resulting in main factors of the slope degree, lithology, and dip slope, as well as the adjacent conditions to a river and fault."
11. - l. 191: please state "using logistic regression" explicitly, the term "logistically" is incorrect in this context	
12. - l.192: Does "adjacent conditions" mean that the features "distance to rivers" and "distance to faults" were considered as independent variables in the regression model?	12. Yes, these factors are summarized in Table 1.
13. - l. 194: "Afterward, regional statistical results were applied to calculate the occurrence index normalized from 1 to 2." I cannot really follow what was done here. Were the prediction results of the logistic regression (i.e. values in the interval [0,1]) transformed into the range [1,2]? If so, why is this a normalization? Normalization usually refers to a transformation into a standard normal distribution with mean zero and sd = 1.	13. Authors sorry for the wrong word "normalized". Actually, the Occurrence index is defined in Forest Bureau (2013), then Forest Bureau (2013) proposed the grade results as listed in Table 1
14. - Upon reading this previous paragraph (Beginning of Section 3.2.1) a couple of times I think that I am still slightly confused here, since to me there is no clear differentiation between the susceptibility map (based on the logistic regression model) and the indicator-based approach. I suggest to streamline this section a bit to avoid misunderstandings here.	14. Authors would like to point out that this study assumes factors from the logistic regression model as the indicators. Thus, there is no differentiation between the susceptibility map and the indicator-based approach as mentioned by the reviewer.
15. - 205ff: I would write activity with a lowercase a.	15. Modified as suggested.
16. - Figure 8: This image seems to include a NIR band rather than being a standard VIS orthophoto?	16. Yes, the image includes a NIR band rather than being a standard VIS orthophoto.

17. - Figure 11: Is there a slope unit in light green ("extremely low")? (This is hard to see in the version provided for review). If not, this category can be removed from the legend for clarity.	17. No. 1, 2, 3, 6, 7 ,8 9, 10, and 12 slope unites in Fig. 11 are rated in "extremely low", and we modified the color for better visualization as suggested. For consistency, Fig. 9, 12 are modified as well.
18. - 461: what is "semi-experienced statistical prediction"?	18. The term of "semi-experienced is removed to avoid confusing.
19. - 464: "the quantitative method is introduced" this is unclear. where or to whom is it introduced, and why is the introduction relevant?	19. The sentence is modified as "The quantitative method requires very detailed site information and statistics of various parameters, often taking a lot of time and cost."
20. - 466: "A qualitative description does not need to quantify each factor, which is described hierarchically". What is described hierarchically? Please be more explicit.	20. The sentence is modified as "A qualitative description does not need to quantify each factor, which is described hierarchically by assessing hazard (including susceptibility and activity levels), exposure, and vulnerability as proposed in this study."
21. - "Therefore, the initial risk assessment is more suitable with qualitative descriptions." I would rather say it is easier to accomplish, not necessarily more suitable.	21. Modified as suggested.
22. - 470: "The Risk zoning framework designed in this study includes the Activity assessment when grading the Hazard, which can make up for the lack of time change in the Susceptibility assessment and represent the actual site activities. However, it requires little time to analyze visually." (1) What do you mean with "lack of time change in the Susceptibility assessment"? (2) What does "it requires little time to analyse visually?" mean? It requires little time would mean that this is very fast, but I am under the impression that this is rather a drawback, and that some effort is required for this analysis?	22. The paragraph is modified as "The Risk zoning framework designed in this study includes the Activity assessment when grading the Hazard, which examines a possible surface change of a slope at different times to represent the actual site activities. In contrast, the Susceptibility assessment considers general environmental factors as revealed in Table 1. However, the Activity assessment requires little effort to analyze the ground feathers visually from the aerial images, but still faster than a quantitative method from previous experience."

23. - l. 479: "the economic conditions are disadvantaged" does not seem to be proper English to me. 24. - Again, dropbox is not the optimal place to store research data. Please deposit the data on a proper data repository.	23. The sentence is modified as "However, there are still households with underprivileged groups and economic weakness in this area." 24. Authors used the Zenodo DB for data repository as suggested. (https://zenodo.org/record/6513416#.YnDoHNpByUk)