Natural Hazards
and Earth System
Sciences
Discussions

Interactive comment on "The Quick Assessment Model of Casualties for Asia based on the Vulnerability of Earthquake" *by* Yue Zhang et al.

Anonymous Referee #1

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Main comments - Their research is logically explained and convincible but needs great improve of writing style and grammar. The present writing style is poor and lower than international standard. I suggest the authors to have their manuscript edited by a native speaker in this field. - This manuscript needs more literature review and citing style is very poor. Many of sentences were explained without citing reference. Please add appropriate references when explaining about numbers, previous works (databased, information from website, etc), and it is not commonly known. - Earthquake data: Is it possible to separate the data by period? You mentioned later about improvement of building preference. Data of each region shall be separated before and after the major change of building code. Then we can see how much such countermeasure could reduce the death toll. - Casualty data: I would suggest the authors to separate

their casualty data to 1) death, 2) injure and 3) number of affected people (evacuee) as rescue and other early response activities are completely different for each item (details are shown in specific comments).

Specific comments P1 L19: Need a reference to support that earthquake cause the largest death toll P1 L22-28: I think you should better separate death and injure in the data. You cannot reduce number of deaths if they were killed already but you can reduce number of deaths from number of injuries if rescue activity can be sent very soon using your quick assessment method. P2 L11: Jaiswal and Wald (2010) is not in reference list. P3 L1-5: Need a reference to support about the 'shallow earthquakes', list of earthquakes from USGS, as well as CRED (not in reference list). P3 Data: In some great events associated with tsunami (2004 Indian Ocean and 2011 Great East Japan), how can you separate only deaths from the earthquake? This work used different kind of data from many sources. Please create two or more tables summarizing three sources in 2.1 and other sources in 2.2. Did you use day or night time population data? How it affects to the accuracy of your proposed model? P6 L14: Please explain such criteria in detail to separate into six groups. World Bank website should be also listed in the reference. Discussion: I would suggest split this section to some subsections, for example, 5.1 Iran, 5.2 Japan and Taiwan, etc. Then you can also explain about the benefit of building retrofit if your models were created by separating data period. How different between your results and USGS's method (Jaiswal et al., 2011) as well as this book? World Atlas of Natural Disaster Risk, Editors: Shi, Peijun, Kasperson, Roger (Eds.) http://www.springer.com/la/book/9783662454299 Human Casualties in Earthquakes, Progress in Modelling and Mitigation, Editors: Spence, Robin, So, Emily, Scawthorn, Charles (Eds.) http://www.springer.com/la/book/9783662454299