

Damage of the water treatment facilities from 3.11 earthquake: Case study in Ibaraki Prefecture, Japan

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Ibaraki Prefecture, which experienced few natural disasters in the past, was severely damaged in the earthquake and tsunami of March 11, 2011. About 14 percent of the houses in the prefecture were damaged. A huge tsunami damaged the coastal area of northern part of the prefecture. Kashima Port, Hitachi harbor, and Rokko area were severely damaged by liquefaction. Cuts in water supply occurred throughout the entire prefecture, except for some areas in the southern and western parts of prefecture. In particular, regions such as Kita-ibaraki, the Rokko area, and a part of the southern area recovered their water supplies after April, 2011. These damages were mainly caused by shaking and liquefaction in water treatment facilities.

Keywords: 3.11 earthquake, damage of the water treatment facilities, liquefaction, Ibaraki Prefecture