

The paper is interesting and pretty well designed. The scientific application and methods used in the work are appropriate, but are not sufficiently well-reasoned. Scientific paper is a contribution to the consideration of landslide prevention of possible slippage in terms of cost-benefit analysis, and can be applied to other similar areas in the world.

This paper has several other, unclear facts and corrections that in terms of higher quality of overall understanding should be added in the text, specifically:

1. On page 1332, line 18, authors state, "... with a maximum cumulative rainfall of about 500mm in two days and a mean of 336mm over the area."

Question: The authors cited in the text average rainfall value of 336 mm over the area. What time period of observation was this information for? Which measuring instruments were used to obtain this data? Are there any references that confirm these values, or is this just an estimation by the authors?

2. On page 1333, line 24, authors state, "In order to achieve the final map, landslide inventory data-set and environmental factor data-layers were collected from Italian web-portals and geodatabases."

Question: There is no mention in the paper of web portals or individual geological databases that the authors used to get the abovementioned data. Are there any references (studies, reports, scientific projects) in which scientists can find this information? Can you please list them?

3. On page 1335, lines 19 and 20, authors state, "Table 1 shows that earth flows are predisposed by altered basaltic rocks, slope angle between 13–23° and elevation from 245 and 420m."

Comment: The unit for the elevation is usually m above sea level (or m a.s.l.).

4. On page 1337, lines 16 and 17, authors state, "Analysis was performed with Itasca's FLAC® 7, a finite-difference software for numerical modeling of 2-D continua."

Comment: It should be specified in the paper which specific Itasca's FLAC® 7 Manual (or a particular reference) was the basis for the analysis conducted in this paper.

5. On page 1338, line 1, authors state, "...from previous works and remedial project, and we also knew approximately where slip surface was localized ..."

Comment: Please indicate (define) relevant references used for collecting (downloading) listed values of physical parameters.

6. On page 1338, lines 13 and 14, authors state, "Instability was also confirmed by the calculated Factor of Safety (FoS) < 1."

Question: Which formulations (empirical expressions or methods) were the basis for the calculation of safety factor? Please explain or indicate the reference, authors!

7. On page 1346, Table 1, second line (the term "elevation"), authors state "Elevation 420m 577m 12.2 245m 420m 1.7"

Comment: The unit for the elevation is usually m above sea level (or m a.s.l.).