

**Relationship between economic factors and rate of deforestation
in Sakaerat Environmental Research Station area.**

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Thesis. Kasetsart University., 1979.

ABSTRACT

Forests are important natural resource which benefits human being both directly and indirectly. From economic point of view, forests render various uses for well being of mankind, mean while over exploitation of natural forests could bring disasters back to the individual and society.

Since the economic problems of the society have been the major source of the deforestation. The main objective of this study is to explore the relationship between the economic factors and the deforestation rate in the National Reserved Forests area. In this connection, the samples in Sakaerat Environmental Research Station and adjacent areas in Pakthongchai District, Nakornratchasima Province were selected for the analysis. The selected samples were divided into two groups: the first group comprises 68 samples of households in the boundary of Sakaerat Environmental Research Station, and the second group consists of 127 samples of households in adjacent area. The results of the study are summarized as follows:

1. The study of education level of both groups of samples show that 58.82 percent of the first group has education at Prathom 4 level while 72.61 percent of the second group has finished Prathom
2. The percentages of illiteracy are 26.47 for population inside the boundary of the station and 10.56 for the sample group outside the station's boundary. Average family size of the households for the first group is 4.93 persons with about 3.03 persons working on farm.
3. The average family size for second group is 6.27 persons with farm labor forces of 3.77 persons.

4. The percentage of immigrant households from other regions in the areas is 5.88 for the first group of samples and 49.6 for the second group.

The analysis of the difference in income and major production resource bases of the households in both groups suggested that the households living outside the station's boundary earn higher incomes than those inside the station's boundary. For example, the households located inside the station's boundary earned the average income of 8,868.53 bath per household per year while those in the adjacent areas earned 17,456.20 bath per household per year. The utilization of production resources such as land and labor resources of households between both groups were also found significantly different.

The analysis of the impact of major production factors also revealed that land use has been the factor which has most significant impact on income of both groups of households. But total income basis, farm income for households inside the station's boundary contributed to only 16.62 percent while off-farm income contributed to 31.05 percent. This differs from the households located outside the station's boundary, whose farm income from the main crops contributed up to 63.39 percent and the off-farm income contributed to 32.30 percent. Of the most important findings, is that farm labor uses for household located inside the station's boundary have minor share in determining the farm income, i.e., being only 3.12 percent.

In the overall picture of the findings, however, it was found that most households especially those locate inside the station's boundary earned relatively low income and this income depended mostly on off-farm employment; and the farm labor uses have minor impact on income. Therefore, those people had to seek for more income through off-farm employment activities such as timber cutting and collecting of forest products. These kinds of employment activities, in general, have their impact on the more rapidly deterioration rate of the National Forests. The recommendation of this study are that efforts should be put toward encouraging of more use of family. Especially, the usage of labors on farms should be promoted for cultivation of principal economic crops such as corn and other soil improvement crops in the area. The increase in family labor uses on farms will induce more farm income while it will reduce activities leading to deforestation. Besides, promotion of rural industrialization including home industrial i.e., wickerwork, handicraft etc., is also an important factor in raising income of the people in the area.