

Long-traveling landslide on snow: a case of Daimyojin-sawa, upper course of Katakaigawa River, Toyama Prefecture, Japan

NAGATA, Hidehisa^{1*} ; HINO, Yasuhisa² ; KASHIWAGI, Kenji³

¹Fu Sui Do Co., Ltd., ²KANSO Technos Co., Ltd., ³Toyama Univ.

Long-travelling landslide on the snow occurred in the spring of 2014 was described. The source area of the landslide is located at near the head of Daimyojin-sawa, upper course of Katakaigawa River. Precise date of occurrence is unknown because the locality is in the deep mountainous area, so that the trigger is also uncertain. However, it may not be by earthquake, but by rainfall with snow melting.

Interpreted by airphoto, the dimensions of the source area are approximate 65 m in width and 160 m in length. The inferred volume of the landslide reaches 100,000 m³. Geology of the bedrock is Jurassic Funatsu Granites.

The landside debris flowed down along the Daimyojin-sawa with 35 degrees incline and were deposited on the snow with 0.2-0.5 m thick. The travelling distance is 2.4 km, and relative height is 980 m, namely, the equivalent friction coefficient (H/L) becomes 0.41.

The landslides slid on the snow are composed of various materials such as mixture of water, snow and rock fragment. The mobility of the landslides depends on the materials as well as topography.

Keywords: landslide, long-travelling, snow, Toyama