

Interactive comment on “Landslide susceptibility from mathematical model in Sarno area” by G. Capparelli and P. Versace

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Received and published: 26 February 2014

Dears Reviewers

We are very grateful for having encouraged the paper Thank you very much for your suggestions. In my opinion they were very appropriate and useful They allow an important improvement of work both in contents and in its presentation.

An important modification, in fact, consists in the new paper organization in order to keep and better indicate required explanation.

In general terms, I have organized the paper into: 1) Abstract (What is purpose, methods results, and purpose) 2) Introduction (What is the problem and why study it? back-

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ground and relevant literature review) 3) Approach (How we are investigating the problem) 4) Case Study (Whit general descriptions; background and results proposed by other Authors) Results (What did you find out?) 5) Result and Discussion (What do the results mean?) 6) Conclusion (What is the new understanding of the problem?) You may have sub-headings, such as study area descriptions under Methods and Approach, but stick to the general outline.

I think the paper now is easier to read and contains extensions and clarifications as you requested.

Below I reminder some suggested changes indicating major revisions; minor comments have been all respected and accepted.

(R) The application of the SUSHI model should be better described providing all necessary information that would allow the replication of the experiment. Moreover, the authors provide a description of the main physical characteristics of the soil layers, but neglect to describe the approach used to model the Richards equation.

By indicating better and in detail the model, I have also referred questions regarding the use and resolution of the equation, on the main features of the model, input and output that can be obtained

(R) It is not clear to me where is located the transect that have been studied and how this have been selected.

section showing the case study, analyzed the landslide has been shown and placed on the area The section has been expanded with necessary clarifications.

(R) The discussion seems to be too qualitative missing somewhat the main objective of the paper that is to improve actual tools for “the identification of the triggering conditions leading to slope instability I totally agree with this suggestion, I’ve tried to respect it. Now the paper contains critical discussion and comparison with other works in the literatures. Also I have expanded the discussion section, commenting the results and

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their suggestions.

Since the paper has been reorganized to allow monitoring of changes, I am attaching the new version.

Please also note the supplement to this comment:

<http://www.hydrol-earth-syst-sci-discuss.net/10/C8026/2014/hessd-10-C8026-2014-supplement.pdf>

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., 10, 12643, 2013.