

## ***Interactive comment on “Classification and susceptibility assessment of debris flow based on a semi-quantitative method combining of the fuzzy C-means algorithm, factor analysis and efficacy coefficient” by Zhu Liang et al.***

### **Anonymous Referee #2**

Received and published: 30 March 2020

The paper describes susceptibility analysis of debris flows. Since such analysis depends on several factors, different methodologies are briefly acknowledged, and used for debris flows susceptibility evaluation in different geographical areas in China. After a precise classification of the geographical area in terms of the important factors that can determine debris flows, the analysis methods are presented. Such methodologies are then applied to the susceptibility analysis. The hypothesized influencing factors are presented and the methodologies are applied and discussed.

The quality of the paper is acceptable and the goals are clearly stated and discussed.

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The reviewer is fine with the paper and recommends its publication.

Suggestions: though it may be obvious, for non-expert readers the comprehension of the text would be highly improved if variables are described at least at the first time they occur. Examples are given at formulas at lines 142, 144. Please define  $C$ ,  $\mu$ ,  $x$ ,  $u$ , ... Just one typo: line 84. Replace classified and evaluated with “classify” and “evaluate”.

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Interactive comment on Nat. Hazards Earth Syst. Sci. Discuss., <https://doi.org/10.5194/nhess-2020-5>, 2020.

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