

Background of shallow landslides triggered by the 1971 torrential rain in the village of Kawauchi, Fukushima Prefect

DAIMARU, Hiromu^{1*} ; MURAKAMI, Wataru¹ ; SAITO, Hitoshi²

¹Forestry and Forest Products Research Institute, ²Kanto Gakuin University

Many shallow landslides were triggered by torrential rain on 31 August and 1 September in 1971, which reached to 571mm at the Shimo-kawauchi Met. Station. Most of the landslides have occurred on slope of the valleys cutting into the low-relief granitic mountains that received deep weathering. Mountain forest cover at the period is estimated to be rather sparse than present time. A digital photogrammetric survey has suggested that tree height at 1975 was smaller than half of that in present time which was estimated from air borne LiDAR data in this area. Some previous studies have suggested that forest vegetation in this area was seriously destroyed by migrants after the restitution of communal forest in 1912. The 1971 shallow landslides were affected by not only brittle granitic soils, but also past excess forest utilization.

Keywords: shallow landslide, natural disaster, deforestation, communal forest