



## **Farmers' landslide risk perceptions, willingness for restoration and conservation on Laohuzui Terraces of the world heritage of Honghe Hani Rice Terraces (China)**

Xuan Gao (1), Giulia Roder (2), Yuanmei Jiao (1), Yinping Ding (1), Zhilin Liu (1), and Paolo Tarolli (2)

(1) School of Tourism and Geographical Sciences, Yunnan Normal University, China (xuan\_gx@qq.com), (2) Department of Land, Environment, Agriculture and Forestry (TESAF), University of Padova, Legnaro, Italy (paolo.tarolli@unipd.it)

Landslide hazards have become an issue of growing concern throughout the world. The frequency and magnitude of mass movements are threatening large numbers of people having far-reaching implications on social and economic development. These impacts might intensify existing vulnerabilities not only regarding the population but also particular landscapes of cultural heritage. This perspective in disaster research is poorly considered even if individuals' coping mechanism and preparedness actions can prevent the negative outcomes of such events. For this reason, a socio-hydrogeological study has been conducted at the World Cultural Landscape Heritage of Honghe Hani Rice Terraces under UNESCO, located in the Mount Ailao in Southwest China. This traditional agricultural landscape represents a complex and ancient human-environment system that needs constant maintenance to keep its cultural value. Over the last 1,300 years the Hani people demonstrated resilient land management, but this area suffers from frequent landslides putting people in jeopardy. Landslide events in terraces, that occur because of the complex geomorphological and climatic conditions, have a great impact on the agricultural activities, on sustainable development of the landscape, the conservation of the heritage, but also on the livelihood of the local population. The most significant landslide occurred on June 26th 2018 in the Laohuzui Terraces affecting nearly 10 ha. Duosha and Mengpin villages were directly affected by the Laohuzui landslide and therefore they represented the best study area for the research. Through 125 face-to-face questionnaires with close-ended questions, farmers' risk perception and disaster response were considered for the analysis of landslide risk awareness, preparedness measures, the effectiveness of communication, the role of trust and the willingness for restoration and conservation of the terraces. The results showed that all farmers in the two communities have weak risk perception due to low readiness and poor disaster information. The proximity to the main road, the tourism impact and the interaction of tourism companies in the management of the landscapes are determinants in lower risk perceptions and proactive behaviors. Even if landslides preparedness levels are low, there is a strong willingness of local farmers to restore terraces after landslide occurrences. This result is fundamental in setting new conservation policies helping farmers to prevent and get prepared to future possible terraces collapse.