

Kasemsri Manimon 2006: Landslide Potential Brought About by Land Use in the Area of Upper Lamphraphloeng Watershed, Wang Nam Khiao District, Nakhon Ratchasima Province. Master of Science (Sustainable Land Use and Natural Resource Management), Major Field: Sustainable Land Use and Natural Resource Management, Interdisciplinary Graduate Program. Thesis Advisor: Associate Professor Veerasak Udomchok, D.Tech.Sc. 114 pages.

ISBN 974-16-1777-1

The effect of landuse on landslide potential at the Upper Lamphraphloeng Watershed, Wang Nam Khiao District, Nakhon Ratchasima Province were proposed to analyze the main influencing factors on landslide as well as demarked the landslide potential map at the Upper Lamphra Phloeng Watershed. The considering main factors, five levels of landslide potential were classified to nonlandslide potential, slightly low, moderate, slightly high and high landslide potential. The landslide potential were analyzed by the landslide risk factor and the former landslide scar in case of landuse.

The landslide potential analyzed by the landslide risk factor (LRF) on the landuse in 1985 and in 2000, showed the area of low landslide potential 114.47 km<sup>2</sup> (77.66%) and 115.86 km<sup>2</sup> (78.64%); non potential 17.66 km<sup>2</sup> (11.99%) and 16.0 km<sup>2</sup> (10.86%); moderate potential 15.0 km<sup>2</sup> (10.18%) and 15.40 km<sup>2</sup> (10.45%); high potential 0.25 km<sup>2</sup> (0.17%) and 0.08 km<sup>2</sup> (0.06%) respectively.

The landslide potential analyzed by the former landslide scar in case of landuse change in 1985 and in 2000, showed the area if low landslide potential 32.55 km<sup>2</sup> (22.02%) and 72.36 km<sup>2</sup> (49.10%); non potential 110.72 km<sup>2</sup> (74.92%) and 46.58 km<sup>2</sup> (31.60%); moderate potential 4.51 km<sup>2</sup> (3.05%) and 24.72 km<sup>2</sup> (16.77%) respectively. The high landslide potential and extremely high landslide potential area in the year 1985 and 2000 were 3.39 km<sup>2</sup> (2.30%) and 0.34 km<sup>2</sup> (0.23%) respectively.

In conclusion the potential with respect to the slope stability calculation on the landslide risk area yielded the statistical method on the landslide scar conjugate with the landslide potential that calculated by the slope stability method.

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