



Using remote sensing data to assist the deterministic method applied to shallow landslide analysis.

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Landslides, which are usually triggered by heavy rainfall, are happened very often in Taiwan due to its mountains account for about 70% of the total land area and the rainfall bringing from the frequent typhoon. To decrease the damage caused by such natural hazard, landslides prediction has been a significant issue. Transient Rainfall Infiltration and Grid-Based Regional Slope-Stability (TRIGRS) model (Baum et al. 2002) is widely used for rainfall-induced shallow landslide forecasting. TRIGRS model computes transient pore-pressure changes, and attendant changes in the factor of safety, due to rainfall infiltration. The way to obtain the required data was usually a hard work in previous research, especially strength and hydraulic properties parameter of soil, because the field survey is costly and time-consuming.

Remote sensing, the science of obtaining information about objects or areas from a distance, now has played a significant role in geology information related research. With diverse kinds of technique, resolution, and feature, distinct types of remotely sensed sensor and data were used for different purposes. This study attempts to obtain the parameter which is in need with the support of remote sensing technology.