

This work explores the "double-edged sword" role of vegetation in the landslide susceptibility, conducting multi-scale research at both the watershed scale and typical points, and is of certain innovation and academic value. Thus, to some extent, it is very meaningful. But some of content should be improved, the suggestions are show below. So, I give it moderate revision.

## **Introduction**

The introduction provides sufficient background information regarding landslide hazards to introduce readers to the study. The gap in the literature, that more research is needed in regions with high vegetation, and the limitations of prior studies has been clearly explained. The motivation for the study and its objectives are stated clearly. But, also need some revisions just as follows:

- 1 The following studies cited are older than 10-15 years: Regmi et al., 2010; Yilmaz, 2009, Fell et al., 2008; Hürlimann et al., 2008; Sezer et al., 2010; Hu & Bentler, 1999; Goren et al., 2010; Manzella et al., 2008. It is preferable to cite recent articles in a manuscript, and only in exceptional circumstances should references going back more than 10-15 years be cited. It is preferable to cite recent articles because older references may be irrelevant given more recent advancements in the field of study. Exceptions to this rule should be reserved for seminal works directly relevant to the topic of research. Citing recent articles also helps journal editors see that there is a potential audience for your topic of research;
- 2 There is some repetition in the introduction, which can be frustrating for your readers;
- 3 The last paragraph is so long, please split into two part.
- 4 Line 67, "reposted" should be "reported".

## **Methods and materials**

The methods present all the necessary information to be reproduced by other researchers, and the reasons for choosing specific methods have been included, where relevant. The methods are presented in a logical order. The procedure for statistical analyses of the data collected has been outlined under Methods. But followings should be paid more attention,

- 1 Figures 1,2 and 4 were referenced in the text **after** the appearance of the figure. Please amend;
- 2 Clarify why the specific study area (Jinkouhe District) was chosen—how do its

characteristics contribute to the relevance of this research?

3 Provide more detailed descriptions of the modeling processes, especially SEM, including assumptions made during factor selection.

4 please redraw the Fig. 6.

## **Results**

The order of the results corresponds to that of the methods. The tables and figures present the data clearly and are referenced in the manuscript. Table and figure details corresponded with those in the text.

1 Lines 330-332, It would be useful to give the areas (north, southwest, etc.);

2 Line 335, please left a space between Fig.7.landslide.....

3 Lines 352-353, the title 3.3 can be revised as “Slope stability calculation considering artificial waste sediment and vegetation self-weight”.

## **Discussions**

This section provides a thorough discussion of the results-based part and the differences and improvements compared to previous studies, and also offers an outlook on future work.

However, it is necessary to more clearly point out the unique aspects of this research (for example, "integrating macroscopic susceptibility with microscopic mechanics").

The outlook for future research can be more specific, for example: how to utilize interpretable machine learning and multi-source data fusion, rather than just making general statements. More specific as below:

1 Line 364, the title should be changed to “Analysis of landslide driving factors and their interaction pathways”. This part, the authors mainly emphasize the factors and the interactions.

2 Line 453, the title should be precise. This part mainly compared the landslide susceptibility under different factors combination, so maybe this title will be more suitable: “differences and explanations of landslide susceptibility results under different factor combinations”.