

Interactive comment on “Probabilistic modelling of rainfall induced landslide hazard assessment” by S. Kawagoe et al.

Anonymous Referee #1

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Authors do not use the terms: susceptibility, hazard, vulnerability and risk, correctly. I feel they do not have a clear idea about these terms when the bibliography is very large. - They talk about "factors affecting landslides" when are well known in literature "triggering and conditioning factors". - References are not the most cited in literature, I think authors must do a strong bibliographic revision. - I don't understand what "landslide hazard susceptibility" means. Susceptibility is not the same as hazard. - There are in the literature (i.e. Zezere et al.) examples of this type of analyses. - Storms, in my opinion, are the main triggering factor for landsliding in Japan, not only the average rainfall that you consider. - you are considering "relief energy" as a conditioning factor, I think is more appropriate consider "slope gradient". - From my point of view, you should estimate before susceptibility and then you should transform it (according to rainfall scenarios) in hazard. So, hazard is expressed by % and not susceptibility which have

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not units. - Other comment regards to term "risk", a high hazard area does not means a high risk area, only if elements exposed exist. There are several papers that discuss these concepts. - I have found some sentences that are incorrect, for instance page 739 line 28 until page 740, lines 1-2. Please revise it. - Authors define "landslide risk areas" and "no risk areas", on the basis of the percentage of susceptibility or hazard; it is not right. - At the end, they propose that similar results are obtained when they use 1km x 1km or 50m x 50m maps. The second ones will always offer better results than the first ones.

To finish, I think the paper must be rewritten; authors need to revise concepts and rewrite the article.

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