

Dear Reviewers and Editors'

We appreciate your positive and constructive comments on our manuscript entitled “*Assessment of the vulnerability of buildings destroyed during postfire debris flow events in Kule village, Yajiang County, China*” (Manuscript Number: egusphere-2025-772). Thank you very much for recognizing our paper and providing valuable suggestions to help us improve the manuscript. After studying the comments carefully, we have made every effort to respond and revise the professional guidance and suggestions of the reviewer. If there are any suggestions in the future, we are very willing to make timely modifications. Our primary task is to meet the standards of the journal, and we sincerely hope that this research can be considered. We would like to express our great appreciation once again to you for comments and recognition on our paper.

The main corrections and point-by-point responds are listed as follows:

Reviewer	Comments	Response
1	This manuscript is mainly focus on the buildings damaged by post-fire debris flows in mountain village. The authors have conducted detailed field investigations and reconstructions of disaster scenarios by numerical simulation, and development of physical vulnerability model for damaged buildings. The authors provide a comprehensive review of existing statistical models and indicators for vulnerability assessment, supplemented by extensive comparative analysis with previous research. Overall, this manuscript is interesting and it offers essential insights for assessing the impacts of post-fire	<p>Dear Reviewer, with utmost gratitude, we wish to express our profound appreciation for your valuable suggestions and meticulous guidance.</p> <p>Firstly, thank you very much for your recognition and praise of our manuscript, and for considering our article interesting and suitable for the journal. We greatly appreciate your belief that our research is valuable and meaningful to offers essential insights for assessing the impacts of post-fire debris flows on buildings and it's helpful for mitigation strategies.</p> <p>Secondly, we sincerely appreciate your insightful comments and constructive suggestions for improving our manuscript. Thank you very much for your recognition and encouragement of our manuscript, which</p>

	<p>debris flows on buildings and it's helpful for mitigation strategies. Therefore, in my opinion, this manuscript is suitable for the scope of the journal, however, some suggestions are given for improving the manuscript.</p>	<p>has given us great confidence to work hard to address the existing problems. Following your guidance, we have carefully revised and supplemented, and the specific response and modifications are shown below.</p> <p>Finally, thank you again for your valuable suggestion and your recognition. We are deeply grateful for your encouraging feedback and actionable suggestions, which have significantly enhanced our study. If we had any omissions in the modifications, we hope to get your corrections. Please accept our deepest gratitude for your mentorship throughout this revision process.</p>
2	<p>Some comments on the manuscript:</p> <p>1. Line 103: Suggest replacing "quantities" with " parameters".</p>	<p>Thank you very much for your valuable suggestion. In the revised manuscript, we will modify the expression according to your suggestions, replacing "quantities" with " parameters". Thank you again for your valuable suggestion, which helped us to express our research more clearly.</p>
3	<p>2. Line 120: Remove "thus".</p>	<p>Thank you for your valuable suggestion. Following your guidance, we have removed it.</p>
4	<p>3. Line 166: Suggest consistently use "G1 gully" and "G2 gully"</p>	<p>Thank you for your careful guidance and suggestions. We revised and use the expression of "G1 gully" and "G2 gully" uniformly. We greatly appreciate your suggestions once again for improving our expression.</p>

5	4. Lines 206-207: I understand that the author is trying to express a prediction of the potential post fire debris flow damage to buildings in G2 gully. It is suggested to remove the content in parentheses "(after postfire debris flow occurrence)" or change "G2 gully under potential future debris flow scenarios" to avoid misunderstandings.	Thank you for your careful and valuable revision suggestions. We apologize for any confusion caused by the unclear expression. According to your professional guidance, we will modify this expression and correct it to future scenarios "G2 gully under potential future debris flow scenarios". We greatly appreciate your detailed guidance and kind reminder once again, which avoiding misunderstandings caused by our incorrect expressions.
6	5. Line 213 (Fig 3): This is a strong and clear methodological framework structure. Good logical flow from objectives to results.	We greatly appreciate your high recognition and praise of our research methodology and process framework.
7	6. Line 228: Suggest changing the expression "percentage passing curve" to "particle size distribution curve", consistent with the title in the figure.	Thank you for your careful guidance and suggestions. We revised and use the expression of "particle size distribution curve" uniformly. Thank you again for your suggestion to help us make the expression clearer.
8	7. Line 256: Suggest unifying the units here by changing "(g/cm ³)" to "(t/m ³)".	Thank you for your careful discovery and valuable suggestions. We will revise and unify the expression of the unit. Thank you again for your suggestion.
9	8. Line 337: Editing error, remove unnecessary commas after α_2 in Table 2.	Thank you for your careful inspection and suggestions. We have corrected this editing error in the table.
10	9. Line 379: In equation 11, it is recommended to clearly define ρ as the density of debris flow.	We greatly appreciate your valuable suggestion and apologize for this oversight. With your professional advice, we will supplement the explanation of this variable ρ as the density of debris flow.

11	10. Line 403: Despite the full name of the statistical function LNCDF being provided in the Introduction section, it is recommended to restate it here in the Methodology section before using the abbreviation.	Thank you very much for your careful suggestions and professional guidance on our manuscript. We will add the full names of function abbreviations in the Methods section. Thank you for your comprehensive consideration.
12	11. Line 486: This is a commendable part of the work, as the author compared the differences in stability, sensitivity, and accuracy of different intensity indicators, reflecting the comprehensive consideration and innovation of this study.	We deeply appreciate your recognition regarding our work in the differences in stability, sensitivity, and accuracy of different intensity indicators, and believe that it reflects the comprehensive consideration and innovation of this study. Thank you again for your high praise discussion section of our manuscript.
13	12. Line 606: Suggest writing 'logical' in uppercase as 'Logical' for unified editing throughout the entire text.	We would like to express our gratitude once again for your careful advice. We will rewrite the name of this function.
14	13. Lines 695-702: I completely agree with the author's viewpoint that when two gullies threaten the village at the same time, an effective escape direction is crucial, which provides insights for developing disaster management and mitigation strategies. Practical, well-illustrated emergency response recommendations directly address the study's applied goal.	Thank you very much for recognizing the practical value of our research. We fully agree with your viewpoint regarding two gullies threaten the village at the same time, an effective escape direction is crucial, which provides insights for developing disaster management and mitigation strategies. This is also based on our consideration of potential disaster hazards in actual scenarios. Thank you for your recognition and positive comments, which have given us great affirmation and confidence.

15	<p>14. Line 763: Suggest correcting the title of Appendix B part (b) from "Design frequency P=1%" to "Design frequency P=2%".</p>	<p>Thank you very much for your careful inspection and professional suggestions. Following your suggestion, we have corrected this editing error. Finally, we are profoundly grateful for your thorough review and expert guidance. Your comments have strengthened this particular study. Thank you again for your high recognition of our manuscript and positive comments, which has given us great confidence and help us improve our manuscript to meet journal standards. Should further clarifications be needed, we are fully committed to addressing them promptly. Thank you again for your valuable and professional guidance.</p>
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