

## Preparation of geomorphological and geological data for earthquake-induced landslides potential assessment in Japanese Island situated in a humid, tectonically active volcanic zone

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Japanese Island situated in a humid, tectonically active volcanic zone is geomorphologically characterized by frequent occurrence of landslides, resulting in severe disasters. 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 Island, we are preparing GIS data sets for conditions such as thickness distribution of loam shown in this study, landform classification by the Ministry of Land, Infrastructure, Transport and Tourism and this study, and possibilities of strong earthquakes predicted as the Probabilistic Seismic Hazard Map by the National Research Institute for Earth Science and Disaster Resilience. Earthquake-induced landslides potential assessment will be examined on these overlaid maps, considering the frequency of landslides in geological time. To estimate the frequency, we are examining unconformities within “loam” in several areas where thick loam has been formed such as the Izu-Oshima Island, Tokyo.

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