

# science-policy dynamics in Lao PDR

As part of the mobile workshop, a mini-workshop was held on 21 January in Luang Prabang to examine the science-policy interface within the Lao context, and to enable the workshop participants to compare these dimensions with the situation in China and Thailand.

Mr Houmchitsavath Sodarak gave a brief introduction on the objectives and process of the mini-workshop. The mini-workshop was presided over by Professor Dr Sayamang Vongsak, Vice President, National University of Laos (NUoL), who provided the welcome and opening remarks.

Four presentations were made by Lao colleagues on the following topics.

- Agriculture and development in Luang Prabang Province
- Northern Lao development strategy
- Land use in northern Laos
- Sustainable livelihoods in Laos

This was followed by an open discussion session, in which some other Lao colleagues joined the presenters to address questions and comments from the participants.

## Agriculture and Development in Luang Prabang

Mr Somphong Pradichit, Director General of the Provincial Agriculture and Forestry Office, gave a comprehensive overview of agriculture and development in Luang Prabang.

Luang Prabang Province, located in the heart of northern Laos, is mainly populated by shifting cultivators. There are three main types of rice cultivation practices in the province (with area cultivated in 2004):

- wet-season rice cropping (11,398 ha)
- dry-season rice cropping (2,240 ha)
- slash-and-burn (shifting) cultivation (23,600 ha)

In 2004, the total rice production in Luang Prabang Province was 91 tons, but the aggregate need for the province was 140 tons.



Since 1990, more land has been brought under cultivation. At the same time; the government has been successful in discouraging and bringing a significant decrease in the shifting cultivation area. Overall, the total production of rice has decreased during this period. Logging of natural forests has been replaced by teak logging and other cash-crop cultivation.

## Northern Lao Development Strategy

Dr Leeber Leebouapao, Deputy Director of the National Economic Research Institute, made a presentation on the development strategy for northern Laos, the economy of which relies on agriculture. The national development goals in Laos are to reduce poverty, eradicate opium production, and stop slash-and-burn cultivation. The government's industrialisation strategy has several priorities such as electricity, agriculture and forestry, tourism, mining and construction material industry.

He opined that a separate northern region development strategy is necessary because of the unique features of the area such as high poverty incidence; low level of economic development compared to other regions of the country; the need to realise the national development goals in the north; the need to utilise limited resources efficiently; and a desire to integrate the northern region with the regional and global economies. He also mentioned that the Asian Development Bank (ADB) has been supporting the development and implementation of the northern region strategy since 2002.

Major constraints to development in northern Laos include insufficient infrastructure facilities; insufficient investment capital; and high poverty incidence. However, the north has much potential and opportunities, especially in terms of its linkages with four neighbouring countries, which opens up market-based livelihoods related to natural resources and tourism.



**Kunming-Bangkok highway under construction in Xishuangbanna: cutting through a rubber plantation and a nature reserve**

The R3 Kunming-Bangkok highway, expected to be completed by 2006 within the ASEAN framework, will facilitate regional transport, markets, and trade, including niche markets for soybean, maize, sesame, Job's tears, and other products.

One point raised in the discussion was related to the regional cooperation between Laos and China to study, develop, and improve the tourism network. A China-Lao memorandum of understanding (MoU) was recently signed in Luang Prabang to promote cooperation in tourism, mining, agriculture, forestry, and small industry development.

## Land Use Change in Northern Laos

Dr Sithong Thongmanivong of NUoL provided an overview of land use change in northern Laos, focusing on the general policy development background, land use and forest cover change, and agricultural production analysis.

He also reviewed the change in policy since the 1980s regarding socioeconomic development and resource management. According to available statistics for the 1993-2000 period, there was a dramatic decrease in the total shifting cultivation area within Laos. Due to land allocation, which provided secure tenure to villagers, forest cover also increased during this period. However, land allocation has also led to increased forest fragmentation with a higher number of forest 'patches'.

There has been a steady increase in cultivated land, rice and cash-crop production, as well as the reliance of households on cash crops and NTFPs for income generation.

Once it is open, the R3 transboundary highway will impact on land use in northern Laos, potentially leading to an increase in cash crops such as maize, sugar cane, and rubber, as well as more extraction of NTFPs like bitter bamboo and cardamom.

At the national level, geographic information system (GIS) data has been compiled by the Lao government and supplemented by data collected from provincial agricultural and forestry offices.

## Sustainable Livelihoods in Laos

An overview of upland livelihoods in northern Laos was presented by Mr Linkham Douangsavanh of the National Agriculture and Forestry Research Institute (NAFRI). He also referred to a case study conducted in the north by the NAFRI socioeconomic group. As a mostly subsistence-based agricultural economy, Lao policy interventions have understandably focused on farming systems and how to increase agricultural productivity, especially in the northern region.

Population growth, land scarcity, forest degradation, and the government's land allocation programme are undermining formerly sustainable agricultural systems, particularly systems of shifting cultivation in the highlands. 'Economies of scope' based on traditional, diverse agro-ecosystems, incorporating a range of village-based non-agricultural activities (like weaving) and the collection of NTFPs, are being replaced by 'pluriactive' households where diversity is achieved beyond farming, through embracing various modern non-farm activities.

The Lao PDR government's policy is to eliminate shifting cultivation using 'slash-and-burn' methods, and to replace it with more ecologically stable systems based on sustainable land use at the village and household level\*. Based on the case study and diagnostic research, the household livelihood system was found to have four priority basic needs: food, cash, savings, and animal feed. Household strategies for food security are to grow rice, to get money to buy rice, and to substitute other staple foods for rice. He directed one key conclusion to donor and policy makers: that interrelated problems of food security require integrated solutions.

There was a query from the group as to whether the income from NTFPs is higher than that derived from rice, and this was confirmed. It was mentioned during the discussion that NAFRI is trying to improve the lives of Lao people in a sustainable way. It was also reported that some villages want to be classified as 'poor' in the hope of qualifying for assistance.

## Panel and Open Forum Discussion

Following the four presentations summarised above, a panel comprising the presenters and other PAFO colleagues fielded questions and comments from the participants. This open forum was moderated by Mr Houmchitsavath Sodarak.

Some of the key questions and responses are given below.

*How much support can the Lao government provide to farmers for alternatives to shifting cultivation?*

The alternatives to shifting cultivation in China and Laos are quite similar. The only problem is that Laos doesn't have a large enough budget to provide expensive irrigation schemes in upland areas. However there are several measures which can help stabilise shifting cultivation in Laos, including

- making shifting cultivators aware of the adverse impact of their practices through education;
- introducing technologies like agroforestry, animal husbandry and integrated cropping;
- organising cross visits for shifting cultivators to other provinces to see the positive results from the eradication of shifting cultivation;
- allocating land for shifting cultivators and introducing cash crops;
- encouraging investment from companies to increase farmers' opportunities to earn income from cash crops;
- promoting the development of handicrafts and tourism for income generation; and
- encouraging farmers in land use planning and helping them to use the land effectively to increase productivity for their own benefit and to generate income.

\* Editor's note: More recently, researchers and development workers have started to revise the commonly held beliefs about shifting cultivation and have started to recognise its strengths as a sustainable mountain-appropriate agricultural system that conserves biodiversity, protects soils, and minimises farmers' risks – as long as sufficient area is allocated to maintain the forest fallow period in its full form, and rotation cycles are not shortened (see the Shillong Declaration and upcoming ICIMOD publications on shifting cultivation). Shifting cultivation is a way of life that has existed for centuries and provides farmers with a social safety net. This changing appreciation may affect these government policies in the long-term, as already indicated in the example of Mae Thum in northern Thailand (p. 48) where discussions revolve around paying farmers to maintain the system.

Eliminating shifting cultivation and investing in irrigation is one of the important goals of the Lao government. However, this is not easy to achieve. In some provinces, shifting cultivation is not possible to stop as farmers rely on it for their survival. Currently, the Lao government allocates more than 40% of the agricultural budget for irrigation programmes. Often it is necessary to resettle upland people in the lowlands where irrigation is more readily available.

*Have there been any plans for, or feasibility studies conducted on, the establishment of rubber plantations in Laos? Are farmers likely to benefit from such programmes?*

A socioeconomic study has been conducted on the establishment of rubber plantations in Laos. The report is available at NAFRI. Some Chinese companies have shown interest in investing in rubber production in northern Laos.

In general, rubber cultivation is booming in Laos and Thailand. In Luang Prabang, a few companies have already made explorations into rubber cultivation. Consultation with other provinces is needed. Lao farmers can learn from the experiences of the Chinese farmers.

Villagers are highly dependent on NTFPs and there is a need to increase the awareness among villagers of cash crops. There is also a need to increase forest cover by planting more trees and to consider the provisions of the Kyoto Protocol. Land use planning should be linked to community-based planning.

*There has been a significant reduction in shifting cultivation, but not in poverty reduction. Is it possible to reduce both at the same time?*

The first priority of the Lao national policy is poverty alleviation. There is a need for researchers, working together with extension agencies, to find appropriate sustainable technologies.

Shifting cultivation is one of the factors leading to poverty. Implementation of the national policy together with investment programmes by donors will eventually help to reduce poverty. In addition, the introduction of alternatives to shifting cultivation such as livestock rearing and poultry production would also help increase the livelihoods of farmers.

*The following trends regarding tourism in Siem Riep, Cambodia were shared, and the question was raised as to whether these trends were also prevalent in Laos?*

In Cambodia:

- Members of the urban elite have been acquiring land in rural areas while farmers are going to the city for work, which means that there is an exodus of rural labour to urban areas
- Some rural households are abandoning farming to seek wage labour in town
- There is no equitable distribution of benefits, e.g., some hotels in Cambodia are buying rice and vegetables directly from Thailand and Laos depriving local villagers from any benefits from tourism

It was suggested that the concerned authorities have to support rural people to start, and benefit from, ecotourism in their villages.



*What are the negative aspects learned by the Lao Government from China? Do Chinese investors bring negative impacts to the Lao culture and, if yes, what would be the costs incurred?*

There have been some negative impacts of Chinese investment in the past. For example, Chinese investors persuaded Lao farmers in Phongxaly to plant sugar cane but didn't purchase the cane.

There is a need for greater transparency in relation to Chinese investors interested in establishing rubber plantations in northern Laos.

Mr Houmchitsavath Sodarak wrapped-up the open forum by reiterating the key issues and questions that need to be addressed in the Lao context.

- How to stop shifting cultivation?
- How to develop and support an appropriate policy for upland development?
- How should policy intervene?
- How to achieve environmental protection and sustainable development in rural areas?



Livelihood group working together in Laos