Natural Hazards
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Discussions

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comment

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

Anonymous Referee #2

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The authors present an interesting work on probabilistic seismic hazard assessment of the Peshawar district in Pakistan using seven areal source zones. The paper is well written and easy to follow. However, there are some issues that need to addressed before the paper can be accepted for publication as follows: 1. Please justify why you opted for areal sources surpassing point and line sources. Or, why you did not opt for a combination of all? 2. The attenuation relationship you are using is not from the Himalaya. Would it be possible to calibrate some subduction GMPE with the available records from Pakistan to obtain more realistic results? 3. As you contrasted yourself, the effects of deep earthquakes were pronounced recently in Pakistan yet you did not include the effect. Could you please reframe the logic tree in any way to incorporate this? 4. The source zones are somehow interesting too. For instance, why zones 5,

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[Discussion paper]

6, and 7 have quite limited data? Could you please elucidate your zoning scheme? 5. As you have prepared the hazard maps for bedrock, I request you to consider hazard maps on the surface too [if possible]. If you have some site response/amplification studies, it would be interesting and also useful for the structural earthquake engineering communities. Please comment. 6. Please fix some grammatical bugs present in the manuscript.

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