

Response letter for
“Projecting changes in rainfall-induced landslide susceptibility across inhabited areas of China
under climate change”
(egusphere-2025-3834)

Response to Editor Comments

Editor: I have read carefully the paper and appreciate the further efforts. There still is need for small editing before being published.

Dear Editor,

Thank you very much for your thoughtful and constructive comments on our manuscript. We have carefully considered all of your suggestions and revised the manuscript accordingly. We are truly grateful for the time and expertise you devoted to reviewing our work. Your valuable feedback has greatly helped us improve the manuscript.

1. Editor: Delete the word "historical" in the abstract. The sentence "Using historical landslide inventories" should become "Using multiple landslide event inventories", as no geomorphological historical landslide inventories were produced/used in this work.

Response:

Thank you for pointing out this terminology issue. We agree that “historical landslide inventories” was not appropriate in this context. We have therefore revised the sentence in the abstract from: “Using historical landslide inventories” to: “Using multiple landslide event inventories”.

2. Editor: Same incorrect use of the word "historical" is at line 64. The sentence "... incompleteness and spatial-temporal biases of historical inventories" should read: "... incompleteness and spatial-temporal biases of landslide inventories", as the word historical refers only to a specific type of landslide inventories, whereas here the concept being presented is more general.

Response:

We agree with this comment. We have removed the word “historical” and revised the sentence to: “... incompleteness and spatial-temporal biases of landslide inventories”. This revised wording more accurately reflects the general nature of the issue discussed in the manuscript.

3. Editor: The sentence at line 35: "Recent advances in susceptibility modelling have increasingly incorporated time-dependent variables to better capture spatiotemporal patterns of landslide susceptibility and occurrence" needs references at the end, since it is stating something based on scientific literature without properly referring to it. Then please edit the references list accordingly if necessary.

Response:

Thank you for this important suggestion. We agree that this statement should be supported by relevant scientific literature. We have therefore added an appropriate reference at the end of the sentence and updated the reference list accordingly. The revised sentence reads: “Recent advances in landslide modelling have increasingly incorporated time-dependent variables to better capture spatiotemporal patterns of landslide susceptibility and occurrence (Nocentini et al., 2024).”

4. Editor: Please shorten the caption of Figure 1 deleting all this sentence: "Because the landslide-related records are post-event operational inventory data compiled from human-inhabited areas, restricting the analysis to the inhabited-area domain improves the consistency among the inventory, positive samples, and negative samples. This restriction helps maintain sample representativeness within the selected study area and reduces the influence of inventory incompleteness in sparsely inhabited regions." The same concepts are already expressed in the main text.

Response:

We agree that this explanation was repetitive because the same information is already presented in the main text. We have therefore deleted the specified sentences from the caption of Figure 1 and retained only the essential information required to describe the figure.

We are grateful for the editor’s constructive suggestions. These revisions have improved the clarity of the figures, strengthened the links between the main text and supplementary materials, and made the discussion of inventory quality more scientifically precise.

Sincerely,

Jinqi Wang, on behalf of all co-authors.