

RESEARCH TO MAP FLASH FLOOD AND LANDSLIDE AREAS IN SAPA DISTRICT, LAO CAI PROVINCE

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Summary

The application of GIS in determining flooding and landslide areas is of great interests among scientific and research community. In this study, we used the GIS tools in combination with remote sensing data to identify potential slash flooding and landslides areas in Sapa District, Lao Cai Province. The result of this study showed that (1) Sapa district is vulnerable to slash flooding and landslides: 53% of area with elevation greater than 25° (47%); 75% of poor forest area; 28% of area (19 thousands of ha) with rainfall > 3000mm/year, and 50% of area with dissected ≥ 1 km/km², and (2) a potential flooding and landslide risk map (5 levels of risks) was produced using GIS and remote sensing.

Keywords: Map, runoffs, slope, GIS, Lao Cai, flash flooding, rainfall, Sapa, landslides.