

### Forest Use and Indigenous Eco-knowledge in Northern Laos



Project: A Trans-disciplinary Study on the Regional Eco-history in Tropical Monsoon Asia: 1945-2005, by Research Institute for Humanity and Nature (RIHN), Japan

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IGU 2006 Brisbane Conference July 4, 2006

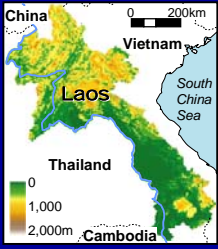
### Livelihood in northern Laos

**Agriculture:** the most important industry in Laos

Northern region

- Mountainous landforms
- Swidden fields

1. Subsistence purpose
2. Difficult to obtain surplus rice to sell



**Need to earn cash from economic activities other than rice production**

### Cash income activities

1. Off-farm activities
2. Farm activities (cash crops and livestock)
3. NTFP (non-timber forest product) gathering

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**Play an important role in generating income for rural people, especially for the poor**


Keys to gathering natural resources for sustainability

1. Management of the gathering method
2. Management of the gathering environment

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**Indigenous eco-knowledge**

### Topic 1: Commercial NTFP gathering



**Pak Luang area**  
(Luang Phabang Province)

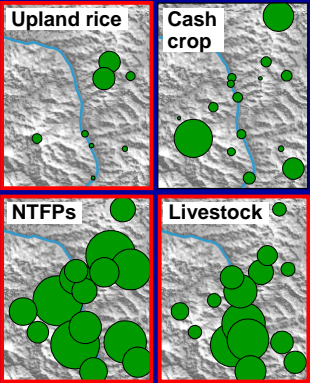
**Fieldwork:** From Apr. 2001 to Sep. 2002

**Ethnic groups:** Khum, Lao and Hmong

**Economic activity:** Swidden farming and commercial NTFP gathering

**Interview:** 160 households in 16 settlements

### Economic activity by settlement, 2001



**Avg. income, n=160**

- 1,000,000 kip/household
- 300,000 kip/household

(1USD=9,000kip)

**Avg. farmer's income, n=136: 259USD**  
(NTFP 48.9%, Livestock 23.0%)

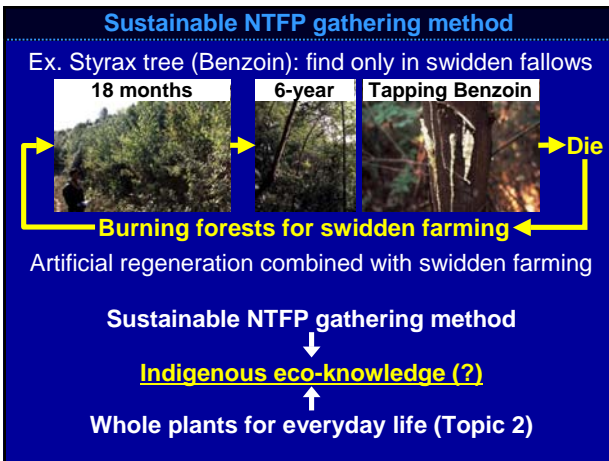
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The district officer's annual salary: **311USD**

### Commercial NTFPs and fallow age

NTFPs	Age of swidden fallow										
	1	2	3	4	5	6	7	8	9	10	11
Tiger grass	○	○	○	○							
puack muack	○	○	○	○	○	○	○	○	○	○	○
Paper mulberry	○	○	○	○	○	○	○	○	○	○	○
Galangal fruits			○	○	○	○	○	○	○	○	○
Benzoin				○	○	○	○	○	○	○	○
Cardamom					○	○	○	○	○	○	○
Rattan fruits	Seldom found in the swidden fallows										

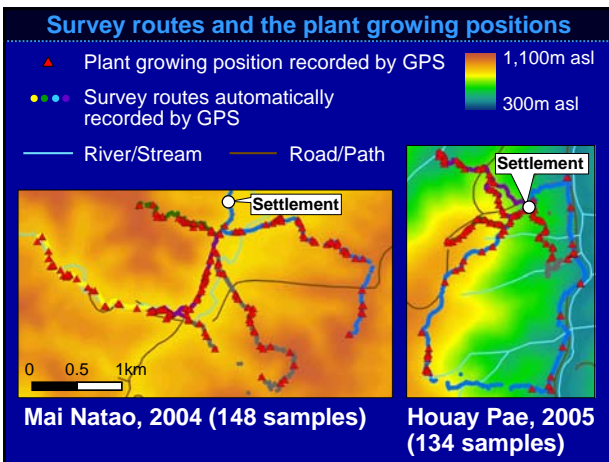
Quantity of NTFP gathering: Small ○, Moderate ⊙



### Topic 2: Plant gathering for everyday life

**a. Mai Natao village**  
(Oudomxay Province)  
**Fieldwork:** Aug. 2004  
**Ethnic group:** Khum  
**Economic activity:** Swidden and paddy farming

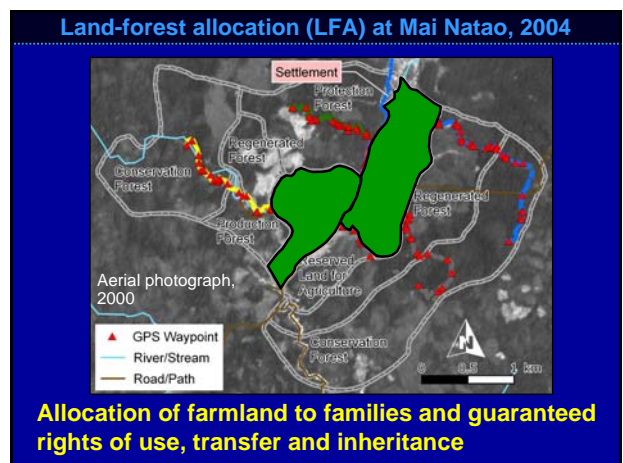
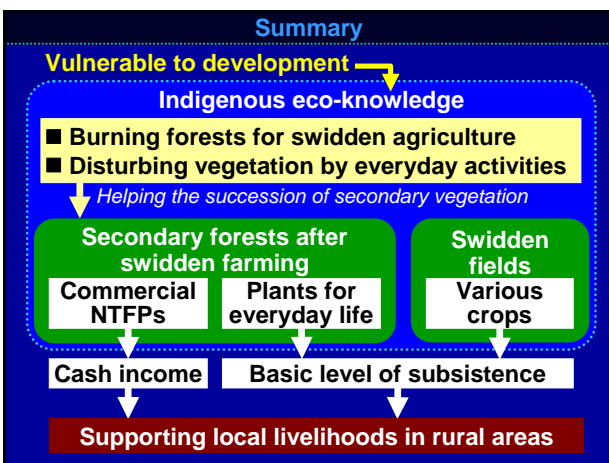
**b. Houay Pae village**  
(Phongsaly Province)  
**Fieldwork:** Aug. 2005  
**Ethnic group:** Akha  
**Economic activity:** Swidden farming



### Ecological condition of plant samples

Zone	Sub-zone (Ecological condition)	Mai Natao	Houay Pae	
Settle-ment	Settlements (incl. old settlement site)	4	7	
	Paths near the settlements and roadside	24	22	
	Farm	In and around the paddy fields	12	
		In and around the cassava fields		6
In and around the swidden fields		11	3	
	Gardens attached to a hut in the fields	3		
Forest	Swidden fallows (1-10 years)	5	62	
	Swidden fallows (11 years or more)	32	5	
	Dense forests (old secondary forests)	37	18	
Water	In and around the river/stream/swamp	20	11	
<b>Total</b>		<b>148</b>	<b>134</b>	

**Recognition of the importance of the places that are often disturbed by the everyday activities**



**What happens after implementing LFA**

**Case 1 Village A in Oudomxay province**



**Major crop:** Various commercial crops instead of upland rice  
 → Facing difficulties living on commercial crops because of the lack of market information

**Case 2 Village B in Luang Phabang province**



**Major crop:** Changing from upland rice to Job's tears  
 → The fields have been used for Job's tears monoculture

**The ideal forest use**

**The IDEAL forest use policy recommended by outside parties**

1. To increase land tenure security for encouraging intensive agriculture
2. To eliminate swidden agriculture for protecting natural resources and the environment



Signboard by the government



Signboard by foreign NGO

**Conclusion: the ideal and the real forest use**

**The REAL forest use practices by the locals based on Indigenous eco-knowledge**

1. Using the spatial dynamics of vegetation changes
2. Recognizing secondary forests after swidden farming as important spaces for supporting their livelihoods

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**Need to consider the two facts above to design a more realistic forest use policy**

**Thank you very much for your kind attention**