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VARUNEE POLPRASIRT : THE STUDIES OF LAND USE CHANGE
OF SALAYA COMMUNITY; AMPHOE PHUTTHAMONTHON NAKHONPATHOM
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The objectives of this study were to classify, the land use type, land use change, trends of community expansion, factors influencing the land use change and land -suitability assessment for agriculture.

This study was carried out by using arial photograph interpretation techniques, overlay technique through geographic information system to obtain 1987 and 1999 land use maps, including land use change maps. Some soil characteristics were used to assess the land suitability for agriculture. The interview via questionnaire was used to evaluate factors influencing the land use change together with multiple regression analysis.

From this study, land use types could be classified into 15 categories as follows: 1) paddy field 2) orchard 3) horticulture 4) aquatic plants 5) integrated agriculture 6) town and commercial land 7) residential land 8) governmental land 9) industrial land 10) educational land 11) road 12) golf courses 13) other construction land 14) water resource and 15) miscellaneous land. The majority of occupying land use types are paddy fields followed by government and educational areas. There are 4 major changes from 1987 to 1999, which can be described as follows: 1) the agricultural land has decreased from 10,433.16 rais to 6,568.36 rais. 2) Urban area has increased from 4,729.10 rais to 7625.27 rais. 3) Water resources have decreased from 257.62 rais to 166.17 rais. 4) Grass land has increased from 574.40 to 1,634.21 rais. The physical factors influencing such changes are government institutions, educational institutions, roads, residential and other constructions whereas socio - economic factors are the number of household agricultural vehicles, lack of drainage system and land unoccupancy. The trend of land use change: Residential areas and commercial buildings have increased rapidly on Phutthamonthon Road IV, especially, in front of Mahidol University and in the vicinity. The land suitability for agriculture in Tombol Salaya is highly suitable for paddy field, moderately to less suitable for banana tree and coconut tree, moderately to non-suitable for pomelo tree.

In conclusion, the land of Tombol Salaya is the most suitable for agriculture but some of the agricultural areas have been urbanized ; which is mainly the cause for more flooding. Therefore, there would be need for a project to establish land area suitability.