
[EE] Evening Poster | H (Human Geosciences) | H-DS Disaster geosciences

[H-DS07] Landslides and related phenomena

convener: Masahiro Chigira (Disaster Prevention Research Institute, Kyoto University), Gonghui

Wang (Disaster Prevention Research Institute, Kyoto University), Fumitoshi Imaizumi (静岡大学農学部)

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Mass movements, such as landslides, rockfalls, and debris flows, have been occurring extensively in a large number of countries, causing heavy damage. In order to understand them and mitigate induced disasters, we would like to discuss on various issues. We invite contributions that report and discuss on mass movements and related phenomena, focussing on improved understanding of their characteristics; new insights into landslide mechanisms; the development of new approaches to monitoring; novel approaches to behaviour forecasting and prediction; studies of successful landslide management; and the development of methods for hazard and risk evaluation.

[HDS07-P01] Breaking-off of hanging glaciers at Mt. Langtang Lirung, Nepal Himalaya

*Honami Watanabe¹, Chiyuki Narama², Katsuhisa Kawashima³ (1. Graduate School of Science and Technology, Niigata University, 2. Department of Environmental Science, Niigata University, 3. Research Institute for Natural Hazards & Disaster Recovery, Niigata University)

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On 25 April 2015, an earthquake (M7.8) occurred at Gurkha region located northwest of Kathmandu, the capital of Nepal. On 12 May, an earthquake of M 7.3 occurred at 80 km northeast from Kathmandu. Due to this series of large earthquakes, slope failure events (ice avalanche, snow avalanche, snow-rock avalanche, rock avalanche) occurred frequently in the snow mountain area of the Himalaya. In Langtang valley located in the north of Kathmandu, catastrophic ice-rock avalanches covered the village, caused serious damages such as more than 350 victims at Langtang village (Fujita et al., 2016 ; Kargel et al., 2015). The source of the ice-rock avalanches are believed to be the falling of hanging glaciers and avalanches of snow accumulated in large quantities. We investigated the distribution and characteristics of the hanging glacier at the southwest face and the east face of Mt. Langtang Lirung using the aerial images from helicopter and satellite images of Google Earth before and after the earthquake. In addition, we examined the surface changes the ice-rock avalanche deposits using DSMs (digital surface models) made with aerial images from helicopter in autumn 2015 and 2017.