

Interactive comment on “Characteristics and influencing factors of rainfall-induced landslide and debris flow hazards in Shaanxi Province, China” by Ke Zhang et al.

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We thank the reviewer for the positive comments and assessments. Overall, all comments can be well addressed in a revised manuscript.

1. “I read your paper about landslides and debris flows analysis. In general the paper is well written and quite clear, it is well structured and results are presented in a proper form, but I have some remarks about it.”

Response: We thank the reviewer for his/her positive assessment. We will thoroughly consider your following comments and make corresponding changes.

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2. “At first you generally wrote about debris flow and landslide, but you should specify which type of landslide you considered.”

Response: We only considered the rainfall-triggered landslides in this study and will make it clearer in the revised manuscript.

3. “The main issues are about the interpolation of rainfall data, which have to better described, since such an operation can lead to high estimation errors, since it does take into account the morphology of the area.”

Response: Rainfall data used in this study are gridded data interpolated from ground observations of rainfall stations. Rainfall data were interpolated by a statistical interpolation approach. Although local topography may impact the rainfall interpolation, the statistical interpolation approach used in this study is reasonable.

4. “It is not clear how you defined the antecedent rainfall: you should use a fixed time interval (e.g. 30 days, see Aleotti, 2004), but it is not clear from the paper.”

Response: We will clarify the definition of the antecedent rainfall in the revised manuscript.

5. “Figures are too small, it is very hard to read the maps and the legends.”

Response: We will adjust the figures and make it easier to read.

6. “Discussion section is not a discussion but it is mainly a state of the art summary.”

Response: We will further revise the discussion section.

7. “Please modify the paper according the comments in the attached file. I believe that the paper can be considered for publication once you clarify the comments that I reported”

Response: Thank you for your comments. We will make corresponding changes per your suggestion. We totally agree with you that this paper is worthy of being published

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once it is revised.

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