

Nudnicha Pongput 2015: Effects of Land Use Changes on Landslides in the High Slope Area of Surat Thani Province. Master of Science (Environmental Science) , Major Field: Environmental Science, Department of Environmental Science.
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This research aims to study the changes of land utilization and forecast a tendency to change by translating satellite images and analyzing the potential of changes using Land Change Modeler (LCM) . Moreover, areas of landslide risk had been assessed by the main factors along with suggestion of landslide prevention measures caused by land use changes. Na Tham village in Tha Uthae sub-district, Kanchanadit district, Surat Thani province is the area affected by the landslides; therefore, field observations had been conducted to collect data and observe the current land utilization in order to compare the land utilization in the past. .

Study results showed that there has been consistently a decrease in the forest area while the rubber plantation area had increased in the period from 2003 to 2013. It also found that changes in land utilization had been identified in the period from 2002 to 2005. There had been a dramatic growth of residential areas resulting in the increased number of in the period from 2005 to 2007. The mixed orchard area had been decreased, but on the other hand the area of palm oil plantations had been increased in 2010. The results of land use forecasting in 2018 found that the forest area and the mixed orchard area are expected to be decrease; meanwhile, the rubber plantation and residential areas will increase. The most vulnerable area to landslide is the rubber plantation areas that have high slope more than 20-35 percent slope, and have contributing factors which are land features and geological characteristics by having land use changes as an accelerator increasing the rate of occurrence of landslides.

Student's signature

Thesis Advisor's signature