

Dear reviewer,

We appreciate the time and efforts that you put into the review of our paper. We have revised the manuscript based on your comments. Thank you for making our manuscript clearer and more relevant to the scientific community.

Comment: Macroseismic intensity should be indicated using Roman numerals

Answer: We have indicated the macroseismic intensity with Roman numerals.

Comment: General seismic zoning maps should be referred to as GSZ-YEARS. It is also advisable to consistently use the same terminology throughout the manuscript, instead of "general seismic zoning map," "seismic zoning," and so forth. The term OSR-2017 should be replaced in all instances with "General Seismic Zoning (GSZ-2017)."

Answer: Thank you for pointing out our mistake. OSR-2017 is acronym of the project that came based on our native language, so we got used to it. We revised the acronym to GSZ-2017 and used consistent terminology throughout the manuscript.

Comment: The "Schematic Map of Seismic Intensity in the Territory of the Republic of Uzbekistan" should be titled to be effectively presented in the text comparison with GSZ-2017.

Answer: We have revised the title

Comment: 2.2. Paragraph. Please revise the text with greater attention to the sequential presentation. If this section concerns the evaluation and comparison of Seismic Hazard (SH) maps, please include the information on "Regional Seismic Risk Assessment" in a dedicated section.

Answer: We have revised it with greater attention to the sequential presentation. Also, we have included the new subsection concerning the information on "Regional seismic risk assessment".

Comment: 95 «The engineering-geological map of the Republic of Uzbekistan is divided by lithologic composition into 14 districts» Please revise the sentence as it seems to describe not 14 regions but the distribution of 14 types of sedimentary rocks across the Republic of Uzbekistan.

Answer: We have revised the sentence.

In the territory of the Republic of Uzbekistan there are 14 typical types of soils: Rock soils; Limestones; Sands and sandstones and others. More detailed information and map are provided in [Figure 1](#).

Comment: 115 «The seismic risk probability and economic map of the administrative districts of the Republic of Uzbekistan were developed based on the engineering geological conditions and general seismic zoning maps». It is suggested that references to general seismic zoning maps are made clear.

Answer: We have revised the reference to general seismic zoning maps.

rockfalls and soil erosion.

The seismic risk probability and economic map of the administrative districts of the Republic of Uzbekistan were developed based on the engineering geological conditions and maps of General Seismic Zoning (GSZ-2017) (Artikov et al. (2020)). Subsequently, seismic vulnerability levels were assessed using the GESI_Program software developed by the RADIUS program of the International Federation of Red Cross and Red Crescent Societies during 1999-2001. The assessment considered various construction materials based on cadastral information, considering the types of buildings and their vulnerability functions. The seismic vulnerability levels of buildings were then evaluated in the districts of the Republic. Considering the ground conditions, the economic map of seismic risk probability in the administrative districts of Uzbekistan was developed, showing the probability of not exceeding 50% within 90 years (in trillion soums).

Comment: 130 National Building Code No.2.01.03-19 "Construction in Seismic Areas" It would be preferable to present soil classification in a table format for better clarity

Answer: The Table is comparatively large and takes up a lot of space and we decided not to include it in this paper. Also, since we included this table in some of our previous papers, we thought that including it in every published paper would not be appropriate. However, we cited our previous paper, where we include the table for better clarity: Ismailov, V. A., Yodgorov, S. I., Khusomiddinov, A. S., Yadigarov, E. M., Botirovich, A. S., & Aktamov, B. U. (2023). New classification of soils by seismic properties for the building code in Uzbekistan. Geomechanics and Geoengineering, 1–21. <https://doi.org/10.1080/17486025.2023.2296975>

Comment: 140 “Using Fig. 1 of the 140 engineering-geological conditions of the territory of the Republic of Uzbekistan...” - requires rewriting for clarity, such as 'Lithological data (Figure 1) were utilised...”.

Answer: We have revised the sentence.

Using the lithological data of rocks located within the territory of the Republic of Uzbekistan depicted in Fig. 1, along with the General Seismic Zoning (GSZ-2017) (Fig. 2), we have created a schematic map illustrating seismic intensities across the Republic of Uzbekistan (Fig. 3).

Comment: 145 “the seismic risk of the city of Tashkent was assessed using a scenario earthquake”.

Answer: Yes, seismic risk of the city of Tashkent was assessed using a scenario earthquake.

Comment: The assessment of seismic risk for the city of Tashkent, carried out using a scenario earthquake, lacks clarity in the text regarding whether it is part of a seismic risk assessment for the entire territory of Uzbekistan. If it is, a distinct paragraph with a scenario earthquake description and maps is necessary. Otherwise, details of the seismic risk calculation for Tashkent should be included in the Introduction

Answer: The seismic risk assessment of the city of Tashkent is not part of the seismic risk assessment of the entire territory of the Republic of Uzbekistan. We included data on seismic risk assessment was included in the introduction.

In the study by Rashidov et al. (2003), the seismic risk of Tashkent was evaluated using a scenario earthquake. Similarly, in the RADIUS (1992) project, the seismic risk of the city was assessed employing a scenario earthquake. The estimated total damage resulting from this scenario earthquake, encompassing the disruption of life support systems and infrastructure in Tashkent, amounts to approximately 1 billion Uzbekistani soms. (These loss figures are determined based on 1991 prices and are considerably underestimated).

Given Tashkent's status as the capital, responsible for a quarter of the country's gross domestic product, the repercussions of an earthquake are poised to impact the entire nation. The potential disruption of numerous international commercial, banking, and insurance networks was anticipated. Human casualties are projected to be significant, with economic recovery likely to span several years. Furthermore, the cessation of industrial production is anticipated to result in losses totaling around 1 billion U.S. dollars. Preliminary calculations indicate that the scenario earthquake could incur damages exceeding 10 billion U.S. dollars, considering the book value of fixed assets determined at 1991 prices. Expert assessments suggest that roughly 80% of communication facilities may remain inoperative for an extended duration, while ongoing construction projects may suffer irreparable damage estimated at approximately 1 billion U.S. dollars.

Comment: 170 The footnote about 'local building code' at the bottom of the page is superfluous, as the National Building Code No.2.01.03-19 is already mentioned in the text and referenced.

Answer: It is superfluous indeed. Thank you for pointing out on this mistake. We removed the footnote.