

Relationship between building damage and liquefaction sites during the 2016 Kumamoto Earthquake

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During the 2016 Kumamoto Earthquake that occurred on April 14 and 16, 2016, liquefaction occurred over the large area. We checked a relation between a liquefaction sites and building damage levels in this study.

We judged liquefaction sites at the mesh size of 50m using high-resolution aerial photographs, and found liquefaction for about 5,800 meshes. Comparing this result with building damage data, we checked a relation between them.

It seems that building damage is heavier at liquefaction sites in Kumamoto city. This indicates that liquefaction can affect building damage levels also in other areas.

Liquefaction was caused over the large area due to the Kumamoto earthquake. We checked a relation between liquefaction sites and building damage levels based on each investigated results. Then, it was found that building damage tended to be heavier due to liquefaction in a certain area. It is necessary to investigate the relation in more details using other types of liquefaction data from now on.

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