

## People's Participation in the Production Forest Management in the Middle Part of Lao

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**Abstract:** The objective of this research was to study the determine the socio-economic, the level assessment of people's participation in production forest management in the south east of Lao. The samples consisted of 111 villagers were live in Khangchone and Khorksavang village, who was asked complete the questionnaire. The survey data were analyzed by Microsoft Excel program, percentage, distribution, maximum, minimum, standard deviation, average values and Chi-square test research hypothesis and statistical significance level was set at 0.05. The results showed: people's participation in the production forest management were 3 activities participation in the decision making planning was never and total average points was 8.18, participation in implementation was rather much and total average points was 24.45, participation in monitoring and evaluation was a little level and total average point was 22.25, the conditions related to people's participation forest management at Khangchone sub-forest management area were the position within the household, the position of household leaders within the society and the receiving of forest management news.

**Keywords:** Community forest management, common property, socio-economic status, relationship of participation.

### Introduction

The rural of Lao PDR, forests play a vital role in the daily life of almost all-rural based people. There are heavy dependence on forest for the basic household needs such as fodder, fuel wood and construction timber. Due to heavy dependency on forests for various purposes, forest has been under the threat of depletion throughout the country.

Currently, sustainable forest management is important. The Lao government has an attended especially is the sustainability forest production management in all the country for intended on the supply wood and sustainability forest products, including a contribution in the society-economic development and improving of the people livelihood in rural areas.

More than 80 percent of local people surrounding production forest area are dependent heavily upon natural forest resources for their livelihoods. These local people are isolated and far from forest management regulations, laws, and policies. Although local people are encouraged to participate in sustainable natural forest resource use and management, there is a little progress.

This research will be detail information on the examine the social-economic, assessment of people's

participation and condition analysis significance to the people in production forest management at KaengChon sub-Forest management area, Dongphouoy forest production area, Khammouan province. This research analysis will be focuses on the level assessment of people's participation and condition relative to the people in forest production management. The result will to show of the people's participation and condition relative to the people in forest production management activities and evaluation was a little level. These will be need to study and examine the local people basic information for promote the people attend participation in sustainable forest management.

The main objective of this study is therefore to examine the source of different levels of participation in community forest management. The specific objectives are: 1. To examine the social-economic of the people in products forest management at Kaengchon Sub-Forest management area. 2. To the assess participation of the people in activities of the production forest management at Kaengchon Sub-Forest management area. 3. To examine the important condition analysis to the significance with the people's participation in the production forest management at Kaengchon Sub-Forest management area.



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The specific hypotheses formulated for analysis are:  
 1. What are examine social-economic conditions of the people involved to participate in products forest management? 2. What are their activities people participatory in implementing at the Kaengchon

Sub-Forest management area and how they do in activities? 3. How many main condition relations with the people participation in the production forest management at Kaengchon Sub-Forest area?

The research hypotheses identify variables are:

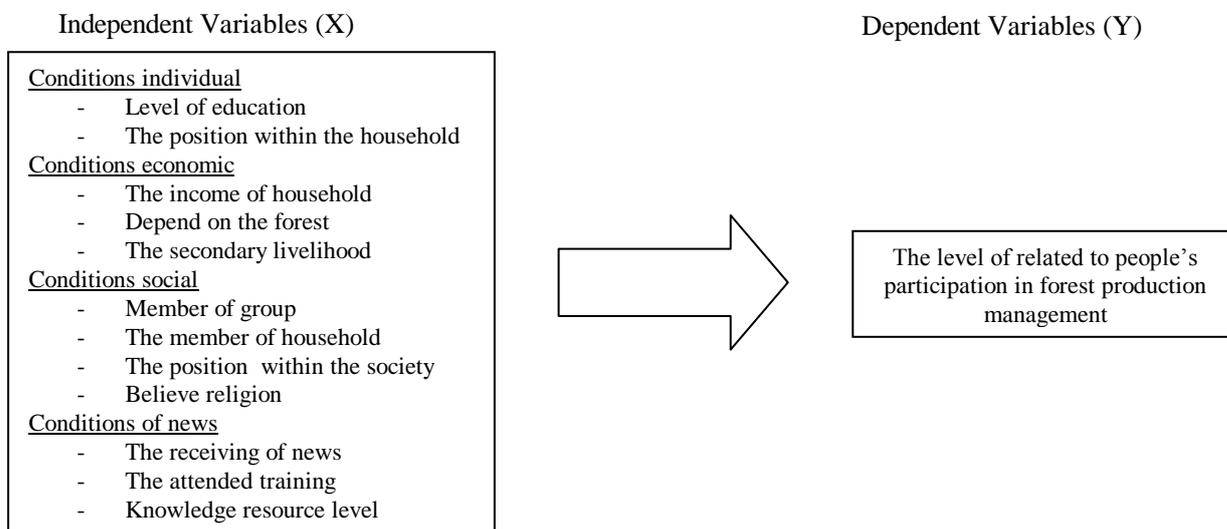


Figure 1: The research hypothesis above be can identify

### Literature Review

Production Forests are natural forests and planted forests classified for the utilization purposes of areas for production, and wood and forest product businesses to satisfy the requirements of national socio-economic development and people's living (Forest Law, 2007).

Participation is people invited to make decision by them-selves, step by step for resources management sustainable; (MAF, 2001).

Formerly, Laos was one of the richest forest heritages and biodiversity in both Southeast Asia and the world. However, the rate natural resources have rapidly decreased in a period of times. In the 1940's forest covered over 70% of the total area with the area of about 16.6 million ha, 47% in 1992 with an area of 11.2 million ha, and 41.5% (9.7 million ha) in 2006 (MAF 2006). Recently forest cover assessment in 2010 showed that the Lao forest cover rate remains only 40.3% with about 9.5 million ha (MAF 2010),

There are some 106 unofficial establishments of production forest areas (PFAs) in Lao PDR with a total area of 3,207,000 ha. The principal provinces are Vientiane (8 PFAs, 503,000 ha); Savannakhet (8 PFAs, 429,000 ha); Bolikhamxay (11 PFAs, 359,000 ha), and Xayaboury (13 PFAs, 350,000 ha). Almost half of these (~1.55 million hectares) have been sub-

ject of some kind of management planning with the largest areas in Savannakhet (7 PFAs, 327,000 ha), Khammouane (6 PFAs, 309,000 ha), Oudomxay (5 PFAs, 148,000 ha) and Xayaboury (7 PFAs, 105,000 ha).

Utilization and management of forest resources are considered important in fulfilling the policies target of poverty eradication. Sustainable forests utilization, forest protection and reforestation, with strong involvement of the local community are crucial strategies for government in forest management and poverty alleviation. There are a number of different types of community-based forest management with differences in forest owners types, functions of the forests, arrangement of partners responsibilities and benefit sharing systems (Manivong and Sophathilath, 2007). They include participatory forest management, collaborative forest management, and traditional forest management, community-based forest management for ecotourism, smallholder plantations and industrial plantations.

Community forests (CF) are widely considered an important vehicle for the environmental and livelihood security for the majority of the rural population as well as halting forest degradation, improving the supply of forest products, and improving the capacity for collective action and strengthening local level resource governance (Acharya,2002; Bhattarai and Khanal, 2005; Acharya,2005; Kanel, et al.,2005; Dangal,2002; Dev, et al.,2003; Dev and Adhika-

ri,2007). Governments in more than 50 countries are ceding some control over resources to local users (Agrawal,2001).

**Production Forest Management** There is no understanding of sustainable forest management Principles or harvesting within annual allowable cuts in the public, private or SOE sectors. This leads to over allocation of annual cuts and inequitable access to forest resources based upon the immediate exploitative needs of the industry and forest product market demand. Practices minimize investment and promote a "frontier mentality" as there is no security of access to forest resources. There is little understanding that the production forest resource is not inexhaustible, but being deforested and degraded at alarming rates. There is no concept of post-harvest management. There is little knowledge that prevailing planning and management of production forests is in direct contravention of their forest policy and strategic vision. (DOF, 2005)

The Lao Peoples Democratic Republic is particularly endowed with valuable, productive and ecologically unique forests which are not only a vital economic resource but provide essential contributions to the nutrition and income of the rural population and, in particular, the rural poor. They also provide a habitat for the nation's rich natural biodiversity and protect its soils, watersheds and water resources. Some eighty percent of the population are heavily reliant on the forest for timber, food, fuel, fibre, shelter, medicines, condiments and spiritual protection. In rural areas, forests provide one of the few available economic activities and non-timber forest products often provide more than half of a family's total income (MAF, 2006)

In 2001 forests contributed 3.2 % of GDP by log production and its share would be higher if subsistent use and processing of wood and NTFP were counted. Wood products also provided some 25 percent of total export earnings in 2001. In terms of energy consumption, wood energy, including charcoal and fuel wood, is the dominant source of energy for cooking, even in the capital city of Vientiane, and in highland areas it also provides necessary heating.

Since the 1970's, forest resources have been depleted at an astonishing rate due to several causes, In partial response, integrated approaches to natural resources management and livelihood improvement for sustainable development have become important measures during the last decade. Several strategies and national programs have been developed to achieve these aims. Within the forestry sector, over the last decade, the Government of the Lao

People's Democratic Republic (GOL) together with international agencies has supported local participation in the protection and management of natural resources, especially forests. Land use planning and land allocation began in the beginning of 1990's.

This initiative recognized local people's rights to use and manage resources, and has provided a guiding framework for all natural resources management in the country. (DOF, 1992)

The project forest production, (2000) said participation of people has to 6 elements:

- The participation in the form of benefits is mean participants from outside is a decision, local communities is a participants said that there is nothing that will happen or already occurred.
- The participation in providing information is meaning communities are participants in giving answers to official for help them to decision.
- The participation by giving recommend is mean people participation by giving recommendation, participants from outside is a consider, determine and plan the method correct problem, but maybe has the solution to the opinion of communities.
- The participation in the placement function is meaning communities participation in the people management into operation as planned, participants from outside is the control.
- The participation in the implementation role is communities participation in the analysis, leader of motion, the establishment of a new group of people or strengthen the already existing ones, the local people is decision in local, support them to improve the structure or implementation.
- The persuade is mean communities participation in the establishment of treatment, participants from outside is for convenience.

Sriphen Doulongdeth; (1986), said the participation of people can do by many ways as below:

- The conference (Discussion): is the participation in debate or content of the plan development directly between official and person outside with local people for question of public opinion.
- The debate is the comment, debate for understand to advantage and bad effect in other cases of other information detail for give people to understand.
- The consultation this is the method people must attend to committee in the committee of project management for sure have the voice of the people that was effected join to know and join to decision and planning.
- The survey is method for survey comment of people that is one way give people have occasion join to comment in other cases.

Based on past experience, forest management has been classified into different categories by different people in the country. Those classifications have generally been based on forest types; for example management of production forest, conservation forest, etc. and sometimes on ownership type, such as management of village forests, private-owned forests etc. In this report, since our focus is particularly on community contribution to forest management in Lao PDR, and participation of villagers is a key to achieving such a contribution, the degree of involvement of villagers in forest management is used as an initial step towards classifying the types of forest management into the following types: Participatory forest management (PFM), Collaborative forest management (CFM), Traditional forest management system, Community based forest management for ecotourism, Smallholder plantation and Industrial plantation

Bounthat latthipanya; (2006), Laos PDR said: the participation of people is many forms, the population different social structure, and participation also different; moreover it's up to the authorities and those concerned working with the public or individual in communities can cause to the participation of people differentiate, such as: probably to say have some factor can be help to participation of people occur as below:

1. The factor of officer: officer developed by the government or organization of personal that working with people want to have a positive attitude and consciousness right for example: acceptance of yourself the same people, believe and respect in the people, believe in the ability of the public, comments must be understand the nature of participation.
2. The factor of personal: the people working in development of communities such as communities' s leader, a person with ideas early will be motivate to the public are interested and help to participation of people in local development their own in the future.
3. The factor of management: is mean the principle of the regulatory state and regulation of organization develop personal to be appropriate because it works of government is the order of appearance that don't go by the development principle, because officer is not relationship and some time officer the lack of planning join with local people the participation is not good results.

To strengthen the role of forestry in poverty eradication, Government has established policy that villagers in production forest areas, organized into village forestry organizations (VFOs), should participate in forestry planning and operations at the field level and should share in the derived proceeds.

## Methodology

In this research, several methods were used, such as Microsoft Excel, analysis of Variance (ANOVA) method and multiple methods, to investigate the village and villagers household. Open discussion, survey around the villages, semi- construction interviews, and intensive household interviews were some of the activities. In order to clarify the situation in the villages, several general and specific questions were asked during meetings with the head of the village and representative of each household in the villages.

1. Descriptive analysis: For the analysis using descriptive statistics (qualitative method), where study data were collected in the form of statistical distribution are Frequency, Maximum Value, Minimum Value, the Percentages, Average, Quantitative and Statistical. (Quantitative method).
2. Significance analysis: The hypothesis test for correlation of variables to participation in the production forest by the method to calculate the Chi-square and assign valuable confidence level of 0.05 is mainly to test for correlation calculated as below:

The formula to calculate number of sample:

$$n = p \frac{N}{100}$$

where,  $n$  is the sample size,  $N$  is the total household (2 villages),  $p$  is the percentage of the household sampling = 70%.

The formula to calculate of conspicuous household: (Soubongkoth, 2526)

$$n_i = n \frac{N_i}{N}$$

where,  $n_i$  is the number of household sampling Village No.  $i$ ,  $n$  is the sample size,  $N_i$  is the total of household No.  $i$ ,  $N$  is the total household (2 villages).

## Study area

Dongphousoy Production Forest Areas (PFAs) is located in the south east of Lao PDR and is one of twenty one PFAs declared in decree 164/PMO, 29 October 1993. With an area of 5,959 square kilometer Core zones and corridors 3,000 square kilometer it is one of the largest in Lao PDR and covers 8 districts 129 Villages and three provinces. The Kaengchon Sub-Forest management area era at the Dongphousoy production forest the total area is 12,400 hectare, it is 1 in 6 sub-forest management in Xaybouathong district, Khammaun province. Which is Xaybouathong district manages was 1 in 3 Dongphousoy production forest management areas

Manage and sub management are under agriculture and forestry Xaybouathong district office by participating of villages forest 8 villages such as: Kaengchon, Kkorksavang, Napakha, Khamphanh, Nakhamchouang-N, Nakhamchouang-S, Phonsavanh,

and Phonsavang villages.

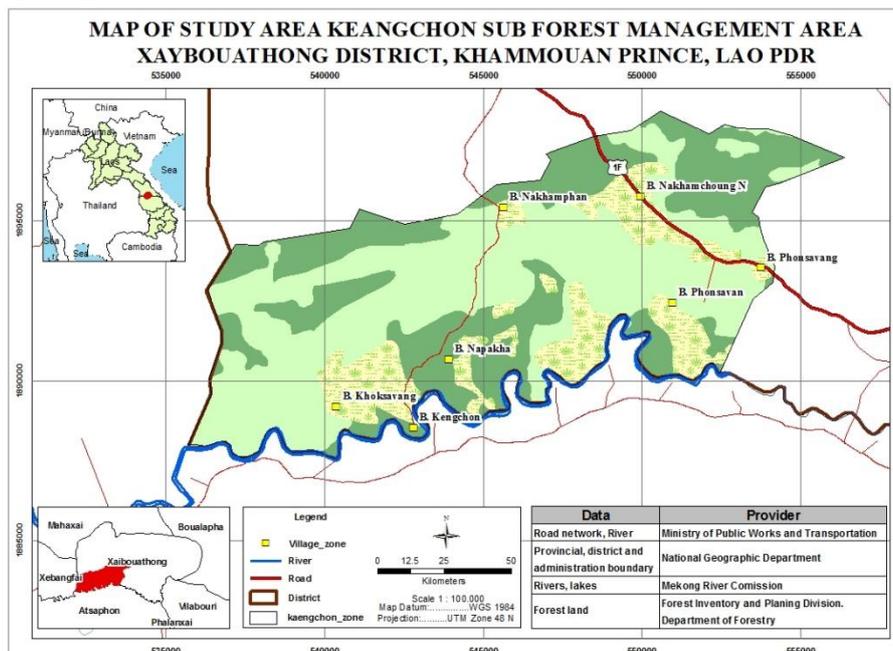


Figure 2: Map of study area

**Materials**

From field work, by consulting with the PAFO and DAFO, the village' selection, has been done based on location and all of activities in the production forest area We have 2 villages located inside production forest area, totals villages in this located 8 villages we have select two villages such as Keangchone village and Khorksavang village. The population will be specified from ages 16 to 60 years old.

Meeting with the villager representatives of all households among them the head of the village and villages committee for household's selection based on their wealth ranking were consulted. Then, household intensive interviews were conducted by our research team. Finally, a total of 111 of the total households in two target villages were selected for the analysis, the sample size of each village as below:

**Table 1: Number of sample households in each village which was used for the analysis**

Nam Villages	Total household (HH*)	Total Sample HH*
Keangchon village	118	82
Khorksavang vil-	41	29
<b>Total HH*</b>	<b>159</b>	<b>111</b>

Remark: HH\*= Household

**Result and Discussion**

1. Economical infrastructure and some customs of people in Kangchone and Koksavhang villages, Xaybauhong district, Khammouan province from

study found that: Men more than women all of them are Lao and all households believe in Buddhism compute in 100 percent, average age 40.82 year old, most education of them in primary level: 69.4 percent, members on average within household of 6 people, mebe's average group people have join in especially: rice bank group, village community fund, fabric weaving group, dependent on the forest in their daily lives are more especially firewood, hunting, using for animals farm, traditional medicines and NTFPs, knowledge and understanding to the forest resources found that: the most people knowledge, understand to forest resources utilities and other. The receiving of news had a lot of them were from news sources such as: village authorities, administrative district authorities, forester, radios and basic local officials.

2. People's participation production forest management found that: In the all conditions have never participated and have few participated such as: to join sharing idea, decision and planning, inspection and assessment but participation activities are in rather numerous, the same with Sysovath Phanduvong's analysis (2002) The studies found that: The local people participation in village forest project on somh village, Xaybouthong district, Khammouan province found that: Nature of participation local people in village forest project Somh village they had often participates activities, second attend planning, monitoring and evaluation levels because of this for urging them had more participate of all activities and ought to promote them for their performing role participation although giving comment, the decision to plan Role in monitoring and evaluation.

3. The analysis of main condition to relating with participation production forest management Kaengchon Sub-forest management area, which 12 hypothesis were located so the result found that:

Not belonged to the hypothesis were 9 as: amount of family members, secondary livelihood, income, being a member of group, depended on the forest resources, knowledge and understanding to the forest, religious believing, education level, training participation, not significance to participation production forest management or not participation which it same with Jounlathone sa-ad (2004) Was studies about Participation of people to community forest conservation case studies: Pasack communities King Amper Meapern, Nakhonsavanh province Thailand. The studies found that: Amount of members, secondary livelihood and income, being a group's member had not significance with participation in forest conservation. And Sane' Senmoon (2003) was studies: Comparing participation community forest conservation between Chongfai village Long district and Pong village Vangshin district Paer province: Studies had not significance with participation community forest conservation. Phaisouda Tridesa's (2003) was studies: People's participation community forest conservation Thongsoung village, Kabii province found that: Knowledge and understanding about community forest conservation had not effect to participation of people. Souvanh Phanounumpha (2000) Was studies: Socio-economic factors to people's participation forest resources conservation case studying in Pamaiphasay village, Nongparai district, Srabouly province found that: Number of household members had no effect to participation forest resources conservation of them.

Belonged to the three hypothesis as: The position within household, position within the society and receiving news have to relationship with participation production forest management, Which is con-

sistent with the analysis of Jounlathone Sa-ad (2004) Was studies: Participation of people to communities forest conservation case studies Pasack communities King Ampher Mearpern district, Nakhonsavanh province Thailand found that: Receiving information to significance participation community forest conservation, and Phaisouda Tridecy (2003) Was studies: Participation of people to the community forest conservation Case studies: Thongsoung village, Kabee province, studies found that: Social status and receiving information had affect participation in communities forest conservation. Reasons above had conditions to participate because, the most external conditions has promote such as: Socio-position, receiving information, therefore it makes people in the awareness of the meaning and importance of themselves and make them to understand there are role as a social and importance of implementing of above tasks to be assigned duties, especially in ownership in the participate production forest management in area responsibilities of them and forest benefits have to livelihood direction and indirection, cause of that the people in the areas concept to protect forests for sustainable support by another sources, especially Government. Experiment hypothesis result found that: the independent variable to used in analysis as: The position within household, the position within society and receiving information to participation significance or affect to participation of people in the production forest management at Keangchon sub-forest management area the significance statistics level of 0.05, but dependent variable such as: education level, household members, members of group, secondary livelihood, religious believing, depend on the forest, knowledge and understanding about forest, income, and participation training people had not significance or had not effected to participation in production forest management in Keangchon sub-forest area have to significance on statistics in level of 0.05 as table below

**Table 2:** Hypothesis summaries (dependent variables) there are people's participation production forest management at Keangchon sub-forest management area

dependent variables	Chi-square	DF	Value C	Significance	Hypothesis testing result	
					Belong to hypothesis	Not belong to hypothesis
Education level	4.991	6	0.207	0.545		×
Position within household	18.004	3	0.374	0.000	×	
Household member	0.524	3	0.069	0.914		×
Position within society	16.674	3	0.361	0.001	×	
Member of group	1.669	3	0.122	0.644		×
Secondary livelihood	1.566	3	0.118	0.667		×
Income	3.345	6	0.171	0.765		×
Depend on forest	0.000	0	0.000	No		×
Believe religion	5.851	3	0.224	0.119		×

Knowledge about forest-ry	0.603	3	0.073	0.896	×
Attended training	0.738	3	0.081	0.864	×
Receiving information	16.983	6	0.364	0.009	×

Remark: (×) Symbol of relationship or No relationship

**Conclusion**

This research the all household sample were interviewed there are 111 households, 82 households were sample in Keangchon village average in 73.9 percent, the sample in Khorksavhang there are 29 households 26.1 percent, the most people were interviewed were men 53.2 percent, average age 40.82 years old, mainly their education finished in primary level 69.4 percent, household members average 6 persons, most of them to be socio-member 98.2 percent, people 's mainly earning in the area are farmers 97.3 percent, and secondary livelihood to get more income for their families 95.5 percent, from various jobs of them and make their income average 4.459.189.2 kip per-year all of this income average is high in the rural area.

Most people understanding well about forest resources which can see the all score average 37.41 point, majority got from information sources that received the most were from village authorities 99.1 percent, second from administrative authority district 98.1 percent, another that got from forest villager, local officials, newspapers, radios, and TV more than 50 percent, people in the area got benefit from the forest especially to use building house, make fences, for firewood, for food and others 100 percent, most people had attended training or knowledge about production forest management 98.2 percent. The participation of people forest management activities in Keangchon Sub-forest management area they participate in three main activities such as:

1. Participation in sharing idea, planning decision the most were never to participate which can see the score average 8.18 points, cause of the people in this area had ever participate in planning because of when this activities during for meeting to plan the most common people did give their opinion to the any problems, who like to give the opinion are the concern in particularly authorities, forest unit village so regarding that participation to share idea and decision level is depend on the duties and measure of jobs which show their abilities.

2. Participation in implementation a relatively more level which can see the total average scores 24.45 points because of people in this area relatively more to get in participation implementation, because activities or various jobs to the production forest management the must be implement activities in field work most people have the opportunity to participate considerably. In addition villages forest group and

concerned organization.

3. Participation in monitoring And evaluation in a little level which it shows on the total average scores 22.25 points in case of people get in monitoring and evaluation lower level because, activities or another tasks in monitoring and evaluation are teamwork organize by village forest unit, and officers to engage in organizers.

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