

Nat. Hazards Earth Syst. Sci. Discuss., community comment CC1  
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## Comment on nhess-2022-43

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Community comment on "Hazard Assessment of Earthquake-Induced Landslides Based on a Mechanical Slope Unit Extraction Method, A Case in Ghana" by Peter Antwi Buah et al., Nat. Hazards Earth Syst. Sci. Discuss., <https://doi.org/10.5194/nhess-2022-43-CC1>, 2022

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I have evaluated the manuscript "Hazard Assessment of Earthquake-Induced Landslides Based on a Mechanical Slope Unit Extraction Method, A Case in Ghana." The authors methodically dissect the fundamental viewpoint of the meanings of coseismic dislodging, presenting factors that record an infinite slope failure or flexible sliding block failure, as well as proposing a mechanical slope unit extraction method. However, perspectives are found that need verification or correction.

- The manuscript is not adequately organized in style and formatting.
- The introduction must adequately present the proposed slope unit method and the gap in the displacement method used.
- Eliminating the boundary and heterogeneity effect of the hydrological slope unit extraction method are the main innovations of the newly proposed slope unit extraction method in the manuscript; however, they have not been adequately explained in the manuscript. An explanation of the heterogeneity and boundary effect will sufficiently improve the manuscript.
- Fig. 4 can be deleted because it is not serving any purpose.
- Line 148, The Depth Correction Factor (DCF), should be cited and well written.
- Fig.5 should be modified to contain the geological details of the study area (Ghana).
- The heading "seismic activities of Ghana ", seems to be more focused on seismic activities in Africa rather than Ghana.
- Table 2, Table.3, and Table.4 can be merged and summarized because they seem to be repetitive and not very informative.
- Fig.6 and Fig .7 should be modified to reflect the actual safety factor and critical acceleration of Ghana.
- The authors should also check the typing errors in the manuscript, for example, Line 34 and 36, Newmark and not Newark. The authors need to check some of the grammatical errors and correct them.
- Fig.16 isn't informative and can be deleted because the highest elevation of the study area is already at line 191 of the manuscript.

Apart from these few comments, I think the subject and principle of the manuscript are within the scope of the journal. Minor revisions are needed to improve the quality of this manuscript.