

GENERATING A LARGE-SCALE LANDSLIDE RISK ZONATION MAP FROM A MEDIUM-SCALE DATABASE

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Abstract

In Vietnam, landslide inventory and susceptibility maps have been so far produced at 1:50,000 scale for 17 Northern mountainous provinces under the State-Funded Landslide Project (SFLP). These products were already handed over to the local authorities to serve as basis for the development planning at regional scale. However, those maps are not very applicable for landslide risk prevention and control at local scale because the required parameter maps are not available. As the urgent request of the Government, an attempt was carried out in Sinh Phinh commune (Dien Bien Province) to generate a qualitative risk map at 1:10,000 scale based on the available SFLP maps at 1:50,000 scale. Google Earth images were exploited to map 265 interpreted landslides and to produce an element at risk map. Geological and community surveys were combined to construct a large-scale inventory map with 101 historic landslides. Expert and local knowledge were consulted to generate landslide susceptibility and risk zonation maps. The result maps provide more awareness on landslides, hence, help decision-makers to find better strategies in disaster risk management. This integrated approach has been now further improved apply to other high-risk communes in the next phase of the SFLP.