

On the coseismic landslides occurring on tephra slopes during the 2018 Hokkaido Eastern Iburi Earthquake

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Numerous landslides were triggered by 2018 Hokkaido Eastern Iburi Earthquake on the tephra slopes, resulting in 36 casualties. Although one large landslide was initiated with its sliding surface being in the bedrock of sandstone and siltstone, most of them occurred on the tephra slope. To understand the initiation and movement mechanisms of these landslides occurring on tephra slopes, we performed field investigation (including geophysical survey, penetration test and field director shear box tests), and also conducted dynamic shear tests on the tephra samples taken from the sliding surface. The results will be presented in this report.

Keywords: Coseismic landslide, 2018 Hokkaido Eastern Iburi Earthquake, Tephra slope, Initiation mechanism, Movement mechanism