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“Bridging the gap between increasing knowledge and decreasing resources”

Comparison of Farmers’ Decision Making Between two Different Scenarios of Shifting Cultivation in Northern Thailand

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Abstract

Agriculture in the highlands of northern Thailand has been dominated by rotational shifting cultivation for centuries. Each village has its own traditional knowledge for doing this cropping system. And this knowledge is transferred from generation to generation.

This study aims to define farmers’ decision making criteria for choosing the area to establish the plot, and criteria for changing from fallow to cropping in subsistence (Nong Khao village) and more market oriented systems (Bor Krai village). Information on cropping calendar, cropping history, fallow period, type of crop, plot preparation, crop productivity, fertiliser and pesticide application and criteria for farmers’ decision and management were collected by using semi-structured interviews ($n = 30$) and group discussions in both villages.

The results showed that farmers in both villages used different criteria for making decisions. Farmers in Nong Khao village plant upland rice one year, then left the plot fallow for ten years. No pesticides, no herbicides, no synthetic fertilisers were applied. Their rice production is mainly for household consumption. On the other hand, farmers in Bor Krai do cultivate for 2 years: upland rice in the first year and maize for feeding pig for the second year, followed by 6 years of fallow and application of herbicide. Distance from the village and soil texture are the criteria for choosing the plot in both villages. Whereas farmers from Nong Khao use trees as indicators of good soil, farmers from Bor Krai use soil colour as indicator. Trees’ canopy shedding, weed suppression and diameter of the tree are the criteria for changing from fallow to cropping of both villages. As a next step, the correlation between farmers’ decision criteria and crop productivity should be analyzed. This information might help to support decisions towards reducing fallow periods and choosing suitable plots for cultivation.

Keywords: Fallow period, maize, traditional knowledge, upland rice