

Nat. Hazards Earth Syst. Sci. Discuss., referee comment RC1
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Comment on nhess-2022-66

Anonymous Referee #1

Referee comment on "Site Characterization vis-à-vis Probabilistic Seismic Hazard and Disaster Potential Modelling in the Himalayan and Sub-Himalayan Tectonic Ensemble from Kashmir Himalaya to Northeast India at the backdrop of the updated Seismic Hazard of the Indian Subcontinent" by Sankar Kumar Nath et al., Nat. Hazards Earth Syst. Sci. Discuss., <https://doi.org/10.5194/nhess-2022-66-RC1>, 2022

The authors present several case studies on site characterization and PSHA of Indian cities. The paper is within the scope of the journal; however, the scientific quantity should be greatly improved in order to consider for publication. Considering the merits of the papers, I encourage the authors to consider the following comments so as to improve the manuscript:

- Abstract should be rewritten since the entire paragraph is superfluous.
- Please use modest language instead of overly romanticized phrases such as 'huge threats,' 'jolted time and again,' 'wreaked havoc', and many more.
- I think Indo-Eurasian subduction region is seismically highly active than peninsular India. Please check.
- Please check manuscript language thoroughly and write sentences in objective way, instead of long and curvaceous sentences.
- Line no. 39 requires a reference.
- The paper is excessively long and lacks justification for such a long discussion. I request the authors to focus straight on the objectives and related works.
- Authors note that they would like to use the results for India, Nepal, and Bhutan; however, they do miss some major contributions related to earthquake hazard and vulnerability especially from Nepal and Bhutan. Some references are:

<https://www.sciencedirect.com/science/article/pii/S1631071317300718>

<https://www.tandfonline.com/doi/abs/10.1080/13632469.2020.1868362?src=&journalCode=ueqe20>

For fatality/injury functions:

<https://www.sciencedirect.com/science/article/pii/B9780128210871000144>

among others. There are hundreds of published literatures in the same field, at least for each section, from the same region, please try to synthesize some to juxtapose your work with the existing ones.

- Why would the authors mention many cities in the manuscript? Does that really make a sense?
- Although the work is interesting, how do the authors justify the novelty of the work?
- Please construct a methodological flowchart to summarize the work.
- Some of the illustrations do not have adequate quality, please consider replotting.
- Please flesh up your conclusions once you revise the manuscript.