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## Effects of management practices for abandoned fields of shifting cultivation on their vegetation component and tree establishment in two hill tribes in Doi Inthanon National Park of Thailand

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### Summary:

The different outcomes for forest succession by the management practices of two hill tribes were examined around Doi Inthanon national park in northern Thailand. The study plot was set to compare floristic composition, spatial structure variation of weeds and tree establishment between fallows belonging to villages of hill tribes of Karen and Hmong, which were managed under different practices depending on the duration after abandoned, such as hand weeding, herbicide application, prescribed fire, pasturing and so on. In the fallows of Karen village, number of tree establishment were greatest in the plot under medium grazing pressure of water buffalo after 3 years from abandoned. In the fallows of Hmong village where pasturing was not practiced, and herbicides were applied to the cultivation fields, number of weed species and species diversity (H') of weeds were greatest in the plot after one year from abandoned among the plots. And the number of tree establishment in the fallows of Hmong village was quite fewer than that of the Karen village.

It was inferred that the extensive agricultural practices in the Karen village promoted the tree establishment and the intensive agricultural practices in the Hmong village promoted the dominance of *Imperata cylindrica* causing delay in the tree establishment. In the Karen village Buffalo pasturing also seemed to be important to promote the tree establishment for forest recovery after shifting cultivation.

**Keywords:** Fallows, Shifting cultivation, Management practice, Hill tribes, Thailand

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