

Liquefaction occurrence ratio and geomorphic conditions in the inland area caused by the Great East Japan Earthquake

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The area ratio of liquefied sites in the inland area caused by the 2011 off the Pacific coast of Tohoku Earthquake was estimated from the field survey and Google Earth images interpretation. In the Tone River lowland, the occurrence of liquefaction concentrated in the former river channel and pond, and the area ratio of liquefied sites is about 23%. The ground consisting of younger landfill age is more susceptible to liquefaction than that created by the older ones. Area ratio of Liquefied sites in the Tone River lowland is larger than the Osaki plain, Miyagi Prefecture. In the Osaki plain, the area of former river channels and ponds buried by loose sandy soils is less than the Tone River lowland.

Keywords: liquefaction, geomorphic classification, former river channel and pond, landfill age, 2011 off the Pacific coast of Tohoku Earthquake