Abstract

Natural disasters as tropical cyclone, earthquake, flash flood, flood, droughts and landslide are dangerous for life, property, and economics of Thailand in every year. Landslide is one of the natural disasters that makes the most destroy. Besides, parameters that cause landslide are heavy rain and the change of land use every year due to the forest area has been changed to agriculture field. Therefore, landslide occurred from characteristic of geology, meteorology, and land use. The technique used weighted factors index by fixed parameters that consider factors. The first is climate factor as accumulated rain. The second is physical factor as slope topography, characteristic land use, characteristic mineral, and soil. Results showed higher resolution of risk area map through villages that composed of five category risk area as follows: very strong risk area, strong risk area, moderate risk area, weak risk area, and very weak risk area. The technology applied geographic information system (GIS) used to landslide management. The technique can respond to the faster events of landslide, and it can fix area of landslide with plot Amphure Pai, Mae Hong Son through villages in output of risk area map. Therefore, it can be used to prepare and reduce the life and property from landslide.