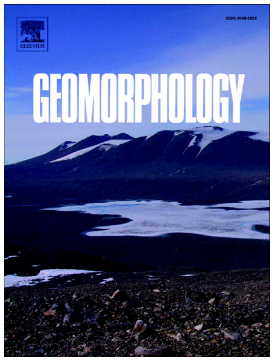

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Soil and biomass carbon re-accumulation after landslide disturbances

Jasmin Schomakers[1], Shih-Hao Jien[2*], Tsung-Yu Lee[3], Jr-Chuan Huang[4], Zeng-Yei Hseu[5], Zan Liang Lin[2], Li-Chin Lee[4], Thomas Hein[6], Axel Mentler[1] and Franz Zehetner[1]

[1]Department of Forest and Soil Science, Institute of Soil Research, University of Natural Resources and Life Sciences, Vienna, Austria

[2]Department of Soil and Water Conservation, National Pingtung University of Science and Technology, Neipu, Taiwan

[3]Department of Geography, National Taiwan Normal University, Taipei, Taiwan

[4]Department of Geography, National Taiwan University, Taipei, Taiwan

[5]Department of Agricultural Chemistry, National Taiwan University, Taipei, Taiwan

[6]Department of Water – Atmosphere - Environment, Institute of Hydrobiology and Aquatic Ecosystem Management, University of Natural Resources and Life Sciences, Vienna, Austria & WasserCluster Lunz, Lunz am See, Austria

*Corresponding author: shjien@mail.npust.edu.tw

Abstract

In high-standing islands of the Western Pacific, typhoon-triggered landslides occasionally strip parts of the landscape of its vegetative cover and soil layer and export large amounts of biomass and soil organic carbon (OC) from land to the ocean. After such disturbances, new vegetation colonizes the landslide scars and OC starts to re-accumulate. In the subtropical mountains of Taiwan and in other parts of the world, bamboo (*Bambusoideae*) species may invade at a certain point in the succession of recovering landslide scars. Bamboo has a high potential for carbon sequestration because of its fast growth and dense rooting system. However, it is still largely unknown how these properties translate into soil OC re-accumulation rates after landslide disturbance. In this study, a chronosequence was established on four former landslide