

Ninubon Waipreechee 2006: Application of Geographic Information System for the Study of the Conditional Tendency of Land Use Change in Nakornnayok Watershed. Master of Science (Watershed and Environmental Management), Major Field: Watershed and Environmental Management, Department of Conservation. Thesis Advisor: Assistant Professor Wanchai Arunpraparut, D.Agr. 78 pages. ISBN 974-16-2202-3

Study on application of Geographic Information System for the study of the conditional tendency of land use change in Nakornnayok watershed aims to investigate the land use patterns and land use changes in the year 2000 and 2004, and predict the tendency of land use change in the year 2008 using Markov Chain Model. Land uses types within the watershed were classified into 5 categories; agriculture, forest, urban, water body and other.

As the results, it was found that agricultural area in the year 2000 and 2004 was 66.46% and 68.36%, forest area was 31.36% and 30.46%, urban area was 0.17% and 0.19%, water body was 0.46% and 0.53%, and other area was 0.95 and 0.46% consequently. The land use patterns were random pattern for the whole land use types. Analysis of land use change and prediction of land use change in 2008 shows that agricultural area and urban area would be increased clearly, while water body was slightly increased, and forest area was decreased continuously. Therefore, the conditional tendency of land use change should be taken into account for land use planning in order to suitably manage Nakornnayok watershed in the future.

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5 / 06 / 06