

Title of Thesis      Planning for Highland Resources Management :  
A Case study of Ban San Pa Kia and Ban Pa Miang Nam Moen,  
Tambon Maena, Amphoe Chiang Dao, Changwat Chiang Mai

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### Abstract

The purpose of this research consists of three points. First, is to classify resource use patterns of soil, water, and forest on highland. Second, is to study some measures which are suitable for conservation of highland resources. Third, is to study how to manage agricultural land use system which is suitable for highland.

As for the first point, land use patterns are classified into four parts ; conservation forest, community forest, agricultural land, and the villages. Conservation forest is composed of the natural forest area which is in process of succession and the reforested Pinus kesiya area whose succession process is

vulnerable to forest fire. Community forest is the forest area which the hilltribes and local people have been exploited for their living. Agricultural area is composed of the field for rotation of crops without any measures of conservation and the paddy field, which is characterized by less steep slope and thicker superficial soil. As for the villagers, they are confronted with many problems.

From the analysis of development planning which is suitable for each pattern of land use respectively, it is found that the reforested Pinus kesiya forest should be given measures to protect from fire, and that wild banana and bamboo trees should be planted around the riverhead. As for the community forest, what should be forested are useful trees which are characteristic of rapid growth, such as Eucalyptus, Bamboo, and Pinus kesiya. It should be managed together with forestation-deforestation system of 5 year cycle which is put into practice by the community organization itself. The agricultural land should be composed of the field for rotation of strip cropping where some kind of beans and bush are planted in lines along inclination of land. There should be economic trees and herbs growing in the field, and banana and bamboo in ditch. Windbreaks are also necessary. The paddy field should be mixed with rice, beans, and fish culture. The development of quality of life in the villages should be achieved from the viewpoint of water supply, community organization, social welfare, and the realization of villagers toward conservation of natural resources on their own.