

PARTNERSHIP FOR FOREST MANAGEMENT: JOINT FOREST MANAGEMENT IN SAVANNAKHET, LAO PDR

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Abstract

During the 1990s the Government of Lao PDR has increasingly recognized the needs for sustainable management of natural resources and the need to incorporate participatory approaches in natural resource management. It is in this context that during the third phase of the Lao-Swedish Forestry Program a forest management model for Dong Kapho State Protection Forest in Savannakhet Province was developed. A partnership concept or Joint Forest Management (JFM), which involves villages within and around the forest in the implementation of the plan, was put into practice. The Lao-Swedish Forestry Program developed two models of JFM which have been implemented since 1994 in three villages of Phin and Phalanxay Districts, with the overall objective of testing a sustainable forest management system adapted to the ecological, social and economic conditions in Laos.

In both JFM models, villagers implement major forestry operations and receive direct benefits from timber sales. The income generated for individual families and the village revenue available for development varies according to each model and the volume logged. Constraints encountered during JFM implementation mainly concern institutional and organizational problems; inadequate extension support; low staff capability; adherence to plan prescriptions; and the distribution of revenue. The JFM trials will be conducted for five years under the fourth phase of the Lao-Swedish Forestry Program after which a decision will be taken as to the feasibility of the system and its possible extension to other forest areas in the country.

Background

A nation wide reconnaissance survey of Laos carried out between 1986 and 1991 confirmed there has been a dramatic decrease in forest cover as well as degradation of the existing natural forests of the country. Among the factors threatening the forests of Laos are: undeveloped agriculture for uplanders, inefficient management and use of forests, poor production and conservation of forest resources, inappropriate land use, inappropriate institutional structure, inadequate legal frameworks and law enforcement, and insufficient support to farmers and villagers. However, the need for sustainable management of natural resources has been increasingly recognized by the government during the 1990s.

One of the roles of the Lao-Swedish Forestry Program during its third phase (1990-95) was the development of models for sustainable forest management. In 1992, the National Office of Forest Inventory and Planning (NOFIP) took an important step in

developing a methodology for forest management planning with the development of the Forest Management Planning method (FMP). FMP aims to provide an integral planning system for sustainable multiple use of forest resources considering technical, silvicultural, economical, social, ecological and environmental aspects. Under this system, forest areas were classified into two categories: State Production Forests (SPF) and Village Forests. Although separate methods for management planning were to be developed for each category, so far only the FMP method for the SPF has been developed.

The forest management model developed for the Dong Kapho SPF of Savannakhet Province is a result of the development of the FMP method. A Joint Forest Management (JFM) approach has been put into practice, on a trial basis, for the actual implementation of the forest management plan, in accordance with the Lao Government's increasing acceptance of the idea of involving the people, who live in or near forests and depend on them for their survival, in protecting and managing its forests.

The Dong Kapho forest management plan

Dong Kapho SPF is a natural high forest covering 9,581 ha, comprising a productive forest area of 5,925 ha and spreading over three districts (Phin, Phalanxay and Xonbury) of Savannakhet Province. This SPF was previously managed by the State Forest Enterprise No. 2 and Savannakhet Province up to September 1993 when a decision by the Ministry of Agriculture and Forestry (MAF) was made to bring it under the new management plan. The management plan being developed aims towards the sustainable management of this SPF with three specific objectives:

- ◆ Sustained yield production of valuable timber and non-timber forest products;
- ◆ Maintenance of the ecological, conservation and protective capacity of the forest; and
- ◆ Involvement of the local people in the management (Joint Forest Management).

To meet these objectives, growth and yield models were produced and a management plan developed with a 50 years felling cycle. For the purpose of management, the whole forest was divided up into 72 compartments of 50-200 ha distributed in three management areas: Dong Kapho North West (DKNW), Dong Kapho North East (DKNE), and Dong Kapho South (DKS). In each of the Management areas, five "Ten-year allowable coupes" were formed and a management plan developed for the first five years of implementation within the first ten year allowable coupe. This management plan includes details of methods for yield regulation and for making different estimates, the silvicultural system adapted, harvesting guidelines, silvicultural and tending operations, and other technical prescriptions and actions to be taken at different periods.

The annual coupe area (118 ha) is equal to the total productive forest area divided by 50 (the number of years in the felling cycle). In order to distribute activities in all three management areas, annual coupe areas were specifically calculated for each of them (29 ha, 48 ha and 41 ha for DKNE, DKNW, and DKS, respectively). Within the annual coupe, annual logging volume is determined for each area through a yearly pre-logging survey, followed by the elaboration of a cutting regime and tree marking survey.

For the purpose of maintaining the ecological, conservation and protective capacity of the forest, possible conservation and protection forest areas within the SPF are

identified and delineated, and belts of protection forest (riparian reserves) are set aside along rivers and streams. Separate prescriptions are given for this purpose.

Village surveys during the plan preparation phase indicated that the protection of the existing forests from fire, shifting cultivation, grazing and illegal logging and hunting is a requirement for successful sustainable management. To achieve this, the management plan therefore suggests the involvement of local villagers as an important means in its implementation.

Plan implementation

In fact the involvement of villagers in the management of the forest is one of the key objectives of the management plan. However, since experience of involving people in the management of State Production Forests in Laos is still limited, a modified JFM approach was implemented. JFM originated in India and was modified and tested with the purpose of developing appropriate methodologies for implementing the forest management plan in different types of forests in Laos. Two models of JFM were developed and tested for this purpose in three villages out of the total 14 found within and around Dong Kapho SPF (one in each management area).

In all management areas of Dong Kapho, surveys necessary to plan implementation are conducted by provincial and district staff. Implementation responsibilities for JFM lies with Savannakhet Provincial Agriculture and Forestry Office (PAFO) which has appointed two coordinators to follow, control, and monitor JFM activities, as well as two rangers representing PAFO to be in charge of Dong Kapho. Both the District Agriculture and Forestry Offices (DAFO) in Phin and Phalanxay have appointed staff to support and monitor JFM activities in the village(s) under their responsibilities.

Joint Forest Management (JFM)

The actual implementation of the management plan started in 1994 in DKNE where Ban Nathong was selected as a representative village and was contracted under JFM Model 1. In 1995 Ban Xienglekhok and Ban Khamnoy in DKNW and DKS respectively, were contracted to implement JFM trial Model 2. These JFM trials will continue until 1999, throughout the fourth phase of the Lao-Swedish Forestry Program.

Model 1 Agreement: Ban Nathong, DKNE

A village forest committee called the JFM Association (JFMA) has to be formed to represent the village, and is given a contract with full rights and responsibilities to implement the whole management plan for the Management Area (DKNE). This includes rights to log and sell logs and/or process logs and sell sawn timber. In exchange for these rights, the villagers commit themselves to protect the management area, and pay a royalty to the government per logged volume as per official regulations. Profits from the management goes to the JFMA. Seventy percent of the revenues goes to a village development fund and 30% is reserved for the implementation of the following year's operations (salaries of board and management team, per diem for DAFO staff, payment for forest work by villagers, and so on). The money is placed at the closest bank and the bank book is kept by the village. Disbursements from the account and village development fund is managed by the village under the supervision of DAFO.

The DAFO provides various extension support to JFMA to enable it to undertake the JFM contract. Training of the JFMA staff is arranged in aspects which need to be strengthened. The district provides a start-up credit for the initial forestry operations in the village. This credit is reimbursed without interest to the district development fund. DAFO also assists the village in carrying out a participatory land use planning of the village outside the area of Dong Kapho, identifying village forest areas and drawing up management plans for these forests. The PAFO has overall responsibility for the SPF, plans the forest management, undertakes related forest surveys, and controls and monitors the implementation of the plan by the JFMA.

Model 2 Agreement: Ban Xienglekhok, DKNW and Ban Khamnoy, DKS

In this model, villagers organize and commit themselves to protect part of the forests that is inside the village borders and refrain from encroaching other parts of Dong Kapho SPF. Villagers are organized around a forest volunteer(s) to carry out forest protection and improvement activities. The village forms a committee that manages a village development fund to which the province will transfer the protection fee.

DAFO supports the village through forestry extension and training to ensure villagers are able to undertake the JFM contract. In this model, DAFP also supports better land use and sustainable village forestry on the land outside Dong Kapho. PAFO plans, implements, controls, collects royalties/taxes and monitors all activities in Dong Kapho. The province, however, contracts out the protection of the forest to the village, and in exchange pays a protection fee to the village. PAFO also arranges annual logging and hires labor from the villages when doing this work. Villagers are also contracted to conduct nursery and plantation work in Dong Kapho. Under DAFO, community forestry plans are developed for the sustainable management of the village forests, on the basis of actual village management rules.

Implementation of Joint Forest Management

JFM Model 1 was contracted to Ban Nathong in 1994. The JFMA was formed and is owned by all the families living in the village. The JFM board, which is distinct from the village committee, comprised of 11 members was formed through election in December 1994. The composition of the board, in principle, should be sanctioned annually by election by the village assembly. Since the salary was paid only to JFM board, a conflict arose with the village committee. As a result, the two structures were merged in 1996 and the 13 members of JFM board are now the same 13 members of the village committee. The role of the JFM board and duties and responsibilities of Ban Nathong JFMA were also worked out.

In the forest management plan, several operations are prescribed. After three years of implementation, the main forestry operations (which include logging, nursery, enrichment planting, log transportation, track clearing, pre-logging inventory, and tree marking survey) conducted under JFM agreement model 1 are quite effective, except for enrichment planting after harvesting.

Although the PAFO is the responsible party in some operations, villagers always assist in the work. Particular attention is paid to customary rights. Villagers involved in forestry operations are paid for their work. Money to finance forestry operations comes

from the part of the village revenues. The revenue of Ban Nathong through involvement in JFM is given in table 1.

Table 1: Revenue from forestry operations under JFM model 1 (Ban Nathong) in Kip

Year	Volume logged (cu. m)	Royalties	Total revenue for village	Amount distributed to families	Expenditures in forestry operations	Expenditures in admin.	Amount available for dev.
94-95	589,027	24,699,005	36,684,757	1,992,470	7,068,324	2,700,000	24,699,005
95-96	384,810	26,496,819	23,300,390	2,004,971	4,938,022	2,725,423	13,631,974
96-97	327,533	23,566,200	26,002,247	1,638,165	na	na	

Exchange rate for 94/95: US\$1 = 782 kip

Exchange rate for 95/96: US\$1 = 930 kip

To undertake the work they are responsible for, villagers have support from DAFO and the rangers, mainly regarding organizational issues. They are also supported through numerous explanatory meetings and courses of basic technical training such as basic management, logging and felling techniques by hand saw, and basic financial training.

With the revenue from logging, Ban Nathong will invest in village development activities. The decision has been made to construct four tube wells and a ten meter wide all-weathered road linking the village to the main asphalt road No. 9. This investment amounts to 39 million kip.

A participatory land-use assessment and planning and land allocation exercise will be conducted in December 1997 to January 1998 in Ban Nathong. During this exercise, all forest types will be located and identified according to their use and natural vegetation. Basic management rules for the village forests will be elaborated by the villagers.

Model 2 is being tested in the remaining two Management Areas of Dong Kapho SPF (Ban Xienglekhok in DKNW and Ban Khamnoy in DKS). Although tests started in 1995, the contract has yet to be signed. Unlike Model 1, no particular structure has been set up for the implementation of the agreement. However, a village development committee has been established in both villages, mainly from the existing village committee, as interlocutor to carry out JFM related work and administer the village development fund.

In undertaking forestry operations, especially logging, sawmills were selected by the villagers under PAFO supervision, through a bidding process, for buying logs by paying a fixed amount per cubic meter felled. The amount paid by the sawmills covers royalties, the logging fee, and the expenses incurred for control and measurement surveys undertaken by the Provincial Forestry Section. The logging fee is managed by the villagers and the money is used for paying the work of the villagers, services of DAFO officers, log transportation to second landing, track clearing, and the protection fee. Royalties are paid directly by the sawmill to the province. In 1996, a provincial rule allocated the sum of 600,000 kip/ha for land planted after logging, payable to the districts. Training support was also given on certain technical aspect such as safety tree felling techniques. As with Model 1, forestry operations carried out under JFM agreement Model 2 are quite effective, except for enrichment planting. In this model particular attention is also paid to customary rights in selecting areas and trees for felling.

The revenue generated in this model is given in table 2. In both Ban Xienglekhok and Khamnoy, funds from the protection fee have been used to construct tube wells and purchase school materials. In both villages, the remaining funds have been invested in the construction of a new school. In addition to revenue to the village, JFM also generates income to individual families involved in various forestry operations. According to socio-economic surveys in Ban Xienglekhok carried out during January and February 1997, the amounts directly disbursed to individual households (38) amounted to almost 1.2 million kip. Incomes from JFM in 1996 ranged from 10,000 kip to 40,000 kip per household involved. Compared with other sources of income, JFM comes third after livestock and non-timber forest products, regarding total household income in the village. However, JFM is the primary source of income for about 38% of the families involved. In Ban Khamnoy, the average income from JFM for individuals who took part in logging activities is about 30,000 kip. In 1996, household revenue from JFM varied from 30,000 to 140,000 kip with a total village income of almost 3.4 million kip.

In the agreement, it is stipulated that DAFO shall help to develop better land use and sustainable village forestry on the land outside Dong Kapho SPF. In accordance with this, a six day participatory exercise held in September 1996, in Ban Xienglekhok, established land use status and the border of the village.

In Ban Xienglekhok, in February 1997, a method was developed and tested in the field to elaborate a village natural resources development plan. The development of this plan was based on an assessment of current land use practices, identification and analysis of village problems, subsequent land allocation, and the establishment of village rules and agreements. During this process the different village forests were classified according to their use and natural vegetation. The basic management rules were included in a Land Use Agreement signed between the village and government. Rules relating to the management of Dong Kapho SPF within the village boundary were also included in the agreement. The village plan comprises three development components: agriculture, forestry and community development. This plan will be the basis for future village activities by DAFO. The method developed, though it still needs refinement, proved quite satisfactory, and should be adopted in other JFM villages to tackle land use and village forest management issues. A similar exercise will be carried out in Ban Khamnoy in late 1997.

Table 2: Revenue from forestry operations under JFM Model 2 in Kip

Village	Year	Volume logged (cu.m)	Royalties	Village revenue	Amount disbursed to families	Expenditures in forestry operations	Expenditures in admin.	Amount available for dev.
Xienglekhok	94-95	824.180	54,260,040	800,000				800,000
	95-96	466.122	52,362,600	11,186,928	1,116,987	6,946,830	652,644	2,407,447
	96-97	459.941	49,478,334	13,798,227	3,035,609	6,553,120	689,911	3,219,587
Khamnoy	94-95	620.228	39,547,834	670,000				670,000
	95-96	612.692	50,516,670	14,704,608	3,369,806	6,862,150	1,225,384	3,247,268
	96-97	466.604	26,711,400	13,998,120	2,566,322	6,532,456	466,604	4,432,738

Institutionalization of JFM

JFM will be tested throughout phase four of the Lao-Swedish Forestry Program. The main objective of the program is “to enhance the capacity and capability in the management of the forestry organizations and their work at all levels and at village level in particular”. This should be achieved by improving the capacities of institutions and staff to undertake their tasks, the building of knowledge and skills, and the facilitation of the decentralization process through the adjustment of the roles and responsibilities at various levels of the forestry organization.

In this regard, the JFM test is also oriented towards improving various procedures and methods by working with provincial and district staff and villagers in selected target villages, together with other program activities (land use, extension, women’s union, conservation etc.) so that they will be adopted by the Department of Forestry (DoF) and used in future programs. Planning of activities is ensured by DAFOs on a village basis. JFM activities are integrated in a general village development plan and are not run independently from other DAFO or village activities. Guidelines, follow up and technical support to JFM are provided by the responsible unit of the DoF in Vientiane.

Training to build the capacity of provincial and district staff and villagers is conducted to enable them to carry out all aspects of JFM within the existing structure. In addition to the training of villagers already mentioned above, specific training exercises for provincial and district staff have been conducted on such aspects as: the technical aspects of the Dong Kapho SPF plan, report writing, planning and budgeting process and procedures. Training is mostly organized by and through DoF resources.

Lessons from Implementation

After a precarious start, the JFM concept and associated forest management plans have gained acceptance through the various structures at the provincial and district levels. However, since JFM is being implemented through the existing government forestry structure, administrative bottlenecks are common and work at the village and forest level have been affected. JFM implementation gives new and challenging roles to both villagers and forest officers. Forest officers are not only technical specialists but also community facilitators who promote and support village self-reliance, empowerment and analytical decision making. Villagers themselves are put in a new position from passive to active actors in the development of their villages and the management of their natural resources. This carries both responsibilities and benefits for the villages. Villagers have to initiate activities on their own as an organized community. Thus, additional support is needed to develop staff capability and to build and strengthen village groups to carry out JFM agreements.

The production forest is more effectively protected by the villagers as they have strong incentives to do it. This will maintain and develop the production forest, and generate good profits for both the government and the local people. The villagers carry out timber harvesting activities in the dry season using appropriate technology with low negative impact on the forest and the soil. The future timber yield of the forest should also increase as a result of the enrichment planting carried out by the villagers.

The living standards of villagers is gradually improving as they receive income during the dry season, better village infrastructure is developed, and agricultural yields are

improved through proper land use and extension support. The villagers have also created their own village development fund that is used for the improvement of socio-economic conditions and of the natural resources in the village. Such a management concept helps to start a rural development process that is almost independent of external financial resources.

Further Actions

As mentioned at the beginning of this paper, though a planning system has been developed for SPFs, no specific method has been developed for forest areas outside the SPFs (i.e. village forest). Such a system for village forest planning and management will be elaborated over the coming year. It is proposed to test this new system in Ban Xienglekhok with possible extension to other villages around Dong Kapho in the future.

Savannakhet is a forest resource rich province. Sawmills and commercial forestry users are mainly interested in big logs (over 25 cm in diameter) of specific commercial species, mainly for export. The domestic provincial market is limited to a few species and prices are very high. Wood is not affordable for common people in the urban areas. However, available resources are under utilized. For example, branch wood is left unused in the forest and other less known species are left to rot when new agricultural fields are opened. To tackle part of this issue, a research study on branch wood utilization, transformation and marketing by villages communities will be started very soon in and around Dong Kapho SPF.

Though shifting cultivation and illegal logging has been stopped in the three villages under contract, these activities are still pursued in other villages around Dong Kapho SPF. The forest has to be well protected in order to achieve long-term sustainability. Some new thinking has to take place so as to involve and interest the 11 other villages in the management and protection of the SPF.

One possibility would be to distribute revenue from all logging operations as a protection fee to all villages around Dong Kapho. This would give the villages a revenue every year, even though logging does not take place within their village boundary. Part of the revenue could also be directed to district development funds for investment in rural development activities in villages further away from Dong Kapho area and should cover expenses for field activities of the rangers. Land use planning, land allocation and village planning should be carried out in all villages as a precondition to effective forest protection, mainly to avoid encroachment from shifting cultivation within the SPF area.

The JFM model is an innovative approach to community forestry which allows villagers to actually participate and benefit from the management of rich, natural forest area (unlike traditional community forest projects which are usually implemented in degraded forest areas). The project is still in its initial stages and while problems remain, the project has demonstrated that villagers can successfully implement complex timber harvesting management regimes on a sustainable basis. Likewise, the JFM approach shows that the benefits accrued from village participation in timber harvesting feed into other development activities.