

Dear Gutiérrez-Martín,

I would like to encourage you to address the below mentioned comments of the reviewers while incorporating your suggested changes. Especially comment 3 below deserves some attention. The 2nd reviewer commented on the wording in the conclusions section, in that some of the emphases are too strong on certain capabilities of the model without presenting quantitative evidence. I do agree with the reviewer that some rewording would be appropriate if no quantitative comparison can be presented. So please have a look at the comments below and address accordingly.

Best regards,
Albert.

1)

AC1-supplement, page 3, item 3 of 'SECTION 0: ABSTRACT':

Consider rewording: "This model is especially useful for predicting the risk of landslides in scenarios of heavy unpredictable rainfall. We have called it (TS) Terrain Stability and programmed in MATLAB, which it allows us a simulation of the slope stability in a 2D spatial distribution. As originality in our algorithm a hydrological assumption has been incorporated in steadystate." to something like:

"This model is especially useful for predicting the risk of landslides in scenarios of heavy unpredictable rainfall. The model, hereafter named 'Terrain Stability' or TS is a 2D model, programmed in MATLAB and includes a steady state hydrological term."

2)

AC1-supplement, page5. Make sure to translate 'entre otros'.

3)

Authors, make sure to address the following comment provided by the 2nd reviewer: 'First, the Authors state that the proposed model "defines **fairly well** areas that **intuitively** appear to be susceptible to landslides and defined **rigorously** the failure curve". In this sentence, "fairly well" and "intuitively" are not good enough to assess the predicting performance of a quantitative model. Moreover, the "rigorous" definition of slip surfaces does not appear to be substantiated by the presented results, as I will explain at length in the following. Then, the expression "this model is probably **the most powerful** tool for determining slope stability", is again not substantiated by the presented results.'

Provide additional information so the reader can better understand how the authors came to the conclusion that the model preforms 'fairly well', same with 'intuitively'.

Additionally, by describing your model as 'the most' powerful tool assumes you did a thorough literature study and comparison with other models, so this paper would become more like a review paper, rather than a paper where a new model is presented. Maybe instead consider using: 'this model is a powerful tool for...'