Reply to RC2

We extend our gratitude to the anonymous reviewer for her/his positive evaluation of our work. We have carefully considered all of the suggestions provided and have addressed them comprehensively in this response. Furthermore, we have also incorporated these suggestions into the updated version of the manuscript.

1) the term homogenized instead of harmonized or explained what it means "harmonized" in "earthquake catalog harmonized between countries".

   We use the terms "homogenisation" and "harmonisation" in slightly nuanced contexts and with different meanings, although they are closely related and often mistakenly thought to be synonymous. While homogenisation usually refers to the "process" that leads to a uniform representation, harmonisation emphasises the properties of the final product, especially in relation to its applications.
   In this study, for example, we have compiled a catalogue that is homogeneous in magnitude, reflecting the process of standardising scales to achieve uniformity. However, the resulting catalogue represents a harmonised dataset across countries, specifically tailored for seismic hazard analysis.
   Therefore, we do not use these terms interchangeably, but select them based on their contextual appropriateness. Nonetheless, we acknowledge the reviewer's concerns and have amended the manuscript accordingly to provide additional clarification to eliminate any confusion.

2) At L 80 there is a statement - "including the description of intensity in moment magnitudes (Mw) ". I do not know formulas of Mw which include the seismic intensity, I, maybe it is better to give an example of a formula or exclude this statement if there is not the case.

   We admit that the sentence was perhaps misleading. With the term "intensity" we wanted to refer to the "size" of earthquakes and not to the more specific "macroseismic intensity". To clarify this, we have amended the sentence as follows: "including a description of earthquake size on the moment magnitude (Mw) scale" This change aims to provide a clearer understanding of the terminology used.

3) L350, L380 - reference to an annex to the reliability classes of faults.

   The manuscript does lack this information, and we appreciate both reviewers bringing it to our attention. The reference to the reliability classes can be found in the documentation of the AFEAD database, specifically in section 3.3 "Characteristics of evaluated attributes," as outlined in Bachmanov et al.'s 2017 publication. However, while the original source is available solely in Russian, an English version can be accessed via the following link:

   http://neotec.ginras.ru/index/english/database_06_eng.html

   We have now incorporated this link into the revised version of the manuscript for readers' convenience.

4) L390 instead of "The homogenization of input datasets" , maybe "The harmonization of input datasets". The terms seem synonyms.

In this case, our focus is on the complicated and time-consuming process of homogenisation and not on the resulting product. We have therefore decided to consistently use the term "homogenisation" instead of "harmonisation" in this context, in line with what was discussed in point 1 of this reply. We are confident that the clarification in the manuscript effectively recognises this distinction and helps to avoid potential misunderstandings.

5) L395 instead of a "top-down approach" maybe a "general-particular (detailed) approach".

We welcome the suggestion. We have changed the definition "top-down approach" to "general-to-specific approach", which appears more appropriate.