



## **The 2006 Leyte landslide, Philippines, triggered by a small nearby earthquake after rainfall.**

**K. Sassa** (1), H. Fukuoka (1), G. Wang (1), F. Wang (1), H. Marui (2), R. Soridum (3), T. Furumura (4)

(1) Research Centre on Landslides, Disaster Prevention Research Institute, Kyoto University, Kyoto, Japan, (2) Research Center for Natural Hazards and Disaster Recovery, Niigata University, Niigata, Japan, (3) Philippine Institute of Volcanology and Seismology, UP Campus, Quezon, Philippines, (4) Earthquake Research Institute, University of Tokyo, Tokyo, Japan (sassa@landslide.dpri.kyoto-u.ac.jp/FAX:+81 774 384019)

**A rapid and long-traveling landslide occurred on 17 February 2006 in the southern part of Leyte Island, Philippines. The landslide resulted in 154 fatalities and 990 people disappeared in the debris. A Japanese and Philippine joint team investigated the site and took samples from the landslide. From field investigation and dynamic-loading ring-shear tests on a sample taken from the landslide site, we report here: 1) A small ( $M_s$  2.6), near-by earthquake was strong enough to trigger the initiation of the landslide which occurred after heavy rainfall. Thus, this landslide was rainfall and earthquake induced, and 2) The subsequent rapid motion of the landslide was a consequence of the “sliding-surface liquefaction phenomenon”. It was the result of the generation of high pore-water pressure within the shear zone, which was caused by crushing of grains of the volcaniclastic debris at the site subjected to shearing under a high normal stress.**