Rapid vegetation recovery at landslide scars detected by multitemporal high-definition data

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Vegetation cover is an important factor for hillslope stability and landslide susceptibility. We explore vegetation recovery at landslide scars at the Aso volcano in Japan using multitemporal high-definition topographic data from UAV and micro satellites from 2010 to 2020. The study area has frequently experienced coseismic- and rainfall-induced landslide events. Results show rapid vegetation recovery at both the rainfall-induced and the coseismic landslide scars. However, site-specific vegetation recovery was determined primarily by topographic parameters, such as slope angle and direction at the local scale.

Keywords: Landslide, Vegetation recovery, High-definition topography, Micro satellite, UAV