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HDS25-P03 Room:Convention Hall Time:May 20 17:45-18:30

Distribution of Landslides Induced by Two Large-scale Earthquakes in 2011, in Iwaki City, Japan

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Iwaki City located in the coastal area of Fukushima Prefecture experienced two large-scale earthquakes, the M9.0 Tohoku earthquake on March 11 and the M7.0 aftershock on April 11, 2011. In terms of the Japanese earthquake scale, both earthquakes experienced in this area registered in the lower 6 level. These earthquakes caused many landslides. We made a landslide distribution map using aerial photographs and Google Earth images and on the basis of the interpretation of these images using field survey data and clarify the characteristics of the landslide distribution.

The results of our study are summarized here.

1) The landslides can be classified into two types, namely, slide type and slope-failure type. The number of slide-type and slope-failure-type landslides are 52 and 1143, respectively.

2) The number of landslides induced by the April 11 aftershock alone accounts for 70% of all landslides.

3) The two surface active faults that caused the April 11 aftershock appeared on the western part of Iwaki City. The distribution of landslides was relatively concentrated around these faults.

4) Most of the slide-type landslides were triggered by the April 11 earthquake. These slides broke out at the convex slope. This is the characteristic difference between slide-type and rain-caused landslides.

Keywords: Landslide, 2011 Tohoku earthquake, Iwaki City