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**Conflicts over Land and Forest Resources Induced by Reforestation Project  
 in Lao Cai Province of Vietnam**

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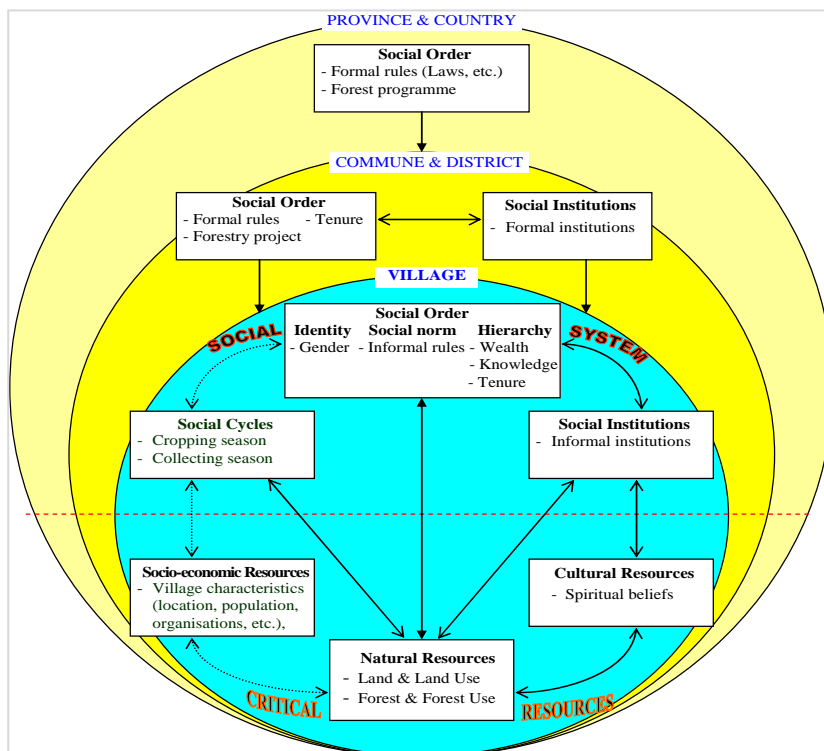
**Introduction**

In parallel with the ongoing implementation of land devolution policy, the government of Vietnam has launched reforestation programs, aiming to increase the forest cover of the country and to improve the living condition of local population. In this context, conflicts between state forest institutions and local people over land and forest have been entailed or intensified. It is assumed that this situation depends on the lack of understanding of customary land and forest use and missing involvement of local people in the current development processes to a wide extend.

This study aims at harmonising local pattern of land and forest use and customary tenure with government's reforestation program and relevant legal framework. The current land use and forest use of the ethnic minority group of the Hmong is diagnosed. The procedure and outcome of reforestation practices are analysed. Based upon that, the study examines the conflicts over land and forest associated with the ongoing government's reforestation project in the study sites, and provides scenarios for harmonizing local land use and land tenure with relevant legal framework and state forest programs.

**Methodology**

The "Human Ecosystem Model" from Machlis *et al.*, (1997) was adapted as the conceptual framework of the research (Figure 1).



**Figure 1: The conceptual framework of the research**

A village of Hmong people is a human ecosystem. Within this human ecosystem, there is a set of *critical resources* of three kinds: *natural resources* (e.g. land and forest), *socioeconomic resources* (e.g. population) and *cultural resources* (e.g. beliefs). The uses of natural resources (e.g. land use and forest use) are regulated by the *social system* comprising three sub-systems. The first is *social institutions* (e.g. informal institutions). The second is a series of *social cycles* (e.g. cropping and collecting seasons). The third is the *social order*, which includes three key mechanisms for ordering land use and forest utilization activities: identities (e.g. gender), social norms (e.g. informal rules) and hierarchy (e.g. customary tenure, wealth and knowledge). The human ecosystem of Hmong village is hierarchically nested within human ecosystems at larger scales at commune, district, province and country. Land use and forest use of the villagers may be regulated by the elements (e.g. formal institutions, regulations and state forest programme) of the social system of the human ecosystem at larger scales.

This study was conducted in three sedentary villages of Hmong people in the mountainous Xi Ma Cai district, Lao Cai province. The first village, named Lung San, had 56 households with the total population of 295 people. The second village, Ngai Phong Cho, had 81 households with the population of 461 people. The third village, Sin Cho, had 22 households and a population of 142 people.

Each of the study villages is a case study. In each case study, a combination of qualitative and quantitative methods, such as Rapid Rural Appraisal (RRA), Land Use Inventory, Forest Inventory and Household Survey, was employed for data collection. The collected data were triangulated and analysed qualitatively and quantitatively.

## Results

In each of the three villages, land-use system comprised five major land-use types: 1) Agriculture (e.g. paddy field, upland field, fallow land); 2) Forestry (e.g. plantation forest and natural forest); 3) Homestead (e.g. residential units and garden); 4) Rocky land; and 5) Other land (e.g. water bodies, road, school, etc.). Among these, agriculture made up the highest proportion of the total area of the land, followed by forest and other types of land use (Table 1).

**Table 1: Land-use types in three study villages**

	Land-use types	Lung San		Ngai Phong Cho		Sin Cho	
		Area (ha)	Proportion (%)	Area (ha)	Proportion (%)	Area (ha)	Proportion (%)
<b>I</b>	<b>Agriculture</b>	<b>179.4</b>	<b>56.8</b>	<b>199.9</b>	<b>78.4</b>	<b>136.2</b>	<b>69.8</b>
1.1	Paddy	6.5	2.1	66.4	26.0	19.3	9.9
1.2	Upland	135.3	42.8	123.3	48.4	102.8	52.7
1.3	Fallow land	37.5	11.9	10.2	4.0	14.0	7.2
<b>II</b>	<b>Forestry</b>	<b>104.9</b>	<b>33.2</b>	<b>43.1</b>	<b>16.9</b>	<b>48.8</b>	<b>25.0</b>
2.1	<i>Natural Forest</i>	103.6	32.8	27.3	10.7	25.9	13.3
2.2	<i>Plantation forest</i>	1.3	0.4	15.8	6.2	22.9	11.7
<b>III</b>	<b>Homestead</b>	<b>9.4</b>	<b>3.0</b>	<b>5.9</b>	<b>2.3</b>	<b>2.7</b>	<b>1.4</b>
<b>IV</b>	<b>Rocky land</b>	<b>21.2</b>	<b>6.7</b>	<b>3.4</b>	<b>1.3</b>	<b>5.9</b>	<b>3.0</b>
<b>V</b>	<b>Other</b>	<b>1.3</b>	<b>0.4</b>	<b>2.7</b>	<b>1.1</b>	<b>1.5</b>	<b>0.8</b>
		<b>316.0</b>	<b>100.0</b>	<b>254.9</b>	<b>100.0</b>	<b>195.0</b>	<b>100.0</b>

Source: Land use inventory

Main uses of forests in the village were to meet basic needs of local population as they were food, shelter, fuel etc. Very little of these products were commercialised in local markets. Relatively high to high proportions of the households the villages, made use of the forest in their village for timber/trees, fuelwood, bamboo stalks, bamboo shoots, medicinal plants, etc. (Figure 2). Overall, the collected forest products were more important for home consumption (such as construction materials for housing, fuel for cooking and heating, food, fodder for livestock and medicinal treatment) than for cash income generation in the villages (Table 2). Household surveys show that just few percentages (less than 10 %) of the interviewed households in all the three villages sold either trees or bamboo stalks or fern in the local market to obtain some cash income.

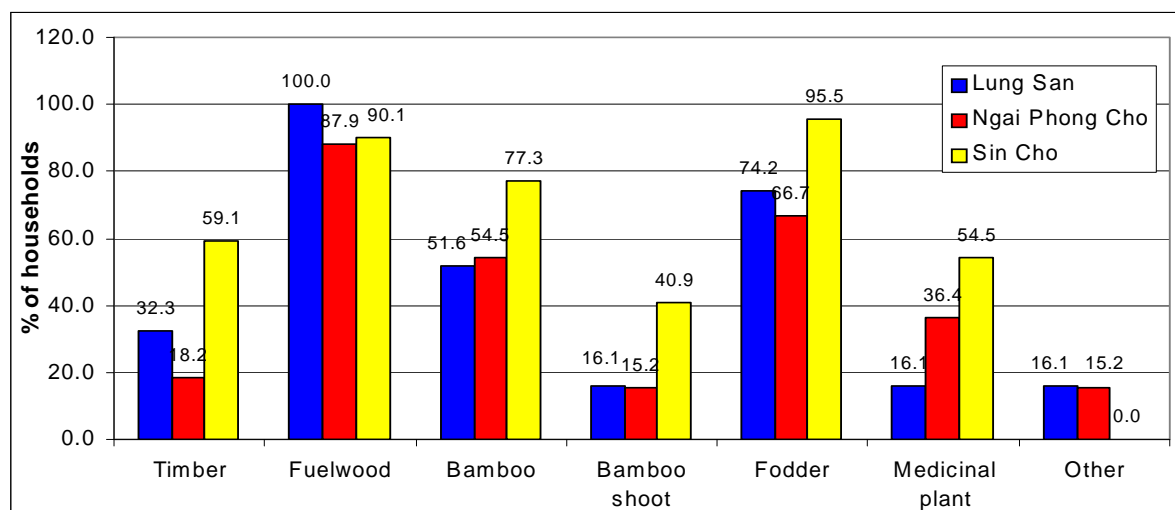


Figure 2: Forest products used by the households in the villages

Table 2: Importance of the collected forest products in Lung San village (example)

Forest products	Importance of use*		% of households sold
	Consume	Cash	
Timber/trees	2.65	0.06	9.7
Fuelwood	2.61	0.00	0.0
Bamboo stalks	0.71	0.06	6.5
Bamboo shoots	0.23	0.03	3.2
Fodder	1.10	0.00	0.0
Medicinal plants	0.16	0.00	0.0
Fern & others	0.00	0.13	9.7

\* Importance levels: 0 = not important; 1= slightly important; 2 = important; 3 = very important

The government's reforestation project (called project 661), aiming at establishment of protection forest and improvement of local living at the same time, started in the whole Xi Ma Cai district and so in the study villages in 1999. It was planned and implemented following top-down approach not taking into account the local reality regarding pattern of land and forest use and customary land tenure. All steps of the project planning were entirely carried out by various state institutions at commune, district and province levels without any local participation and consultation (Table 3).

Table 3: Planning process of the project 661

Steps	Content	Actors involved	Location
1	Establishment of the project planning force	DPC	District
2	Collection of secondary data about land, forest and socio-economic characteristics of the district	MBRP 661, FPS, SARD	District
3	Field work to verify the secondary data (on land and forest)	MBRP 661, FPS, SARD, CPC	All communes
4	Consolidation of the results and draft of project document	MBRP 661, FPS, SARD	District
5	Meeting to discuss and agree on the project, and submission for approval	DPC, MBRP 661, FPS, SARD, CPC	District
6	Appraisal and approval	FD, DARD, PPC	Province

PPC: Provincial Peoples' Committee; DPC: District Peoples' Committee; CPC: Commune Peoples' Committee; DARD: Department of Agriculture and Rural Development; FD: Forest Department; SARD: Section of Agriculture and Rural Development; MBRP 661: Management Board of Reforestation Project 661; FPS: Forest Protection Station.

According to the household survey, few percentages (3.2 – 19.1 %) of the households in the villages obtained some cash from project 661 for forest protection and forest plantation based upon annual contracts decided by Management Board of Reforestation Project 661 (MBRP 661). None of them benefited from the project in terms of forest products, such as trees/timbers, fuelwood, etc., because these uses were restricted and, in fact, prohibited by the project. Local benefits in terms of forest products, cash income, etc. in the long run were not clear. None of these benefits were mentioned in the contracts signed by MBRP 661 with the villagers. Furthermore, project 661 seemed to fail in forest plantation. For instance, the survival rate of trees in 7.5 ha of the forest planted by the project in Ngai Phong Cho in 2005 was less than 70 %. In Sin Cho, the survival rate of trees in all 35.0 ha of the forest planted in 2003 was just 20- 30 %, and this forest had to be entirely replanted.

Because of the implementation of project 661, conflicts over land and forest arose in all the villages under study (Table 4). In Lung San, forest conflicts occurred between the state institutions (e.g. MBRP 661, FPS) on one side and the individual households and the village on the other side. In other two villages, both land and forest conflicts between state institutions and the villagers emerged as forest plantation and forest protection of the project were taken place. At the time of this study, these conflicts prevailed still, and were not resolved in a rational manner. According to FAO (2000), these conflicts, if not addressed, can escalate into violence, cause environmental degradation, disrupt projects and undermine livelihoods.

**Table 4: Conflicts over natural forest in the study villages**

<b>Description</b>	<b>Lung San</b>	<b>Ngai Phong Cho</b>	<b>Sin Cho</b>
Resource at stake	99.4 ha of natural forest	27.3 ha of natural forest, 7.5 ha of land	4.0 ha of natural forest, 35.0 ha of land
Actors	MBRP 661 & FPS vs. households & village	MBRP 661 & FPS vs. clans & households	MBRP 661 & FPS vs. village & households
Issues	State ownership vs. household & village ownership; Protection vs. products	State ownership vs. clan & household ownership; Protection vs. products Forest vs. agriculture	State ownership vs. village & household ownership; Protection vs. products Forest vs. agriculture

### **Conclusion**

The human ecosystem model (Machlis *et al.*, 1997) has been employed to integrate the key elements of the social systems at different scales related to the local pattern of land use and forest use. Land and forest are the two critical natural resources in the village of the Hmong. The Hmong villagers have made use of these resources for their subsistence for long. Top-down implementation of government's forest program/policy has not brought any tangible benefits to local people by now, and also fails to achieve its environmental objective.

Local participation is the key for harmonising local pattern of land and forest use and customary tenure with the government's forest program at local level. It is crucially important that local people are equally involved as the state institutions in the harmonising process. A preliminary harmonising scenario consists of two critical steps. The first is participatory land use planning (PLUP) comprising: 1) analysis and clarification of customary land tenure; 2) holistic analysis and understanding of local pattern of land use; and 3) discussion and negotiation between local people and state institutions to reach agreed land use plan that mutually benefit all the involved parties, particularly local people. The second is participatory forest management planning (PFMP) which consists of: 1) analysis and clarification of customary forest tenure; 2) holistic analysis and understanding of local pattern of forest use and regulation; and 3) discussion and negotiation to reach agreed forest management plan mutually benefiting all the involved parties. It can be expected that the facilitation by an independent mediator can contribute to harmonise the contrary positions of local people and the state.

### **Reference**

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