



Public Participation Monitoring and Warning System for Geological Disasters in China: A Case Study of the 7.19 Landslide in Boli Village in 2018

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'Public Participation Monitoring and Warning System' (PPMWS) refers to involve the local residents to participate in monitoring and warning geological disasters (mainly landslides, debris flows, and rockfalls). It is an active method originally created by China and has become an essential tool to reduce related casualties in geological disasters. On July 19, 2018, a huge landslide (7.19 Landslide) occurred in the Boli Village, Sichuan Province, China. This landslide destroyed 186 houses and 200,000 m² arable land in total and caused 13 million RMB (about 1.9 million USD) direct economic loss. However, no people died or missing during the landslide largely due to the PPMWS. Under the instruction from the local government, 437 villagers were evacuated before the landslide and 281 potential casualties were avoided. This article took the 7.19 landslide as a case study to describe the effective function of PPMWS in terms of reducing casualties when residents are exposure to geological disasters. By analyzing the data from the local government (Liangshan Geological Environment Monitoring Station), this case study explained the PPMWS management patterns from the roles of both the government and local people to monitor and make the emergency response and finally reduce potential casualties. Its experiences of involving the public into monitoring and warning geological disasters are valuable and can be utilized by other countries with similar physical and social context as China. Meanwhile, this study provided some suggestion to the improvement of PPMWS in future for better involvement of local residents integrated with the community-based disaster risk management by noted its limitation in this phase.

Keywords: Geological Disaster; Monitoring and Warning; Public Participation; Reduce Casualties; China