

Nat. Hazards Earth Syst. Sci. Discuss., referee comment RC2  
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## **Comment on nhess-2022-155**

Anonymous Referee #2

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Referee comment on "Earthquake vulnerability assessment of the built environment in the city of Srinagar, Kashmir Himalaya, using a geographic information system" by Midhat Fayaz et al., Nat. Hazards Earth Syst. Sci. Discuss., <https://doi.org/10.5194/nhess-2022-155-RC2>, 2022

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**Midhat Fayaz et al. present a vulnerability assessment of the buildings in Srinagar city in the event of earthquake. The authors consider 69 municipal wards within Srinagar urban area. The analysis is based on a building inventory having details of the nature and structure of buildings. The authors perform a ground-based survey to validate the inventory which is commendable. The manuscript offers some insights into differential vulnerabilities of buildings within the urban area. Though there is not any visible flaw in the analysis and assessment some fundamental aspects of earthquake science is missing in the manuscript. Therefore, major revisions as following are required for this manuscript to be considered for publication.**

### **Major comments:**

- **The authors list major earthquake events in Srinagar city/Kashmir. However, they do not explain how they relate the earthquake related parameters i.e., epicentre with the vulnerability assessments.**
- **Nowhere it is mentioned how does the geology, lithology and faults are considered to zonate the likelihood of earthquake events within the city. It would have been helpful if the authors have at least considered an earthquake hazard zonation map in their analysis. Without these it is surprising that how the authors assess the earthquake vulnerability of buildings. The present manuscript gives an impression of vulnerability of buildings alone but not for earthquake events.**
- **In addition, buildings are susceptible to failures due to ground failure during earthquakes i.e., liquefaction and other soil-structure related damages. Nowhere in this study these aspects have been mentioned or considered.**

**A thorough revisiting of the factors that are considered in the analysis is indeed**

**necessary to give this manuscript a proper methodological advantage.**