

Slope failures occurred in the southwest part of the Izu-oshima Island in geological time, NE Japan

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So-called “loam” composed of primary fall-out tephra and tephric soil deposits (tephric loess) is one of the factors causing earthquake-induced landslides. To evaluate the potential of slope failure by this combination in the Japanese Islands, earthquake-induced landslides potential assessment should be examined in relevant areas, considering the frequency of landslides in geological time. To estimate this, we examined unconformities within “loam” on the Izu-oshima Island, Tokyo, where thick loam has been formed during the last 19 ka. We identified at a maximum six unconformities suggesting the possibility of occurrences of landslides during the period between 19-1.8 ka.

Keywords: Slope failure, Tephric soil deposits, Izu-oshima Island