

# Contents

---

<b>Introduction</b> .....	3
<b>Session</b> .....	7
"Appraisal of Land Use Classification Policy for Promoting Participatory Forest Management in Lao P.D.R" - <i>Makoto Inoue, Khampha Chanthirath, Kimihiko Hyakumura and Takayuki Namura</i>	9
"The Participation of the People in the Buffer Zone in the Management and Protection of Tam Dao National Park" - <i>Hoang Lien Son</i>	16
"Participatory Forest Management in Bangladesh" .....	22
- <i>Sanowar Hossain</i>	
"Supporting Measures on Participation of Local People in Forest Conservation" - <i>Kiyoshi Komatsu</i>	33
Summary of the Discussion .....	38
- <i>Martinus Nanang/Kimihiko Hyakumura</i>	
<b>Country Reports</b> .....	41
"Towards Sustainable Forest Management in Lao P.D.R." .....	43
- <i>Khampha Chanthirath</i>	
"Social Forestry and Empowering Communities: In North Bengkulu-South Sumatera" - <i>Herman Hidayat</i>	49
"Forest Resource Management in the Direction of Sustainable Development in Vietnam" - <i>Hoang Lien Son</i>	56
<b>Afterword</b> .....	61
- <i>Makoto Inoue</i>	



# Introduction

---



## Introduction

Forest conservation is one of the key issues which the International community faces. In response to this situation, IGES has set up the Forest Conservation Project as one of its 1st phase projects. Its research aims to prepare international strategies for conservation of forest in Asia and Pacific region.

This proceeding comprises the presentation manuscript of the 2nd International Workshop on Forest Conservation Strategies for the Asia and Pacific Region, which was held on 27 November 1998 at the National University of Singapore in conjunction with the 4th Meeting of the Asia-Pacific NGO Environment Conference.

IGES Forest Conservation Project organized this workshop for the purpose of reviewing and examining various types of participatory forest management systems in Asian tropical and sub-tropical countries. This workshop has also aimed to analyze the relation between international law and domestic law, which are deeply related to conservation and sustainable management of forest. Four presentations were made regarding these themes in different countries in the session. After the four presentations, the reporters and the participants had an animated discussion.

IGES Forest Conservation Project would like to recognize the cooperation of AEC, DBS, NUS and SIBiol. This workshop would not have been successful without generous help from co-sponsor APCEL (Asian Pacific Center of Environmental Law).



## Session

---





# APPRAISAL OF LAND USE CLASSIFICATION POLICY FOR PROMOTING PARTICIPATORY FOREST MANAGEMENT IN LAO P.D.R.

**INOUE Makoto, Graduate School of Agricultural and Life Sciences, The University of Tokyo, Japan**

**Khampha CHANTHIRATH, Department of Forestry, Lao P.D.R.**

**HYAKUMURA Kimihiko, Institute for Global Environmental Strategies, Japan**

**NAMURA Takayuki, The Univ. of Tokyo, Japan**

## Abstracts

According to the land law, the right of utilization of land is granted to organizations and individuals. Furthermore, the land for which the right will be allocated is only the degraded forest land, among the forest land classified into five types by the forestry law. In addition, the customary use of forest products by local inhabitants is not allowed in the protection forest and conservation forest.

On the other hand, our survey disclosed that local inhabitants are harvesting forest products from all types of land, and they regard the agricultural land, fallow land and grass land as swidden land as a unity. Therefore, the enforcement of the land use classification based on the present vegetation results in dispossessing people of their livelihood. Furthermore, the land use classification policy was planned on the presupposition that swidden agriculture will be abandoned, which makes its effectiveness doubtful.

As a strategy to promote participatory forest management, we propose 1) to frame the "transition period" and to adopt measures to sustain swidden agriculture on a small scale, and 2) to introduce an adjective law which will sustain the present harvesting of forest products as much as possible.

## Introduction

Forest policy will be effectively implemented on the assumption of certain legal status of land, consisting of land classification and land possessor. This is the reason why we should consider the land use classification policy for promoting participatory forest management.

In the first section, the rights of local inhabitants who are earning a living from forests and forest land under the constitution, the land law and forestry law, are discussed. In the second section, the actual use of land and forest by the local inhabitants, in Vang Vieng district as an example, is described based on the results of our field work. In the third section, the problems of the land and forest use classification that confront them are specified considering the disparity between the legal system and the actual state.

Finally, the strategy to establish an effective land use classification policy, which

is the sustainable base for participatory forest management, is proposed.

## **1. Outline of land use classification policy**

### **1-1. Land and forest classification**

According to the land law enacted in May 1997, Laotian land is classified into eight categories; agricultural land, forest land, constructional land, industrial land, communicational land, cultural land, land for national defense, and land around water resources. Among them, the land types for which the right to utilize is allocated to the organizations and individuals are agricultural land, forest land, and constructional land.

Among the eight land types classified by the land law, the right to utilize forest land is prescribed by the forestry law, enacted November in 1996, in detail. In the forestry law, the forest is classified into the following five categories: 1) protection forest to conserve watersheds, to guard against soil erosion and to protect dense forests, etc.; 2) conservation forests to conserve wild animals and plants; 3) production forests to produce wood and non-wood forest products (NWFP); 4) regeneration forest, or the young fallow to be regenerated immediately; and 5) degraded forest land or barren land. Note here that the regeneration forest will be reclassified into protection forest, conservation forest or production forest, and degraded forest land into production forest or agricultural land in the future.

### **1-2. The rights of local inhabitants to the land and forests**

Out of these forest types, the forests for which the right of utilization can be granted to organizations or individuals are only degraded forest land. According to articles 48 - 58 of the forestry law, organizations and individuals have the rights of possession, use, profits, transfer and inheritance. The right to utilize the land in Laos is considered to be nearly equal to the land ownership in the capitalistic countries (NAMURA & INOUE, 1998).

In the forestry law, the customary forest utilization is defined as "long-term use of forests, forest land and forest products approved as socially and legally" (Article 30). In concrete terms, it includes collection of wood for the fence and fuel, harvesting of forest products, hunting for household consumption and others, but does not include swidden agriculture. Such customary forest use is granted for all forest land excluding protection forests and conservation forests. The customary forest use damaging forest resources is not granted, and neither is that infringing other rights belonging to individuals or organizations. In other words, the customary forest utilization is granted with restriction, and has weak competence against other rights.

## **2. Actual use of forest and land by local inhabitants**

## 2-1. Method of survey

Five villages in the Vang Vieng district, Vientiane province, were surveyed. Two of them are the villages of Lao Loum or Lowland Lao, two are the villages of Lao Theung or Hillside Lao, and one is the village of Lao Sung or Highland Lao. The survey period was December 1996 - January 1997, and August - September 1997, each for two months.

In the villages selected for survey, we asked the village leaders about the land category recognized by the villagers, the customary rule for the use of land and forest, and the actual use of forest products. We also asked each of the 128 households in the five villages whether they are using each forest product or not, based on a check list of forest products. At the same time, the relative economic level of each household was evaluated using some indices, to clarify the actual state of the use of forest products by each income bracket. To put it concretely, building materials of house (roof, floor, window, wall) and durable goods were used as indices of the income bracket. Building materials and durable goods were scored considering their market prices, and the sum of each score was regarded as the household income.

## 2-2. The state of the utilization of forest products by local inhabitants

No difference was found in the use of forest products between the people in each income bracket. Independent of the ethnicity and income bracket, each household was found to use 20 - 30 kinds of NWFP (see Table 1). NWFP were collected mostly for household consumption, but in the VK village, resin and others are the main cash income source. For the people in the Vang Vieng district, not only the wood useful as house materials but also NWFP were confirmed to be important as resources for a living.

## 2-3. Land classification by local inhabitants

Generally the main works to earn a living of Lowland Lao, Hillside Lao and

**Table1:Utilization of NWFP**

Village	The number of samples (households)	Income level (score)	The number of the species utilized per household		
			Only for self consumption (species)	Also for exchange (species)	Total (species)
HPM village in total	49	7	23	1	25
Upper classes in HPM	15	16	22	1	23
Lower classes in HPM	34	3	24	1	25
VK village	23	32	18	3	22
MX village	21	18	22	1	25
NP village	25	15	18	0	30
SL village	10	15	17	0	18

Note: The main ethnic group in HPM village and VK village is Lowland Lao, that in the HX village and NP village is Hillside Lao, and that in SL village is Highland Lao. The income bracket in HPM village was classified into upper class with more than 10 points, and lower class with less than 10 points.  
Source: household interview with questionnaire

Highland Lao are said to be wet rice cultivation, swidden agriculture and poppy cultivation, respectively. In the area surveyed, however, the difference in the way of life peculiar to each ethnic group is disappearing due to long wars, migration before and after revolution, and mixing of the groups. In fact, Lowland Lao is practicing swidden agriculture due to lack of the land suitable for wet rice cultivation. Furthermore, Highland Lao is not cultivating poppy, and is earning a living by swidden agriculture. Therefore, the discussion in this section is focused on the land types classified by Hillside Lao, or swiddeners since old times. Table 2 shows the land types existing since old times.

The two villages of Hillside Lao we surveyed, were established in the 1970s. At the beginning, some households had about 10 swiddens, but by the governmental regulation, each household now has only 5 - 6 swiddens. The people

**Table2:Land categories existing since old times**

Land categories	Local name	Customary ownership	Remarks
Houselots, etc.	Pate Koun	private	
Swidden land	Pate Re	private	
Communal forest land	Pate Bri Kui Sai	village	A
Crematory and burial forest land	Pate Raman	village	B
Dense forest land	Pate Bri Kut	open access	C

Remarks A: Swidden agriculture is prohibited for haevesting forest products.  
 B: It is located to the west of the village  
 C: It has already disappeared  
 Source: Interview

classify the land for swidden agriculture as follows.

- 1) Pate Re Tu or swidden after abandonment: One year after abandonment. Many grasses.
- 2) Pate Reng Kenyon, or young bush fallow: Two - three years after abandonment. Grasses and small trunk trees are intermixed. The trunks are nearly as thick as a wrist.
- 3) Pate Reng Ke, or forest fallow : The forest crown is closed with fewer grasses. Three to four years or more after abandonment. The trunks are thicker than 10 cm.

In both villages, Pate Reng Ke has been reused for swidden agriculture, but at present, most of the people in the HX village are reusing Pate Reng Kenyon. In the NP village, many are reusing Pate Reng Ke, but several households are using Pate Reng Kenyon.

Communal forest land was established to insure the use of forest products. Swidden agriculture is prohibited there. Bamboo and small trunk trees for household consumption are free to felling, but the felling of large trunk trees is prohibited.

## **2-4. Use of forest products in each land category**

Land for harvesting forest products in the HX village was examined in detail. The inhabitants were harvesting wood from communal forest land and dense forest land, and NWFP from the fallow forest land, grass land and dense forest land. They are using forest products not only from forest but also from every category of land including grassland preferentially occupied by Gramineae.

The right of exclusive utilization is granted only for the swidden land under cultivation. Forest products can be harvested freely from the fallow land, even if it is the abandoned swidden land owned by other persons.

## **3. Specifying the problems of the land use classification policy**

To convert the present land classification by the local inhabitants to the land classification by the land law and forestry law, it is an important point whether the present condition of utilize and present situation of ownership are approved or not. In the following, the problems arisen from the classification of this land will be discussed.

### **3-1. Problems arisen from reclassification of swidden land**

The swidden land at present includes the land under cultivation, fallow, and grass land. According to the land law and forestry law, however, the land regarded as degraded land at present is classified into degraded forest land, the land regarded as young bush fallow into regeneration forest, and the land regarded as old forest fallow into village-managed protection forest, conservation forest or production forest.

The problem concerning the land to be classified into degraded forest land is the method of selecting the land for afforestation. The local inhabitants are harvesting NWFP even from grass land. Therefore, uniform afforestation may interfere with the use of forest products by the local inhabitants.

In the land to be classified into regeneration forest (village-managed), the method of adjusting the discrepancy with the customary right of local inhabitants is the most important problem. This is because the local inhabitants have customary tenure rights for all swidden areas, including the fallow land.

Classification of swidden land into degraded and regenerated forest land, and into forest land and agricultural land in the future, has been planned on the pre-supposition that swidden agriculture will be abandoned. Whether this is practicable or not is an important question.

### **3-2. Problems arisen from classification of felling-prohibited forest land and dense forest land**

The forest land where felling is prohibited at present is expected to be classi-

fied into protection forest or conservation forest, and there is no problem. However, selection of the sites for the new protection forests, where customary forest utilization is not permitted, is a problem, because local inhabitants harvest forest products from the forest land with every vegetation.

Dense forest land is also expected to be classified into protection forest, conservation forest and production forest. As in the case of felling-prohibited forest land, the selection of the land for these forest types, becomes a problem, and should be considered to avoid a trouble with the use of forest products by local inhabitants.

### **3-3. Summary**

In conclusion, the problems arisen from the introduction of land use classification in Laos are the methods to be freed from swidden agriculture and to keep the use of forest products by the local inhabitants. Next, we propose a strategy to resolve these problems.

## **4. Strategy to introduce land use classification policy**

### **4-1. Strategy to be freed from swidden agriculture**

Laos government is now trying to classify the present swidden land into private-managed agricultural land and village-managed (partially private-managed) forest land, and planning to establish sedentary agriculture to prohibit swidden agriculture in agricultural land, and to promote afforestation in forest land. As mentioned above, this plan is disparate from the recognition of the people who are utilizing agricultural land and forest land integrally.

Therefore, the main strategy is to frame the "transition period" in an adjective law concerning the land law and the forestry law, and to adopt measures to sustain swidden agriculture on a smaller scale. Technically, the identification of sustainable local techniques, development of appropriate technology, and extension of these ones. Since most of the nation's land is slopes, agroforestry system may be essential. Institutionally, guarantee of the participation of inhabitants and agreement with them on the land use classification are necessary. By these procedures, land may be nominally classified into agricultural and forest land, and actually used under the present category, during the transition period.

During the transition period, old forest fallow is classified into village-managed forest land such as protection forest and nominal private-managed forest land. In addition, the young bush fallow is classified into nominal private-owned forest land and nominal private-owned agricultural land. Then, grass land is classified into nominal private-managed agricultural land and village-managed or private-managed production forest.

After these procedures, rotational agroforestry systems including swidden agriculture is practiced in the nominal forest land and agricultural land. However, reappraisal of land use classification policy itself, based on the results obtained

during the transition period, is necessary.

#### **4-2. Strategy to sustain the utilization of forest products**

The government is planning to prohibit the use of forest products in protection and conservation forests, and to allow customary utilization of forests on condition that natural environment is not destroyed and other rights are not infringed in other category of forest land. However, at present, forest products are important for the livelihood of local inhabitants, and are often harvested in grass land and secondary forest.

Therefore, the basic strategy is the introduction of an adjective law that allows enforcement of the land use classification without prohibiting the present use of forest products. In concrete terms, technically, the amount usable and the harvesting method of forest products on a sustainable basis must be studied. Institutionally, it is necessary to obtain full agreement on land use classification through participation of inhabitants, and to establish the regulation for forest use in each village.

#### **Postscript**

We hope that participatory forest management will be enforced, based on the participatory process of land use classification.

The authors would like to express our thanks to Mr. Khambai KHAMSAANA (Head of Lao-Japan forestry cooperation unit), Mr. IOKI Atsushi (Team Leader of JICA experts), and Ms. KOMOTO Junko (JICA expert) for their help in our survey.

#### **Reference**

Namura Takayuki & INOUE Makoto (1998) Land Use Classification Policy in Laos - Strategy for the Establishment of an Effective Legal System. *Journal of Forest Economics* 44(3): 23-30

# THE PARTICIPATION OF THE PEOPLE IN THE BUFFER ZONE IN THE MANAGEMENT AND PROTECTION OF TAM DAO NATIONAL PARK.

**Hoang Lien Son**  
**Forest Economics Research Division**  
**Forest Science Institute of Vietnam, Vietnam**  
**Tel: +84-4-8362230**  
**Fax: +84-4-8345722**

## **Abstracts**

The paper generally presents the system of special-use forests in Vietnam, main functions of special-use forest system in general and of the Tam Dao National Park in particular. Tam Dao is one of the 10 national parks in Vietnam with rich and unique flora and fauna.

The paper briefly mentions some typical features of the people's life, socio-economic conditions in the buffer zone of Tam Dao National Park; The advantages and challenges serving as a base for the elaboration of the action plan that has been positively responded and participated in by the people to lessen the pressure on the forests of Tam Dao National Park. New effort has been made for closer co-operation between the National Park with the local people, attracting better participation of the people in activities for the Tam Dao National Park management and protection. The people's participation is considered as indispensable for successful establishment and development of this national park model.

## **Introduction**

Vietnam with 3/4 of its land area being mountains and hills is endowed with a biodiversity of rich forest plant and wildlife resources. For a very long time till 1943 the forest area in Vietnam was 14 million ha, with a forest cover of 43%. In 1995 the remaining forest area was only 9.3 million ha. of which 1.1 million ha. was forest plantations; forest cover: 28 - 30%. The protection function of the forests was critically diminished.

Forest and forest land area in Vietnam is divided into 3 categories: protection forest, production forest and special use forest. System of special use forests consists of National Parks and Nature Reserves that are significant to the biodiversity conservation, as standard national forest ecosystem samples. In 7/1962 the government of Vietnam decided the establishment of the Cuc Phuong National Park, the first national park in Vietnam where the originality of a tropical natural forest ecosystem is preserved.

Subsequently the planning and establishment of other national parks and nature reserves has been proceeded. Up to now there are already in Vietnam 105 special use forest units with total area 2,092,527 ha. included in:



- National parks, 252,290 ha in area.
- Nature Reserves, 1,692,351 ha. in area.
- Cultural, historical and environment protection sites, 147,886 ha. in area.

The above-mentioned forests are distributed in many regions in the whole country representing different climatic belts of Vietnam with following main functions.

- Nature reserve, national standard forest ecosystem samples.
- Conservation of plant and wildlife genes.
- Scientific research.
- Historical, cultural relics and scenery spots.
- Serving recreation, ecological tourism.

In the forest development strategy, total area of special use forests will be brought to 2.2 million ha. by the year 2000, representing 10% of total forest cover in the whole country. This is a great effort of the government of Vietnam in the conditions of a developing country that is in the process of the renovation in the direction of industrialization and modernization.

For the effort to be successful the government has it in the "Biodiversity Action plan of Vietnam" that there need be a close co-operation between the National Parks and Nature Reserves management board and the people living in buffer zones in the management of national parks and nature Reserves.

### **1. General situation of Tam Dao National Park.**

Tam dao is one of the famous geographical names of Vietnam. It possesses a superiority in culture, tourism, scenery and environment protection. It is one of the 10 national parks established by the decision on 6/3/1997 of the Premier.

Tam Dao mountain range has 20 peaks of which Tam Dao is the highest one, 1,592m above sea level. The centre of Tam dao National Park is 80 km far from Ha Noi in the North West Tam Dao National Park lies within in the boundaries of 3 provinces: Vinh Phuc, Tuyen Quang, Thai nguyen with total area of 52,398 ha in which:

The National park is 36,383 ha

The buffer zone is 15,515 ha

The Tam Dao National Park is divided into three divisions:

- Strict protection division from the 400 m elevation upward
- Ecological restoration division, from 100m to 400 m elevation
- Summer holiday and tourist division, about 2,000 ha in area, lying at the 900m elevation

- Buffer zone

Natural forests of Tam Dao National Park are grouped into two main forest types:

- Evergreen monsoon tropical forest, distributed below 700 m a.s.l
- Closed evergreen monsoon sub-tropical forest, distributed above 700 m a.s.l

In addition there is on Tam Dao peak an ecosystem of "stunted forest" It is of unique nature and called by the local people: "fairy forest". Due to the condition of violent wind, highly steep slopes, thin soil layer and permanent mist the tree trunks here are crooked, twisted, tree trunks and branches bear much lichen, creating an unique landscape of highly scientific significance

Zoologist have found in Tam Dao 58 mammal species, 158 bird species, 46 reptile species and 19 amphibian species, most typical is the toad fish (Salamander: *Paramesotriton delosutani*) that lives both on the ground and under water and has high medicinal value.

## **2. People's life and socio-economic conditions in the buffer zone.**

The buffer zone of Tam Dao National park has 23 communes lying in 3 provinces: Vinh Phuc, Tuyen Quang and Thai nguyen. Total population is 90,000 with mean population density of 550 persons/km<sup>2</sup>. Total labour force is 35,000 people representative 39% of the total population. Kinh ethnic group represents part of the buffer zone population but the majority of the population is of the ethnic minority groups: Tay, Nung, Dao, San Diu that have long been associated with forest and mountains of Tam Dao National Park. Minority ethnic groups represent 12%, 62%, and 48% of the population in Thai nguyen, Tuyen Quang and Vinh phuc provinces respectively

### **Advantages of the buffer zone.**

- Land potentiality in the buffer zone is still favourable for forest activities especially the potentiality of forest land is not effectively exploited to bring about benefits to the buffer zone's households.
- The population in the buffer zone is big with abundant labour force. This is a great resource for exploiting the land potentiality of the buffer zone.
- Tourist resource of Tam dao National Park is great with many famous sceneries and cultural relics attractive to tourists and holiday makers at home and abroad.

### **Constraints and challenges.**

- Crowded population, the forest area in the buffer zone is too little to supply common use timber and firewood for daily cooking required by local people. This exerts great pressure on forest resource of Tam dao National Park.
- Low per capita income, 1,400,000 d/year (Report of socio- economic survey, 6/1996); main income source is agricultural production.

- The economy is still of self-sufficient nature, no plenty of commodities for exchange in the market.
- Lack of capital, technical skill and knowledge.

### **3. Activities responded by the people in the buffer zone.**

Buffer zone is a cradle, the protection belt of the National Park. Positive and negative impacts all stem from the buffer zone. The objective of all policies towards the special-use forest system as well as of activities of Tam dao National Park in the buffer zone is to enhance socio-economic development, raising the educational level of the people living in the buffer zone to lessen the pressure on the forest resource of the National Park.

- Agricultural production: Agricultural land has been allocated to each household for long-term use and this does create a motive force in production, intensive management of crops, raising crop productivity.
- Forest protection and forest regrowth tending on contract: The areas allocated for forest protection and forest regrowth tending are 3,100 ha and 500 ha respectively. This activity was positively responded by the people and they wished to participate in. As a result 76 households received forest for protection on contract and 8 households received forest regrowth area for tending on contract.
- Establishment of home forest, forest farms: Some models have been established in some communes in the buffer zone with the support in capital and technology of the National Park such as those in Tam quan, Ho son, Minh quang communes. These models make full use of land potentialities and rational assignment of work in the families to develop household economy.

### **4. New efforts to attract the people's participation in the National Park management and protection.**

A seminar with the participation of the local people was organized in Dao tru commune in the buffer zone of Tam dao National Park to collect the people's opinions on the National Park management aimed at curbing the impacts causing the deterioration of the natural forest resources of the National Park. The people in the hamlet wished to make effective use of forest land areas and improve the inferior mixed gardens, enhance the households economy and improve the immediate income sources and create long-term ones for the households by:

- Reallocation of forest land to the households ensuring equity and solidarity among people, attracting more household to forestry activities.
- Forest planting, creating long-term benefits for the households.
- Planting of fruit trees, improving the inferior mixed gardens of the households, creating immediate and long-term income sources.

**Based on their experience and liking, the people selected trees to be planted:**

- Forest trees: Pine, Eucalyptus, Acacia, *Chukrasia tabularis*, *Erythrophleum fordii*, *Cassia* sp, *Canarium* sp, *Draconmelum duferreanum*.
- Fruit trees: Litchi, Longan, Custard-apple, Persimmon, Pineapple.

**Techniques to be applied:** Sloping agricultural land technique (SALT), agroforestry system and traditional experiences of the people.

**Nursery activities:** There need be the organization of nursery production at household scale. Each household produces only from 500 to 1,500 saplings depending on each household's capability. This is an effective measure contributing to the creation of employment and income, attracting the participation of many households in the project activities and at the same time an opportunity for technology transfer to the households.

- The National Park needs to co-ordinate with the local authority to help the people grasping the importance of the National Park and the laws concerning forest resource protection.
- The National Park together with the Woman Association Branch in the hamlet carry out effective propaganda on family planning.

**Conclusions**

1. Tam Dao National Park enjoys many strong positions in culture, tourism and natural sceneries that have great value in nature reserve, conservation of the diversity of forest ecosystems.

2. There need be strengthening of scientific research, perfecting the organisational and managerial mechanism for the protection and development of endemic, rare and precious plant and wildlife gene sources of Tam Dao National Park.

3. The people's participation is indispensable for the successes in the establishment, protection and development of this national park model.

**References**

1. Decision 136TTg of the Premier dated 6/3/1997 on "Feasibility study on investment in establishment of Tam Dao National Park"

2. Decree 02/CP of the Government on 15/1/1994 on Land allocation to organizations, household, individuals for long term use in forestry.

3. Economic and technical facts for Tam Dao Nature Reserve, 1992.

4. Law on forest protection and development, 8/1991.

5. Plan of " Strong development of forest planting and revegetation of bare

land and denuded hills as a step towards banning of natural forest exploitation". Ministry of Agriculture and Rural Development, 1997.

6.Result of survey on real socio-economic situation in the section of the buffer zone lying in Vinh phuc province of Tam Dao National Park. Dr. Prof Bui Minh Vu and members, 1996.

7.Report on the results of the work of Tam Dao National Park. Tam Dao National Park, 1996,1997.



# PARTICIPATORY FOREST MANAGEMENT IN BANGLADESH

**Sanowar Hossain**  
**B. POUSH**  
**Bangladesh**

## **Abstracts**

With the Pace of Population booming, increased energy consumption, over exploitation of the natural resources and rapid depletion of the forest reserves accelerated natural disaster like flood, drought and cyclones in Bangladesh.

Once Bangladesh was famous for its evergreen/ semi evergreen tropical and world famous mangrove forest. But over the years due to over exploitation of forests and its non-participatory management, more than 50% of the forest resources has been depleted. Realising the grim effect of destruction of forests and to repair the lapidated environmental condition, both the government and non-government organization have taken up afforestation programme. The NGOs have added a new dimension in the forest management, which has ensured participation of the community people and protection of the vegetation. Although, the government has also adopted participatory forest management but due to bureaucratic attitude easy access of the poor habitants are restricted in many cases. To overcome these situations, the existing government forestry policy, which was formulated in 1994, needs radical modification. There should be room to accommodate the NGOs, grass root organisations and general people in policy formulation, execution and evaluation of the programme.

## **1. Introduction**

Bangladesh lies in the North-Eastern part of South Asia between 20°34' and 26°38' North in latitude and between 88°1' and 92°41' East in longitude. The total area of the country is 144,000 sq. km with a population of about 120 million, density of population is 800 person per square kilometer. The most densely populated country in the world, Bangladesh is mainly a floodplain delta, which is formed at the confluence of the Ganges, the Brahmaputra and the Meghina rivers. Natural forest represents only 6 percent of the total land area of the country and is managed and controlled by the government. Village forest which contains annual and perennial trees and still provides a major source of food and income for majority of people, is managed by private individuals.

A rapidly increasing population is placing growing demand on natural resources, especially forest sector is under pressure to become more productive and efficient to keep pace with increasing demand. At present forest in Bangladesh is in unfavourable situation in terms of meeting increasing demand and also not adequate for maintaining ecological balance. This is primarily due to heavy population pressure and limited resource base, secondly, lack of integrated planning for development of multiple resource base with active participation of people

resulting in high degree of environmental degradation, as illustrated mostly by deforestation and destruction of Natural resources.

In the phase of rapid depletion of forest aggravated by increasing demand for forest resources, and considering the prevailing socio-economic condition of the country, Government has put emphasis on participatory approach in development of forest resources of the country.

## **2. Forest situation in Bangladesh**

Bangladesh has lost over 50% of its forest resource over the period of about 25 years. Actual forest coverage is only 6 percent of the total area and the situation is worsening despite of an attempt to preserve it. At approximately 0.02 ha per person of forest, Bangladesh currently has one of the lowest per capita forest ratio in the world.

In Bangladesh, government-owned forest area covers 2.19 million ha, with the remaining 0.27 million ha being privately controlled homestead forests. Of the government owned forest land, 1.49 million ha are national forests under the control of the Department of Forest, with the rest being under control of local governments. Of the state owned forests, over 90% is concentrated in 12 districts in the Eastern and South-Western region of the country. However, due to over exploitation these forests have become seriously degraded.

The natural forests of the country are classified into three categories: 1) Tropical evergreen/ semi-evergreen forest in the eastern districts of Sylhet, Chittagong, Chittagong Hill Tracts, and Cox's Bazaar: 2) Moist/dry deciduous forest also known as Sal forests in the central and the northwest region and 3) Tidal mangrove forest along the coast, known as the sundarban, the largest mangrove ecosystem in the world. These forests are official reserves and placed under the jurisdiction of the Forest Department. Unfortunately, recent inventories indicate a continuing depletion of all major forests.

## **3. Forest management in Bangladesh**

In Bangladesh management of government forest is the responsibility of the Forest Department under the Ministry of Environment and Forest. In this process the department is managing, protecting, developing the forest resources, forest land and also collecting the revenues. People have never been consulted nor involved in forestry activities. From the management point of view, forest of Bangladesh are being divided into three categories such as:

- State owned forest under the administrative control of Forest Department.
- State owned forest under the administrative control of Ministry of Land through District administration.
- Private village forest managed by private individuals. Forest under Forest Department control and management again divided into three major types viz; (a) Hill Forests; (b) Plain land Sal Forests, (c) Mangrove Forests.

**Hill Forests:** The tropical evergreen/semi evergreen forest cover as approximately 1.32 million ha of which 0.67 million ha is controlled by the forest department and rest is under the control of hill district council. Clear felling followed by replanting with suitable species (both long and short rotation) is the method of management in hill forest. Because of increased demand for timber and fuel wood and prevailing socio-economic condition of the country this forest has greatly affected and rate of denudation is considerably high. The forest department is mainly confined in raising of single species plantation. Inventory shows that most of these plantations would not give the desirable output. This programme suffers from technical, social and administrative soundness. Another problem is most of the high forest are subjected to shifting cultivation by the hill tribes. The tribes are entitled to shifting cultivation in forest land under administrative control of district administration which has resulted in the total destruction of these tropical evergreen forest. The growing stock has depleted from 23.8 million m<sup>3</sup> in 1964 to less than 20.7 million m<sup>3</sup> in 1998.

**Mangrove Forests:** Known as Sundarbans, the largest mangrove ecosystem in the world. Sundarban forests are being managed by selection felling method followed by natural regeneration. Beside Sundarbans, plantations are being raised with mangrove species in the newly accreted char land all along the Coast of the Bay of Bengal. Sundarban forest is an official reserve forest, unfortunately recent inventory shows a continuous depletion due to over-cutting, illegal felling. It is estimated that in less than 25 years, the volume of commercial species Sundari, Gewa, has declined by 40 to 50% respectively.

**Plain land Sal Forests:** Silvicultural system applied for Sal forest was coppice with standard system. In this system matured trees were felled and the areas were protected for coppice regeneration. The typical nature of Sal forest is that this forest is scattered. In the forest areas there are agricultural lands owned by the adjacent people. Frequently these land owners are extending their lands and encroaching to forest and in the process they are destroying the forest and subsequently converting the area to agricultural land. In this process forest lands are being marginalised day by day. FAO estimated that only 36% of the Sal forest cover remained in 1985; more recent estimates that only 10% of the forest cover remains due to over exploitation and illicit felling through there is an official base on logging since 1972. Most of the Sal forest are now substantially degraded and poorly stocked. The situation calls for involvement of community people in the forest management.

Inventories how that there has been overall depletion in forest resources in all major state owned forest. The growing stock in Sundarban has been depleted from 20.3 million m<sup>3</sup> in 1960 to 10.9 million m<sup>3</sup> in 1998. In the Hill forest of hill districts, the growing stock has depleted from 23.8 million m<sup>3</sup> in 1964 to less than 20.7 million m<sup>3</sup> in 1998. Over-cutting by timber merchants, increased consumption linked to population growth, shifting cultivation, encroachment, illegal felling and land clearing for agriculture, lack of participatory management have been the principal causes of deforestation and shrinking of forest land in the country.



Since 1960 two major approaches regarding the role of forestry in development have been reflected in the forestry sector of Bangladesh. In the 1960's, Bangladesh as a part of Pakistan and then as an independent nation has followed 'An Industrialisation Approach' consonant with the international conventional wisdom at that time. As a result, Department of Forest raised large-scale Industrial plantation which were seen as conversion of low-yielding natural forest into artificial plantation of species (mostly teak) of great economic importance. This conversion of semi-evergreen and evergreen forest into deciduous teak plantation was largely concentrated in hill forest areas. During the plantation raising local people were not consulted and often they did not derive any benefits from these plantations. The lack of support by the local people/ communities in combination with lack of silvicultural knowledge and lack of proper maintenance contributed to raise low quality plantations and these plantations were also lost due to illegal felling. In the name of plantation the genetic resource of the evergreen/ semi-evergreen forest was lost. Forest Department was considered as revenue earning department. The main activities of Forest Department were concentrated in extraction of trees from the forest and replanting of those felled areas where applicable, Forest Department has not considered the people and their participation in managing forest of the country.

In the 1980s following a change in thinking about the role of forestry in development, and peoples participation in forestry activity was encouraged. People participation with the forestry sector realised the need of people oriented forestry programme to replenish the degraded forest resources of the country. Accordingly, in 1994 Government formulated a forest policy replacing earlier one enunciated in 1979 with a due emphasis to the need for people's participation in forest management.

#### **4. Participatory forest management approach in Bangladesh**

##### **4.1 Past activities**

Forest extension activities were formally launched in the country in the year of 1964 with the establishment of two forest extension divisions at Dhaka and Rajshahi and later two divisions at Comilla and Jessore. It was really a very small programme and the activities were confined only to establish nursery in the districts headquarter and raised seedling and sell the same to individuals and organizations. The location of this programme was so urbanized and limited that it only partially served the needs of the affluent town dwellers only.

##### **4.2 Betagi- pomora community forestry project**

The first community forestry programme in the country, started at Betagi and Pomora mouza (village) under the district of Chittagong in the year of 1979 with the personal initiative of Prof. A. Alim, renowned forester and Prof. Dr. Mohammed Yunus, founder of Grameen Bank. Initially the project covered 160 ha of Government denuded hilly land at Betagi and with 83 landless participants

from adjacent community and subsequently extend over another 205 ha of Government owned denuded hilly land at Pomora with another batch of 243 landless (families) participants. Under this programme each landless participant was provided with 1.62 ha of land for growing tree and horticultural crops with technical and financial assistance from the Forest Department.

This community programme has given the landless an identity of their own and a sense of direction in life. But this model has not been replicated in the other areas due to lack of initiative of the Forest Department as well as the Government.

#### **4.3 Rehabilitation of Jhumia families (shifting cultivator families)**

Another project was undertaken by the Forest Department in the Hill tract areas to establish plantation through rehabilitation of Jhumia families in 1980. Main objectives of the programme were (i) to rehabilitate tribal families in the Unclassed State Forest(USF) lands along with rehabilitation of denuded USP land; (ii) to introduce a sustainable agroforestry production system; (iii) to improve the socio-economic condition of the tribal people and (iv) to motivate tribal people in development of forestry. Under this programme each family was allocated 2.02 ha of USF land for growing agricultural crops (over 1.20 ha), raising plantation (0.80 ha) and for house construction (0.20 ha). The rehabilitated families were given land use rights and were allowed to enjoy 100% benefits accrued to those lands. The participants were given input support for growing agriculture, horticulture and forestry crops and cash support for house construction. This programme continues for quite a long period of time but could not sustain mainly because of nomadic character of the tribal groups. Another reason of failure was that the families were rehabilitated in clustered villages without considering their cultural and religious values. Thus in most of the cases it was found that the families have left the area. A parallel programme was also initiated by the Chittagong Hill Tract Development Board in which Forest Department was responsible for implementation of afforestation component where Cittagong Hill Tract Development Board was responsible for the rehabilitation component. This program was also not found so much responsive to hilly people except for some plantation establishment.

#### **4.4 Development of community forests project**

The activities of the first phase of this project began in 1981 and were completed in 1987 in seven greater districts of the North-Western zone of the country. The main components of the project were:

- Strip plantations along roads and highways, railways, canal sides, district and Union Parishad roads, totalling about 4,000 km.
- Fuelwood plantation on 4800 ha of depleted Government land on participatory concept.
- Agroforestry demonstration farms over 120 ha also with participatory con-

cept.

- Replenishment of depleted homestead wood lots in 4,650 villages.
- Training of Forest Department Personnel and Village leaders.

#### **4.5 Development of forest extension services (1980-1987)**

Development of Forest Extension Services (Phase II) began in 1980 with the Government funding and subsequently amalgamated in some areas (i.e. North-North West district) with Asian Development Bank funded Community Forestry Project. The main activities under this programme were:

- afforestation in some 3100 villages.
- roadside tree planting along 3600 km of primary highways and roads and about 600 km of Union Parishad roads.
- production of 49 million seedlings for distribution.

#### **4.6 Thana afforestation and nursery development project**

This project is a follow-up of Development of Community Forestry Project and Forest Extension Project and has been designed primarily to: (i) increase the production of biomass fuels and (ii) enhance the institutional capability of FD and local administration in implementing a self-sustaining nationwide social forestry programme.

In order to increase the production of biomass fuel and to arrest the depletion of tree resources, the project envisaged to develop tree resources base through planting of depleted sal forest as well as brining all suitable and available land in the rural areas under tree cover with active participation of the rural poor of the locality.

Originally the project was to be implemented by the Forest Department and former Thana Parishad during the period of 1987 to 1994. But in 1992 Government decided that the all project activities were to be implemented by Forest department alone. The major components of the project were:

1. Establishment of plantation over 20,225 ha depleted Sal forest areas.
2. Development of agroforestry over 4,200 ha in the Sal forest lands.
3. Raising strip plantation on 17,272 km along Road and highway, Railways, Embankment and Feeder Roads.
4. Raising 1,282 ha plantation in the land outside the BWDB.
5. Planting 7.017 million seedlings at the premises of different education, religious and social institutions
6. Establishment of 345 nurseries at Thana headquarters.
7. Raising of 10.618 million seedling for distribution to public.

## 8. Training of some 76,000 people of different levels.

Here this may be mentioned that at the last stage of the project implementation, the Government has found that this was quite impossible to protect the strip plantation and also impossible to trained 76,000 people by the Forest Department alone. The Government invited NGOs to participate in this programme for successful implementation. PROSHIKA, POUSH, GRAMMEN BANK and other NGOs came forward to help the Government for successful completion of the project; NGOs employed their group members to protect the strip plantation and ADAB came forward to train people at different levels with the help of its member organisations.

The above plantation activities were carried out with the direct participation of the local people with the help of the NGOs by executing benefit sharing agreement.

### 4.7 Coastal greenbelt project

Another project financed by Asian Development Bank is under implementation in the Coastal region of Bangladesh. The main objective of the project is to create a vegetative belt all along the coast to save the lives and properties of the people living in the coastal areas from devastated cyclone and tidal surges which occur very frequently in those areas. All of the activities of this project are also being carried out following participatory approach. In this project also the participants have been selected among the poor people living in the adjacent areas by involving NGO and a pre-designed benefit sharing agreements also being executed with the participants to protect their rights over plantations and to ensure benefit expected to be received out of the plantation.

### 4.8 Agroforestry research project

Pilot Agroforestry Research and Demonstration was implemented by the FD in the Sal forest areas. The project had been developed precisely to design/develop agroforestry modules which is environmentally feasible, socio-economically acceptable enhance tree and crop production at the same time to uplift the socio-economic condition of the participants. The project aimed at using 120 ha of encroached Sal Forest land of Dhaka, Mymensingh and Tangail Forest Division to develop suitable participatory plantation models.

### 4.9 Food assisted social forestry programme

The World Food Programme assisted the Government to develop Social Forestry as a national programme and the Government incorporated WFP assisted social forestry programme in its annual development plan from 1998. Poverty alleviation, economic rehabilitation of rural poor especially the destitute women of the society by engaging them in forestry activities, social uplift of rural poor and environmental improvement are the main objectives of this project. Historically this programme was conceived in the country since 1989 on pilot basis allocating in kind resources (Wheat) to a limited number of NGOs for raising strip

plantation along roads, embankments, Highways etc. in rural areas following the participatory mechanism. In implementing this programme FD was involved later on to provide technical guidance to the NGOs and other GOB agencies. At present probably this is the largest Participatory Forestry Programme in Bangladesh. From 1990, 100 NGOs are involved in this programme and at present about 60 NGOs are continuing with the programme. Commencing from 1990 up to 1998 about 31 million trees were planted involving 0.062 million people directly and 0.62 million people indirectly. The programme has created employment to the tune of 68 million man days. This programme is being implemented by the NGOs through contractual benefit sharing among participating poor men & women 60%, NGOs 10%, the rest land owners.

## **5. NGO participation in the participatory forest management**

In Bangladesh the history of NGO involvement in the field of development is not very old. After liberation, NGO started their activities through relief and rehabilitation of the war victims. During mid-seventies, NGO switched over to the socio-economic development of the rural poor, and at present there are thousands of NGOs most of whose mandate is to organise rural poor and provide awareness, education, skill training and various support services including credit to enhance participation of landless poor in the development process towards self reliance.

On the basis of the networking throughout the country the NGO can be classified into two levels; (i) local and (ii) National. At present more than 100 NGOs both local and National are implementing social forestry programme in Bangladesh. It is not possible to enlist activities of all the NGOs involved in the Social forestry programme in the country. The participatory forestry activities of some of the NGOs are highlighted here who are playing pioneer role in this field.

**BRAC:**The Bangladesh Rural Advancement Committee (BRAC) has been established in 1972 and this is the largest NGO in Bangladesh. BRAC has six categories of projects/ programmes in broad sense among which Social Forestry falls within rural development programme. The Social/ Participatory forestry has three components; (a) Nursery establishment; (b) Plantation and (c) Establishment of agroforestry. They claim that they have assisted their women members in raising more than 225 homestead nurseries and 100 large nurseries with a combined production capacity of a million seedlings of fruits and forest seedlings. They have established 200 mulberry nurseries with the production capacity of 2 million seedlings. Social afforestation programme of BRAC is WFP assisted which has been commenced from 1989 and till now it is going on. Most of the plantation under this programme has been established along the strips. Up to this time about 33.72 million seedling have been planted over an area of 33,700 km strips along road, railway and embankment. This programme involves about 670,000 participants of which 80% are women.

**PROSHIKA:**Proshika - A center for human development is one of the largest NGO in Bangladesh. The Social Forestry Programme of Proshika is a systematic

intervention effort to enhance afforestation in the country and to make a case that the poor are the best managers and protectors of forest resources if they are granted usufruct rights on these resources. Proshika has introduced its group members in social forestry activities and provided them with credit and technical support, which contributed significantly to their self-sufficiency. The main components of social forestry programme of Proshika are; i) Homestead plantation; ii) Strip and block plantation; iii) Natural Forest protection, and iv) Nursery establishment. Proshika has planted 71 million seedlings which covered along 8,887 km strips, 37,662 areas of block plantation which included natural Sal forest protection throughout the country. One of the most significant contributor of Proshika to the development areana is the introduction of the concept of participatory forest management for natural forest protection. Proshika has successfully involved the forest dwellers in the Sal forest areas of Kaliakoir, Mirzapur, Shakhipur and Shreepur thanas under district of Tangail and Gazipur for the protection of coppice Sal forest by involving group members of Proshika. It has already been proved that when poor people surviving on the forest resources are organised, trained and granted usufruct rights, they present on enormous human potential needed for afforestation and forest protection.

**RDRS:**The Rangpur - Dinajpur Rural Services operating in 28 thanas of greater Rangpur and Dinajpur districts covering 28 thanas. It is the largest International Integrated Rural Development NGOs operating in Northern Bangladesh for more than two decades. Its entry point in forestry was through road side plantation in 1977. Initially, seedling were protected with bamboo cages. Situation has been changed a lot nowadays and protection of seedlings with bamboo cage has become a part of history. Besides strip plantation, they also extend their tree plantation programme in homestead, institutional grounds as well as raising of local nurseries. With the assistance of WFP they have planted about 10.66 million trees under their participatory afforestation programme.

**TMSS:**It stands for Thangamara Mohila Sabuj Sangha. It is an NGO exclusively meant for women. Although, it was initiated in 1976, its presence was visible only since 1965. This NGO believes in the concept of simple living and high thinking. TMSS was also involved in the social forestry programme particularly in the Northern districts of Bangladesh. The organisation has been implementing both road side and farm forestry with assistance from the WFP and Swiss Development Corporation (SDC) respectively.

**POUSH:**Another NGO has been engaged in planting in the private lands also by persuading the owner farmers in Baroibari, Kaliakoir thana with the food aid from WFP. Its activities in the forestry field are limited to strip plantations and it plans to expand its programme extensively. Target groups of POUSH are mostly landless destitute, widow and divorced women. POUSH also happens to be the first of its kind to get involved in participatory forestry in the hill district of Bandarban

## **6. Problems and prospects of participatory forest management**

Considering the demand and supply situation for forest products to meet the economic and environmental needs, no one can deny the need of people's participation in forestry. Probably there is no second answer except participatory forestry in developing, managing, and protecting the country's forest land and the forest resource. But there are numbers of issues remain unresolved. As a technical department, Forest Department is playing pioneer role in implementing and popularising Participatory Forestry in the country. Up to this time Forest Department is managed by the professional foresters who have educational background only in managing traditional forests and who do not consider people as development partners. Participatory Forestry, if we recollect the Chinese proverb, needs mental development managers towards the people.

Realisation has started among the planners, policy makers, administrators and Senior managers to involve people in forestry development activities. But up to this time Government has failed to adopt real Participatory Forestry programme to address the basic need of the peoples.

Mobilisation of the people in participatory forestry programme is another bottleneck of the Forest Department who has not had the machinery to reach the community people. NGOs who work at the grassroots level have developed their own expert to mobilise people and ensure their participation in any development programmes as partner. So NGO should be involved in the implementation of the participatory forestry programme where Forest Department should confine their activities only in technical aspect.

In the context of Bangladesh, the scarcity of land is a most vital problem. On the other hand, Forest Department controlling over 16% of the total land area of the country is still hesitant to allow Participatory Forestry in reserved forest areas. According to FD, it should be confined only in public and private lands beyond reserved forest areas through these are devoid of trees. The Participatory Forestry is being practiced in marginal lands which are under administration control of other Government departments. Recently, due to pressure from planners and donor communities, Forest Department has allowed to practice participatory forestry in Sal Forest areas. Tenure of the contract was found as a bottleneck for implementing Participatory Forestry. Forest Department allowed rights of participants over these lands for a period of seven years, but there was a strong desire, that this tenure should more and at least for rotation period, so that participants can manage and protect trees till harvesting.

A negative attitude was also observed among the Foresters to involve women in forestry activities. They viewed that activities of women should be confined in the areas where there is a locality apprehending the social problems. But in participatory forestry both men and women should be treated equally.

## Recommendations

- The forest policy of 1994 needs a fundamental change to make participatory forestry approach as a core concept for social fencing against forest destruction and for poverty alleviation through income generation. An independent Forest Policy needs to be formulated to promote Participatory Forestry in the country.
- For implementing Participatory Forestry programme, Land as an input is to be ensured with authority. Preset land lease system is not responsive nor effective for practicing Participatory Forestry in the country. Tenurial rights of land instead of land use right is to be given to the participants.
- To make effective participation of the people on a sustained basis sufficient motivation is required and this responsibility must be given to the NGOs.

Involvement of the groups in planning and decision making is to be ensured through proper policy directions.

- Provision should be made for giving subsistence to the participants so that they can survive and keep confined their activities in the programme.
- A National forum where there will be representation all from Government politicians, NGOs and private sector. They will act as a coordination body to coordinate among all the participants like land owning agency, NGO, Forest Department and the participants.
- NGO should act as a catalyst and they should not be treated as a competitor of Forest Department.
- Process of recruiting NGOs by inviting tender for implementing any Participatory Forestry programme of the Government must be avoided. ADAB may be given the responsibility to identify the NGOs for a particular programme implementation.
- Major reforestation and afforestation programmes with community participation in a profit sharing basis and improvement in technology and management of plantation is required.
- Institutional capacity, policy and legal framework of forestry management should be strengthened.
- Forestry professionals should be trained in environmentally sound forestry.
- Implementation strategies for community management of forestry resources should be developed.

## References

1.Roy. M. K. 1997. Forest, People and Environment. Paper presented in the Workshop on Importance of Non-formal Education Organised by Bangladesh POUH.

2.Alauddin, S. M. 1998. An Overview of Forest Management in Bangladesh.



# SUPPORTING MEASURES ON PARTICIPATION OF LOCAL PEOPLE IN FOREST CONSERVATION

**KOMATSU Kiyoshi**  
**Institute for Global Environmental Strategies, Japan**  
**Tel: +81-468-55-3837**  
**Fax: +81-468-55-3809**

## **Abstracts**

There are systems to provide an opportunity for local people to participate in the process of forest management. But there are some problems in implementing those systems effectively. Supporting measures is required for implementing them effectively.

This paper analyzes some of those measures that are, the EIA system, forest certification, and the indigenous people's right.

According to those analyses, a fair system needs to be constructed to support local people participation.

## **1 Why the participation of local people needs to be supported**

Recently, it has being recognized that participation of local people is important in the forest management.

But sometimes there is no opportunity legally for those people to participate in this process. Even though there is an opportunity to participate in the forest conservation, sometimes people could not utilize it effectively or that process generates adverse results. Those results caused by many reason; too complicated procedure, lack of awareness of social and economic problem in the local community, disregard for traditional culture including the management way for natural resources, tenure right etc.

That is the reason why it is necessary to support those systems implementing effectively and achieving their purpose.

There is an ideal measure already. It is an international treaty called "the convention on Access to information, public participation in decision-making and access to justice in environmental, matters" was adopted on June 1998 in ECE (The Economic Commission Europe). This convention requires parties to support public participation by disclosing information related to environmental matters. In this treaty, government can refuse to disclose information, but people have the right to appeal to court about this decision.

I think this is an ideal measure to support the participation of local people, but I think that the introduction of a such system is possible in only developed countries such as Europe.

In Asian and pacific region, the situation is difference from Europe. We have

to seek alternative way, which can support the participation effectively in this region.

In this paper, I elaborate on the advantages and disadvantages of three measures to support local participation and comment future perspective mentioning about inter-governmental forum on forest.

## **2 Some measures to support local people participation**

I chose three measures, which are and will be supporting the participation of local people.

Three examples are as follows:

- An environmental impact assessment system (EIA)
- A forest certification system
- An indigenous people's right.

(1) EIA system

First example is the EIA system.

This system provides people an opportunity to participate in the process of forest management, even if the opportunity of participation is not given in forestry law. EIA system is an alternative way for participation in this process.

This system is already being managed in a lot of countries. Various problems are pointed out in relation to it. In the United States, there was a case, where the procedure of a making forest management plan was stopped because of some trouble raised in this process. There were many reasons. One was that the procedure was too complicated to understand. It was difficult to participate in that process. People didn't know how their opinion to reflect to procedures. Second one was that too difficult and too much information provided on the process. Nobody knows all information that was provided on the process completely. Also training and education related to the participation of local people for concerning authority's personnel was not enough. Moreover, it is pointed out that local people's interests can conflict, and that conflict left a serious influence on a local communities after the EIA process of resort development plans of Japan.

These problems indicate the need of disclosing all information related to EIA process to public with a more detailed explanation. Also sufficient communication is necessary to avoid the conflict between local people. This implies the importance of effective information disclosure too.

The causes of confrontations in its process are not only the lack of communication among the parties, but also the social and economic problems which local community faces. It is necessary to consider the social and economic problems.

(2) Forest Certification.

Forest certification is the system, where the third party examines the forest management and confirms whether it is sustainable or not. It labels the wood and product of the wood. This guarantees consumers that they are cut out of the forest which are managed in a sustainable way. Those labeled commodities are expected to be dealt at a high price in the market, and if the forest certification can be effectively used, it is possible to support participation of local people.

FSC (Forestry Stewardship Council) is a non-governmental organization that accredits the certification organization.

FSC requires them to check whether the local people are involving in the decision-making process of the forest management plan. Buying the commodities certified by the organization accredited by FSC supports their participation. Also, it could be economic support for local communities.

But, there are three problems in the forest certification.

First one is, related to WTO. The label given to products made on a production process intended not to harm the environment is called ecolabel. Some countries have already implemented such a system. But, some other country point out the possibilities that could be against provisions in GATT in discussion of Committee Trade and Environment (CTE). It is prohibited to restrict import by reason of the production process that is not related to the characteristics of the products. Forest certification concerns the process and not characteristics of the products, and there is a possibility that it is regarded as trade barrier. CTE recognized that ecolabel is useful for environmental conservation, but they don't deny the possibility against GATT.

Second one is the problem of reliability. The expectation to sell at a high price is an incentive for false labeling. There is an example. The market for organic farming products has expanded in developed countries. Organic foods certified by the organization have been increasing, and their price is higher than conventional food. However, there is some news in the papers, concerning pesticides detected on organic foods certified by the organization. Selling at high price is necessary for maintaining the certification system, but it can become a cause of false labeling.

Finally, there is a fairness problem. It is not a duty to buy the certified commodities for consumers. Therefore, there is the difference of the load between the consumer who buys the certified commodities and the others who do not. Those who do not buy the certified commodities could enjoy the benefits of the forest without sharing the cost of conserving it. Such an unfair system couldn't be sustainable in itself.

(3) Indigenous people right.

The indigenous and local communities have managed forests for a long time by a sustainable way. Their traditional knowledge includes a lot of information about the nature surrounding them, and it is useful for us to improve natural resource management system.

But in many countries, indigenous and local community's traditional knowledge has been disregarded and destroyed. It is necessary to protect their knowledge and to build system making the best of it. The Convention on Biological Diversity (CBD) has some provisions to protect, to apply wider traditional knowledge.

Article 8 (j) *“Subject to its national legislation, respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity and promote their wider application with the approval and involvement of the holders of such knowledge, innovations and practices and encourage the equitable sharing of the benefits arising from the utilization of such knowledge, innovations and practices;”*

This provision can provide a base for including traditional management system in the modern legal system. That could help effective implementation of their participation effective. It requires parties to "promote wider application with approval and involvement of the holders of such traditional knowledge. This means that those who want to utilize traditional knowledge have to open all information related to their plan to holders of traditional knowledge, and explain it precisely before receiving their consent.

Also in this provision, parties have to "encourage the equitable sharing of the benefits arising from the utilization of such knowledge, innovations and practices." It means equitable sharing of the benefits derived from utilizing traditional knowledge between inventor and holder. This provision recognizes the importance of sharing information and sharing benefit equitable.

But there is problem related to its interpretation. We can interpret the meaning of "indigenous and local communities embodying traditional lifestyles" in many ways. There is a possibility to interpret the meaning in a restricting way. We could restrict people who live now under traditional way completely. But now all communities are influenced by western culture. Almost all indigenous and local community may be excluded from the subject of this provision.

Also the meaning of "holder" could be narrowly interpreted. Sometimes only a few persons know traditional knowledge and passed it to children and descendants, but most people in a community don't know it. This fact could restrict the few knowledgeable persons who know traditional knowledge to teach others.

Making the definitions precisely is required with considering indigenous and local people's situation and the purpose of this provision.

### **3. Conclusion**

From these examples I think two points are necessary for considering the participation of local people.

The first one is sharing information. All information that affects a social, economical situation, a natural environment in the region including traditional knowledge, or a latest scientific finding should be shared. The second one is sharing

benefits equitably. A benefit sharing also means sharing cost equitably. Sharing benefits among parties could be come an incentive for participation of local people. Therefore, taken all together, I associate sharing information and benefits with fairness. I think that fairness plays important role in considering the supporting measures on participation of local people for forest management.

Discussion about the Convention on Forest is still process on the Inter governmental Forum on Forest. Also it is not sure what will be the conclusion of this discussion. But it is certain that it is necessary for us to make the guidelines that can support the participation of local people effectively in Asia-Pacific region.

In IGES project, we aim to research and propose the guidelines which includes effective supporting measures for the participation of local people in this region, with consideration over the points mentioned above.

### **References**

ASANO Naoto (1998) The law and system on the environmental impact assessment. Tokyo, Shinzansha, press. pp45-48

KAKIZAWA Hiroaki (1997) Public participation in the ecosystem management of US National Forests in the 90's. Jpn J.FOR.Plann.29:13-24

TUCHIYA Toshiyuki (1997) The rural development and the environmental conservation. In: The Forest environment conservation manual. Tokyo, Asakura press, pp97-113

MITO Takashi (1998) The protection of indigenous and local communities' traditional Knowledge, innovation, and practice in the convention on biological diversity. Thesis of Faculty of law graduated school Seinangakuin University

**Summary of the Discussion  
(APNEC4) Special Session on 27 Nov. 1998  
in the National University of Singapore**

**Chairperson: Mr. Martinus Nanang  
Reporter: Mr. Kimihiko Hyakumura**

The participants held a profound discussion on the papers that were presented in the session, the summary of which is presented below;

(1) In regard to the presentation on land allocation policy in Lao P.D.R, a participant from Japan and one from Sri Lanka made the following comments respectively:

(A) It was suggested that due to time constraints RRA(Rapid Rural Appraisal) was used to collect data and information. This method can be made participatory when adequate time and resources are available.

(B)To a question on conflict of interest in land allocation, it was replied that the Forestry Law and the Land Law were put into effect in the last two or three years. The Forestry Law has not caused much conflict in the community but the land allocation policy may give rise conflict over land ownership in the village community.

(C) It was suggested that the Sri Lanka government has also outlawed slash and burn cultivation, but this has been not implemented effectively. It is necessary to compare the experience of different countries to examine regulations on the utilization of lands that have been traditionally utilized for slash and burn cultivation.

(2) Regarding the paper on the introduction of Local People's Participation for Sustainable Forest Management in the Asia- Pacific region, a participant expressed the view that:

In the Asia-Pacific region, it is difficult to develop a uniform institution of local people's participation due to a diverse range of cultural, social and economic situations in this region. It is necessary to develop a unique institution that can cope with each country's unique situation.

(3) Concerning the paper on "Implementation of the Environmental Impact Assessment (EIA) system", The following comments were made.

(A) A case was reported in Indonesia where the authority in charge of implementation of the EIA process clashed with the authority in charge of development and the process was deadlocked. Such "sectionalism" inside the administration is one of the obstacles to the effective implementation of the EIA process.

(B) A case was reported from Malaysia where some companies have evaded

the application of the EIA process by not reporting the total logging area, but repeatedly submitting a sufficiently small logging plan. In this way, they are able to discharge their duty of reporting their logging plan to the standard government application process for the EIA system, and they can log a vast forest area. It is therefore necessary to establish a standard application process for the EIA system which takes into account elements such as long term perspectives and the actual impact of each development plan.

It was agreed in this session that it is necessary to conduct case studies in various Asia-Pacific countries in order to develop a strategy for sustainable forest management systems that are suitable for each country.







## Country Reports

---



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

**Khampha CHANTHIRATH**  
**Department of Forestry, Lao P.D.R.**  
**Tel: 856-21-214459**  
**Fax: 856-21-219512**

## **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.



# SOCIAL FORESTRY AND EMPOWERING COMMUNITIES: IN NORTH BENGKULU- SOUTH SUMATERA

Herman Hidayat  
Indonesian Institute of Sciences (LIPI), Indonesia

## Abstracts

This article discusses about the positive correlation between social forestry and the empowerment of local people and ecology. This study highlights that this program which started in 1995 aiming at participating the local people for involving them in forest resources management. Furthermore, this study demonstrates that social forestry programs is able to prevent soil erosion and also create jobs for local people.

## Introduction

Forest resources management in Indonesia today has come under scrutiny. Many observers (Dove, 1985; Tjitradjaja, 1991; Parsudi, 1993, Moniaga, 1993) criticize its management, because that policy benefits the Logging Forest Concession (HPH), Industrial Forest Plantation (HTI), big Estate Plantations (palm oil and rubber) with a huge facilities, comparing with negative consequences for local people. That kind of policy is linked with the idea that most of HPH and HTI contribute lots of "income" for the government. In this case, forestry was second only to the oil industry in earning foreign exchange. Forest industries still maintain a significant role in Indonesia's economy today, generating 16 percent of total export earning and employing about six million people (Sopari & Agus, 1993:115). In contrast, our government does not seriously pay attention to the consequences on ecological and deforestation in many forest areas.

On the other hand, the minor actor of forest destruction such as forest squatters and shifting cultivators happen in Indonesia. Issues of forest squatters in South Sumatera, particularly in Bengkulu province are rapidly increased in searching new areas for their agricultural plantations such as coffee and rubber. According to a report from Transmigration Local Agency in 1996, it was registered 2986 families to be forest squatters and spread out in 63 villages, 20 districts, 13 towns, and 1 municipal, which width of land about 5779 Ha. Based on national figures in 1996, critical land as a result of forest squatters and shifting cultivators were involving 1.725.439 families. From 654.574 families stayed in the forest areas and occupied 3.606.243 Ha. And the rest, 826.433 families occupied around 3.246.689 Ha-outside forest areas.

In relation to forest destruction, some reports underline (World Bank, 1993; World Resources Institute, 1995; Forestry Department, 1996; Poffenberger, 1990; Dove, 1991, etc.), that forest management in Indonesia in practice has caused a huge damage to rain tropical forest is about 800.000-900.000 Ha every year. As a

consequences "poverty" has occurred among local people who live in and around forest areas increase rapidly (Mubyarto, 1991) and even social conflicts happen as well (Tjitradjaja, 1993). Obviously, the forest management policy has recognized that they give too much advantages for elite bureaucrats and businessmen through "collusion" practices. Thus, this kind of practices bring seriously implication to local people's social welfare as a result of the ecological destruction.

The above description explains us that forest area of Indonesia covers 144 million Ha is under great threat of destruction. Forest in Indonesia is dividing into four categories. (1) protection forest occupy 30,3 million Ha and are designated to preserve water resources, prevent soil erosion, and conserve the overall environment; (2) nature conservation forest, totalling 18,8 million Ha are preserved to protect biodiversity, including wildlife and other genetic resources; (3) conservation forests are the 20,9 million Ha of forest land that can be converted to other land uses; (4) and production forests are the 64,9 million Ha that can be harvested under government approved management plans. Many observers (Parsudi, Tjitradjaja, Dove) state that forest resources are destroying by over exploitation of concessionaires (HPH, HTI, and big estate plantations) and also done by forest squatters, shifting cultivators, a burgeoning population, and forest fires.

Administratively, forest resources is also causing by the lack of forest managers, forestry inventory information to properly monitor timber harvesting. The harvesting process in many forest areas itself must be improved and controlled accurately by forestry bureaucrats. Regulations to prevent misuse of the forests are ineffectively enforced-local people reap few benefits from large scale harvesting and are unable to properly participate in forest protection and maintenance.

Apparently, observing from above description, these problems endanger forest sustainability in the future. Therefore, comprehensive alternative to current forest management practices must be found. One of the participatory models of forest management with the action program is "Social Forestry." This program emphasizes high degree of interdependence between forestry sector and forest communities. This paper focuses on the practices of social forestry programs which encourage empowering communities throughout social and economics and preventing erosion of soil. The method of research was participatory observation and interview among local people and officers of social forestry project. This research was conducted on July 1996 in North Bengkulu, Ketahun district, Limas Jaya village.

### **Geographical condition and its people**

The research area is located in Limas Jaya village. It is mountainous condition. In rainy season, the red road is muddy and slippery. The distance between Ketahun as capital of district and Limas Jaya is about 24 Km, from Bengkulu city approximately 125 Km, and it takes about 3 hours by car. There are two reasons, why this village is chosen to be studied. First, there is a pilot project of social forestry from Local Forestry Agency (Kanwil) since 1995 in north Bengkulu which totally covered 1.500 Ha. Second, to prevent forest squatters in searching new

areas for coffee plantations, that in the long run will endanger soil erosion. Therefore, to substitute coffee plantations, Local Forestry Agency asked local people to work together in planting multi purpose trees system (mpts) such as Mahoni ( *Swietenia mahagoni*), Sungkai (*heterophragma macrolobum*), Kayu manis (*Cinnamomum Burmanni*), Kemiri ( *Aleurities moluccana*), Sengon (*Albizia chinensis*), Pinus *Merkusii*, Durian (*durio zibethinus*), and Jenkol ( *Pithecelobium jiringa*). Hoping by mpts could prevent soil erosion and empower economic and social of communities.

This village occupies almost 210 Ha for settlement and 3555 Ha for agricultural fields. The amount of its people totally are 2665 in 1995, divided 653 families, consist of 1.495 men and 1170 women. The ethnics groups are majority from Rejang (from midle Bengkulu), Javanese, Batak, and Mana (south Bengkulu). Comparing the width of field ratio and its amount of people, it seems to me, that population density are very rare. Unfortunately, from its educational perspective, this village just served two elementary schools. Therefore, the biggest amount of people just graduated elementary school about sixty five percent, twenty two percent secondary school, and the rest are high school (interview, July 15, 1996).

### **Social forestry**

Conceptually, social forestry is established in 1995 to invite local people for participating in forest resources management. The goal of social forestry is to give individual or community organizations responsibility for managing the forest in their areas. In this sense, social forestry program is to develop community-level forest management (planting, maintaining, harvesting, processing, marketing, and producing) and are aimed at promoting of community welfare and awareness regarding the importance of forest functions, natural resources, land and forest conservation (Fox, 1993: 116).

Although social forestry program is able to bring a better land management, it depends on the ability foresters to build the capacity of communities to organize themselves and to engage in land management activities. Thus, in the long run, after they produce multi purpose trees, the government ask them to cooperate in a cooperative sector which they manage their own selves for harvesting and marketing). In production forests, social forestry may provide a method to involve forest communities, forest concession holders, and government bureaucrats in managing forest lands. Therefore, in terms of Indonesia, Perhutani (State Forest Corporation) has had an active and successful program in Java since 1986. In the Outer Islands (Kalimantan, Sumatera, etc.), Inhutani (State Forest Conservation) begin their pilot projects of social forestry since 1995 in many forest areas which happened deforestation caused by forest squatters, shifting cultivators, Logging Concessionaires, etc.

### **Legal analysis**

Article 33 of Indonesian Constitution is: "Land, water, and natural resources contained therein should be controlled by the state and be made use of the wel-

fare of the people." It means, our Constitution declares that forest areas should be controlled by the state for the welfare of the people."

The article 33, it inspired the Basic Forestry Law (BFL) No.5, 1967 and encourage Government Regulation No.21/1970 and No.20/1975, can accommodate the implementation of "social forestry" in 1995 for the production of forest areas in Indonesia. Then, various opportunities are available for the local people to gain access to the forest resources, such as use wood and non-wood products, to collect or plant rattan, fruits, or even to buy shares from the concessionaires.

**Its application**

The application of social forestry program through model of participatory forest management. Participation means bringing people not only into decision making, but also resource mobilization and management (Wells, 1990). This emphasize the local communities on the state forest land use actively involved in the forest management system. This program is aiming at increasing the welfare of community and sustain the biodiversity, productivity and economic development of the state forest land resources. In terms of practices social forestry in north Bengkulu, Ketahun district, which actively followed 174 families from its total 653. The regulation of social forestry participants must follow the "contract" to obey regulations. Then, the local people will find their rights and keep obligations. One of their rights, they can occupy 2-4 Ha and could take the product of their trees. Concerning their obligations, they have to keep and maintain whole trees and strictly forbidden to cut them.

The social forestry program has two targets:

First, it is to keep soil erosion by planting multi purpose trees (mpts) system.

Since the beginning of social forestry program in 1995, the Local Forestry Agency (Kanwil) through Centre of Land Conservation and rehabilitation required to work together with local communities. Social forestry which total areas are 1.500 Ha divided into three phases: (a) first project in 1995 occupied 500 Ha, with totally covered the budget Rp.500.000.000; (b) second project in 1996 occupied 500 Ha and its budget Rp.630.000.000; (c) third project in 1997 occupied 500 Ha, its budget Rp.780.000.000.

The above figures explain us almost all seeds which had planted in the fields ninety percent are live in the beginning. According to the informen (July 21, 1996), it found two reasons. First, the workers of Inhutani and local people work together on good planting of seeds. Since the seeds

**TABLE 1 SOCIAL FORESTRY PROJECT IN LIMAS JAYA, KETAHUN DISTRICT FOR BUDGET 1995**

Various seeds	Stock of trees	Planted in the field
Mahoni	285,000	92%
Durian	200,000	89%
Kayu Manis	45,000	91%
Pinus Markusii	250,000	94%
Sungkai	50,000	94.5%
Kayu Manis	20,000	92.8%
Sengon	8,000	96.6%
Jengkol	50,000	93.7%
Kemiri	5,000	94.3%

Source: Inhutani V (State Forest Conservation), Limas Jaya, July, 1995.

are planted in the field for a week - two months old-thus, pouring water system continuously done. For example, the plants will be poured twice daily. Second, in rainy season, the multi purpose trees seeds are planned to be planted in the field. This strategy of planting, in order to prevent the seeds from the lack of water and finally will dies by any circumstances.

The response from local people toward social forestry project were positive about sixty two percent. Their reasons, that social forestry program promote a better life for them, particularly in participating forest management and economics. And the rest are still hesitating in following this program. The agreement between State Forest Conservation (Inhutani V) which represent from Local Forestry Agency (Kanwil), that every chief families receive freely 2-4 Ha. There are various of trees to be planted by local people by using multi purpose trees system (mpts) such as: Durian, Jengkol, Kemiri, Kayu Manis-which have an economic values. On the other hand, Pinus Markusii, Sengon, Mahoni, Sungkai- which strong roots to prevent soil erosion must be planted in slope of mountain, it was said by staff of Biology Research Center.

The multi purpose trees system will be planted in two locations: (1) These trees planted in the center among coffee plantations which formerly owned by local people. Comparing the age of coffee and mpts are very different. For coffee the length of the age reach 8 years and after that must be replant. In contrast, most multi purpose trees such as Sengon, Mahoni, Sungkai are until 20-30 years old and usually more-and their roots are very strong to prevent soil erosion. Among eight informen, I interviewed six informen were strongly support this social forestry program to maintain ecological and fertile of soil. And two informen did not support this program (July 22,1996).

Then, the goal of “*mpts*” in the long run are able to prevent from soil erosion and to improve local communities' economics. (2) other trees be planted in the slope of mountain. In this case, a special leading trees such as, Mahoni, Pinus Markusii, Sengon, which strong roots are able to prevent soil erosion. This action program is taken, in order to prevent among forest squatters in searching new areas for coffee plantations as a result of deforestation.

Second, empowering communities through economics and social activities. As I explain above, that this project continuously run three phases. It began since 1995 up to 1997 with total area covered 1.500 Ha with a huge of budget. Certainly, this project makes an additional income and creates jobs for local people. Formerly their monthly income are Rp.145.000, and their currently income are Rp.235.000 after they work on social forestry project (interview, July 19, 1996). For example, the Camp Center for seedings plant which occupies four Ha (two places) can absorb officially workers twenty-five persons. Among of them 4 forestry scientists and daily workers eighteen persons, two drivers, and one mechanic. They worked as full time job to prepare seeds, to pour water into seeds with truck pump and maintain whole seeds before to replace in field. Every one hectare of multi purpose trees planted needed 25 persons to work. And the cost of contract Rp.140.000-Rp.150.000 which need seeds about 1200 spices, and it takes

three weeks to finish. We can calculate, if this project one year will plant 500 Ha of “*mpts*”, then man power needed to be absorbed about 12.500 persons and Rp.75.000.000 for cost of planting the seeds. I did interview among ten informants, seven persons confessed that this project social forestry made empowerment of communities' economics and positive step to create jobs for local people. Just three informants were not agree this project continuously run. Thus, every coffee planters who actively engage this program able to receive the land for 2-4 Ha of “*mpts*” system.

There are many constraints for social forestry program:

a. Among coffee planters who enters to be participants of social forestry project not seriously active to maintain multi purpose trees system. They prefer to concentrate on their coffee plantations rather than to keep and maintain social forestry program. Their reasons, because coffee plants can produce much results in short time is about 4 years comparing with multi purpose stress which produce results after 8 years.

b. It is provocational news which heard among coffee planters, that Mahoni, Sengon and Sungkai's roots caused to the coffee plants will be died. Therefore, this news have implication to the farmers behavior not fully active to be participants in social forestry project.

c. In terms of transportation sector in rainy season the road are muddy and slippery. This phenomenon, it makes difficult for social mobilization in transportation system.

d. In political perspective, it is constraints that the whole of local people did not actively support this project. They argued, that social forestry project in the long run will abolish the activities of coffee farmers and effort to substitute them by planting multi purpose trees.

### **Concluding remarks**

Apparently, there is growing concern over the inability of Indonesian Forestry bureaucrats to sustainably manage vast areas of state-controlled forest lands caused by Logging concessionaires, forest squatters and shifting cultivators. Given existing staff constraints, forest agencies need to create the capacity to work with forest communities if sustainable forest management system are to be developed. One of it model that was launched in 1995 was "Social Forestry". This project was giving individual or communities organizations responsibility for managing the forest in their areas and also to prevent soil erosion. In terms of social forestry practice in Ketahun district, north Bengkulu, the response among coffee farmers were positive. This program positively develop to prevent soil erosion and to empower local people of their economics and social. Current policy on sustainable forest management was also launched by Minister of Forestry in Gadjah Mada University on October 10, 1998, that social forestry program confirmed to be model in the future. In this sense, to prevent deforestation and forest degradation, Minister said that forestry sector in Indonesia will be developed on social forestry

program are almost 80 percent of total forest areas in 2020. This policy will include the participation of local people, cooperative sectors, NGO, private business, and State Forest Conservation (Inhutani).

## References

Dove, Michael R (1985) "The Agroecological Mythology of the Javanese and the Political Economy of Indonesia". Dalam Indonesia 39.

Dove, Michael R (1991), "Foresters' Beliefs about Farmers: An Agenda for Social Science Research in Social Forestry," Honolulu: East West Center (Working paper No. 28).

Heyne, K (1987), Tumbuhan Berguna Indonesia, Jilid IV, Badan Litbang Kehutanan Jakarta.

Moniaga, Sandra (1993) "Toward Community- Based Forest and Recognition of Adat Property Rights in the Outer Islands of Indonesia," dalam Jefferson Fox (eds.), Legal Frameworks for Forest Management in Asia: Case Studies of Community/State Relations, Honolulu, East West Center Press.

Mubyarto, dkk (1991), Kajian Sosial Ekonomi Desa-Desa di Perbatasan Kalimantan Timur, Jogjakarta, Aditya Media Press.

Poffenberger, Mark (Eds.) (1990), Keepers of the forest : Land Management Alternatives in Southeast Asia, USA, Kumarian Press.

Sopari W dan Agus (1993) "The Legal Case for Social Forestry in the Production Forest of Indonesia," dalam Jefferson Fox (eds.).

Suparlan, Parsudi (1993), Orang Sakai di Riau: Masyarakat Terasing dalam Masyarakat Indonesia, Jakarta, Yayasan Obor.

Tjitradjaja, Iwan (1993), "Differential Access to Resources and Conflict Resolution in a forest Concession in Irian Jaya," dalam Ekonosia 1.

Wells, Michael P (1990), Biodiversity Conservation and Local people's Development Aspirations, USA, New Priorities .

## Archieves:

Keputusan Menteri Kehutanan No.372/Kpts-II/1996 tentang Penunjukan BUMN Lingkup

Departemen Kehutanan untuk melaksanakan Pekerjaan Proyek Pembangunan "Hutan Kemasyarakatan".

Keputusan Bersama Menteri Trasmigrasi dan Pemukiman Perambah Hutan, Menteri Kehutanan, dan Menteri Pertanian, SKB No. 147/Men/1995, tentang Pembangunan Trasmigrasi Hutan Rakyat.

# FOREST RESOURCE MANAGEMENT IN THE DIRECTION OF SUSTAINABLE DEVELOPMENT IN VIETNAM

**Hoang Lien Son**  
**Forest Economic Research Division**  
**Forest Science Institute of Vietnam, Vietnam**  
**Tel:84-4-8362230**  
**Fax:84-4-8345722**

## **Abstracts**

The paper deals with forest resource management in Vietnam in sustainable development direction aimed at management and use of forest and forest land, raising their capability in protection role, ensuring environmental security, diminishing natural calamities, conservation of gene resources and biodiversity. The policy of the Government of Vietnam is pushing up forest planting, revegetating bare land and denuded hills towards banning of natural forest exploitation, implementing the project of planting 5 million hectares of forest (1998-2010). One of the important directions in socio-economic development in mid-land and mountainous regions is to push up the allocation of land for use and forest for protection on contract to the households for long-term forest production and management, attracting them to the management and sustainable use of forest.

## **Introduction**

Vietnam in the mind of the people is a tropical monsoon country, a country of water rice civilization, a country that is developing and undergoing renovation. This idea is based on the physical, cultural social condition and the policy of economic development in the direction of industrialization and modernization of Vietnam.

Vietnam covers an area of 332,541 km<sup>2</sup> stretching from 6°50' N to 20°08' N latitude with the coastal line of over 3.600 km. Geological make-up is with complex topography, 3/4 of the country's area is mountains and hills. Natural environment is much differentiated giving rise to many ecological regions with high biodiversity.

Forest resource of Vietnam is very rich in the number of plant and wildlife species with various forest types: mangrove, *Melaleuca leucadendron* forest, forest on fresh water marsh, broad-leaved evergreen forest, semi-deciduous forest on low land, limestone mountain forest, alpine evergreen forest and mixed pine forest.

Up to now according to statistics Vietnam has over 7,000 high vascular tree species. As predicted by botanists there are at least in Vietnam 12,000 plant species of which about 2,300 species are already used by the people as food, foodstuff, medicine, animal feed, timber, essential oil and others.



Fauna of Vietnam is very rich. There have been listed 275 mammal species, 825 bird species, 180 reptile species, 80 amphibian species, 471 fresh-water fish species, about 2,000 sea fish species. The Fauna of Vietnam is not only rich in species composition but also has many unique features representing South East Asian region. Mean biodiversity index is 6.2% of the world.

In 1992 The World Conservation Monitoring Center (WCMC) classified Vietnam 16th in the world in biodiversity.

Environment protection, natural resource conservation do contradict with development activities. Economic growth is not possible without natural resources exploitation and industrial development. Being aware of the above problem, the Government of Vietnam always lays emphasis on economic growth being closely linked with ecological environment protection. The highest expression is the "Environment Protection Law" 12/1993 and some sub-law documents. Forest, ecological systems, nature reserves, natural landscapes, scenery spots, historical relics are regulated as environment components and in Vietnam forests receive focused attention among ecological matters.

### **1. Threats on biodiversity in Vietnam.**

The same as in other developing countries in tropical region, in Vietnam forests were formerly mainly used for forest products exploitation and little attention was paid to their environmental function. Therefore forest area gradually decreases, forest resources are depleted. Main causes of forest loss are:

- Most of forests lack actual masters in the context of loose implementation of forest law. Farmers are not economically motivated to actively participate in forest protection, planting and forest capital development. This is an overwhelming cause leading to deforestation.
- Poverty, shifting cultivation and unplanned migration of the population.
- Abused forest capital exploitation.
- Forest fire, wars and changing land use.

### **Context of forest management now in Vietnam:**

- Drastically decreased forest cover and deterioration of forest resources. In 1943, forest area in Vietnam was 14 million hectares, forest cover was 43%. There remains now only 9.3 million ha of forest (of which 1.1 million ha is forest plantation), forest cover: 28.3%. Most of the remained forests are poor or average ones with low timber stocking.

In 1976 - 1990 period mean annual forest loss was 190,00 ha.

In 1990 - 1995 period, mean annual forest loss was 35,000 ha.

- Fast population growth rate of over 2%. In 1997 the population of Vietnam was over 76 million, 51 million increase as compared with 1945. Fast population growth leads to higher and higher timber and firewood demand.

Moreover there are still in mountainous regions over a million of ethnic minority people practicing shifting cultivation or shifting cultivation combined with home moving.

- Timber and firewood supply relies mainly on natural forests because there are now only over a million hectares of forest plantations with low productivity.
- There implemented now in Vietnam the policy of pushing up forest planting, revegetating bare land and denuded hills as a step to ban natural forest exploitation. An active expression in implementation of this policy is to reduce mean annual timber exploitation from natural forests of 620,000 m<sup>3</sup> at present to 300,000 m<sup>3</sup> by the year 2000 and a special importance is the carrying of the project of planting 5 million hectares of new forests from 1998 to the year 2000 stated in Decision 661/ QD-TTg of the Premier.

## **2. Actual management of various forest types and forest land in direction of sustainable development**

Total forest land area is 18,692 million ha, divided in to: Forested area 9.3 million (of which 8.2 million ha is natural forest, forest plantations is 1.1 million hectares).

Forest land devoid of forest: 9.392 million ha Based on the use objectives, the forests in Vietnam are grouped in to 3 categories: Protection forest, Special-use forest; Production forest.

### **Protection forest.**

Total area 6.8 million ha (there exists now 3,478,700 ha of forests). It includes upstream watershed protection forest, anti shifting sand forest, wave breaking, mangrove forest, environment protection forest.

Coastal anti-shifting sand forest and coastal wave - breaking forest are already allocated mainly to the households in these regions for management and protection.

With upstream watershed protection forest, main objective is water conservation, soil protection against erosion and sedimentation in water reservoirs. This forest category is allocated to the Upstream watershed protection forest Management Boards. The 327 programme has also allocated protection forest to households for tending and protection on contract. The remaining is managed by forest protection force.

### **Special-use forest.**

Total area 2,092 million ha. (There exists now 898,300 ha), belonging to 105 special-use forest divisions, of which:

- National Park: 252,000 ha.

- Nature Reserves: 1,692,000 ha.
- Cultural, Historical, Environmental protection site: 147,886 ha.

The above-mentioned special-use forests are distributed in many regions in the whole country representing different climate belts and in places for of endemic plant and wildlife species in Vietnam. These forests are managed by the National Park and Nature reserves Management Board.

**Production forest.**

Total area: 9.8 million ha (now exists 4.9 million ha), of which:

- Natural forest: 4.2 million ha.
- Forest plantation: 0.7 million ha.
- Bare land and denuded hills: 4.9 million ha.

These areas are allocated to State Forest Enterprises, households, cooperatives and other organizations for forest production and management.

**3. Objectives in forest resource and forest land management and use in nature conservation action plan in Vietnam in the direction of sustainable development.**

Forest and forest land management is aimed at raising the protection capability, ensuring environmental security, diminishing natural calamities, conservation of gene sources and biodiversity.

**As regards natural forest:**

Implementation of the policy of least exploitation of natural forest towards total banning of exploitation. No exploitation is allowed where the ratio of forest cover is low. Pushing up forest planting; investment in processing and utilization of forest plantation wood; utilization of timber and firewood substitutes in production and construction by the people; timber import.

**As regards bare land and denuded hills:**

Planting 5 million hectares of new forest on bare land and denuded hills together with strengthening the protection of the existing 9.3 million ha of forest; raising the capability of national environment protection, bringing the forest cover up to 45% by the year 2000.

Contributing to creating more employment, raising the income and living standard of over 20 million people in the forested areas. Allocation of forest land for use and forest for protection on contract to farmers so that they can participate in forest production activities in contribution to elimination of hunger and alleviation of poverty, fixed cultivation and sedentarization in mountainous regions.

Wood supply for paper raw material, composite board production; meeting

the demand of timber, firewood and other forest products for home consumption and export.

#### **As regards system of special - use forests:**

Effort is made so that basic perfection is reached by the year 2000 of the area dimension of the special-use forest system with total area of about 2.2 million ha representing 10% of the forest cover in the whole country.

- Organizing well the protection of and prohibiting all activities harmful to flora and fauna of National Park and Nature reserves.
- Organizing well scientific research.
- Investment in infrastructure construction, socio-economic development serving the people living in buffer zones of National Parks and Nature Reserves.

Management and sustainable use of forest resources and forest land is one of the forest development strategies in Vietnam. Specially, the programme for planting of 5 million hectares of forest is one of the important directions for socio-economic development in midland and mountainous regions, pushing up forest and forest land allocation to households for long-term forest production and management, attracting the households to forest resources management and stable, sustainable use.

#### **References**

1. Biodiversity action plan of Vietnam, 12/1995.
2. Decree 02/CP of the Government on 15/1/1994 on land allocation to organizations, households, individuals for long-term use in forestry.
3. Decision 661/QD-TTg of the Premier dated 29/7/1998 on objectives, tasks, policies and organization of the implementation of the project for planting of 5 million ha of new forests.
4. Law on forest protection and development, Government - 8/1991
5. Law on environment protection, 12/1993
6. Plan of "Strong development of forest planting and revegetation of bare land and denuded hills as a step towards banning of natural forest exploitation" Ministry of Agriculture and Rural Development, September 1997.

## Afterword

---



## Afterword

**INOUE Makoto**  
**Acting Project Leader, IGES Forest Conservation Project**

Participatory forest management was the main topic of this workshop. To begin with, we discussed the following important issues, the information for which was based on field studies;

1) the contradiction between the legal system and local practice in degraded forest regions in Laos,

2) governmental trials to involve local people in national park management or biodiversity conservation in Vietnam,

3) NGO participation in participatory forest management in Bangladesh.

We confirmed that it was extremely important for the promotion of participatory forest management to change from a top-down approach to a bottom-up approach through cooperation among various actors, such as the local people, local and international NGOs, companies, and the local government.

Secondly, legal support systems were discussed. It was confirmed that national legal systems should be improved, in order to facilitate participatory forest management, in line with international treaties.

While we will continue our research activities in the second fiscal year or FY 1999, the fruitful discussion at the workshop has provided us with useful information.





## Information

---

### **Institute for Global Environmental Strategies**

Research Building of the Shonan Village Center  
1560-39, Kamiyamaguchi, Hayama-machi,  
Miura-gun, Kanagawa Prefecture, Japan 240-0198  
Phone: +81-468-55-3700  
Facsimile: +81-468-55-3709  
E-mail: [iges@iges.or.jp](mailto:iges@iges.or.jp)  
URL: <http://www.iges.or.jp>

### **[Tokyo office]**

Nippon Press Center Bldg. 8F 2-2-1, Uchisaiwai-cho,  
Chiyoda-ku, Tokyo, Japan 100-0011  
Phone: +81-3-3595-1081  
Facsimile: +81-3-3595-1084

2nd IGES International Workshop on Forest Conservation  
Strategies for the Asia and Pacific Region

Editors: Hiroji ISOZAKI and Makoto INOUE  
Editor staffs: Michio TAKAKU, Yoichi KURODA, Masanobu  
YAMANE, Martinus NANANG, Kimihiko  
HYAKUMURA, Kiyoshi KOMATSU and Saho  
MORIGUCHI

Published by the Institute for Global Environmental  
Strategies

All rights reserved  
© 1998 IGES