



Rate and Pattern of earthquake-induced landslides and their relation to seismic shaking.

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We focus on the properties of the earthquake-triggered landslides populations in Taiwan, in California and in Papua-New-Guinea. At the regional scale, the density of landsliding is found to be maximum above the epicentre and decreases away from it. The correlation between the density of landsliding and the vertical component of the peak ground acceleration is done in Taiwan and California. Thus, on the first order, the decay of the landslides density is similar to a wave attenuation law, including a geometrical term and a quality factor. At the scale of the slopes, ground failures, in California, tends to cluster along the ridges, where the shaking is amplified. In Sub-Tropical regions of Taiwan and Papua-NewGuinea, clusters also occur along the streams where a) pore pressure induced by ground water is higher and b) slopes are steeper because of vertical rivers cutting into the bedrock. This variation in the location along slopes, has direct consequences on the characteristic time of evacuation of the mass wasted.