

## ***Interactive comment on “Seismic hazard maps of Peshawar district for various return periods” by Khalid Mahmood et al.***

**Khalid Mahmood et al.**

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The authors are very grateful to the Editors and Associate Editors for the kind consideration and possible publication of our article in the Natural Hazards and Earth System Sciences. The authors would like to thank all reviewers for suggesting improvements for the manuscript. Point-wise reply/answer to each comment is provided below (comments are shown in **BOLD**, answers are shown in **REGULAR**). All suggestions have been addressed, but still if reviewers have any other point/reservation, the authors are happy to incorporate. Furthermore, the authors appreciate the editors and reviewers for the timely handling of review process. The responses are also attached in .pdf format.

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### **REVIEWER 1**

1. There is very little information is provided about the compilation of earthquake catalog, the historical era events may be discussed in the article and a small discussion on its compilation is required to be included.

Response: The reviewer is thanked for this suggestion, the revised manuscript now incorporated the requested information. The catalogue was compiled till 2015 that also included historical earthquake data from Ambrasey (2000) and Ambrasey and Douglas (2004). Below is the priority list for the catalogue homogenization and correctness to remove the duplicate events:

Priority Data Source 1 Ambrasey & Douglas (2004) 2 Ambrasey (2000) 3 ISC 4 GCMT 5 NGDC 6 USGS

2. Completeness analysis and declustering of catalog is missing, both catalog completeness and declustering should be discussed, as these seriously effect the hazard values.

Response: The authors fully agree with the reviewer. The requested information is provided in the revised manuscript.

3. Several important studies concerning Peshawar, Khaliq et al. (2018); Waseem et al. (2018); Sesetayn et al. (2018) Ahmad et al. (2019) have been missed by the authors, they should be cited in the article, where required.

Response: The authors thank the reviewer for this suggestion, the revised manuscript now incorporated the mentioned references.

4. The results of this study should be discussed and compared with the similar studies.

Response: The authors fully agree to the reviewer, the revised manuscript now compared the outcomes with relevant studies.

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Please also note the supplement to this comment:  
<https://www.nat-hazards-earth-syst-sci-discuss.net/nhess-2019-299/nhess-2019-299-AC1-supplement.pdf>

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