Mapping Landslide Events in Vietnam Using the Global Landslide Catalog and GIS

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SUMMARY

Landslides are mass movements that can be triggered by rainfall, earthquake or other events. To understand and mitigate adverse effects of landslides such as losses of life, property and services, landslide events in the world need to be reported, mapped and assessed with different methods. This paper presents a new study of mapping landslide events in Vietnam over the last decade, 2007-2017 using the global landslide catalog and GIS. The data obtained from the global landslide catalog and other sources were reviewed, edited and standardized to develop a landslide database for Vietnam’s regions and provinces. The selected spatio-temporal analysis and mapping techniques were applied to derive and visualize new information on the past landslide events. This geospatial information is essential for landslide management in the country in the context of climate change. The applied GIS mapping model highlights the utility of the global, local data and GIS as an effective tool for landslide studies at national, regional and provincial levels.