

Responses of ethnic minority people to tenure insecurity in Northern Thailand

Chapika Sangkapitux*, Andreas Neef and Judith Knüpfers**

*Department of Agricultural and Resource Economics, Kasetsart University, Bangkok 10900,
Thailand

fecoaks@nontri.ku.ac.th

**Institute of Agricultural Economics and Social Sciences in the Tropics and Subtropics,
Hohenheim University (490 A) 70593 Stuttgart, Germany

neef@uni-hohenheim.de, knuepfer@uni-hohenheim.de

Abstract

A number of studies suggest that land tenure security plays a crucial role in determining long-term investment, e.g. in soil conservation practices and tree planting. The case studies from Thailand presented in this paper show contrasting results. Although ethnic minority groups in mountainous regions do not have access to official land use rights and suffer from permanent tenure insecurity, long-term investments in land resources are common practice. Minority farmers in watershed areas of Northern Thailand where agriculture is in conflict with the reforestation policy of the Thai government react to increasing tenure insecurity by planting fruit trees and other perennials, by converting rainfed land into paddy fields, and by applying various erosion control measures. This paper concludes that the relationship between tenure security and long-term investments should not be viewed as unidirectional. Long-term investments can occur under extremely insecure tenure regimes as they increase farmers' perceived tenure security.

Keywords: tenure insecurity, long-term investments, ethnic minorities, Northern Thailand

1. Introduction

There are many studies supporting the hypothesis that tenure insecurity correlates negatively with the quality of resource management. Over-exploitation and degradation of natural resources, such as deforestation, can be characterized as a result of incomplete, inconsistent or non-enforced property rights, as the costs of resource use are born by the society as a whole, whereas the benefits accrue to individuals (Coase, 1960; Bromley & Cernea, 1989; Wachter, 1992). The general implication is that to solve the problem of the "tragedy of the commons" (Hardin, 1968), privatizing of land rights and allocation of land titles can contribute to sustainable land resource management by stimulating long-term investments to improve soil fertility and productivity.

The objective of this paper is to broaden the perspective on the relationship between tenure security (including perceived) and sustainable land use. The interlinkages between natural resource policies, tenure system, and land use patterns in highland areas provide remarkable evidence for policy implication toward sustainable resource management in the way that deviates from the mainstream conclusion. Results are based on information obtained from two interdisciplinary study projects conducted during 1997-1999 under the collaboration between Kasetsart University, Chiang Mai University, and Hohenheim University. Mae Salong and Mae Chan watersheds in Chiang Rai province, and Mae Sa watershed in Chiang Mai province were selected for the study projects.

2. Natural resource policies, tenure system and land use patterns in Northern Thailand

2.1 Forest policies and tenure security

For decades, government policies toward ethnic minorities living in erosion-prone and ecologically fragile highland areas of Northern Thailand have been led by top-down approaches following the concept that minorities are a threat to natural resources and national security, because of their traditional life style and cultivation practices (Ganjanapan, 1998). Hence, various pressures exerted on the minorities are forcing these formerly mobile groups to settle in „fixed“ villages, to abandon traditional shifting cultivation and to adopt permanent cultivation, to live under insecure property rights without legal basis on their land, and even to quit these fragile areas. Apart from facing forced resettlement, the problem of land insecurity is very crucial in these areas where the villagers have no property rights over their land as it legally belongs to the government. Additionally, land claims by the Royal Forest Department (RFD) for intensive reforestation program started in the late 80s and early 90s (see table 1). As a consequence, many villagers lost considerable parts of their farmland. In Ban Tard, Mae Salong Watershed, 90% of agriculture land was claimed for reforestation, and 20% in Ban Pakhasukjai, Mae Chan watershed (see table 2). Additional pressure comes from high birth rates and continuing immigration from neighboring countries. Along with growing market influences through improvements in infrastructure, this induced considerable changes in agricultural land use patterns (Turkelboom et al., 1995; Rerkasem & Rerkasem, 1998).

Table 1. Forest and related policies and their impacts on ethnic minorities in Thailand

Forest and related policies	Impacts on ethnic minorities
<p>1960s: Highland development programs (opium eradication) 1961: National Park Act 1964: National Reserved Forest Act 1989: Logging Ban 1992: Wild Animal Reserves and Protection act 1992: Reforestation Act</p> <ul style="list-style-type: none"> ● forest areas are claimed as state property, but are regarded as open access in practice ● settlement in the protected areas is considered illegal ● all kind of forest and land use in protected areas has to be authorized by the Royal Forest Department ● forest areas must be expanded to 40% of the country area. To meet this target, the government would have to increase forest area by 46 million rai (=73.600 km²) 	<ul style="list-style-type: none"> ● no legal rights of land and forest resources ● forced relocation from protected areas ● loss of cultivated and fallow land claimed by state for reforestation

Source: Sathirathai, 1995; Ganjanapan, 1998

Table 2. Background information of the study villages

Characteristics	Ban Thad Mae Salong Watershed	<i>Ban Pakhasukjai</i> <i>Mae Chan Watershed</i>	<i>Ban Mae Sa Mai</i> <i>Mae Sa Watershed</i>
Major ethnic group	Lisu	Akha	Hmong
Household/population	103/685	88/450-500	186/1,537
Sample size (households)	30	30	60
Cultivated land/household	0.7 ha	2.0 ha	1.6 ha
Land title	no (declared as watershed conservation area)	no (declared as watershed conservation area)	no (declared as National Park)
Institutions	<ul style="list-style-type: none"> • Royal Forest Department 	<ul style="list-style-type: none"> • Royal Forest Department • The Hill Area Development Foundation (HADF) 	<ul style="list-style-type: none"> • Royal Forest Department • Royal Project
% loss of farmland as impact of reforestation	90%	20%	n.a.

Source: Data from Knuepfer, 1997 and Schiller, 1999

2.2 Impacts of tenure insecurity on land use patterns

The most common strategy as a response of farmers in Mae Chan and Mae Salong watershed, Chiang Rai province, to increasing land insecurity caused by reforestation program is to plant fruit trees, as it is generally believed that land with tree or perennial crops will not be claimed for reforestation. Other strategies observed in the area are the conversion of rainfed into terraced land for paddy, adoption of soil conservation measures (e.g. contour lines and hedgerows), and a shift from fallow systems to permanent cultivation (see table 3). Most of these strategies are regarded as sustainable land use and supposed to protect farmland from being claimed by RFD, even though benefits of these long-term investments are not perceived by the villagers. The construction of rice terraces and the establishment of contour lines, which are labor-intensive and costly, are only applied in Ban Pakhasukjai where a local NGO is extending credit to farmers willing to practice 'conservation farming'. Having no support from external organizations, the strategy of villagers in Ban Thad is to adopt permanent cultivation, thus abandoning their traditional fallow systems, as being informed that fallow fields are extremely jeopardized by claims of RFD.

Table 3. Strategies of farmers to secure land rights in two villages situated in a reforestation area of northern Thailand (sample of 30 households per village)

Strategies to secure land use rights	Ban Thad (without project)	Ban Pakhasukjai (with project)
Planting of fruit trees	87%	83%
Planting of other perennial crops (e.g. tea)	10%	20%
Converting rainfed fields into paddy fields	10%	33%
Abandoning fallow systems	30%	13%
Applying erosion control measures	0%	27%
Construction of fences	17%	0%

Source: Data from Knuepfer, 1997

Due to lack of capital, labour, and knowledge in appropriate fruit production and establishment of erosion control measures, performance of these practices is often poor and economic returns are insufficient. However, many villagers stick to these activities, as they want to demonstrate their ‘environmental awareness’ to the authorities thus hoping to receive Thai citizenship and not to be expelled from the watershed where their settlement still has no legal basis at all.

The situation in these two areas provides strong evidence that tenure insecurity plays a major role in determining long-term investments to sustain resource use, even though these do not reflect the priorities preferred by the farmers. As the responses do not come from the farmers’ real preference in utilizing their land, the conservation practices are found only on a marginal part of land that is relatively very prone to being claimed by the RFD, or minimum areas required by local NGOs. On other plots which are comparatively more secure and located near the village settlement, the farmers often try to maximize income by intensifying these plots, and by growing high value cash crops with fast turnover such as ginger and cabbage, as to compensate the loss from sacrificing some parts of their land for soil conservation and tree planting. As these high value crops require high levels of chemical fertilizer and pesticide, and high rates of soil loss due to cultivation practices occur, on-site and off-site effects of such practices are enormous. It can be argued that security of tenure (perceived by farmers) could also contribute to unsustainable resource use.

Land use patterns in Ban Mae Sa Mai, Mae Sa watershed (see table 4) are dominated by fruit tree plantations in the case of the ‘land owners’ and vegetable plantations mainly established by tenants as short-term rental contracts prevail. Changes in cropping patterns from food crop cultivation to fruit orchards and vegetable plantation are not farmers’ strategies to improve land security even though this village is located within the national park where farmers have no legal basis on their land. These changes stem mainly from market driving forces and promotion of practices by the Royal Project Foundation. These existing land use patterns bring about severe environmental problems in this area and cause negative externalities on downstream areas due to intensive use of chemical fertilizer and pesticides, as well as high

water requirement. Although the problem of water scarcity has not yet been perceived by most of the farmers, key informants of the village revealed that in the near future water issue will be crucial in this area due to continuous increase in lychee plantation. This problem would also affect people living downstream. This case provides evidence that long-term investments like planting of fruit trees does not always contribute to sustainable resource management as it is often too simply suggested.

Table 4. Land tenure and land use in Ban Mae Sa Mai, Mae Sa Watershed, Chiang Mai Province

Crops/land use	Owned land (without title)	Rented land (no written contracts)
Paddy rice	3.9%	4.8%
Upland rice	2.0%	15.9%
Corn	0.8%	31.7%
Vegetables	8.5%	47.6%
Fruit trees	83.9%	0.0%
Fallow	0.8%	0.0%

Source: Data from Schiller, 1999

3. Conclusion

Evidence from the case studies suggests that tenure insecurity does not always drive to reduced investments and overexploitation of land resources. Long-term investment in land, like the adoption of soil conservation practices and planting of perennial crops, are found under insecure land use rights as well. In the case of northern Thailand where no legal rights on land resources have been assigned to highlanders as the areas are claimed as government property, soil conservation practices and fruit tree planting are adopted by highland farmers as strategies to secure their long-term use rights. However, the adoption is found only on the plots of land where the highest risk of land claims occur, whereas on the areas under relatively secure property rights, monocropping and intensification without conservation measures are commonly practiced. It can be seen from the case studies that incentives for long-term investments in land resources do not come from the farmers' perceived conservation benefits and economic profitability, but rather from their intention to have land use rights secured in the long run.

On the other hand, the study provides evidence that more secure property rights may not always lead to more investment in natural resource capital and more sustainable land management, but to intensive over-exploitation of the resources. Under these conditions, an attempt to enhance land tenure security, for example by granting land title, may not simply promote sustainable resource use. In addition, simple classification of fruit tree planting as „a practice to promote sustainable resource management“ may need to be reconsidered by taking into account the resource system as a whole, not just at farm or village level but also at watershed level.

It can be concluded that the relationship between tenure security and sustainable resource management is not unidirectional, an inverse relationship is also possible. In order to promote sustainable resource management in the erosion-prone and ecologically fragile mountainous areas requires in-depth research on the issue of land tenure regimes which takes into account the ecological, social, economic and political context, and their impacts on environmental sustainability.

References

- Bromley, D., Cernea, M., (1989). The Management of Common Property Natural Resources. World Bank Discussion Paper No. 57. World Bank, Washington D. C..
- Coase, R., (1960). The problem of social cost. *Journal of Law and Economics* 1, pp. 1-45.
- Ganjanapan, A., (1998). The Politics of Conservation and the Complexity of Local Control of Forests in the Northern Thai Highlands. *In Mountain Research and Development*, 18 (1), pp. 71-82.
- Hanna, S., Munasinghe, M., (1995). Property Rights and the Environment - Social and Ecological Issues. The Beijer International Institute of Ecological Economics, World Bank, Washington, D.C..
- Hardin, G., (1968). The tragedy of the commons. *Science* 162, pp. 1243-1248.
- Rerkasem, B., Rerkasem, K. (1998). Influence of demographic, socio-economic and cultural factors on sustainable land use', *In H.-P. Blume, H. Eger, E. Fleischhauer, A. Hebel, C. Reij and K. G. Steiner (eds.): Towards Sustainable Land Use: Furthering Cooperation between People and Institutions*, Catena-Verlag, Reiskirchen, Germany, pp. 1319-1332.
- Sathiratai, S. (1995). Property rights and resource conservation. *Chulalongkorn Journal of Economics* 7 (2), pp. 255-293.
- Turkelboom, F., van Keer, K., Ongprasert, S., Sutigoolabud, P., Pelletier, J. (1995). The Changing Landscape of the Northern Thai Hills: Adaptive Strategies to Increasing Land Pressure. *In Highland Farming: Soil and the Future? Proceedings December 21-22, 1995, Soil Fertility Conservation Project, Maejo University - Catholic University of Leuven: Chiang Mai*, pp. 23-45.
- Wachter, D., (1992). Land Titling for Land Conservation in Developing Countries?, Divisional Working Paper No. 1992-28, Washington DC: World Bank Environment Department.