

The examination of liquafaction damage rate by recent earthquakes

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The 2011 off the Pacific coast of Tohoku Earthquake caused liquefaction that caused large-scale and severe damage. The quake was severely shaken by a seismic intensity of less than 5 and liquefaction occurred in many areas. In this study, it was possible to determine liquefaction using detailed aerial photographs, and seismic intensity 6 or lower was observed. Based on information on liquefaction occurrence points of five earthquakes such as the 2018 Hokkaido Eastern Iburi Earthquake, estimate liquefaction occurrence rate based on 250m mesh unit and liquefaction area rate considering liquefaction area in each mesh, A formula for estimating liquefaction risk based on liquefaction occurrence rate and area ratio was proposed. We also examined the building damage rate from information on building damage caused by liquefaction.

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