

IHDP Open Meeting 2009, 27-30 April in Bonn, Germany

Diversity in the Uplands as Factor of Adaptation to Environmental Changes

Case Studies from Luang Prabang and Oudomxay Provinces, Lao PDR

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Geographical Location



China (505 km in the north)

Myanmar (236 km in the north-west)

Thailand (1,835 km in the west)



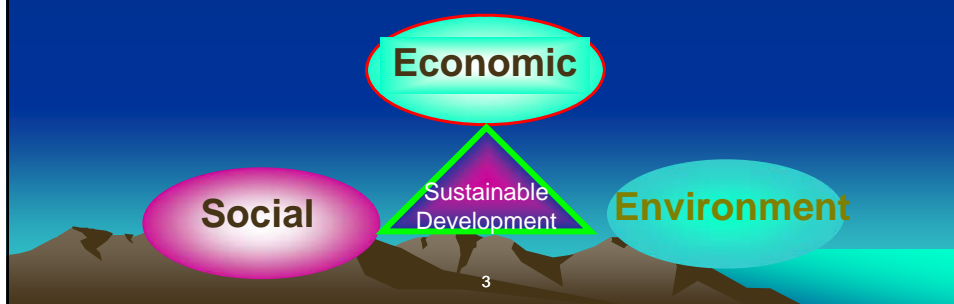
Vietnam (2,069 km in the east)

Cambodia (435 km in the south)

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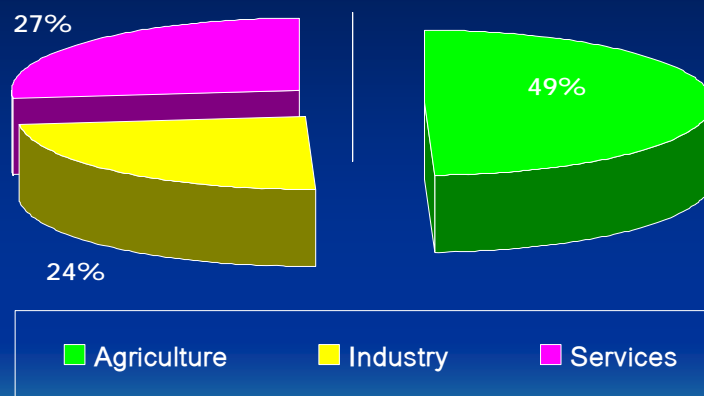
National Development Vision to the Year 2020:

- Exit from the status of least developed country
- Sustainable development
- Regional Integration

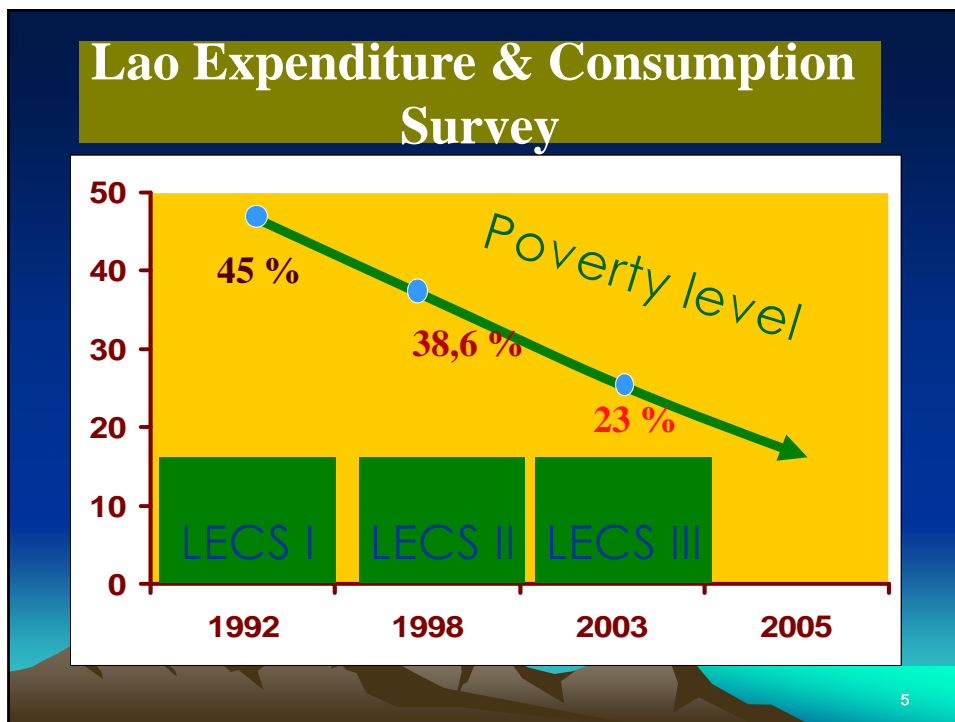


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Share in GDP by Sectors in 2004



4



POLICIES FOR THE MOUNTAINOUS AREAS

- The government of the Lao PDR has a national policy to eliminate upland rice production under “slash-and-burn” shifting cultivation systems.
- Non-shifting, more ecologically stable systems, with land management by villages and individual households, are to be introduced.

IN THE SLOPING LANDS, THE MAJOR DEVELOPMENT THRUSTS ARE:

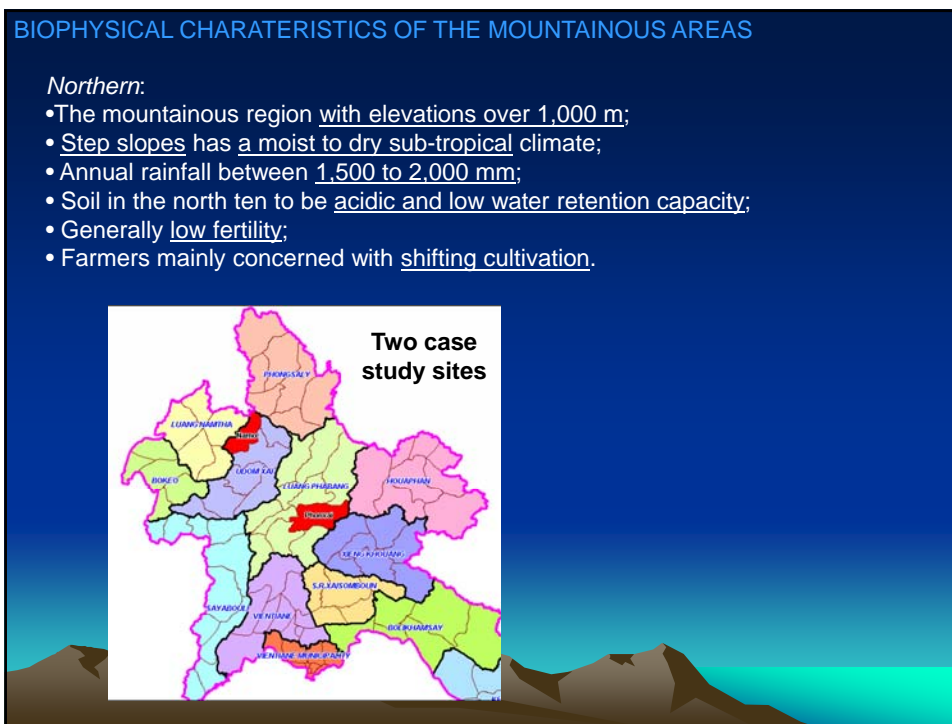
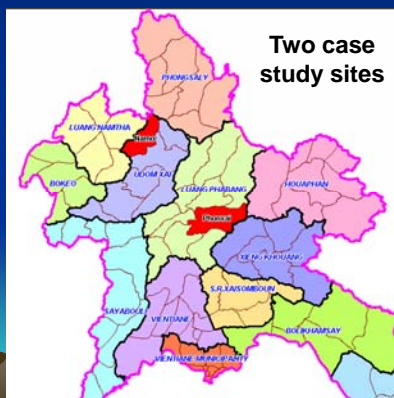
- Land use zoning;
- Participatory land allocation;
- Community based natural resource management;
- Farming systems diversification;
- Expansion of small-scale irrigation systems;
- Sustainable land use management;
- Rural savings mobilization;
- Competitive rural finance systems;
- Improving communities' access to markets.



BIOPHYSICAL CHARACTERISTICS OF THE MOUNTAINOUS AREAS

Northern:

- The mountainous region with elevations over 1,000 m;
- Step slopes has a moist to dry sub-tropical climate;
- Annual rainfall between 1,500 to 2,000 mm;
- Soil in the north ten to be acidic and low water retention capacity;
- Generally low fertility;
- Farmers mainly concerned with shifting cultivation.



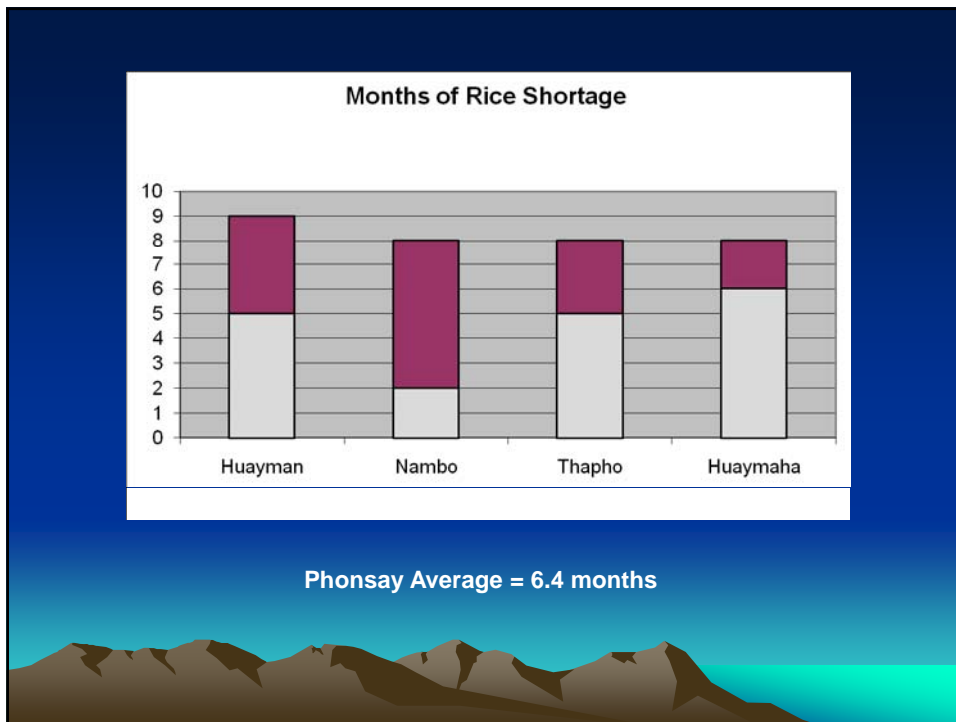
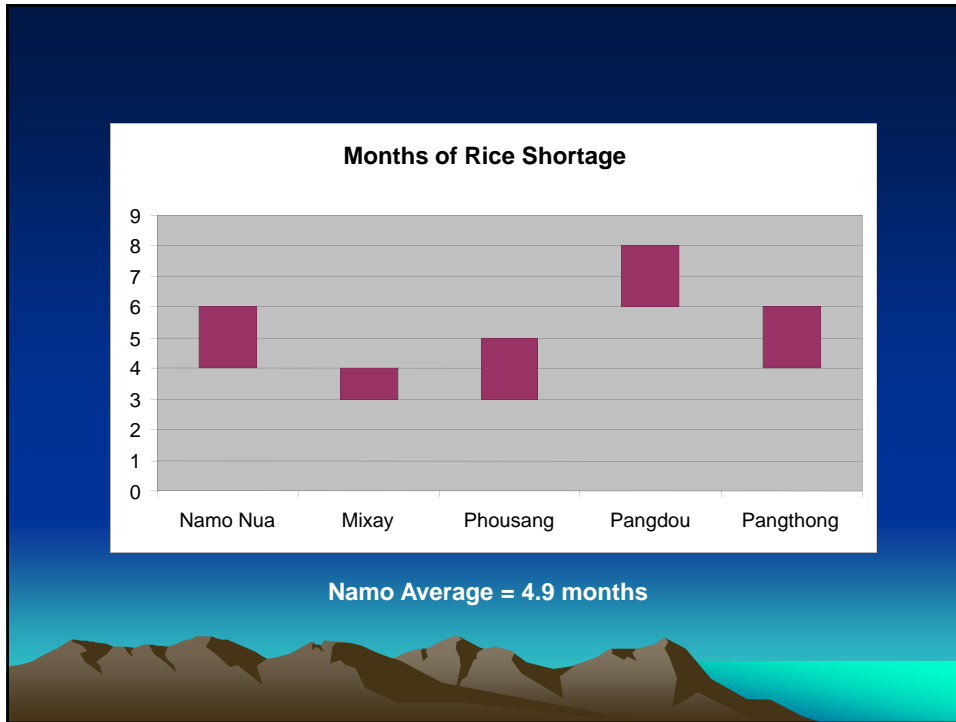
PHONSAY				
	Ethnic Groups	Households	Source of Population Increase	Distinctive Characteristics
Huayman	Khmu, Hmong	51	Relocation	Longest period of rice shortage, least farmland, most forest plantation land, most socially stratified (10 landless families & 1 landlord)
Nambo	Hmong, Khmu, Lao Loum	55	Spontaneous migration	Most padi land/capita, greatest variety of cash crops, most innovative farmers, 10 Day Market
Thapho	Lao Loum	118	Relocation	Largest village, 2 nd most paddy land/capita,
Huaymaha	Khmu, Hmong	92	Relocation	Most hai/capita, largest relocated population, land disputes

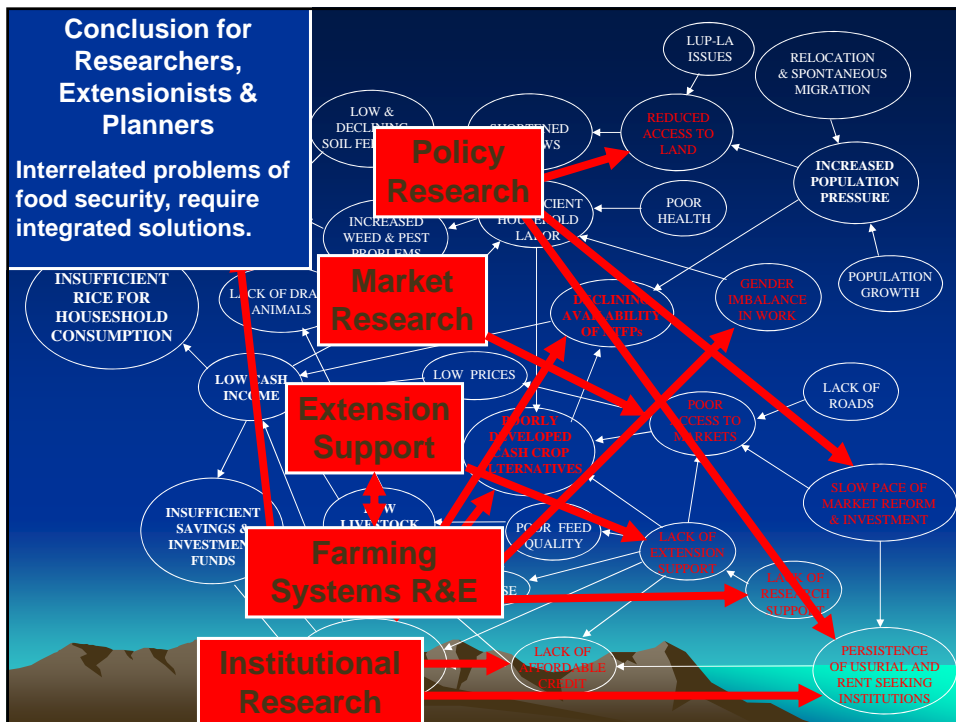
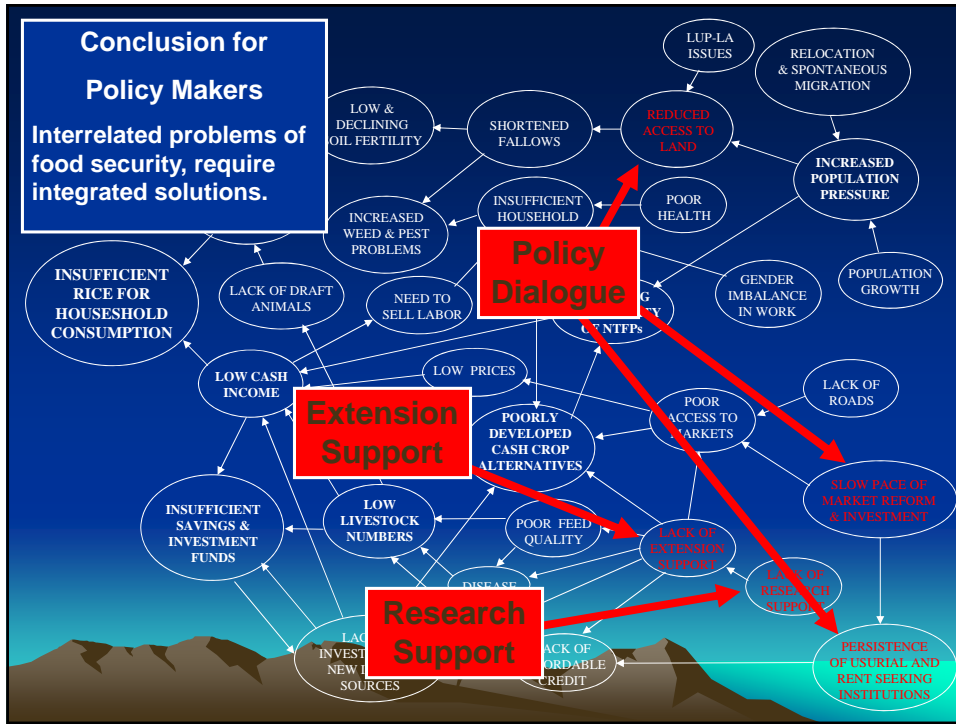
NAMO				
	Ethnic Groups	Households	Source of Population Increase	Distinctive Characteristics
Namo Nua	Tai Dam	82	Pop. growth	Most livestock/capita, 2 nd most paid land/capita, not a relocation village, old village, most developed income alternatives
Mixay	Hmong	14	Relocation	Smallest village, sells <i>hed daeng</i> to China, needs community forestry
Phousang	Phousang	25	Spontaneous migration	Rare ethnic group, refused relocation, most swidden, longest fallows
Pangdou	Khmu, Hmong	31	Relocation	Longest period of rice shortage
Pangthong	Hmong	49	Relocation	Most padi land/capita, most innovative farmers

HOUSEHOLD LIVELIHOOD SYSTEM		
BASIC NEEDS SUPPLY SYSTEMS	←	PRODUCTION SUBSYSTEMS (Components of Basic Needs Subsystems)
Direct Needs (outputs consumed directly by the household)		
• FOOD	←	Crops, livestock, fish, NTFPs, purchased foods
• ENERGY	←	Firewood from forests & fallows, crop residues, etc.
• SHELTER	←	Timber, NTFPs, purchased
• MEDICINE	←	Medicinal plants, purchased medicines
• CASH	←	Short term cash crops, livestock, NTFPs, cottage industries +
• SAVINGS/INVESTMENT	←	Long term savings/investments in livestock, trees, banks, farm improvements +
Indirect Needs (major inputs for producing outputs that are consumed by the household)		
• FEED FOR LIVESTOCK	←	Grasses, forage, crop residues, feed crops
• RAW MATERIAL FOR COTTAGE INDUSTRY	←	NTFPs, timber, crops, purchased materials

Diagnostic Results HOUSEHOLD LIVELIHOOD SYSTEM		
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How serious is the food security problem in Namo and Phonsay?





Future Research

- In-depth diagnostic research to understand the nature and severity of food security problems (**valorizing agrobiodiversity**)
- In-depth household livelihood studies to understand how households are coping with changes (**adaptation mechanisms**)
- Area-based studies at district level to understand the processes behind increased population pressure on resources (**increased number of livelihood options** - spontaneous migration, relocation, land use planning issues)
- Policy studies to understand how policy makers might better assist the Districts to achieve national goals in rural development, poverty alleviation and sustainable use of natural resources (**improved participation in policy dialogue**)

Thank you for your attention