

# Towards Sustainable Forest Management in Lao P.D.R.

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## **I. Introduction**

This paper is prepared for inter-country conference to the Fourth Asia Pacific Environment NGOs in the National University of Singapore. It is deal with forest situation, main policies and various systems for Forest management to conserve the existing natural forest. Multilateral collaboration for forest conservation and re-afforestation with others organization concerned both Government as well as Egos are described.

## **II. Description of forest resources of the country**

Lao is land locked and mountainous country, located in the Southeast Asia. It has a total area about 236,800 Sq.km and a total population about 4.5 million people. Close to 90 % of its people live in the remote areas, most of them are farmers. If compare with others Asian countries, Lao P.D.R still quite rich in natural forest resources. Its has about 11 million hectares of forest cover with about 47 % of the total country land. The still relatively abundant forest resources of Lao P.D.R are disappearing quite rapidly. In the year of 1940 the country had about 17 million hectares of forest covering about 70 % of the total land. Inappropriate system for forest management, slash and burn cultivation and uncontrolled logging are the main causes for deforestation. Road and dam construction, hunting and illegal trade in flora and fauna are some others main threats to biodiversity.

These problems were recognized already in 1989 when the first National Forestry Conference, resulting in a National Forestry Action Plan in 1991 was held. Since the early 1990s, the government of Lao has tried a lot to reverse the negative trends in the forestry sector. The National Bio-diversity Conservation Area has been expanded to cover almost about 14 % of the total country land. New policies and legislation to support sustainable forest management have been introduced and many forestry projects have been implemented or initiated.

Since 1989, there appears to have a big change from a large-scale state driven forest management towards more participatory people-oriented forestry. Already in 1998 National Forestry Conference adressed people involvement in forest management and conservation, and Degraded forest and land allocation. The new policies embodies in the proceeding of the sixth party congress in 1996, Ministry of Agriculture and Forestry (MAF) forest sector strategy for 1996-2000, and the forest law 1996 emphasize the involvement of local people in natural forest resources management.

### III. Some Frameworks to sustainable Natural forest resources Management

#### 3.1 Land and forestland allocation

Land and forestland allocation is currently one of the priority government programs, which is linked to the promotion of sustainable forest management. The Ministry of Agriculture and Forestry (MAF), together with its agencies and project, is specifically involved in the allocation land and forestland to difference users, especially in remote area. Since practically all the forestland belong to the state, village implies delineation and allocation of land from the state to the villagers, who become the managers of the forest. This allocation should not done separately from others land allocation, but land allocation should be and integral activities of village. It is meaning that it should be linked to the national and provincial land allocation schemes.

Currently, land allocation is carrying out at three levels :

\*Allocation of the land to the village, resulting in the demarcation of the administrative boundaries of the village. The boundaries are approved by the governor of the province based on the proposal of the district governor.

\*Allocation of land in the village to land uses resulting in a village land use plan drawn by villagers with the assistance of District Agriculture and Forestry Office (DAFO) /Province Agriculture and Forestry Office (PAFO) staff.

\*Allocation of specific land to land users resulting in a land management contract such as village forest management contract, and improved capability of the village to securing land titles for the use of households, village, state and others land users.

Land use planing needs to be completed before forest management planing land allocation because villagers need to identify and agree upon which land should be designed for sustainable forest management. From the villager's viewpoint, forestry is one part of overall land use with close links to the others land uses. Villagers must assess their future land use need and land capability option. The final land use plan and map should show the location and area of various categories of the land.

#### 3.2 Stabilization of shifting cultivation

In order to protect their natural forest resource and it environmental the government of Lao P.D. R places high priority to reduce and finally to stabilize of shifting cultivation in upland area. Normally about 187,000 families or about 30 % of total population in upland area are practicing slash and burn for cultivation. Annually an estimated slash and burn area is about 177,000 ha of forest and fallow (Department of Forestry 1996 ). Two thirds of the shifting cultivation is located in the northern part of the country.

The challenge of the stabilization of shifting cultivation in upland area requires the poverty resolving at grass root. The main constraints of the agriculture production in the upland area are : (1)Inappropriate land use planing system, (2)

Lower technology still has been use in this area, (3) low literacy level and education, (4) Lack of the suitable marketing and information system, (5) lack of processing technique and storage system, and lack of the agricultural supporting service system such as seeds, equipment, credit, and others.

The sifting cultivation has a long story practiced as a main agriculture system in upland area in Lao P.D.R. However this system of agriculture practiced can not be a sustainable system of upland agriculture in upland area again due to the accelerated increasing of the population. Shorter shifting cultivation rotation easily led to land degradation and insufficiency in rice is very common in the shifting cultivators.

To address that above-mentioned issue the government has included "Stabilization of shifting cultivation" as one of the priority national programs. The government policies is planed to be addressed through : (1) Land allocation to individual, household and communities, (2) Zoning agriculture land and forest land, (3) introducing an appropriate system for forest management system with the participatory of local people, and (4) increasing the productivity of agriculture in upland area. Therefore about 100,000 families of shifting cultivation will have alternative occupation by the year 2020.

### 3.3 National Bio-diversity Conservation Area (NBCA)

Since the first National Forestry Conference held in 1989 , and in the resulting National Forestry Action Plan. In the early 1993, 20 National Bio-Diversity Conservation Area has been established and approved by government. It has an area about 30,000 sq.km or about 12.5 % of the countries land area. In addition a large

**Table 1: National Bio-diversity Conservation Areas in Lao P.D.R**

No	Name of NBCAs	Location	Areas	Support sources
1	Xe Bang Nouan	Saravan/Savannakhet	150,000	IUCN/LSFP
2	Phou Xang	He Savannakhet	109,900	IUCN/LSFP
3	Phou Kao Khouay	Borikhamxay/ Vientiane	200,000	IUCN/LSFP
4	Nam Poui	Xayabouly	191,200	IUCN/LSFP
5	Khammouan Limestone	Khammouan	150,000	FOMACOP
6	Xe Sap	Salva	133,500	FOMACOP
7	Xe Pian	Champasack	240,000	FOMACOP
8	Dong Houa Sao	Champasack	110,000	IUCN/Netherlands
9	Phou Xieng Thong	Sarava	120,000	IUCN/Netherlands
10	Nam Ha Louang	Nam Tha	69,000	WCS
11	Na Kai Nam Theun	Khammouan/Bolikhamxay	353,200	IUCN/WCS/World Bank
12	Phou Phanang	Vientiane	70,000	Canada Fund
13	Phou Den Din	Phonsaly	222,000	Confirmed European Union
14	Nam Et Houa	Phan	170,000	Govt. of Norway
15	Dong Ampham	Champasack/Attopeu	200,000	NA
16	Dong Phouvieng	Savannakheth	53,000	NA
17	Phou Sam	Houa Phan	70,000	NA
18	Nam kading	Borikhamxay	169,000	NA
19	Phou Leui	Houa Phan	150,000	NA
20	Phou Hin Nam	No Khammouan	82,000	NA

area have been designed as a protection or conservation forest at provincial and district level, some of them are scheduled to be upgrade to National Bio-diversity Conservation Area status. Most recently, in 1996 the National Assembly passed the Forestry Law, which provides a comprehensive policy framework for all aspects of forestry, including a basic for zoning of NBCAs into "Strictly protected" and "Controlled use" zones

The government is committed to a "Participatory approach" to protected area management, by delegating responsibility to villages through local negotiated "rule" that trade continued access to selected non-timber forest products for community support for enforcement of key protective measures. Wherever possible, agreed restraints on forest exploitation will be compensated through others development initiatives. "Integrated Conservation and Development" Process is thus closely linked to the Government's programs of land allocation .

This table shows the distribution of NBCAs in the whole country, about 14 area already started to implement for management.

#### 3.4 Participatory forest management system

Since the early 1990 various types of participatory forest management system have been introduced in Lao P.D.R . Some of them can be a model for production forest, some for conservation forest and others for regeneration forest and degraded land.

##### \*Joint Forest Management(JFM)

This is one of many system of Participatory Forest Management have been introduced by Lao-Swedish Forestry program in the state production forest. Two models have been used for testing. In model I villagers form a Joint Forest Management Association (JFMA) and this JFMA has fully implement the whole's JFM operation plan prepared by the provincial agriculture and forestry office (PAFO) and district agriculture and forestry office (DAFO) staffs That is mean the JFM form look similar as a enterprise, only the difference that at least two persons in every family must be the member. The JFMA will have the rights to get quota for logging processing and sells its. In exchange to those rights mentioned above the JFMA should commit themselves to protect the management area and pay royalty and others taxes. In model II the organization form is same as in model I ,but JFMA doesn't have the rights to harvest ,process and sell the forest products. Logging, processing and selling forest products is doing by PAFO and DAFO, while the villagers are contracted to protect the forest and receive annual fee for their services and hired as labor for harvesting, planting and others.

##### \*Village Forestry in Forest Management and Conservation Program (FOMACOP)

The village forestry in FOMACOP is defined as a partnership between organized villagers and the state for the sustainable management of designated forest. Conceptually it means the empowerment of villagers by strengthening their capacity and motivation and by giving them the authority to protect and manage forests and to benefits from their efforts. This village forestry system has already

carried out on conservation forest, protection forest and production forest mainly emphasized in timber and non-timber forest products. This village forestry will promote as a major system for sustainable forest management in Lao.

The activities of the village forestry cover several aspects of rural development. Paying attention to the activities related to forest management, it is concluded that village forestry in FOMACOP can be considered to be "community forestry" on "village land" through fixed group participatory.

**\*Profit sharing system in FORCAP**

The FORCAP is carrying out a participatory system in forest conservation and rehabilitation in degraded forest, a profits sharing system have been introduced for testing in some village in the target area. It is mean, under the contract on individuals base, the project /government provides to the villagers seeds / seedling of the tree cash crops seeds as well as equipment for fencing and technical assistance. The villagers have the duties to do all of works such as clearing the area, planting, tending, thinning and harvesting and others. 75 % of the profits, earned from the first thinning of the plantation ( fast growing species ) will go to the villagers, 25 % of it will go to the project / government. The same profits sharing will be done to the profits earned from the second thinning of fast growing species around seven years after planting. At the second thinning all the tree of fast growing will be harvested. 15-20 years after planting the standing volume / numbers of the will be surveyed and the value of the timber will be estimated. Then the villagers and government will make decision whether the villager will pay 25 % of the estimated value to the government, or the government will pay 75 % of it to the villager, or both party will wait to share the profits until the final harvesting.

Actually this is one of many kinds of "participatory forest management" have been started for testing in forestry sector in Lao P.D.R.

**\*Community forestry project**

In 1995, the Department of Forestry (DoF) to support community forest activities established the community project (CFP) under the shifting cultivation stabilization program. The CFP is an extension of the community support unit (CFSU), a joint DoF-NGOs initiative that was established in 1993 with direct support from CUSO, a Canadian NGO, and TERRA, a Thai NGO. Now the project has two component supporting the CFSU and community forest development project (CFDP) in Khammouane province. The later is support by JCV, a Japanese NGO most of them are the simple forest management plans after the village boundaries were delineated and land uses were mapped by using a participatory approach. The villagers have also developed rule to control forest management.

#### **4. Conclusion**

It is assumed that the various development of participatory forestry management models for different forest categories that are being developed and tested in many areas, it will be accepted and adopted as national forest management model.

When these above-mentioned model are officially approved to be national management model. It will have fully implemented through out the country. It is clear that no single resource management system can be applied in the same way through out the country. Some system for sustainable forest management has been described in this document is likely to be directly applicable only in some area of the country with similar conditions.