
# THESIS

## COMMUNICATION AND PEOPLE PARTICIPATION IN THE CONSERVATION OF COMMUNITY FOREST AT BAN THUNG SOONG VILLAGE, AO LUEK DISTRICT, KRABI PROVINCE

**MD. ENAMUL HAQUE BHUIYAN**

**A Thesis Submitted in Partial Fulfillment of**
**the Requirements for the Degree of**
**Master of Science (Tropical Forestry)**
**Graduate School, Kasetsart University**
**2006**

ISBN 974-16-1722-4

# THESIS APPROVAL

## GRADUATE SCHOOL, KASETSART UNIVERSITY

Master of Science (Tropical Forestry)
**DEGREE**

Tropical Forestry
**FIELD**

Interdisciplinary Graduate Program
**PROGRAM**

**TITLE:** Communication and People Participation in the Conservation of Community Forest at Ban Thung Soong Village, Ao Luek District, Krabi Province

**NAME:** Mr. Md. Enamul Haque Bhuiyan

**THIS THESIS HAS BEEN ACCEPTED BY**

D. Pipatwattanakul
**THESIS ADVISOR**
( Assistant Professor Damrong Pipatwattanakul, D.Sc. )

S. Bhumibhamon
**COMMITTEE MEMBER**
( Associate Professor Suree Bhumibhamon, D.F. )

A. Pattaratuma
**COMMITTEE MEMBER**
( Associate Professor Apichart Pattaratuma, Ph.D. )

S. Bhumibhamon
**GRADUATE COMMITTEE CHAIRMAN**
( Associate Professor Suree Bhumibhamon, D.F. )

**APPROVED BY THE GRADUATE SCHOOL ON** 16 May 2006

Vinai Artkongharn
**DEAN**
( Associate Professor Vinai Artkongharn, M.A. )

# THESIS

## COMMUNICATION AND PEOPLE PARTICIPATION IN THE CONSERVATION OF COMMUNITY FOREST AT BAN THUNG SOONG VILLAGE, AO LUEK DISTRICT, KRABI PROVINCE

**MD. ENAMUL HAQUE BHUIYAN**

**A Thesis Submitted in Partial Fulfillment of**
**the Requirements for the Degree of**
**Master of Science (Tropical Forestry)**
**Graduate School, Kasetsart University**
**2006**

**ISBN 974-16-1722-4**

Md.Enamul Haque Bhuiyan 2006: Communication and People Participation in the Conservation of Community Forest at Ban Thung Soong Village, Ao Luek District, Krabi Province. Master of Science (Tropical Forestry), Major Field: Tropical Forestry, Interdisciplinary Graduate Program. Thesis Advisor: Assistant Professor Damrong Pipatwattanakul, D.Sc. 82 pages.
ISBN 974-16-1722-4

The aim of this research were to study socio-economic situation, people participation, uses of communication and media and the factors relating to people participation in forest conservation of Ban Thung Soong Community forest, Ao Luek District, Krabi Province.

The study sample consisted of 155 households from Ban Thung Soong village. Simple random sampling technique was employed in obtaining sampled households. The data were collected through questionnaire survey. Analysis of the data were processed by Statistical program and expressed in frequency, percentage, mean, and Chi-square Test.

The study found that most respondent was male and average age was 49.86 years old. Most of the respondents obtained elementary education. Their main occupation was agriculture. The average household income was 106, 438.70 baht per year. The average duration of staying in the village was about 40 years. Respondent's knowledge on forest conservation was relatively high. Most of them got benefit from the community forest. Level of people participation in forest conservation was moderate. In the present study, the people participation was divided into four phases namely problem identification, planning, participated in activities and follow –up and control. The results reviewed that people in Ban Thung Soong Village were participating in most phases accepted the problem identification phase. Communication and media was the most important factor influencing on people participation in conservation of community forest at Ban Thung Soong village. Educational level, main occupation, household income and respondent meeting with the officer were also influenced on the people participation. In addition, people exposed to communication and media for forest conservation through television (45.8 % everyday), radio (41.9 % once/ 2-3 days), family member (32.3 % once/ week), newspaper (59.4 % once/ week) and village meeting (79.4 % every month).

Student's signature

Thesis Advisor's signature

9 / 05 / 06

## ACKNOWLEDGEMENTS

I would like to express my deep appreciation to my Advisory Committee member Assistant Professor Damrong Pipatwattanakul, D.Sc. as my thesis advisor, Associate Professor Suree Bhumibhamon, D.F. as my major advisor, Associate Professor Apichart Pattaratuma, Ph.D. as my minor advisor and the Graduate School representative, Mrs. Rachanee Pothitan, M.S. for their valuable suggestions and directions in improvement of this thesis.

I am obliged to all of the villagers of my field sites in Ban Thung Soong who entertained me and endured my questions and queries. Particularly thanks go to Mr. Montri Khaosaard, head of village who gave me support in many ways.

Lastly, my appreciation devotes to my beloved wife Kakoli and little daughter Aria, who gave me company and encouragement throughout my studies in Thailand.

Md. Enamul Haque Bhuiyan
May 2006

# TABLE OF CONTENTS

# LIST OF TABLES

## LIST OF TABLES (CONTINUED)

## LIST OF FIGURES

# COMMUNICATION AND PEOPLE PARTICIPATION IN THE CONSERVATION OF COMMUNITY FOREST AT BAN THUNG SOONG VILLAGE, AO LUEK DISTRICT, KRABI PROVINCE

## INTRODUCTION

Thailand's forest areas has been declining in the last 40 years due to rapid economic and industrial development through the resettlement, expansion of agricultural cultivation, forest fire, infrastructure development in form of roads and dams, and natural disaster, land slide etc. In 1961, the total forest area of Thailand was about 171 million rais or 53.3 percent of the country's total land area. Between, 1961 and 1998, the forest area declined to 81 million rais or 25.28 percent of the total land area (Sutthisrisilapa, 2003).

Forest provides a great range of goods and services for the welfare of people as well as environment. People depend on forest resources for accommodate their socio-economic, livelihood and these requirements rapidly increase with the advancement of technologies and quality of life. People primarily rural communities highly depend on forest products for supporting their livelihood needs, spiritual and local traditions and also for employment. Therefore, this deterioration of the forest has adversed affect on the environments, societies, cultural heritages as well as livelihood of local people. In this regard, Thailand tries to find new ways of forest management to deal with the danger of forest loss and degradation. Community forest has been emerged as one solution to synergize the harmony of conservation and local people livelihood. Participation of local people in the management of forest resources seems to be a promising way to conserve remaining forest areas.

Thailand started to put more stresses on forest conservation such as conserving the existing forest by designating them as national parks and wildlife sanctuaries, relocation of forest dwellers, encourage private reforestation, and community participation. After the logging ban in 1989, forest management in Thailand changed its focus from logging the natural forest to conserving the existing forest by designating them as national parks and wildlife sanctuaries. In country's social and economic development plans, the target of forest conservation has been focused. The 9$^{th}$ National Economic and Social Development Plan (2002-2006), aimed to protect the conservation forest which should not be less than 30.5 % of the area and also emphasized community participation in management of the forest (Saranark, 2002).

Forest conservation in Thailand was started with the promulgation of the Wildlife Preservation and Protection Act (1960) and the National Park (1961). In 2000, 260 nature conservation areas (national park, wildlife sanctuary, forest park, non-hunting area, botanical garden, arboretum, biosphere reserve, watershed Class I and conservation mangrove forest) encompassing 16.6 ha, equivalent to 31.5 % of the country, had been established. Community forestry has been developed as a conservation strategy for efficient conservation of forest resources in cooperation with the local people both for biodiversity as well as rural economies. In order to maintain community forestry in a sustainable manner, people participation and an integrated

forest management are essential. It is increasingly recognized that people participation and their involvement in conservation of forest resources play a key role in success of conservation programs. However, the thought of participation can not be accomplished alone without communication. Communication is an important tool that makes mutual understanding among people acting as a bridge of people to implement activities under the same direction.

There have been many successful community forests in Thailand. Ban Thung Soong Community Forest is one of them where villagers have been conserving their community forest for many years. So this combined effort of local people contributing to make a healthy and productive forest for their livelihood as well as environment. Furthermore, they have been coordinating with many sectors ranging from their own village members, government agencies, private agencies, research institutions as well as donor agencies. Also they have a good communication among the villagers that creates in linking all people to participate in forest conservation. So it has been interesting to study the communication and media and other factors relating to their participation in community forest conservation.

## Objectives

1. To study socio-economic of people in Ban Thung Soong village.

2. To study people participation and their activities in Ban Thung Soong Community Forest conservation.

3. To study communication and media used by the people in Ban Thung SoongCommunity Forest conservation.

4. To study the factors relating to people participation in the conservation of Ban Thung Soong Community Forest

## Definition of Terms

**Ban Thung Soong Village** refers to the village where the study is conducted, located at Khao Yai Sub-district, Ao Luek District, Krabi Province, Thailand.

**Communication** refers to process of transferring messages both verbal and non-verbal from sender to receiver through the channel. In Ban Thung Soong Village, communication occurs in four formats namely family members, village meetings, head of village, and government officers.

**Media** refers to means of communication through which information relevant to forest conservation that villagers have received such as radio, television, newspaper, village broadcasting tower, village meetings, head of village, government officers, and family members.

**Socio- economic characteristics** refers to social and economic information characterized the villagers in the Ban Thung Soong community. These include gender, age, educational level, occupation, household income, settlement period, meeting with the government officer, benefit gained from the forest, and knowledge in forest conservation.

**Forest conservation** refers to activities in forest area for restoration, protection and improvement of forest resources in order to maintain present and future needs without destroying its original state.

**Ban Thung Soong Community Forest** refers to an area where people from Ban Thung Soong village agree to protect and grow trees and collectively to maintain these trees and other flora and fauna that they support.

**Forest conservation knowledge** refers to knowing and understanding about forest such as forest ecosystem, forest flora and fauna.

**People participation** refers to the involvement of Ban Thung Soong people in forest conservation activities. In terms of people participation, they are namely, problem identification, planning, practical activities, and follow-ups and control.

# LITERATURE REVIEW

## Concept of Community Forestry

The term 'community' refers to a group of people, interacting within a particular area (but within a larger society), with a shared history and common social, economic and political interests. A community possesses attributes that directly affect its development. These attributes or macro-social factors are actually the conditions a community finds itself in, that the level of technology, level of organization and degree of access to media and education (Genilo, 2004).

Consistent with Genilio's view, Homan (1999) (as cited by Usa Thongjang, 2004, p. 39) provided a description of community that reflects much of the characteristics of a community. A community consisting of a number of people who have something in common with one another that connect them in some way and that distinguishes them from others. The common connection should be a place, an activity or something like ethnic identification. Community usually consists of smaller communities. They have needs and when their needs are not sufficiently met and discomfort starts to community members ultimately community problem begin. Community change can be seen as social system change. The change is the process of producing modification or innovation in attitude, policies or practices in the community for the purpose of solving problems or providing overall improvement in the way community needs are mitigated which resulting in their better quality of life and social cohesiveness among the members.

Community forestry is viewed as new idea and concept. Community forestry is defined as a forest management system done by the community with the guarantee of accessibility to the forest. On the other hand, community forestry is the recognition of customary rights for the forest areas and the redefining of indigenous management system, which has been practiced for a long time (Subarudi et.al, 2003 p. 72). It has involved out dramatically with the realization that conventional forest management in developing countries is incapable of, and inefficient for people's active participation in forest conservation (Repetto, 1988, as quoted by Mohan Poudel, 2003 p. 43). Community forestry can be defined as a forest area managed by community for their own use. A traditional forest community is organized to conserve and sustainable manage the forest area. The organization has full authority to decide on the rules and regulations for common users. The forest area is clearly demarcated, and this is acknowledged by all other communities living in the vicinity. The main purpose of this kind of forest management is to respond fairly to the needs for survival of members of each community. Resources are therefore expected to be managed efficiently and sustainable basis (Pantasen, 1996, as cited by Lina Barrebo, 2005 p. 43). Community forestry has been seen means for regenerating and protecting forests in the remote areas and providing for the forest-based subsistence needs of the villagers (Sutthisrisilapa, 2003).

In the last two decades, Community forestry has evolved from an emphasis on raising the subsistence levels and reforestation activities, to looking at sustainable way community can make income from the management and utilization of forest resources. It is widely recognized that if community forestry properly planned and implemented can reduce poverty and make money. It gives ample opportunities to the participants to have food, fruit, fuelwood, timber, fodder, spices, medicinal plants and other essential non-timber forest products.

Community forestry is a conceptual transformation from traditional rural forestry to a new form with a strong focus on popular participation. Modern community forestry is based on forestry as a resource industry in which local people fully participate. It plays a key role in mitigating the interrelationships among economic, ecological and social factors in rural community development, helping the poor increase their income, lessening their burden, protecting forest resources, improving the quality of the environment, providing employment opportunities for the people, and, therefore, facilitating harmony between man and nature (Jiaqi, Zachernuk and Yongjun, 2003)

The community forestry program envisions the power of community to protect, manage and utilize the forest resources with the ultimate objective of raising the living standards of local community. The unique aspect of community forestry is people's participation in the process. However, the main characteristics of the community forestry are that it: recognizes the intimate relationship of people and forests; indigenous forest management systems; aims to meet the basic needs of forest products of the users; focus on increasing the benefits from forests for local people, especially women and disadvantaged groups; and involves local people in project identification, design, implementation, monitoring and evaluation (Poudel, 2003).

Asia is the region that has most effectively practiced community forestry, especially in a number of countries in South and Southeast Asia. In Southeast Asia, community forestry provides the greatest source of support for rural people providing fuel, construction materials, and animal feed for their livelihood. Kanel and Nirula (2005) stated that community forestry can provide all five livelihood capitals. Access to the forest products provides the natural capital. Income and employment through forest operations can generate financial capital. The sustainable management of the community forestry improves agricultural production and the biodiversity that in turn increase the livelihood assets to the people. The increased livelihood assets widen the choices and options to develop strategies of sustainable livelihood. In addition, there are various forest services, including climate regulation, soil and water conservation, aesthetic and religious values, which have positive impact on the livelihood of the people.

**Benefits from Community Forestry**

Community forestry provides a range of goods and services to the people. The benefit of community forest may be in the forms of firewood, charcoal, water for agriculture, food for medical herbs, wood for construction, protection against hazard arising from the degraded environment and recreation.

The direct benefit a community gets from conserving a forest is secured food sources. Forests provide food all year, including vegetables, leaves from trees, herbal plants, roots, tubers or bamboo shoots, mushrooms, and insects and animals found in swamps and streams. Forests are also sources of medicinal plants that villagers use in traditional remedies. Some community forests even act as "gene bank", which preserve genetic stocks of local plant varieties. In addition, villagers can use timber from community forests to build new houses or repair old homes.

From the experience of Nepal's community forestry, a case study done by kanel and Nirula (2005) shows that the impacts of community forestry are multifaceted and complex. Their nature varies from direct and measurable to indirect and non-measurable. The impacts of community forestry are grouped into two categories: biophysical and socio-economic, but the categories are neither exhaustive nor have clear boundaries among them. The most beneficial impact received from the community forestry program is the rehabilitation of degraded forests. As a result of the program, the degraded forest has now been transferred to sapling or pole stage forest. In addition, erosion control together with water source conservation is the major outputs brought about by the program. The increased number of flora and fauna in community forests could be an indicator that community forestry might be a viable option for bio-diversity conservation in Nepal. The study revealed that users of community forests have been receiving their needs of forest products from the forests. It was found that each household has been receiving an average amount of 1248 kg to 2359 kg of forest products annually for the last ten years.

The contribution of community forestry program in social capacity building and rural infrastructure building was substantial in the study area. It has also developed local level leadership and social cohesiveness among the forest users of different castes/ethnics, which help minimize the gap between higher castes and lower castes. Similarly, marginalized sector of the society including women has been empowered. Rural infrastructure building involves community development work such as school, road, and drinking water activities carried out through the support of Community forestry user groups.

## Community Forestry in Thailand

Thailand, 67 million of population in 2005, is a country in South-East Asia bordered by Myanmar on the North and North-West, Laos PDR on the North and North-East. The total land area of the country is 51.3 million ha. of which 25 % of the total land area is under forest cover.

During the past 3 decades, Thailand's forest area has been decreased rapidly due to slash-and-burn shifting cultivation, land resettlement, dam, road construction, and land reform for agriculture. A logging ban in 1989, slowed down deforestation, but logging could not be stopped fully. After the logging ban in 1989, forest management in Thailand changed its focus from logging the natural forest to conserving the existing forest by designating them as natural parks and wildlife sanctuaries. The government encouraged community forestry as a new ways of forest management to deal with the danger of forest loss and degradation (Saranark, 2002). A growing number of villagers claim their ability to manage the forest lands within the forest as community forests.

Community forest in Thailand are set up and organized by members of local community to manage nearby forest resources. They are considered as common local properties, which must be used wisely and equitably. The forest management system is based on collective local knowledge and wisdom and principles of community rights and ethics to ensure ecological sustainability and community livelihoods. Community members are responsible for all the planning, caring, monitoring and development of community forests.

In Thailand, community forestry has been developed for a long time in three typical conditions: the community in agricultural areas, the community around the forests, and the community within the forests. The purposes of these communities differ from each other due to their cultures and local traditions in conserving forests as water, food and fuel wood resources. There are three major kinds of community forests are as follows (UNDP, 2005):

1. Traditional community forests, which are passed down through generations. These tend to belong to communities that still hold strictly onto age-old beliefs and practices. Management strategies and mechanisms are well hidden within the belief system and community perceptions.

2. Community forests that are initiated by the locals. They could either be a newly settled in the same area or migrants who have to settle in the same area and saw a need to conserve a forest for certain reasons, e.g. for food and usages, or to provide grazing land for live stock.

3. Some community forests are supported by external agencies such as non-governmental organization, government agency, or monastery. Such support may range from funding, training, to rallying a union of members.

In Thailand, most community forest exists naturally in the Northeast and North of Thailand where ethnic communities and other local Thai forest dwellers still practice traditional and sustainable forms of forest management. A national inventory conducted by the Royal Forest Department in 1992 documented 12,000 rural groups protecting forest patches ranging in size from as few as one hectare to as many as 4,000 hectares. As of 1998, there are around 1,000 community forests in the Northeast and 300 in the North where traditional management systems are practiced in at least 328,000 hectares in the Northern uplands. The number of community forests in Thailand today is roughly 10,000. Their characteristics tend to vary by region. The North area is made up largely of highlands inhabited by various ethnic tribes, such as the Karen, Lua, Akha and Lahu. Most community forests here are original forests that are conserved and managed through traditional beliefs and cultures. In the Northeast region, villagers conserve patches of forests at the edges of their cultivated fields, to provide sources of food and medicinal plants. In the East, most community forests here is mangroves. They were set up when mangrove forest degradation became apparent and remnant through timber concessions and shrimp farms. In the Central region, community forests in this region are scattered around Uthai Thani, Nakorn Sawan and Suphan Buri provinces. Most of these forests are based on traditional ways and beliefs. In the South, community forests here range from watershed forests in the hills to coastal peat swamp forest and mangrove. Conservation of original forest trees, which are left growing intermixed with cultivated economic species, is also practiced at the family level.

## Concept of Forest Conservation

The term “Conservation” refers to the wise use of all natural resources, weighing up the pros and cons of development and looking to the future needs of society for the basic requirements of everyday life- food, housing, transport, leisure activities and, most important, quality of life in general. Conservation means all that man thinks and does to soften his impact upon his natural environment and to satisfy all his own true needs while enabling that environment to continue in healthy working order. Conservation of forest is great significance to sustainable development. Among the most valuable natural resources, forests play a key role in the maintenance of the watersheds that are essential to water and soil conservation. They provide shelter for wildlife, lumber for construction, cordwood for fuel, and pulp and paper. In addition, forests are cradles of civilization, places of beauty, sources of spiritual inspiration, and treasure houses of natural riches, closely linked with the physical, economic, and spiritual well-being of people (WWF, 2005). Forest conservation program manage forest resources that both make productivity and protect them.

Forest conservation is better for both biodiversity as well as economy of rural community. Improved conservation project not only are necessary for the production of more wood but also a good reservoir of employment. A managed forest, with its continuous production of wood and its recurring needs for silvicultural treatment, can provide profitable employment to many more people than a forest that is abused or not managed at all. For instance, in Denmark, 750, 000 acres of forest provide employment for about 6000 people, or one worker to 125 acres (Diller, 2005).

**Conservation of Ecosystems and of Biodiversity of Tropical Forests**

Tropical Forests have multiple important functions or 'values'. Non-use values include the conservation of habitats, ecosystems and species. Among the use values are such as food, pharmaceuticals, eco-tourism. Indirect use values include environmental services from the forest. In addition, tropical forests also have ethical, cultural, religious and aesthetic values. Forest conservation increasingly focus on complex, emerging issues, such as aboriginal rights and land tenure, protection of wildness parklands, preservation of urban recreational green space, and the use of forests for carbon sequestration. The livelihoods of mass people in developing countries are directly or indirectly rely on forests. Due to over exploitation and deforestation in tropical countries often results in loss of the ecological and biodiversity function of forests.

In order to maintain the tropical forest biodiversity resources, public support and sustainable management of forest are essential. It is increasingly recognize that public participation play a key role in conservation activities. Some experience has shown that indigenous forest communities and forest users can contribute to conservation, if there is a consensus among the stakeholders. Besides, local communities must be a part of the decision-making process and actions that take place in forest. In the $20^{th}$ century, citizen, conservation concerned focused on the quality- the health- of existing forest cover, with new information depicting tree's vital role in erosion control, wildlife habitat, biodiversity, and water and carbon cycling, people realized that healthy forests translate to a healthier planet and healthier people.

**Integration of Conservation and Local community development**

A growing trend in forestry places an emphasis on people participation and their livelihood development through forestry activities. Conservation is one of the important strategies, which strengthen the capacity of local communities to manage biodiversity and forest resources. This can be gained by improving the mandates of local communities, providing incentives, developing skills and awareness, promoting equitable planning and decision making, and by developing capacity for conflict resolution and benefit sharing. In addition, ensure that conservation and sustainable production of ecosystems and biodiversity are considered as part of broader land use planning and the improvement of livelihood strategies for forest-dependent communities. Sustainable forest management approaches should be developed, where feasible and appropriate, in conservation areas. The cultural and religious considerations have great effect on forest conservation. Therefore, ensure that the cultural and religious significance, and other non-productive functions, of trees and forests are enhanced through appropriate conservation strategy.

## Forest Conservation in Thailand

Forestry conservation issue was greatly felt due to rapid declining forest resources in Thailand for few decades. It was started with the promulgation of the Wildlife Preservation and Protection Act (1960) and the National Park Act (1961). The first comprehensive National Forest Policy was established in 1985. The target of maintaining forest areas was then set at 40 %, with 15 % classified as conservation forest area and 25 % as economic forest area. The goals of forest conservation are to protect the National Reserved Forests (NRFs), to conserve the nature conservation areas and the class 1 watershed areas under the National Forest Policy (1985) and the National Economic and Social Development Plans (NESDPs). The 8$^{th}$ NESDP (1997-2001) re-stressed conservation forest 25 % and economic forest 15 % and emphasized on citizen and community opportunities to participate in government projects on Natural Resources (NRs).

In 2000, 265 nature conservation areas (national park, wildlife sanctuary, forest park, non-hunting area, botanical garden, arboretum, biosphere reserve, watershed Class I and conservation mangrove forest) encompassing 16.6 million ha, equivalent to 31.5 % of the country, had been established. The number of visitors to the national parks reached 17.3 million in 2000. Watershed Class 1 areas throughout the country occupy 9.28 million ha or approximately 18 % of the country. Reforestation has been carried out on the areas denuded by shifting cultivation from 1953. Up to 2000, total watershed rehabilitation covered an area of about 210,000 ha.

Thailand has also carried out several program and activities under the World Conservation Union (IUCN), Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES); Convention Concerning the Protection of the World Cultural and Natural Heritage; Convention on Wetlands of the International Importance as Waterfowl Habitat (RAMSAR); Convention on Biological Diversity (CBD), Convention on Climate Change and Convention to Combat Desertification.

## Concept of People Participation

The term “people participation” is used in many ways, meaning different things to different people and agencies as well as country. Nobody can find a single universally-accepted definition of people participation. There are studies clearly indicate that the interpretation of people participation in a practical context varies considerably from one country to another, and may even vary between different regions within the same nation (Boonkong, 1998).

People participation is seen as a process by which people become involved at all stages in their own development, studying in their own situation and making decisions in research, planning, implementing, and managing, and decisions on the distribution of benefits to ensure equitable sharing. This lead to organized efforts to mobilize and have control over resources as well as gain better life, based on the development philosophy “achievement with the people, by the people and for the people”. Participation is the process through which stakeholders influence and share

control over development initiatives and the decisions and resources that affect them (Thongjang, 2004).

"Participation" has been the central concept of the last decades and nearly everyone refers to it. Yet, in practice, it covers many "non-participatory approaches. There are many arguments about the meaning of participation. Some see participation as the sign of genuine democratization of power, while others condemn the deceptive aspect of involvement, which does not allow access to real power.

Bessette (2004) stated that a good indicator of participation is when people take responsibility for carrying out a development initiative. This means that people are not taking part in different activities, but also in decision-making process and the planning of the development initiative. By means of participation, direct and active people involvement is enhanced, and the power of decision-making is decentralized downward or outward to people affected by the decision. People are able to organize themselves, are able to identify their own needs, share in the design, implementation and evaluation of the particular action. These lead to organized efforts to mobilize and have control over resources increasingly as well as gain people betterment.

Participation is defined as the involvement of a significant number of persons in a situation, which enhances their betterment, e.g. their income, security, and self esteem. Additionally, in the development process, participation implies motivating individuals to take the initiative and mobilizing people to work for overall social development. It is particularly likely to be achieved not only in the decision-making process for determining societal goals and the allocation of resources, but also in the voluntary execution of resulting programs and projects.

**Process of People Participation**

Based on forestry activities, people participation can be divided into 5 steps or process as follows (Rakjit, 2004)

1. Participation in planning

Local people should share their thoughts and ideas with others in formulating objectives, projects and activities of the forest. In this process, data on the problem and causes in local forest will be employed in planning operation.

2. Participation in problem identification and causes of problem

Local people should much aware of the problems and realize the importance of forest activities. If they are not concerned of the issues, forestry activities will go in vain, so it is necessary to activate the people and create awareness in local resident.

3. Participation in investment and operation

The implementation process needed a good coordination among various groups. This way, people will gain experience working with them, which will foster a feeling of being responsible for the expected result.

4. Participation in follow-up and control

Following-up and controlling should be in each process in order to monitor the progress. This information will track any problems or obstacle at the operation such as expenses, time, manpower, responsibility, etc.

5. Participation in product evaluation

In this evaluation process, people will understand that their efforts are beneficial in evaluating activities that will enable them to reach their final goal.

So, participation can be divided into 3 stages: planning, implementation and follow-up. At the planning stage, authorized agent guides cooperative activities. People participation is very limited. They assume a subordinate role. Generally, people admit and follow programs that have been worked out by community leader or city authorities.

At the implementation stage, most of participant's form at this stage is sharing of costs and furnishing of labor. These are two alternative principles of cost sharing. One is to make those people who will benefit bear the cost. The other is to let people freely make donation according to their perceived interests. Sharing of labor comes in two ways. One is a direct contribution of labor, and other involves contributing the monetary equivalent of one's share of the labor.

At follow-up stage, participation ends mostly at the implementation stage. People will continue to participate even in evaluating projects and in follow-up operations associated with facilities established through their activities.

**Level of People Participation**

Based on forest community, the level of people participation can be classified into 7 levels are as follows (Royal Forest Department: quoted by Pornpattana Rakjit 2004 p. 23- 24):

1. No participation

People involved in the project are forced to participate. If they do not participate, they will pay fine or be charged of breaking the law.

2. Least participation

People participate only getting some incentives such as wages, convences. They do not participate spontaneously.

3. Little participation

People interested to join in any project due to massive campaign or propaganda of project activities.

4. Moderate participation

People are requested to attend meeting followed by interview to ascertain their views of certain problems in the forest community. Then, government official solve these problem and initiate plans.

5. High participation

People start to participate by expressing their ideas and thoughts about planning and operating the project. However, decision-making still belongs to the government sector.

6. Highest participation

People have the opportunity to give advice and to make decisions about the problem, how it is to be solved and what the solution will be. They have the opportunity to make proposals and take action.

7. Ideal participation

People in the local community are the key persons in making decisions in important processes, from planning and operating to evaluating the project.

## Concept of Communication

Communication is defined as the process of understanding and sharing meaning. It is considered a process because it is an activity, an exchange or a set of behaviors, not an unchanging product. Communication is not an object that human can hold in their hands, it is the activity in which they were participated (Panichpan, 2005). Communication was also defined as a conscious or unconscious, intentional or unintentional process in which feelings and ideas are expressed as verbal and or non-verbal messages that are sent, received and comprehended (Thongjang, 2004). Bessette (2000) termed ‘communication’ as a tool to facilitate community participation in a development initiative.

Communication is one of the means in which human beings relate to one another. Any process in which people share information, ideas, and feelings is communication; the process employ the spoken and written word, but also body language, personal mannerisms and style, the surrounding- anything that adds meaning to a message. Thus human interaction takes place through the use of codes and symbols. Communication happens within a field of experience that occur throughout the life to give meaning to symbols and based on a relationship may exist between two persons or between one person to many.

Communication is an ongoing process in which people share ideas and feelings and get response through this process. The process includes source, receivers, messages, channels, feedback, and effect. The elements of communication stated by Ongkiko and Flor (2003) are as follows:

**Source** refers to a person or a group of persons "with a purpose, a reason for engaging in communication". The source initiates the communication process.

**Receiver** is the person or group of persons at the other end of communication process. He/she is the target of communication. The receiver listens when the source talks; the receiver reads what the source writes.

**Message** may be an idea, purpose, or intention that has been translated into a code or a systematic set of symbols. A message has three factors: message code, message content, and message treatment.

**Channel** provides the mode by which a message moves from the source to the receiver of the message. Both light waves and sound waves are major communication channels. Channels are determined by: availability, money, source preferences, which channels are received by the most people at the lowest cost, which channels have the most impact, which channels are the most adaptable to the kind of purpose of the source, and which channels are most adaptable to the content of the message.

**Effect** is the outcome of a communication or the response of the receiver to the message of the source.

**Feedback** is the responses the receiver returns to the source, which completes the cycle of communication or interaction.

## Communication as a Process

Communication is a human process of transferring or exchanging messages. It aims to attain mutual understanding and behavior change, which can create an impact to human society. It can be divided into two types such as verbal communication and non-verbal communication. Verbal Communication uses written or spoken words while Non-verbal Communication uses gestures, symbols, sounds, etc. to communicate a message. Communication is an interactive process, during which the participants try to come to agreement about the meaning of the messages being

communicated. It is also influenced by mental, emotional, social and emotional factors. Ultimately, the meaning of a message is not determined by the words, symbols or gestures, but the interpretation it gets in the heads of people (Jones-Walters, 2000).

Conventionally communication is viewed as transmission process of message. Through a communication process, a sender transmits a signal (message) to a receiver through a channel gets a feedback from receiver.

The message alone determines the effects of communication. It gives the impression that messages are always clear and that people are predictable in their responses: if we convey a specific message, we can be almost sure that the receiver will react in the way we expect. In reality nothing could be further from the truth. There are many factors in communication channel that can have an effect on communication and influence its result. The human communication is a vast field and ranges from talking to oneself to mass people. Communication occurs in several levels including intrapersonal communication, interpersonal communication, small-group communication and mass communication (Ongkiko and Flor, 2003).

Communication is vital in all areas of our lives. We live to communicate. We use it for persuasion; to influence relationships; to inform; to share; discover; and uncover information. Everyday we spend a much amount of time in communicating in various activities such as talk, listen, have dialogues with ourselves, watch television, and listen to radio, participate in group discussion etc. Besides our lives, it is very essential to achieve social common goal. People do not participate without communication that plays an important role in linking all people involved. Wood, 2001 stated that we constantly communicate without conscious, from birth to death, in order to reach our personal, professional, relationship, and social goals. People share information, ideas, and feelings through communication. The process involves not only verbal (spoken) or written words, but also nonverbal cues, such as body language, posture, and hand movements. It is no doubt that the essence of communication is naturally within each of us.

The importance of communication has been described as follows (Infante, *et. al.*, 1990).

**In creating cooperation**: communication is very important in enabling people to coordinate their efforts and to produce a variety of goods and services, which would be impossible if people were to work independently.

**In acquiring information**: the second key role of communication is to help people acquire information. Other than in cases of direct experience with the physical environment, information without communication is probably rare. Communication would not make the task easy, but it would make it simpler.

**In self- concept formation**: the third area in which communication is useful in forming our self- concepts. A well- accepted principle of communication is that how we perceive ourselves greatly influences our communication behavior. This is reflected in the adage, “What you say is what you are” or “What you say is what you think you are”. The point is that communication has been important in the formation of one’s self- concept, and communication can be used to change one’s self- concept. We can change our communication behaviors will cause people to react differently to us.

**In entertaining**: the previous discussion of the importance of communication gives the impression that humans are totally serious, goal- oriented, information seekers who proceed through life in search of kind of sober happiness. Although communication behavior may be the main component in a person’s working day, people turn to communication for entertainment.

**In a democracy**: communication is particularly prominent in selecting as idea from the market place of ideas. Aristotle believed that communication, especially persuasion, enabled people to discover what was good for society at a particular time and place. This way effective communication is so important in society. People will select the best candidate, approve worthy issues by referendum, and support good changes in the status quo if the communication is of such quality that the significant issues are understood.

## Concept of Media

Media are windows that enable us to see beyond our immediate surrounding, interpreters that help us make sense of experience, platforms or carriers that convey information, interactive communication that includes audience feedback, signposts that provide us with instructions and directions, filter that screen out parts of experience and focuses on others, mirrors the truth.

There is no precise or agreed definition of what to include or exclude as the main focus of media studies, but is generally accepted that the following comprise the core areas: television, radio, cinema, newspaper, magazines, advertising and popular music. They all share ability to large public audiences via the increasingly advanced technologies of print, video, sound, etc. Panichpan (2005) grouped mass media into two broad categories with certain attributes in common but with unlike physical characteristics. They are as follows:

Print: Newspapers, magazines, and books. Their words make images in the mind as well as convey information.

Electronic and Film: Radio, recordings, television, still and motion pictures, and video. These media produce their messages through visual and audio impact on the senses, sometimes with great emotional flow.

Primarily, newspaper, magazines, brochures, and direct mail dominate on the travel industry. The outdoor posters also include transit poster, taxi signs, bench signs,

and other variations. With poster you can location selectivity, large size, repetitive impact, decent color, and all things considered, a reasonable price.

Mass media are a pervasive part of our lives. Just how pervasive might become clear if we need to realize that different media have different primary uses. Not everything that happens in the world on any given day can be included in the newspaper, magazines, radio, television, etc. Mass media was used to disseminate to encourage public support for development programs, and generally to inform and persuade people to adopt modern technologies. Each of the experiences put you in contact with medium, or channel, of communication. Radio, records and types, newspaper, magazines, billboard, books, movies, television, advertising-all of these are mass media because they reach people in one time. Mass media has enormous impact. They have become so important, in fact, that they are often called simply “the media”.

The mass media are more than just a means of communication. They also contribute to our economy, influence social conventions and shape our political debates . The media serve as important sources of information of a wide range of topics, especially politics and public affairs. The mass media also plays an important role in transmission of attitudes, perceptions, and beliefs.

## Related Researches

Thongjang (2004) studied on the contribution of development Communication Factors to Na So Community’s Empowerment in Na So Sub-district Yasothon Province. Its development communication was assumed as effective and efficient. The study found that Development Communication Factors affecting Community Empowerment of Na So Farmers were preferred watching Television than listening to radio, reading books and other printed documents, listening to Village Broadcasting Tower, interpersonal communication (in three formats: daily conversations among themselves at their neighbor’s houses, own homes, village center, or the village shop; attendance in village-level meetings; and communication with the organizations’ staff-Na So Farmers Group and ENF) , people media ( staff of the working organizations, villagers’ representatives in the village) , message from Na So Farmers Group.

Chaiwirattana (2001) studied on communication strategies for sustainable development of community business for women groups in the central region of Thailand. The main objective of this study is to determine successful communication strategies and other relevant factors in motivating community members to join and sustain membership in a community business aimed at self-sufficiency. It was found that interpersonal communication was the most effective communication strategy in community business for women farmer groups in the Central region of Thailand. Excellent human relation is a main characteristic in Thai culture especially in the village level provides a strong reinforcement for communication in community business. Informal channel; word-of-mouth were used by most members, followed by meetings, training, and administrative orders. Television was effective in motivating

members to sustain their involvement in the group. Group communication, being formal in nature, does not appeal to a great extent to target audiences.

Rakjit (2004) studied on communication methods and people participation in promoting mangrove conservation. The study was conducted at Bangkaew Sub-district of Samut Songkhram Province in Thailand. It was found that among the communication methods, group communication and interpersonal communication had significant relationship with level of participation in promoting mangrove forest conservation. Group communication used was informal meeting, formal meeting and training. The respondents preferred to communicate mangrove information through informal meeting. Interpersonal communication used such as village headman, government official and family member. The respondents preferred to communicate mangrove information with government official as first source of information as it disseminated them about the most concept of mangrove forest. The respondents participated in mangrove forest conservation at high level.

Worrapukboonya (2004) found that factors related to people participation in mangrove conservation were age, subsidiary occupation and being membership of social group.

Horadee (2004) studied on people's participation in conservation of Mu Ko Lanta national park, Amphoe Ko Lanta, Changwat Krabi. The study found that the factors affected the people participation in this park were main occupation, being the membership of social group, information receiving, having experience about the participation in forest resource conservation activities, knowledge about the law of the respondents, and the opinion on the foresters.

Sangphan (2002) studied on factors affecting people participation in management of Khao-Cha- Ome Community Forest, Chon Daen District, Phetchabun Province and found that factors affecting people participation in management of Khao Cha- Ome Community Forest were social activities, training program and got news from the management of forest community.

JSa-ard (2002) studied on people participation in the conservation of Pang-Sak Community Forest, King Amphoe Mae-Poen, Changwat Nakhon Sawan. The research found that factors related to people participation in the community forest were the receiving the forest conservation news, experience in conservation training, and the relationship with forest community extension officers.

Termsriveerakul (2002) found that the forest conservation was highly significant related to the factors on being member of Khao Rao Thieng Thong Community Forest, meeting with forest officials, attending the training courses, obtaining benefits from the forests, and level of education, respectively**.**

Pinpak (2000) studied on people participation in forest resources conservation and land use at Ban Jan, Tambon Huai Sai, Amphoe Nong Khae, Changwat Saraburi. The result indicated that all of the independent factors namely sex, occupation,

education of household heads, household income, duration of resettlement, household member, social group member, no of household labors, availability of supplementary occupation and size of land holding have no affecting the people participation in forest resources conservation with statistical significance at 0.05 confidential level.

Achariyacheevin (2000) studied on the people participation in forest resource conservation on Khok-Nong Takrong Forest, Tambon Nong-Khamarn, Amphoe Khu Muang, Changwat Buri Ram. The results of the study found that significant factors affecting people participation in forest resource conservation were information received, expected benefits obtained from forest resource conservation, learning and understanding in importance of forest resource conservation, sex and participation in social group.

## Conceptual Framework

People participation is the key to success of a development program with the active involvement of local people, making the program sustainable. A growing trend in community forest places an emphasis on people participation and their livelihood developments through forestry activities. Therefore, people participation in forest resource conservation has been considered as a main focus of study. In this study, it is hypothesized that local people participate in forest conservation activities and that participation is related to gender, age, educational level, main occupation, household income, communication and media in general in village, communication and media for forest conservation, meeting with the officer, knowledge in forest conservation, settlement period, and forest benefit. The process of people participation in community forest conservation activities has been divided into 4 steps or process namely problem identification, planning, practical activity, and follow-up and control. Here the relationship of the independent variables and dependent variables are shown as below**:**

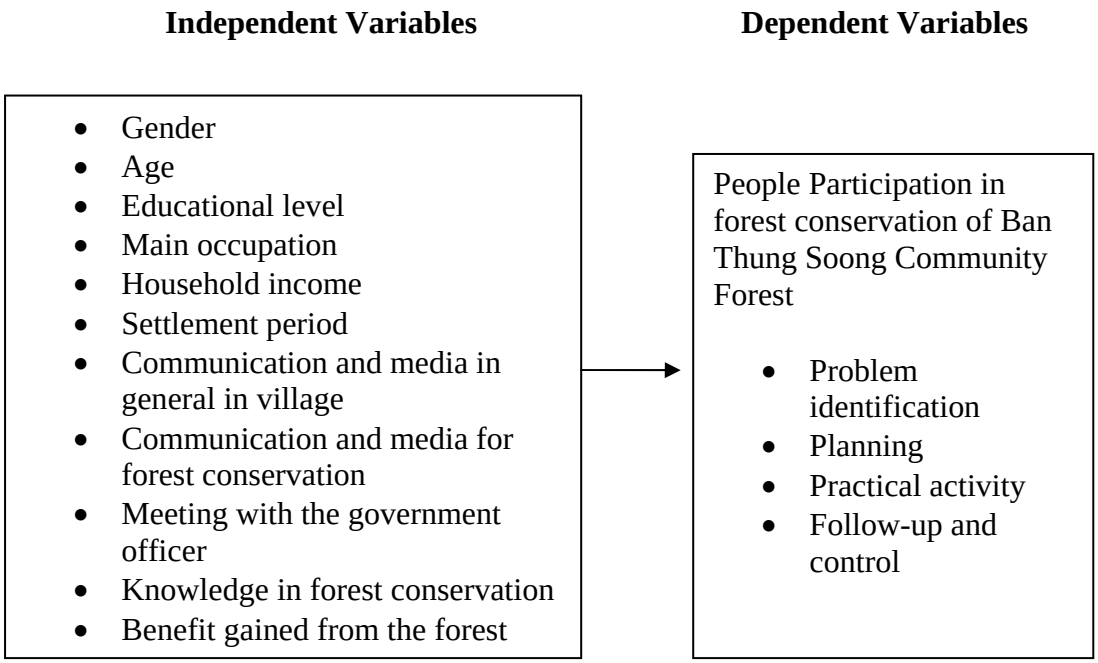


Figure 1 Conceptual framework.

## Research Hypothesis

Based on the conceptual framework, the hypotheses are developed as follows:

1. Gender is relating to people participation in Ban Thung Soong Community Forest conservation.

2. Age is relating to people participation in Ban Thung Soong Community Forest conservation.

3. Educational level is relating to people participation in Ban Thung Soong Community Forest conservation.

4. Main occupation is relating to people participation in Ban Thung Soong Community Forest conservation.

5. Household income is relating to people participation in Ban Thung Soong Community Forest conservation.

6. Settlement period is relating to people participation in Ban Thung Soong Community Forest conservation

7. Communication and media in general in village is relating to people participation in Ban Thung Community Forest Conservation.

8. Communication and media for forest conservation is relating to people participation in Ban Thung Soong Community Forest conservation.

9. Meeting with the government officer is relating to people participation in Ban Thung Soong Community Forest conservation.

10. Knowledge in the forest conservation is relating to people participation in Ban Thung Soong Community Forest conservation.

11. Benefit gained from the forest is relating to people participation in Ban Thung Community Forest conservation.

# MATERIALS AND METHODS

## The Study Area

In this study, the data was collected in Ban Thung Soong (BTS) Village in Krabi Province. Krabi is one of the Sothern Provinces in Thailand and located at the Andaman Sea Shore. Ban Thung Soong is one of the five villages of Tambon (Sub-district) Khao Yai of Ao Luek district of Krabi Province. The village is located between latitudes 8 27 and 8 30 North, longitudes 98 42 and 98 45 East and located about 64 km north-east of Krabi City. The village is bordered by:

North: Sub-district Na Nua, District Ao Luek District, Krabi.
East: Sub-district Khi Ri Wong, Plai Praya District, Krabi.
South: Ban Nai Yuan Tai Village, Sub-district Khao Yai, Ao Luek District, Krabi.
West: Sub-district Ma Rui, Tup Pud District, Phang Nga.

BTS village are classified as a flat and hill terrain with the ground surface in the 30- 350 m Mean Sea Level (MSL). There are three hills that bordered BTS landform which are, on the north, northeast and northwest village area, namely Khaun Ying Wau Hill, Khao You Hill and Lang Tang Hill. BTS Community Forest was flourished from Khaun Ying Hill. Figure – shows the map of the village.

The climate of the village is typically characteristic of tropical monsoon climate and influenced mainly by three monsoons which are southwest, northwest, northeast monsoon and also by cyclone and depression storms. There are two seasons occurred in this area such as Rainy Season and Dry Season. The rainy season occurred from late April to December, approximately for nine months. Dry season extends from January to April.

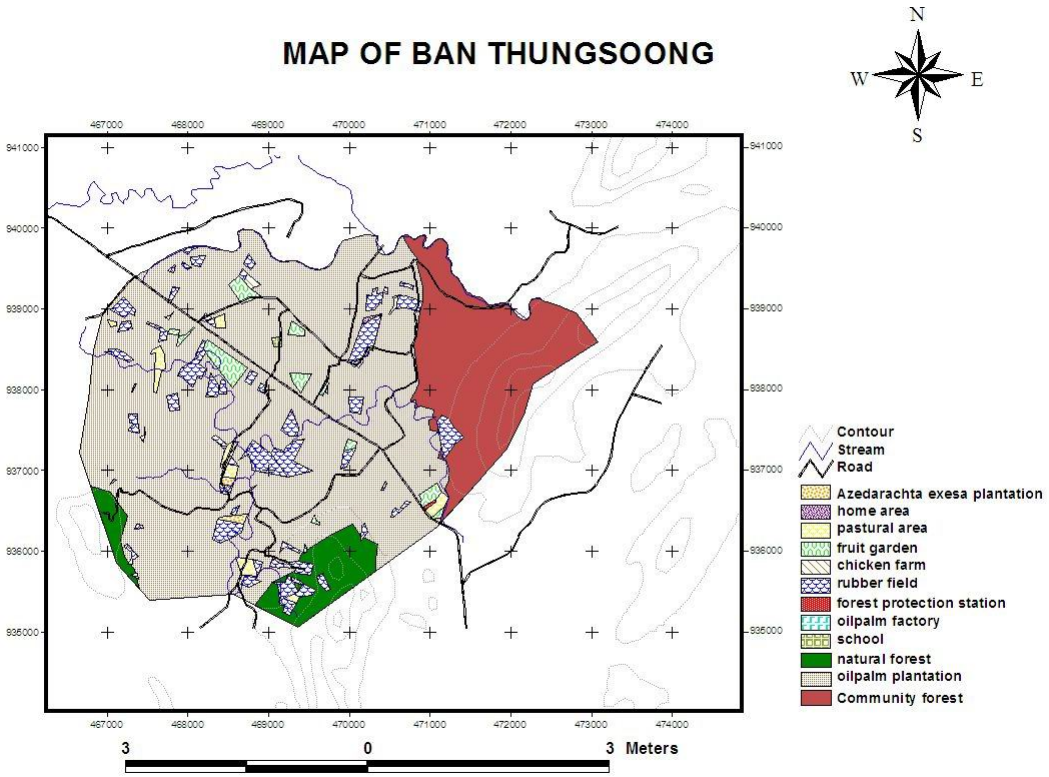


Figure 2 Map of Ban Thung Soong Village

The average monthly rainfall ranged from 3.2 mm to 412.8 mm (annual rainfall 2,224.5 mm). The minimum rainfall occurred during January influenced from the northeast monsoon. The maximum rainfall normally occurred in September due to the southwest monsoon from the Indian Ocean. The annual temperature of the area exhibited variation. Temperatures for the year range between 16.9 and 37.3 degrees Celsius; annual rainfall averages 2, 586.5 mm. The highest temperature of 36.6 C was recorded in February and May and the lowest temperature of 19.5 C occurred in December.

## Materials

In this study, interview schedule and equipments were utilized to conduct data collection and data analysis are as follows:

1. Stationary and calculator
2. Camera and film
3. Map of study area
4. Questionnaire (interview schedule).
5. Computer and package program

## Methods

The study was carried out at Ban Thung Soong Village of Khao Yai Sub-district, Ao Luek District where community forest has been conserved by the local people since several years. The data were collected during February, 05-February, 2006 through discussion with village committee members on issues such as strategy and approach of forest management, fund collection, process of people participation, decision making and information dissemination, influence of media on their social life. The direct field observation was also made the study. Focus group discussion with members of forest conservation group, women group, youth group, ageing group were organized separately to analyse the present and prospects of their participation in community forest conservation. The key people who are familiar with the community forest activities were also interviewed. A structured interview schedule was conducted among the 155 households (Calculated from Yamane formula with 5 % level of significance) randomly selected in the village. The objectives of this was to get information on socio-economic condition of people in study area, people participation and their activities in community forest conservation, communication and media used in the village, and factors relating to people participation in community forest conservation. The necessary information was collected from sub-district administrative office, local village office, and provincial forest office. The details of the activities are as follows:

### 1. Introduction of the study

The introduction of the study was the first stage in order to achieve the objectives. At the first stage, the researcher introduced the study to the villagers and informed the study objectives, as well as to seek for possible cooperation from them.

### 2. Preliminary survey

During the preliminary survey, visit to the village and community forest was done to get idea about the general picture of the village in terms of culture and daily living activities as well as present forest status. The researcher discussed with the village head, former village head, and members of village committee. It was found that they are very happy having born in this village. They have been bonded together

with same culture, which are focused through their way of life and thought. Majority of the villagers involved in oil-palm and rubber plantations.

## 3. Population and Samples

The entire population of the study was 252 families who are involving in conservation activities of community forest in the village. Women of the village play a supportive role in forest conservation. Based on this, 155 samples were selected for data collection. Simple random sampling was done for this data collection. For sample size determination, Yamane (1973) formula was employed.

$$n = \frac{N}{1 + N(e)^2}$$

Where e = Error of confident interval (0.05)
N = Number of population
n = Number of sample size

## 4. Data collection

A structured questionnaire was mainly employed for data collection through randomly selected in the village. Data collection was done for about one year (February, 05-February, 2006). During this time, interview/group discussion with the group of villagers, key persons, youth group, women groups were conducted on the issues such as present forest conservation activities, strategy and approach of forest management, process of participation in forest conservation, forest produce collection and distribution system, decision making and information dissemination.

## 5. Data analysis

Quantitative data was analyzed by statistical software package. Descriptive statistics included frequency, percentage and chi-square test were employed to determine the relationship between factors and people participation in community forest conservation.

# RESULTS AND DISCUSSIONS

## 1. Background information of the Village

### 1.1 Khao Yai Sub-district

Khao Yai is the name of a Sub-district (tambon) in Ao Luek District in Krabi, a province in the southern region of Thailand. It covers the area of 70 sq. km (43,750 rai). The district is connected with Na Nua Sub-district (Northern), Khi Ri Wong Sub-district (East), Ao Luek Tai Sub-district, Ao Luek Nua Sub-district, Ma Rui Sub-district in the west. The Sub-district includes 5 villages namely Kao Lom, Tung Ka Dee Gun, Nai Yuan Tai, Thung Soong, and Hin Dan.

### 1.2 Ban Thung Soong village

Ban Thung Soong is one of the 5 villages in Sub-district (Tambon) Khao Yai. The village is located between latitudes 8° 27 and 8° 30 North, longitude 98° 42 and 98° 45 East. It has an area of 43, 750 rai. The village is 14 km far from the town of Ao Luek district, and 65 km away from the city of Krabi. The village is rich in forest resources and agriculture related farming. The forest is still in good condition. The villagers are being proud of this forest. The village is also the "center of agricultural technological transfer" in the Sub-district where demonstration and training are given to the people. Moreover, active people participation and communication in implementing development activities of the village are also present among villagers. This is a good indication of social cohesiveness and understand the common property concept among the members in the community.

#### 1.2.1 Land use

The topographical feature of the village area is flat and hill terrain with silty clay and silty sand soil. The hill landform is lied on the north, northeast and northwest boundary of village, namely Kao Mai Kaew, Khao Yai and Lang Tang hill, respectively. The total area of the village is 43, 750 rai. The land use type of village is comprised of the forest 7,300 rai, rubber plantation 15, 329 rai, oil palm plantation 15, 729 rai, fruit orchard 1, 944 rai, home garden 566 rai, household settlement and other land use 2, 890 rai. Among the 7,300 rai of forest area, 3000 rai located at lower land and 4,300 rai at mountainous area. This forest has been recognized as Ban Thung Soong Community Forest in the village.

#### 1.2.2 Population

Its population is 252 families or 1056 persons. Among them 49 % are male and 51 % are female (Source: village office, Ban Thung Soong, 2006).

1.2.3 Economic, social condition and basic services

1. Main occupation: farming (oil palm, rubber, mixed fruit orchard, agronomy and vegetables)

2. Education: 1 primary school, 1 local/village newspaper reading center

3. Religion: almost 100% Buddhism but 2 Christian family just migrated from another place.

4. Having and using sanitary toilet: 100%

5. Telecommunication center: 01

6. Local transportation: having main asphalt road connecting with other Sub-districts

7. Having electricity used: 100%

8. Natural water resources: 2 streams passing through the village namely Klong Thom and Klong Bang Nam Sai; among them, Klong Thom starts from Ban Thung Soong Community Forest and ended inside the village area.

9. Community water supply: 30% of households are provided by pipe-line water supply system.

## 1.3 Ban Thung Soong Community Forest

Ban Thung Soong Community Forest flourished from Khao Mai Kaew hill, a part of the mountain range passed beside the village, which has been conserved, protected and rehabilitated by the villager for more than 10 years. The forest is mainly divided into two portions as high land and low land. The total area of the forest is 7,300 rai. It was the secondary forest that succeeded from logging. Forest type of Khao Mai Kaew is tropical moist forest on the limestone mountain forest. These forest areas are dominated by *Dipterocarp* sp., *Hopea* sp., *Memecyclon* sp., *Eugenia* sp., *Ficus* sp., etc. In addition, non-timber forest products like bamboo, edible mushrooms, rattan, medicinal plants are available in the forest. There was National reserved forest before establishing community forest. More than 100 years ago, only 6 families lived in this village. In the old days, the villagers grow upland rice, maize, pumpkin, long bean, taro, sago palm in lower part of the forest and also raise pig, water-buffalo, chicken as a way of their life. They collect timber from the forest to construct their house, furniture and cooking purpose. People used to collect resin from trees of *Dipterocarpus alatus*. This resin was used for making torch. They sold the product in nearby village market Pak Lao and purchased their essential things. From the history, it was known that a devastating natural disaster caused the severe damage of big trees in the forest Kuan Ying Wua Forest in 1961. It resulted in a decreasing diversity of wildlife and important plants in the forest. The situation also opens to access the sawmill owners to log the felled trees. This way, the commercial trees were felled over the area very rapidly.

More than two years after the storm, the people of Ban Thung Soong started to realize that valuable forest resources were rapidly disappearing from the area which was the source of food, medicine, water for their livelihood. So, they took

necessary initiative for controlling the logging operation in the forest. They also protested against the government policy of giving lease to the private company for raising oil palm plantation as well as they organized themselves in protecting the forest from the destruction done by illegal logger and influential people of adjacent area. A forest protection committee was formed by the then head of the village for the control of the forest resources. They coordinated with their own members, government agencies and local welfare organizations to help them for safeguard of the forest. At present, Ban Thung Soong Community Forest can be put forward to be a good community forest in conserving the forest resources in the country.

The community is well organized and has developed necessary management skills to sustain their activities in community forest conservation. They have established a committee named as "Community Forest committee" to run the activities concerning forestry issues in the village. The committee consists of fifteen members. The main responsibility of the committee is to ensure the restoration of the forest. During the visit to community forest, it was observed that different species were present and density of the present stock is increasing satisfactorily. The people of the village are very aware of their forest and they always keep their attention for its protection.

People participated in almost all of the forest conservation activities such as cleaning the forest, tree planting and campaign, forest protection duty. Besides this they attend in village forest committee meeting and exchange ideas and views with the villagers for the improvement of the forest. They provided cooperation with the researchers, students, nature-lovers, tourists as well as any outsiders who came to visit and develop their forest. They also play a supportive role in creating awareness among their children about the significance of forest and trees in human life.

They have a good communication network ranging from their own members of 252 families, local government agencies, research agencies and educational institutes. In the year of 2001, her majesty Queen Sirikit came to visit Ban Thung Soong village to recognize the people of the village for contributing their efficient participatory approach in forest conservation. She emphasized on wildlife conservation and released mouse deer, 4 kind of tortoise, wild fowls to the Ban Thung Community Forest. In addition, she donated 100,000 Baht, using the money for protection of forest and wildlife.

### 1.4 Forest benefits to the Ban Thung Soong Community

Forest provides a wide range of goods and services to the people. It is widely recognized that millions of rural people depend on forests for their livelihood and that forests provide a "safety net" particularly important to the poor (Kanel and Nirula, 2005). In addition, there are various forest services, including climatic regulation, soil and water conservation, aesthetic and religious values, which have positive impact on the livelihood of the people. In Ban Thung Soong, people had been closely linked to the forest for sustaining their livelihood from the old day. They used to collect timber, pole, bamboo, medicinal plants, food for their livelihood and

economy. With the realization of the importance of forest, they have been conserving, protecting and preserving the forest for many years.

Ban Thung Soong Community Forest is a small watershed under controlled system which has positive impact on the village getting water for agricultural cultivation. Villagers gather some minor forest products for their own uses and for the communal activities through sustainable management practices. It was also found that social cohesiveness among the villagers has been developed through the participatory approach of Community Forest conservation in the community which is the unique aspect of the Ban Thung Soong Community.

## 1.5 Communication and media in the community

Communication, indeed, is an essential part of human life and society. In addition, communication is an important instrument that creates mutual understanding among people serving as a bridge of people to implement activities to achieve a common goal. In any development process, communication facilitating people participation, employing the use of appropriate media to convey significant messages, to encourage certain development action for the target people. The think of people participation in natural resource management has been greatly felt by the government and aware section of the society for a last decade. However, the thought of participation cannot be accomplished alone without participation. Participation allows the local people to share, to get and to solve their problems or serve their needs with their available resources. Therefore, communication is important ingredient of people participation in natural resource conservation. In this research study, the communication and media used in general in the village and for community forest conservation was explored through observation of people and their daily life, and discussion with key persons, various groups in the village.

### 1.5.1 Communication Strategy

In the study, the villagers in the Ban Thung Soong Community, executed communication in various formats: They did their conversation among themselves at their neighbor's houses, own homes, village center, or the village shop; attendance in village-level meetings; and communication with government's staff. In the old days, the villagers mass communication places were temple, coffee shop and nearby market. Another way of communication was gathering of people in various festivals where they met and talked each other exchanging views and ideas among themselves. (Discussion with Village Committee, 15 October, 2005). The head of village act as main media who disseminate general official news and information to the villagers. Besides, village representatives of Sub-district brought information concerning development of the village for the villagers. At present, village meetings were considered as a main communication means for the villagers. This was a main forum where information flow circulated regarding community issues for development of the village. Although villagers communicated with the government staff from Provincial Forest Department and Department of Agricultural Extension worked in the village and various Research Institutions.

### 1.6 Media exposures and preferences

Media are a pervasive part of our lives. Mass media was used to disseminate to encourage public support for development programs, and generally to inform and persuade people to adopt modern technologies. Each of the experiences put you in contact with medium, or channel, of communication. Radio, records and types, newspaper, magazines, billboard, books, movies, television, advertising-all of these are mass media because they reach people in one time. Mass media has enormous impact. They have become so important, in fact, that they are often called simply “the media”. Villagers of the Ban Thung Soong Community exposed to media everyday in their daily life. There was a considerable influence of media in the development of Ban Thung Soong Community. These media could be in various types i.e. Television, Radio, Newspaper, Magazine, Village Broadcasting Tower, Village meeting, Government officer, Head of Village, and Family members.

Television, Radio, Newspaper, Magazine, Village Broadcasting Tower Television was found as a most popular media among the villagers. Most of the villagers watched television in everyday. According to them, television could present moving picture with colors and sound. They admitted that there favorite television program were news, drama and movie. Some of them liked religious and environmental programs. About the view of drama, they expressed that it had both positive and negative impact on the society. They used to watch channel 7, 9, and 11 depending on their time. They also said that from channel 9 and 11, they received information on trees, nature and environment. In terms of radio, people listened to program broadcasted from Radio of Thailand and MCOT (Mass Communication of Thailand) in Krabi. All most of the members of the Committee read newspaper everyday. ‘Matichon’ was mostly read by them. (Discussion with Village Committee, 15 October, 2005).

During the discussion of Teachers from Ban Thung Soong School about the view of media on Children, they expressed that television had some good parts and bad parts. Kids were sensitive to fashion and drama of television program which could change their way of thinking. In addition, television had less response to traditional culture and wisdom. The school had only one television set and one radio set. Sometimes they arranged Compact Disk (CD) on popular cartoon for children’s in the school. During the visited to the school, all the students of the school performed aerobic exercise with the music of Compact Disk (CD). It was found that kids were less read newspaper. This teacher group stated that television was their chosen media because it distributed widely and could more motivated people (Interview with Teachers of Ban Thung Soong School, 4 July, 2005).

In interview with the Village Youth Group, they were asked about television, radio and magazine. They mentioned that television was mostly watched by them among the media. Channel 3 and 7 was most popular to them. They also viewed Channel 5 and 9 provided them with information on trees, wildlife and environment. Their convenient time of watching television was 5.00 o’clock in the afternoon. The most favorite television programs were news, drama, music, cartoon

and game show. Few of them listened to radio. Only music program was listened by them broadcasted from Phuket and nearby Phanga Province. Regarding newspaper reading, most of them read 'Thairath' and ' Matichon'. ' 'Thairath' was most popular newspaper to them. They also read magazine of 'TV Pool' (Discussion with Village Youth Group, 11 May, 2005).

There is a Village Broadcasting Tower nearby the Village which has been one of the most important medium used to transfer news and information to the community members. This media announced the news in every morning and evening.

## 2. Socio-economic of people in Ban Thung Soong Village

The socio-economic of the respondents can be characterized by gender, age, educational level, main occupation, household income, settlement period, meeting with the government officer, benefit gained from the forest, and knowledge in forest conservation. Table 1 summarized the socio-economic characteristics of Ban Thung Soong villagers. Table 2 summarized people meeting with the government officer. Table 3 summarized people gained benefit from the community forest. Table 4 illustrated people knowledge in forest conservation.

### 2.1 Gender

Male respondents were 64.5 percent whereas female respondents were 35.5 percent.

### 2.2 Age

Age of the respondents ranged from 19 to 84 years old with a mean of 49.86 years. Most (43 %) of the respondents belong to the 41-50 years old followed by those belonging to less than 40 years old (25.8 %). The group who were older than 60 years (24.5 %) came in third. In Ban Thung Village, there is a ageing group who involved in social welfare of the village.

### 2.3 Educational level

Most (78.7 %) of the respondents finished basic education, only 7.1 percent and 5.2 percent finished secondary school and technical school, respectively. There are 3.9 percent of respondents who did not have formal education, while only 3.2 percent and 1.2 percent obtained Bachelor degree and above, respectively. The findings indicated that education for the villagers of Ban Thung Soong was the most important thing in their life. There is a primary school located in the village established by the villagers in 1961. After completion primary level, 20 percent of the pupil goes to secondary level. There was no secondary school in the village, but parents were able to send their children to school in Ao Luek or Banjan. Most of the students went to vocational training. Moreover, the school had a standard text on environmental education which includes forest and trees, collection of debris, minor forest produces etc.

### 2.4 Main occupation

The people of Ban Thung Soong Village were engaged in mainly agriculture farming such as oil palm and rubber plantation, and home garden, livestock and other temporal work. From table 1, it was showed that the main occupation of the most (84.5 %) of the respondents was related to farming related, while rest (15.5 %) of the respondents work in other field (small business, labor).

### 2.5 Household income

Considering the amount of income per year of the respondents families, table 1 showed that 27.1 percent respondents families obtained income were above 100,000 Baht, while 23.9 percent respondents was less than 60,000 Baht. Between 60,001 and 80,000 Baht was 22.6 percent, while 26 percent respondent's income ranged from 80,000 to 100,00 Baht. The mean annual family income was 106,438.70 Baht, was not valid to be interpreted as an average income because the difference between the maximum (1200000 Baht) and the minimum (6000 Baht) values was very high. In term of source of their families' income, majority (88.4 %) earned income from agriculture farming, while 19.4 percent earned income from livestock, 4.5 percent from agronomy, and 14.8 percent from wage of labor. Only 8 respondents earned income from small business.

### 2.6 Settlement period

Finding indicate that most (38.1 %) of the respondents residing in the village less than 30 years, while forty-two (27.1 %) respondents were residing more than fifty years. Only 23 percent had been settled in the village ranged from 31-40 years and 31 percent residing ranges from 41-50 years in the village. The respondent's average settlement in the village was 39.44 years. From the history, it was known that about 100 years ago, there were only 6 families in this village. It was found that, most of the villagers were native to the village and few of them migrated from other areas. But the villagers were living happily together with a unique harmony.

### 2.7 Meeting with the government officer

In terms of government officer, the Forest extension officer from Royal Forest Department office and Agricultural Extension officer from Department of Agricultural Extension office who came to work in Ban Thung Soong village. Forest Extension officer involved in promoting tree planting and forest resource conservation activities in the village through training, meeting and discussing with the people. Moreover, Agriculture Extension officer worked with the introducing of new agricultural technology and farming system among the villagers to adopt this innovation for increasing agricultural productivity resulting quality life of the people.

Results showed that most (66.5 %) of the respondents met and talk with the government officer more than one time in a week or month or year, while 33.5 percent of the respondents never meet and talked with the government officer.

Table 1 Summarized the socio-economic characteristics of the respondents.

(n = 155)

| Characteristics | Number | Percent |
|---|---|---|
| Gender | | |
| - Male | 100 | 64.5 |
| - Female | 55 | 35.5 |
| Age (years old) | | |
| - Lower than 40 years old | 40 | 25.8 |
| - 41-50 | 43 | 27.7 |
| - 51-60 | 34 | 21.9 |
| - More than 60 | 38 | 24.5 |
| Mean= 49.86, Standard deviation= 13.87,Range= 19-84 | | |
| Educational level | | |
| - No education | 6 | 3.9 |
| - Pass the basic education | 122 | 78.7 |
| - High school | 11 | 7.1 |
| - Technical school | 8 | 5.2 |
| - Bachelor degree | 5 | 3.2 |
| - Higher than Bachelor degree | 3 | 1.9 |
| Main occupation | | |
| - Agriculture and /farming related | 131 | 84.5 |
| - Other | 4 | 15.5 |
| Household income (Baht)* | | |
| - Less than 60,000 | 37 | 23.9 |
| - 60,001-80,000 | 35 | 22.6 |
| - 80,001-100,000 | 41 | 26.5 |
| - More than 100,000 | 42 | 27.1 |
| Mean=106438.7097, | | |
| S.D. = 132654.94, | | |
| Range= 6000-1200000 | | |
| Sources of income | | |
| - Agriculture | 137 | 66.8 |
| - Livestock | 30 | 14.6 |
| - Home garden | 7 | 3.4 |
| - Wage of labor | 23 | 11.2 |
| - Other (small business) | 8 | 3.9 |
| Remark: The people answer more than one time. | | |
| Settlement period (year) | | |
| - Less than 30 | 59 | 38.1 |
| - 31-40 | 23 | 14.8 |
| - 41-50 | 31 | 20.0 |
| - More than 50 | 42 | 27.1 |
| Mean= 39.44, | | |
| S.D.= 17.86, | | |
| Range= 2-84 | | |

Note: *1 US Dollar equal to 40 Baht

Table 2 Frequency of meeting with the government officer by respondents

(n =155)

| Frequency of meeting (week/ month/ year) | Persons | Percent |
|---|---|---|
| Never | 52 | 33.5 |
| More than one time | 103 | 66.5 |

### 2.8 Benefit gained from the forest

The people of Ban Thung Soong got benefit from their community forest in two ways-tangibly and intangibly. In the old days, the forest was the main source of their livelihood. They used to collect timber, fuelwood, fodder, minor forest produces and wildlife protein. In the year of 1961, a natural disaster caused in a decreasing diversity of wildlife and valuable timber species in the area. With that consequence, heavy logged was carried out over the area resulting the negative impact on the area. Since that forest resources conservation activities had been initiated by the active involvement of the people. As a result, the productivity of the forest had been increased. At present, the community forest mainly acted as a small watershed for the village. It started to give water for irrigation in the village. In addition, the villagers collect a controlled amount of edible minor forest produces and medicinal plants. In communal purposes, they collect timber, fuel wood and minor forest products under the regulations of village community forestry committee. Moreover, the community forest was the source of amenity of their way of life. Results indicated that most (77.4 %) of them got benefit from the forest, while 22.6 percent respondents said that they did not get benefit from the forest (Table 3).

Table 3 Benefit gain from the forest by the respondents

(n=155)

| Benefit gain | Persons | Percent |
|---|---|---|
| No | 35 | 22.6 |
| Yes | 120 | 77.4 |

### 2.9 Knowledge in forest conservation

From the Table 4, the results showed that the average mean of the respondents' knowledge was 0.97. The highest mean was 1.00 and the lowest mean was 0.85. The results also showed that the respondents had high mean on questions concerning importance of forest conservation, flora and fauna while results revealed that the respondents had low mean on questions concerning income opportunities of forest and government responsibility of forest conservation.

Table 4 Respondents' knowledge on forest conservation

(n =155)

| Items | Number (%) | | | |
|---|---|---|---|---|
| | Yes (1) | No (0) | Mean | Interpretation |
| 1. Forest provides food, fodder, timber for rural people. | 150(96.8) | 5(32) | 0.97 | Average |
| 2 .Forest conserve soil and water resources. | 154(99.4) | 1(0.6) | 0.99 | High |
| 3. Forest makes income opportunities for rural people. | 148(99.5) | 7(4.5) | 0.95 | Low |
| 4. Forest conservation will ensure future generations the environmental and economical value they do today. | 154(99.4) | 1(0.6) | 0.99 | High |
| 5. If there is no forest conservation, forest may deplete in the future. | 155(100.0) | 0 | 1.00 | High |
| 6. Forest rehabilitation and conservation is government's responsibility. | 131(84.5) | 24(15.5) | 0.85 | Low |
| 7. Community-based forest conservation will ensure sustainability of forest. | 154(99.4) | 1(0.6) | 0.99 | High |
| 8. Forest restoration increasing flora and fauna in the area. | 152(98.1) | 3(1.9) | 0.98 | High |
| 9. Over- exploitation of forest resources causes destruction of forest. | 152(98.1) | 3(1.9) | 0.98 | High |
| 10. Community people are best managers of the forest. | 154(99.4) | (0.6) | 0.99 | High |
| Total mean = | | | 9.7 | |

### 3. People participation and their activities in Ban Thung Soong Community Forest

People participation is seen as a process by which people become involved at all stages in their development, studying in their own situation and making decisions in planning, implementation of activities that create socio-economic opportunities for raising productive employment and income levels and for enhancing quality of human well-being. On the other hand, participation is a set of strategies to achieve certain ends. In terms of forestry activities, people participation has been considered as a key factor because people's acceptance and cooperation making the program sustainable. In review of literature study, people participation has been divided into five steps or process as participation in planning, participation in problem identification, participation in investment and operation, participation in follow-up and control, and participation in product evaluation. In Community Forest of Ban Thung Soong, people were actively involved in their community forest conservation. They voluntarily contribute their labor in different activities of community forest. People shared their thoughts and ideas with others in formulating objectives, projects and

activities of the forest. They did cleaning, patrolling, tree planting, releasing fishes and wildlife, and tending operations in the forest.

All participatory activities in Ban Thung Soong forest conservation go through the four phases, namely problem identification, planning, practical activities and follow-ups and control. For each of the phase, several concerns were identified where people participation could be assessed. Level of people participation could be classified as Low (1.00-2.33), moderate (2.34-3.66) and high (3.67-5.00).

### 3.1 Participation in problem identification phase

Problem identification is the process through which people understand the problems concerning their community life and participating finding out the causes for better solution. This is the most important process because if the local people lacks an understanding of the problems and does not realize the importance of forest, forest conservation will be useless. Therefore, problem identification is requisite for the success of their effort.

Participation in problem identification phase consists of ten activities namely soil erosion, illegal cutting, wildlife hunting, over exploitation of resources, failure of rehabilitation program, conflict in the group, non-cooperation of government agencies, local elites' influence, weak committee, and mismanagement of community forest. Table 5 showed the respondents participation in different activities of problem identification phase. The results found that respondent's overall participation on problem identification were at low level. This meant that people did not have activity in problem identification phase. The lowest mean found on the activity of local elite's influence and conflict in the group were 1.97 and 1.98 respectively. This indicated that they did not have any dispute in the community. And also there was no local interference over their matter regarding community forest. Rather, a strong social harmony existed in their community.

### 3.2 People Participation in Planning phase

Planning is a systematic guideline for action. A plan identifies goals and objectives, and the systematic steps to be taken in achieving these objectives. In planning process, people share their idea with others in formulating organization goals, projects, and activities. Participation in planning phase were divided into ten activities namely, planning of community forest objectives, information collection, decision-making, formation of working committee, working plan, implementation, benefit-sharing mechanism, process of people participation, needs assessment, and communication plan. The results in Table 6 showed that respondent's overall participation in planning phases were moderate level. From overall participation, most (56.1 %) of the respondent's participated at moderate level. The lowest mean found for the activity of benefit-sharing mechanism in community forest. This indicated that people did not care about the benefit from their community forest. They only shared and cared about the community forest for community interest and also indirect benefit of the forest. Ban Thung Soong Community Forest served as small watershed system

for community people. Since the conservation of the community forest, people started to get water for their livelihood.

Table 5 Respondent's participation in different activities of problem identification phase

(n = 1 55)

| Activities | Number (%) | | | | | | |
|---|---|---|---|---|---|---|---|
| | Most (5) | More (4) | Moderate (3) | Less (2) | Least (1) | Mean | Level |
| Soil erosion | - | 7(4.5) | 25(16.1) | 114(73.5) | 9(5.8) | 2.19 | Low |
| Illegal cutting | - | 8(5.2) | 17(11.0) | 114(73.5) | 16(10.3) | 2.11 | Low |
| Wildlife hunting | 2(1.3) | 7(4.5) | 14(9.0) | 113(72.9) | 19(12.3) | 2.10 | Low |
| Over-exploitation of resources | 1(0.6) | 2(1.3) | 23(14.8) | 114(73.5) | 15(9.7) | 2.10 | Low |
| Failure of forest rehabilitation | - | 1(0.6) | 22(14.2) | 22(14.2) | 22(14.2) | 2.01 | Low |
| Conflict in the group | 1(0.6) | - | 19(12.3) | 110(71.0) | 25(16.1) | 1.98 | Low |
| Non-cooperation from government officer | - | 3(1.9) | 23(14.8) | 102(65.8) | 27(17.4) | 2.01 | Low |
| Local elite's influence | 2(1.3) | 3(1.9) | 17(11.0) | 99(63.9) | 34(21.9) | 1.97 | Low |
| Weak committee | - | 2(1.30 | 20(12.9 | 105(67.7) | 28(18.1) | 1.97 | Low |
| Mismanagement of community forest | - | 2(1.3) | 16(10.3) | 111(71.6) | 26(16.8) | 1.96 | Low |
| Overall participation | - | - | 21(13.5) | 102(65.8) | 32(20.6) | 1.9 | Low |

Table 6 Respondents' participation in different activities of planning phase

(n= 155)

| Activities | Number (%) | | | | | Mean | Level |
|---|---|---|---|---|---|---|---|
| | The most (5) | More (4) | Moderate (3) | Less (2) | Least (1) | | |
| Community forest objectives | 10(6.5) | 42(27.1) | 86(55.5) | 12(7.7) | 5(3.2) | 3.26 | Moderate |
| Information collection | 8(5.2) | 42(27.1) | 85(54.8) | 11(7.1) | 9(5.8) | 3.19 | Moderate |
| Decision-making | 6(3.9) | 48(31.0) | 77(49.7) | 18(11.6) | 6(3.9) | 3.19 | Moderate |
| Formation of working committee | 6(3.9) | 51(32.9) | 73(47.1) | 20(12.9) | 5(3.2) | 3.21 | Moderate |
| Working plan | 7(4.5) | 33(21.3) | 87(56.1) | 20(12.9) | 8(5.2) | 3.07 | Moderate |
| Implementation | 6(3.9) | 33(21.3) | 91(58.7) | 14(9.0) | 11(7.1) | 3.06 | Moderate |
| Benefit-sharing mechanism | 2(1.3) | 14(9.0) | 89(57.4) | 35(22.6) | 15(9.7) | 2.70 | Moderate |
| Process of people participation | 10(6.5) | 65(41.9) | 53(34.2) | 21(13.5) | 6(3.9) | 3.34 | Moderate |
| Needs assessment | 7(4.5) | 22(14.2) | 92(59.4) | 22(14.2) | 12(7.7) | 2.94 | Moderate |
| Communication plan | 6(3.9) | 19(12.3) | 90(58.1) | 29(18.7) | 11(7.1) | 2.87 | Moderate |
| Overall participation | 6(3.9) | 32(20.6) | 87(56.1) | 18(11.6) | 12(7.7) | 3.01 | Moderate |

### 3.3 People participation in practical activity phase

Participation in practical activity in the community forest includes regular committee meeting, protection duty, tending operation, tree planting, releasing fishes, releasing wild animals, training, meeting with extension officers, application of appropriate technology, motivation program, follow the rules and regulations, and creation of fund. Table 7 showed the respondents participation in practical activities of community forest conservation activities. Results found that overall people participation in practical activity phase were at moderate level. Most (67.7 %) of the respondent's participated in practical activity phases were at moderate level. The highest mean found (3.50) for the activity of regular committee meeting and protection duty of forest. This meant that people attended regular meeting arranged by the village committee. They protected their forest from illegal cutting by patrolling in the forest. Forest Committee of Ban Thung Soong arranged a meeting on the $10^{th}$ day of the month. Member from every household participated in this meeting and shared their thoughts and ideas in the improvement of the forest.

### 3.4 People participation in follow-up and control phase

Follow-up and control is the process in order to monitor the progress of the work. This process is important because the information will track any problem or obstacle during the operation. Participation in follow-up and control phase consists of activities such as impact of soil erosion, wildlife hunting, illegal cutting of trees, rehabilitation program, manpower training, wise use of the forest resources, re-arrangement of working committee, benefit sharing, proper communication plan, and support from external agencies. Results found from the table 8 showed that respondents overall participation in follow-up and control activities in community forest conservation was moderate level. Among the activities, the highest mean (3.38) found for the activity of wise use of the forest resources. This indicated that people were very aware of the uses of their community forest resources. They participated in the follow-up and control of their resourceful resources. The community forest was under restoration process and people only harvested the forest produces only for communal purpose. They were very aware of the importance of the forest and also paid attention for its overall improvement.

Table 7 Respondents' participation in different activities of practical activity phase

(n= 155)

| Activities | Number ( % ) | | | | | Mean | Level |
|---|---|---|---|---|---|---|---|
| | The most (5) | More (4) | Moderate (3) | Less (2) | Least (1) | | |
| Regular committee meeting | 13(8.4) | 63(40.6) | 68(43.9) | 11(7.1) | - | 3.50 | Moderate |
| Protection duty | 8(5.2) | 70(45.2) | 68(43.9) | 9(5.8) | - | 3.50 | Moderate |
| Tending operation | 7(4.5) | 52(33.5) | 82(52.9) | 13(8.4) | 1(0.6) | 3.33 | Moderate |
| Tree planting | 8(5.2) | 28(18.1) | 97(62.6) | 22(14.2) | - | 3.14 | Moderate |
| Releasing fishes | 5(3.2) | 11(7.1) | 43(27.7) | 69(44.5) | 27(17.4) | 2.34 | Moderate |
| Releasing wild animals | 4(2.6) | 10(6.5) | 48(31.0) | 89(57.4) | 4(2.6) | 2.49 | Moderate |
| Training | 9(5.8) | 22(14.2) | 96(61.9) | 25(16.1) | 3(1.9) | 3.06 | Moderate |
| Meeting with extension officers | 8(5.2) | 11(7.1) | 99(63.9) | 33(21.3) | 4(2.6) | .91 | Moderate |
| Application of appropriate technology | 5(3.2) | 7(4.5) | 80(51.6) | 58(37.4) | 5(3.2) | 2.67 | Moderate |
| Motivation program | 6(3.9) | 11(7.1) | 93(60.0) | 41(26.5) | 4(2.6) | 2.83 | Moderate |
| Follow the rules and regulations | 14(9.0) | 58(37.4) | 66(42.6) | 15(9.7) | 2(1.3) | 3.43 | Moderate |
| Creation of fund | 7(4.5) | 17(11.0) | 77(49.7) | 50(32.3) | 4(2.6) | 2.83 | Moderate |
| Overall participation | 9(5.8) | 15(9.7) | 105(67.7) | 26(16.8) | - | 3.04 | Moderate |

Table 8 Respondents' participation in different activities of follow-up and control phase

(n= 155)

| Activities | Number (%) | | | | | | |
|---|---|---|---|---|---|---|---|
| | Most (5) | More (4) | Moderate (3) | Less (2) | Least (1) | Mean | Level |
| Impact of soil erosion | 14(9.0) | 23(14.8) | 53(34.2) | 58(37.4) | 7(4.5) | 2.86 | Moderate |
| Stop of wildlife hunting | 16(10.3) | 47(30.3) | 38(24.5) | 46(29.7) | 8(5.2) | 3.11 | Moderate |
| Stop of illegal cutting | 18(11.6) | 53(34.2) | 29(18.7) | 48(31.0) | 7(4.5) | 3.17 | Moderate |
| Scientific rehabilitation management | 6(3.9) | 55(35.5) | 70(45.2) | 20(12.9) | 4(2.6) | 3.38 | Moderate |
| Manpower training | 6(3.9) | 47(30.3) | 76(49.0) | 23(14.8) | 3(1.9) | 3.19 | Moderate |
| Wise use of forest resources | 5(3.2) | 72(46.5) | 59(38.1) | 15(9.7) | 4(2.6) | 3.38 | Moderate |
| Rearrangement of working committee | 7(4.5) | 48(31.0) | 75(48.4) | 22(14.2 | 3(1.9) | 3.22 | Moderate |
| Equal sharing of benefit | 5(3.2) | 22(14.2) | 88(56.8) | 33(21.3) | 7(4.5) | 2.90 | Moderate |
| Proper communication plan | 5(3.2) | 29(18.7) | 91(58.7) | 24(15.5) | 6(3.9) | 3.02 | Moderate |
| Support from external agencies | 4(2.6) | 14(9.0) | 70(45.2) | 58(37.4) | 9(5.8) | 2.65 | Moderate |
| Overall participation | 4(2.6) | 37(23.9) | 80(51.6) | 28(18.1) | 6(3.9) | 3.03 | Moderate |

### 3.5 Level of People Participation

Result revealed that the respondent's participation in community forest conservation was at moderate level ($\overline{X}$ = 2.8). The highest mean of people participation was in term of practical activities ($\overline{X}$ = 3.04), while the lowest mean was in problem identification phase ($\overline{X}$ = 1.9).

Table 9 Level of respondent's participation in forest conservation

(n = 155)

| Activities | Level of people participation | | | | |
|---|---|---|---|---|---|
| | Low | Moderate | High | Mean | Level |
| Problem identification | 128(83.2) | 26(16.8) | - | 1.9 | Low |
| Planning | 19(12.3) | 113(72.9) | 23(14.8) | 3.01 | Moderate |
| Practical activity | 7(4.5) | 130(83.9) | 13(8.4) | 3.04 | Moderate |
| Follow-up and control | 20(12.9) | 102(65.8) | 33(21.3) | 3.03 | Moderate |
| Overall participation | 19(12.3) | 131(84.5) | 5(3.2) | 2.8 | Moderate |

## 4. Communication and Media used for Ban Thung Soong Community Forest

Communication is one of the means in which human beings relate to one another. Any process in which people share information, ideas, and feelings is communication. Media convey information, interactive communication that includes audience feedback.

Communication and Media both served as key actors in linking all people in Ban Thung Soong Village for their general development and community forest conservation. People of Ban Thung Soong exposed to media in their daily life and use it as a means of their communication. This media had much influence on their community development as well as their livelihood through the process of information receiving from various sources. In the study, it was found that the villagers executed communication basically in three formats such as interpersonal communication, group communication, and mass communication.

The kinds of media used by the village were radio, television, newspaper, village meeting, family members, head of village, and government officer. These media were grouped into two categories: mass media and people media. Mass media is just a means of communication used to disseminate to encourage public support for development programs, and generally to inform and persuade people to adopt modern technologies. In this study, Mass media included radio, television, newspaper, and village meeting. People media is another means of communication who are the source's representatives involved in disseminate information in a communication process.. The study considered family members, head of village and government

officer as people media in Ban Thung Soong Community. The study was mainly conducted in two areas namely communication and media in general in the village and communication and media in community forest conservation. Level of communication was classified as 3 levels as low (1.00 – 2.0), moderate (2.01 – 3.00), high (3.01 – 4.00) based on the score 4, 3, 2, and 1.

### 4.1 Communication and media in general in the village

In term of Mass media exposure in general, the respondents received information from radio, television, newspaper, village meeting, and people media i.e. family members, head of village and government officer. The frequency of different media exposure in general showed below:

#### 4.1.1 Radio

About 44.5 percent respondents listened to radio everyday. Only 6.5 percent listened radio once in a week, while 29 percent listened radio once within two to three days. 20 percent respondents listened radio other time. Mean was 2.98 which indicated that there was moderate communication level on this media (Table 10).

#### 4.1.2 Television

About 71.6 percent respondents watched television everyday. Only 12.3 percent watched television once in two to three days, 6.5 percent watched once in a week, while only 9.7 percent watched other time. Mean was 3.46 which indicated that there was high communication level on this media (Table 10).

#### 4.1.3 Newspaper

About 58.7 percent respondents read newspaper once in a week. On the other hand, 7.1 percent respondents read newspaper everyday, 14.8 percent read newspaper once in two to three days, while 19.4 percent read newspaper other time. Mean found for newspaper was 2.10 which indicated that respondents had moderate communication for newspaper (Table 10).

#### 4.1.4 Village meeting

About 77.4 percent of the respondents attended in village meeting in every month, 14.7 percent respondents attended once in a week, 3.9 percent attended in once in two to three days, while 4.5 percent attended in every day. Mean was 1.35 which indicated that there was low communication level on this media (Table 10).

Table 10 illustrated that most of the respondents preferred watching television (71.6 %) to listening to radio (44.5 %), reading newspaper (7.1 %) and attending village meeting (4.5 %). The highest mean found for television was 3.46 which indicated that respondents had high level of communication on television.

Table 10 Frequency of Mass media exposure in general

(n= 155)

| Kind of Media | Number (%) | | | | | |
|---|---|---|---|---|---|---|
| | Everyday | Once/2-3 days | Once/week | Other | Mean | Level |
| Radio | 69(44.5) | 45(29.0) | 10(6.5) | 31(20.0) | 2.98 | Moderate |
| Television | 111(71.6) | 19(12.3) | 10(6.5) | 15(9.7) | 3.46 | High |
| Newspaper | 11(7.1) | 23(14.8) | 91(58.7) | 30(19.4) | 2.10 | Moderate |
| Village meeting | 7(4.5) | 6(3.9) | 22(14.2) | 120(77.4) | 1.35 | Low |
| Total mean | | | | | 2.47 | Moderate |

4.1.5 Family members

About 37.4 percent respondents communicated with their family members in everyday. Some 20.6 percent communicated with family members once within 2-3 days, while 21.9 communicated with their family members once in a week, and 20 percent respondents communicated with their family member in every month. Mean was 2.75 which indicated that there was moderate communication level on this media (Table 11).

4.1.6 Head of village

Most (44.5 %) of the respondent was communicated with head of village in every month. Only 11.6 percent respondents communicated with head of village in every day, 27.1 percent communicated with head of village once within 2-3 days, while 16.8 percent respondents communicated with head of village once in a week Mean was 2.06 which indicated that there was moderate communication level on this media (Table 11)

4.1.7 Government officer

About 88.4 percent respondents communicated with government officer in every month. Only 2.6 percent respondents communicated with government officer in everyday, while 7 communicated with government officer once in a week. Mean was 1.19 which indicated that there was low communication level on this media. (Table 11).

From the results of Table 11, the highest mean found for family member was 2.76 which indicated that family members were more frequent media than others.

Table11 Frequency of People media exposure in general

(n= 155)

| Media | Number (%) | | | | | |
|---|---|---|---|---|---|---|
| | Everyday | Once/2-3 days | Once/week | Other | Mean | Level |
| Family members | 58(37.4) | 32(20.6) | 34(21.9) | 31(20.0) | 2.75 | Moderate |
| Head of village | 18(11.6) | 42(27.1) | 26(16.8) | 69(44.5) | 2.06 | Moderate |
| Government officer | 4(2.6) | 3(1.9) | 11(7.1) | 137(88.4) | 1.19 | Low |
| Total mean | | | | | 2.00 | |

### 4.2 Communication and media for forest conservation

In term of media exposure to forest conservation, the respondents received information concerning forest conservation from mass media i.e. as radio, television, newspaper, village meeting, and people media i.e. family members, head of village and government officer. The frequency of respondents receiving information by different kinds of media were as follows:

#### 4.2.1 Radio

Most (41.9 %) of the respondents exposed to radio once within 2-3 days, while 31 percent respondents exposed to it everyday, 0nly 10.3 percent exposed to once in a week, 16.8 percent respondents' exposed to every month for receiving information regarding forest conservation. Mean was 2.87 which indicated that there was moderate communication level on this media (Table 12).

#### 4.2.2 Television

About 45.8 percent respondents exposed to television for forest information from television in every day, while 18.1 percent respondents exposed to television once in two to three days, 18.7 percent exposed to television once in a week, 17.4 percent respondents exposed to television in every month. Mean was 2.92 which indicated that there was moderate communication level on this media (Table 12).

#### 4.2.3 Newspaper

About 59.4 percent respondents red newspaper once in a week, while 15.5 percent respondents red newspaper once in two to three days, only 3.9 percent respondents red newspaper in everyday for receiving forest information Mean was 2.02 which indicated that there was moderate communication level on this media (Table 12).

Table 12 Frequency of Mass media exposure for forest conservation

(n= 155)

| Media | Number (%) | | | | | |
|---|---|---|---|---|---|---|
| | Everyday | Once/2-3 days | Once/week | Other | Mean | Level |
| Radio | 48(31.0) | 65(41.9) | 16(10.3) | 26(16.8) | 2.87 | Moderate |
| Television | 71(45.8) | 28(18.1) | 29(18.7) | 27(17.4) | 2.92 | Moderate |
| Newspaper | 6(3.9) | 24(15.5) | 92(59.4) | 33(21.3) | 2.02 | Moderate |
| Village meeting | 6(3.9) | 4(2.6) | 22(14.2) | 123(79.4) | 1.31 | Low |
| Total mean | | | | | 2.28 | |

4.2.4 Village meeting

Most (79.4 %) of the respondents exposed to village meeting for forest conservation in every month, while only 3.9 percent respondents were exposed to village meeting in everyday, 14.2 percent respondents were exposed to village meeting in once a week for forest information. Mean was 1.31 which indicated that there was low communication level on this media (Table 12).

Table 12 illustrated that people mostly exposed to television (45.8 %) followed by radio (31.0 %), newspaper (3.9 %) and village meeting (3.9 %) consequently. It indicated that television was the main steam media for receiving forest information to the villagers. The highest mean of television among the mass media indicated that television was the more frequent media for forest information.

4.2.5 Family members

About 31.6 percent respondents communicated with their family members in everyday, while 9.7 percent respondents communicated with their family members once in 2-3 days, 32.3 percent communicated with their family members once in a week and 26.5 percent communicated with their family members for received forest information in every month. Mean was 2.46 which indicated that there was moderate communication level on this media (Table 13)

4.2.6 Head of village

About 45.2 percent respondents communicated with head of village in every month, while 12.3 percent respondents communicated in every day, 23.2 percent respondents communicated once in two to three days, 19.4 percent communicated once in a week for receiving forest information Mean was 2.03 which indicated that there was moderate communication level on this media (Table 13).

4.2.7 Government officer

Most (91.6 %) of the respondents communicated with government officer in every month, while only 1.9 percent respondents communicated in every day, 1.3 percent respondents communicated once in 2-3 days, 5.2 percent respondents communicated once in a week Mean was 1.14 which indicated that there was low communication level on this media (Table 13).

Table 13 Frequency of People media exposure for forest conservation

(n= 155)

| Kind of Media | Number (%) | | | | | |
|---|---|---|---|---|---|---|
| | Everyday | Once/2-3 days | Once/week | Other | Mean | Level |
| Family members | 49(31.6) | 15(9.7) | 50(32.3) | 41(26.5) | 2.46 | Moderate |
| Head of village | 19(12.3) | 36(23.2) | 30(19.4) | 70(45.2) | 2.03 | Moderate |
| Government officer | 3(1.9) | 2(1.3) | 8(5.2) | 142(91.6) | 1.14 | Low |
| Total mean | | | | | 1.87 | |

Table 13 illustrated that the highest mean found for family members was 2.46. This meant that family members were more frequently than other media regarding communication for forest information.

Table 14 Summary of respondents level of communication

(n= 155)

| Communication | Level of Communication | | | | |
|---|---|---|---|---|---|
| | Low | Moderate | High | Mean | Level |
| General | | | | | |
| -Mass media | 30 (19.4) | 115 (74.2) | 10 (6.5) | 2.47 | Moderate |
| -People media | 86 (55.5) | 67 (43.2) | 2 (1.3) | 2.00 | Low |
| Overall Communication | 41 (26.5) | 107 (69.0) | 7 (4.5) | 2.27 | Moderate |
| Forest Conservation | | | | | |
| -Mass media | 51 (32.9) | 98 (63.2) | 6 (3.9) | 2.28 | Moderate |
| -People media | 96 (61.9) | 56 (36.1) | 3 (1.9) | 1.87 | Low |
| Overall Communication | 74 (47.7) | 77 (49.7) | 4 (2.6) | 2.10 | Moderate |

From the table 14, it was found that respondents overall general communication in the village was at moderate level. Most (69 %) of the respondent's level of communication was at moderate level. The highest mean of general communication was in term of mass media. This indicated that people were more exposed to mass media i.e. radio, television, newspaper, and village meeting for general communication than other media.

In term of Communication of Forest conservation, respondents overall communication was at moderate level. Most (49.7 %) of the respondent's communication was at moderate level. The highest mean of communication of forest conservation was in term of mass media. This indicated that people were more exposed to mass media i.e. radio, television, newspaper, and village meeting regarding communication of forest conservation than other media.

## 5. Hypothesis testing

Hypothesis test was carried out to test the relationship between the independent variables namely gender, age, educational level, main occupation, household income, settlement period, communication and media in general in the village, communication and media for forest conservation in the village, meeting with the government officer, knowledge in forest conservation, benefit gained from the forest towards forest conservation of Ban Thung Community Forest with dependent variable people participation stated in four phases: problem identification, planning, practical activity and follow-up and control. The Chi-square test was employed to find out the relationships between the independent variables and people participation at 0.05 statistics significant level. The following hypotheses were tested:

**Hypothesis one**: Gender is relating to people participation in Ban Thung Soong Community Forest conservation.

Table 15 illustrated the relationship between the variable gender and people participation in community forest conservation which consisted of problem identification, planning, practical activity, and follow-up and control phases of Ban Thung Soong Community Forest. Results found that gender was not relating to overall people participation in Ban Thung Soong Community Forest. The statistic significant value found for overall participation was 0.548 ($p > 0.05$). In Ban Thung Soong Community Forest, both Male and Female actively participated in different activities of Forest conservation. Women contributed to their community forest in giving supportive role. The result is consistent with the finding of Pinpak (2000) which stated that gender was not affecting people participation in forest resource conservation.

Table 15 Relationship between gender and level of people participation in Ban Thung Soong Community Forest conservation

(n = 155)

| Participation phase | Gender | Level of participation | | | Total (%) |
|---|---|---|---|---|---|
| | | Low(%) | Moderate (%) | High(%) | |
| Problem idenfication Chi-square = 1.000, df =1, significance = 0.317 | Male | 81(81.0) | 19 (25.0) | 0 (0.0) | 100 (100.0) |
| | Female | 48 (87.3) | 7 (12.7) | 0 (0.0) | 55 (100.0) |
| Planning phase Chi-square = 2.059, df = 2, significance = 0.357 | Male | 15 (15.0) | 70 (70.0) | 15 (15.0) | 100 (100.0) |
| | Female | 4 (7.3) | 43 (78.2) | 8 (14.5) | 55 (100.0) |
| Practical activity Chi-square = 2.312, df = 2, significance = 0.315 | Male | 3 (3.1) | 84 (86.6) | 10 (10.3) | 97 (100.0) |
| | Female | 4 (7.5) | 46 (86.8) | 3 (5.7) | 53 (100.0) |
| Follow-up and control Chi-square= 0.987, df= 2, significance= 0.611 | Male | 14 (14.0) | 63 (63.0) | 23 (23.0) | 100 (100.0) |
| | Female | 6 (10.9) | 39 (70.9) | 10 (18.2) | 55 (100.0) |
| Overall participation Chi-square = 0.548 df = 2, Significance =0.760 | Male | 12 (12.0) | 84 (84.0) | 4 (4.0) | 100 (100.0) |
| | Female | 7 (12.7) | 47 (85.5) | 1 (1.8) | 55 (100.0) |

**Hypothesis two**: Age is relating to people participation in Ban Thung Soong Coomunity Forest conservation.

Table 16 stated the relationship between respondent's age and level of people participation in community forest conservation. Different age group of people participated in four stages of participation such as problem identification, planning, practical activity, and follow-up and control. It was found that the respondents' age was not significantly related to people participation in community forest conservation. The statistic significant value was obtained for overall participation was 0.448 ($p > 0.05$). In terms of planning phase, it was found that respondents from all the age classes participated in forest conservation at moderate level nearly equal number. The finding corresponds to Rakjit (2004) which stated that age was not significantly related to people participation in promoting mangrove conservation.

Table 16 Relationship between age and level of people participation in Ban Thung Soong Community Forest conservation

(n = 155)

| Participation phase | Age (years) | Level of participation | | | Total (%) |
|---|---|---|---|---|---|
| | | Low(%) | Medium(%) | High(%) | |
| Problem idenfication Chi-square=0.680, df=3, significance = 0.878 | Lower than 40 | 32 (80.0) | 8 (20.0) | 0 (0.0) | 40 (100.0) |
| | 41-50 | 36 (83.7) | 7 (16.3) | 0 (0.0) | 43 (100.0) |
| | 51-60 | 28 (82.4) | 6 (17.6) | 0 (0.0) | 34 (100.0) |
| | More than 60 | 33 (86.8) | 5 (13.2) | 0 (0.0) | 38 (100.0) |
| Planning phase Chi-square= 4.191, df= 6, significance= 0.651 | Lower than 40 | 7 (17.5) | 30 (75.0) | 3 (7.5) | 40 (100.0) |
| | 41-50 | 5 (11.6) | 30 (69.8) | 8 (18.6) | 43 (100.0) |
| | 51-60 | 3 (8.8) | 24 (70.6) | 7 (20.6) | 34 (100.0) |
| | More than 60 | 4 (10.5) | 29 (76.3) | 5 (13.2) | 38 (100.0) |
| Practical activity Chi-square= 4.095, df= 6, Significance= 0.664 | Lower than 40 | 3 (8.1) | 31 (83.8) | 3 (8.1) | 37 (100.0) |
| | 41-50 | 2 (4.7) | 39 (90.7) | 2 (4.7) | 43 (100.0) |
| | 51-60 | 1 (3.0) | 27 (81.8) | 5 (15.2) | 33 (100.0) |
| | More than 60 | 1 (2.7) | 33 (89.2) | 3 (8.1) | 37 (100.0) |
| Follow-up and control Chi-square= 9.931, df= 6, significance= 0.128 | Lower than 40 | 9 (22.5) | 26 (65.0) | 5 (12.5) | 40 (100.0) |
| | 41-50 | 6 (14.0) | 29 (67.4) | 8 (18.6) | 43 (100.0) |
| | 51-60 | 1 (2.9) | 25 (73.5) | 8 (23.5) | 34 (100.0) |
| | More than 60 | 4 (10.5) | 22 (57.9) | 12 (31.6) | 38 (100.0) |
| Overall participation Chi-square = 5.785 df = 6 Significance =0.448 | Lower than 40 | 8 (20.0) | 31 (77.5) | 1 (2.5) | 40 (100.0) |
| | 41-50 | 5 (11.6) | 37 (86.0) | 1 (2.3) | 43 (100.0) |
| | 51-60 | 1 (2.9) | 31 (91.2) | 2 (5.9) | 34 (100.0) |
| | More than 60 | 5 (13.2) | 32 (84.2) | 1 (2.6) | 38 (100.0) |

**Hypothesis three**: Educational level is relating to people participation in Ban Thung Soong Community Forest conservation.

Table 17 illustrated the relationship between the respondent's educational level and people participation in conservation of community forest. Result showed that the respondents' educational level was relating to people participation in community forest conservation. The statistic significant value obtained for overall participation was 0.000 ($p < 0.05$). Among the various phases of people participation, in planning phase, most of the respondent's graduated on basic education highly participated. This indicated that education was the most important thing for Ban Thung Soong people which ultimately persuade them in participated in community forest conservation. All most all the people were literate. The villagers were also aware of the children's education.

Table 17 Relationship between respondent's educational level and level of people participation in Ban Thung Soong Community Forest conservation

(n = 155)

| Participation phase | Educational level | Level of participation | | | Total (%) |
|---|---|---|---|---|---|
| | | Low(%) | Medium(%) | High(%) | |
| Problem idenfication Chi-square= 22.455, df=5, significance = 0.000 | No education | 6 (100) | 0 (0.0) | 0 (0.0) | 6 (100.0) |
| | Basic education | 106 (86.9) | 16 (13.1) | 0 (0.0) | 122 (100.0) |
| | High school | 6 (54.5) | 5 (45.5) | 0 (0.0) | 128(100.0) |
| | Technical school | 3 (37.5) | 5 (62.5) | 0 (0.0) | 8 (100.0) |
| | Bachelor degree | 5 (100.0) | 0 (0.0) | 0 (0.0) | 27(100.0) |
| | Above bachelor degree | 3 (100.0) | 0 (0.0) | 0 (0.0) | 3 (100.0) |
| Planning phase Chi-square= 15.627, df=10, significance= 0.111 | No education | 0 (0.0) | 5 (83.3) | 1 (16.7) | 6 (100.0) |
| | Basic education | 17 (13.9) | 89 (73.0) | 16(13.1) | 122 (100.0) |
| | High school | 2 (18.2) | 9 (81.8) | 0 (0.0) | 11 (100.0) |
| | Technical school | 0 (0.0) | 4 (50.0) | 4 (50.0) | 8 (100.0) |
| | Bachelor degree | 0 (0.0) | 3 (60.0) | 2 (40.0) | 5 (100.0) |
| | Above bachelor degree | 0 (0.0) | 3 (100.0) | 0 (0.0) | 3 (100.0) |
| Practical activity Chi-square= 27.532, df= 10, Significance= 0.002 | No education | 0 (0.0) | 4 (80.0) | 1 (20.0) | 5 (100.0) |
| | Basic education | 6 (5.1) | 106(89.8) | 6 (5.1) | 118 (100.0) |
| | High school | 0 (0.0) | 10 (90.9) | 1 (9.1) | 11 (100.0) |
| | Technical school | 0 (0.0) | 4 (50.0) | 4 (50.0) | 8 (100.0) |
| | Bachelor degree | 0 (0.0) | 4 (80.0) | 1 (20.0) | 5 (100.0) |
| | Above bachelor degree | 1 (33.3) | 2 (66.7) | 0 (0.0) | 3 (100.0) |
| Follow-up and control Chi-square= 9.180 , df= 10, significance= 0.515 | No education | 0 (0.0) | 4 (66.7) | 2 (33.3) | 6 (100.0) |
| | Basic education | 18 (14.8) | 78 (63.9) | 26(21.3) | 122 (100.0) |
| | High school | 1 (9.1) | 9 (81.8) | 1 (9.1) | 11 (100.0) |
| | Technical school | 0 (0.0) | 5 (62.5) | 3 (37.5) | 8 (100.0) |
| | Bachelor degree | 0 (0.0) | 5 (100.0) | 0 (0.0) | 5 (100.0) |
| | Above bachelor degree | 1 (33.3) | 1 (33.3) | 1 (33.3) | 3 (100.0) |
| Overall participation Chi-square= 34.606, df= 10, Significance= 0.000 | No education | 1 (16.7) | 5 (83.3) | 0 (0.0) | 6 (100.0) |
| | Basic education | 16 (13.1) | 104 (85.2) | 2 (1.6) | 122 (100.0) |
| | High school | 1 (9.1) | 10 (90.9) | 0 (0.0) | 11 (100.0) |
| | Technical school | 0 (0.0) | 5 (62.5) | 3 (37.5) | 8 (100.0) |
| | Bachelor degree | 0 (0.0) | 5 (100.0) | 0 (0.0) | 5 (100.0) |
| | Above bachelor degree | 1 (33.3) | 2 (66.7) | 0 (0.0) | 3 (100.0) |

**Hypothesis four**: Main occupation is relating to people participation in Ban Thung Soong Community Forest conservation.

Table 18 illustrated the relationship between the respondent's main occupation and people participation in conservation of community forest. Result showed that the respondents' main occupation was relating to people participation in community forest conservation. The statistic significant value obtained for overall participation was 0.000 ($p < 0.05$). Most (90.1 %) of the respondent's having occupation of agriculture and farming related participated in community forest conservation. Major source of economic earning of the people in the village were oil palm and rubber plantation. Besides, they earned from their home garden. Most of the villagers were engaged in more than one occupation.

Table 18 Relationship between main occupation and level of people participation in Ban Thung Soong Community Forest conservation

| Participation phase | Main occupation | Level of participation | | | |
|---|---|---|---|---|---|
| | | Low(%) | Medium(%) | High(%) | Total (%) |
| Problem idenfication Chi-square= 1.376 , df=1, significance = 0.241 | Agriculture and/ farming related | 111(84.7) | 20(15.3) | 0(0.0) | 131(100.0) |
| | Other | 18(75.0) | 6(25.0) | 0(0.0) | 24(100.0) |
| Planning phase Chi-square= 17.679, df=2, significance= 0.000 | Agriculture and/ farming related | 10(7.6) | 102(77.9) | 19(14.5) | 131(100.0) |
| | Other | 9(37.5) | 11(45.8) | 4(16.7) | 24(100.0) |
| Practical activity Chi-square= 17.005, df= 2, Significance= 0.000 | Agriculture and/ farming related | 4(3.1) | 117(91.4) | 7(5.5) | 128(100.0) |
| | Other | 3(13.6) | 13(59.1) | 6(27.3) | 22(100.0) |
| Follow-up and control Chi-square= 16.956, df= 2, significance= 0.000 | Agriculture and/ farming related | 11(8.4) | 93(71.0) | 27(20.6) | 131(100.0) |
| | Other | 9(37.5) | 9(37.5) | 6(25.0) | 24(100.0) |
| Overall participation Chi-square= 20.956, df= 2, significance= 0.000 | Agriculture and/ farming related | 11(8.4) | 118(90.1) | 2(1.5) | 131(100.0) |
| | Other | 8(33.3) | 13(54.2) | 3(12.5) | 24(100.0) |

**Hypothesis five**: Household income is relating to people participation in Ban Thung Soong Community Forest conservation.

Table 19 illustrated the relationship between household income and people participation in conservation of community forest. Result showed that the

respondents' main occupation was relating to people participation in community forest conservation. The statistic significant value obtained for overall participation was 0.009 ($p < 0.05$). From the overall participation, it was found that respondent's household income having 80,0001- 100,000 Baht, most (95.1 %) of them participated in community forest conservation. This indicated that household income significantly relating to people participation. Almost all the villagers were happy with their income and livelihood.

Table 19 Relationship between respondent's household income and level of people participation in Ban Thung Soong Community Forest conservation

| Participation phase | Household income (Baht) | Level of participation | | | |
|---|---|---|---|---|---|
| | | Low(%) | Medium(%) | High(%) | Total (%) |
| Problem idenfication Chi-square= 9.579, df=3, significance = 0.023 | Less than 60,000 | 25(67.6) | 12(32.4) | 0(0.0) | 37(100.0) |
| | 60,000-80,000 | 30(85.7) | 5(14.3) | 0(0.0) | 35(100.0) |
| | 80,0001-100,000 | 35(85.4) | 6(14.6) | 0(0.0) | 41(100.0) |
| | More than100,000 | 39(92.9) | 3(7.1) | 0(0.0) | 42(100.0) |
| Planning phase Chi-square= 22.639, df= 6, significance= 0.001 | Less than 60,000 | 12(32.4) | 21(56.8) | 4(10.8) | 37(100.0) |
| | 60,000-80,000 | 3(8.6) | 29(82.9) | 3(8.6) | 35(100.0) |
| | 80,0001-100,000 | 1(2.4) | 30(73.2) | 10(24.4) | 41(100.0) |
| | More than 100,000 | 3(7.1) | 33(78.6) | 6(14.3) | 42(100.0) |
| Practical activity Chi-square= 4.158, df= 6, Significance= 0.655 | Less than 60,000 | 2(6.1) | 26(78.8) | 5(15.2) | 33(100.0) |
| | 60,000-80,000 | 1(2.9) | 30(88.2) | 3(8.8) | 34(100.0) |
| | 80,0001-100,000 | 1(2.4) | 38(92.7) | 2(4.9) | 41(100.0) |
| | More than 100,000 | 3(7.1) | 36(85.7) | 3(7.1) | 42(100.0) |
| Follow-up and control Chi-square= 15.542, df= 6, significance= 0.016 | Less than 60,000 | 11(29.7) | 18(48.6) | 8(21.6) | 37(100.0) |
| | 60,000-80,000 | 4(11.4) | 23(65.7) | 8(22.9) | 35(100.0) |
| | 80,0001-100,000 | 1(2.4) | 33(80.5) | 7(17.1) | 41(100.0) |
| | More than 100,000 | 4(9.4) | 28(66.7) | 10(23.8) | 42(100.0) |
| Overall participation Chi-square= 16.984, df= 6, significance= 0.009 | Less than 60,000 | 10(27.0) | 24(64.9) | 3(8.1) | 37(100.0) |
| | 60,000-80,000 | 3(8.6) | 32(91.4) | 0(0.0) | 35(100.0) |
| | 80,0001-100,000 | 2(4.9) | 39(95.1) | 0(0.0) | 41(100.0) |
| | More than 100,000 | 4(9.5) | 36(85.7) | 2(4.8) | 42(100.0) |

**Hypothesis six**: Communication and media in general in village is relating to people participation in Ban Thung Soong Community Forest conservation.

For determining communication and media in general in the village, mass media and people media were employed. Mass media included radio, television, newspaper, and village meeting. On the other hand, people media included family members, head of village, and government officer.

Table 20 illustrated the relationship between respondent's communication level of mass media in the village and people participation in conservation of community forest. Result showed that the respondents' communication level of mass media in general was related to people participation in community forest conservation. The statistic significant value obtained for overall participation was 0.000 ($p < 0.05$). From the results, it was found that respondents mostly participated in forest conservation were moderate level of mass communication. This indicated that people mostly exposed to mass media such as radio, television, newspaper, and village meeting. Among the mass media, people of Ban Thung Soong village, mostly exposed to television in their everyday life. They also listened to radio and red newspaper. Village meetings were also served as an important media for the villagers. Representatives from every household attended in monthly meeting of village. This was found as a best forum for communication in the village.

Table 20 Relationship between level mass media of general communication and people participation

| Participation phase | Level Mass Media of General Communication | Level of participation | | | |
|---|---|---|---|---|---|
| | | Low(%) | Moderate(%) | High(%) | Total (%) |
| Problem idenfication | Low | 44(77.2) | 13(22.8) | 0(0.0) | 57(100.0) |
| Chi-square= 2.505, | Moderate | 75(86.2) | 12(13.8) | 0(0.0) | 87(100.0) |
| df=2, significance = 0.286 | High | 10(90.9) | 1(9.1) | 0(0.0) | 11(100.0) |
| Planning phase | Low | 8(14.0) | 40(70.2) | 9(15.8) | 57(100.0) |
| Chi-square= 13.881, | Moderate | 6(6.9) | 68(78.2) | 13(14.9) | 87(100.0) |
| df= 4, significance= 0.008 | High | 5(45.5) | 5(45.5) | 1(9.1) | 11(100.0) |
| Practical activity | Low | 4(7.1) | 44(78.6) | 8(14.3) | 56(100.0) |
| Chi-square= 15.385, | Moderate | 1(1.2) | 81(94.2) | 4(4.7) | 86(100.0) |
| df= 4, Significance= 0.004 | High | 2(25.0) | 5(62.5) | 1(12.5) | 8(100.0) |
| Follow-up and control | Low | 8(14.0) | 38(66.7) | 11(19.3) | 57(100.0) |
| Chi-square= 20.066, | Moderate | 6(6.9) | 60(69.0) | 21(24.1) | 87(100.0) |
| df= 4, significance= 0.000 | High | 6(54.5) | 4(36.4) | 1(9.1) | 11(100.0) |
| Overall participation | Low | 7(12.3) | 47(82.5) | 3(5.3) | 57(100.0) |
| Chi-square= 21.829, | Moderate | 6(6.9) | 79(90.8) | 2(2.3) | 87(100.0) |
| df= 4, significance= 0.000 | High | 6(54.5) | 5(45.5) | 0(0.0) | 11(100.0) |

Table 21 illustrated the relationship between respondent's level people media of general communication in the village and people participation in conservation of community forest. It was mentioned that people media included family members, head of village, and government officer. Result showed that the respondents' level of people media communication in general was relating to people participation in community forest conservation. The statistic significant value obtained for overall participation was 0.017 ($p < 0.05$). This indicated that people media also served as a main media for the villagers. The villagers received news and information through family members, head of village and government officer.

Table 21 Relationship between respondent's level people media of general communication and people participation

| Participation phase | Level People Media of General Communication | Level of participation | | | |
|---|---|---|---|---|---|
| | | Low(%) | Moderate(%) | High(%) | Total (%) |
| Problem idenfication Chi-square= 13.079, df=2, significance = 0.001 | Low<br>Moderate<br>High | 41(69.5)<br>64(92.8)<br>24(88.9) | 18(30.5)<br>5(7.2)<br>3(11.1) | 0(0.0)<br>0(0.0)<br>0(0.0) | 59(100.0)<br>69(100.0)<br>27(100.0) |
| Planning phase Chi-square= 14.974, df= 4, significance= 0.005 | Low<br>Moderate<br>High | 13(22.0)<br>2(2.9)<br>4(14.8) | 35(59.3)<br>56(81.2)<br>22(81.5) | 11(18.6)<br>11(15.9)<br>1(3.7) | 59(100.0)<br>69(100.0)<br>27(100.0) |
| Practical activity Chi-square= 9.399, df= 4, Significance= 0.052 | Low<br>Moderate<br>High | 2(3.5)<br>2(2.9)<br>3(12.0) | 46(80.7)<br>63(92.6)<br>21(84.0) | 9(15.8)<br>3(4.4)<br>1(4.0) | 57(100.0)<br>68(100.0)<br>25(100.0) |
| Follow-up and control Chi-square= 5.735, df= 4, significance= 0.220 | Low<br>Moderate<br>High | 11(18.6)<br>64(5.8)<br>5(18.5) | 37(62.7)<br>49(71.0)<br>16(59.3) | 11(18.6)<br>16(23.2)<br>6(22.2) | 59(100.0)<br>69(100.0)<br>27(100.0) |
| Overall participation Chi-square= 12.010, df= 4, significance= 0.017 | Low<br>Moderate<br>High | 10(16.9)<br>3(4.3)<br>6(22.2) | 45(76.3)<br>65(94.2)<br>21(77.8) | 4(6.8)<br>1(1.4)<br>0(0.0) | 59(100.0)<br>69(100.0)<br>27(100.0) |

Table 22 illustrated the relationship between respondent's level of general communication and level of people participation in forest conservation. From the results it was found that respondent's level of general communication was significantly related to people participation in forest conservation. The statistic significant value found for overall participation was 0.000 ($p < 0.05$). This indicated that both mass media and people media in term of general communication had much influence on people participation in forest conservation. Most (94.7 %) respondents participated in overall participatory phases in community forest conservation at moderate level.

Table 22 Relationship between respondent's level of general communication and people participation

| Participation phase | General communication | Level of participation | | | |
|---|---|---|---|---|---|
| | | Low(%) | Moderate(%) | High(%) | Total (%) |
| Problem idenfication Chi-square= 7.187, df=2, significance = 0.028 | Low | 35(71.4) | 14(28.6) | 0(0.0) | 49(100.0) |
| | Moderate | 84(88.4) | 11(11.6) | 0(0.0) | 95(100.0) |
| | High | 10(90.9) | 1(9.1) | 0(0.0) | 11(100.0) |
| Planning phase Chi-square= 31.848, df= 4, significance= 0.000 | Low | 13(26.5) | 29(59.2) | 7(14.3) | 49(100.0) |
| | Moderate | 1(1.1) | 79(83.2) | 15(15.8) | 95(100.0) |
| | High | 5(45.5) | 5(45.5) | 1(9.1) | 11(100.0) |
| Practical activity Chi-square= 19.652, df= 4, Significance= 0.001 | Low | 3(6.3) | 36(75.0) | 9(18.8) | 48(100.0) |
| | Moderate | 2(2.1) | 89(94.7) | 3(3.2) | 94(100.0) |
| | High | 2(25.0) | 5(62.5) | 1(12.5) | 8(100.0) |
| Follow-up and control Chi-square= 26.219, df= 4, significance= 0.000 | Low | 10(20.4) | 28(57.1) | 11(22.4) | 49(100.0) |
| | Moderate | 4(4.2) | 70(73.7) | 21(22.1) | 95(100.0) |
| | High | 6(54.5) | 4(36.4) | 1(9.1) | 11(100.0) |
| Overall participation Chi-square= 31.874, df= 4, significance= 0.000 | Low | 9(18.4) | 36(73.5) | 4(8.2) | 49(100.0) |
| | Moderate | 4(4.2) | 90(94.7) | 1(1.1) | 95(100.0) |
| | High | 6(54.5) | 5(45.5) | 0(0.0) | 11(100.0) |

**Hypothesis seven**: Communication and media for forest conservation is relating to people participation in Ban Thung Soong Community Forest conservation.

Table 23 illustrated the relationship between respondent's level of mass media of forest conservation in the village and people participation in conservation of community forest. Result showed that the respondents' level of mass media communication in forest conservation was relating to people participation in community forest conservation. The statistic significant value obtained for overall participation was 0.003 ($p < 0.05$). From the results, it was found that most (91.6 percent) of the respondent's participated in community forest conservation were at moderate level of mass communication for forest conservation. This meant that

people mostly received information of forest conservation from mass media i.e. radio, television, newspaper, and village meeting. In Ban Thung Soong Village, village meeting used as a main forum for information dissemination of forest conservation in the village.

Table 23 Relationship between respondent's level mass media of forest conservation and people participation

| Participation phase | Level Mass Media of forest conservation | Level of participation | | | |
|---|---|---|---|---|---|
| | | Low(%) | Moderate(%) | High(%) | Total (%) |
| Problem idenfication<br>Chi-square= 6.246, df=2, significance = 0.044 | Low<br>Moderate<br>High | 33(71.7)<br>84(88.4)<br>12(85.7) | 13(28.3)<br>11(11.6)<br>2(14.3) | 0(0.0)<br>0(0.0)<br>0(0.0) | 46(100.0)<br>95(100.0)<br>14(100.0) |
| Planning phase<br>Chi-square= 6.883, df= 4, significance= 0.142 | Low<br>Moderate<br>High | 8(17.4)<br>7(7.4)<br>4(28.6) | 31(67.4)<br>74(77.9)<br>8(57.1) | 7(15.2)<br>14(14.7)<br>2(14.3) | 46(100.0)<br>95(100.0)<br>14(100.0) |
| Practical activity<br>Chi-square= 20.642, df= 4, Significance= 0.000 | Low<br>Moderate<br>High | 3(6.7)<br>3(3.2)<br>1(9.1) | 32(71.1)<br>90(95.7)<br>8(72.7) | 10(22.2)<br>1(1.1)<br>2(18.2) | 45(100.0)<br>94(100.0)<br>11(100.0) |
| Follow-up and control<br>Chi-square= 12.048, df= 4, significance= 0.017 | Low<br>Moderate<br>High | 8(17.4)<br>7(7.4)<br>5(35.7) | 32(69.6)<br>64(67.4)<br>6(42.9) | 6(13.0)<br>24(25.3)<br>3(21.4) | 46(100.0)<br>95(100.0)<br>14(100.0) |
| Overall participation<br>Chi-square= 16.200, df= 4, significance= 0.003 | Low<br>Moderate<br>High | 7(15.2)<br>7(7.4)<br>5(35.7) | 35(76.1)<br>87(91.6)<br>9(64.3) | 4(8.7)<br>1(1.1)<br>0(0.0) | 46(100.0)<br>95(100.0)<br>14(100.0) |

Table 24 illustrated the relationship between respondent's level people media of forest conservation in the village and people participation in conservation of community forest. Result showed that the respondents' level of people media communication in forest conservation was relating to people participation in community forest conservation. The statistic significant value obtained for overall participation was 0.022 ($p < 0.05$). This indicated that people media i.e. family members, head of village and government officer played a key role in information dissemination on forest conservation in the village. In the village, strong relations were found in family members. The head of village also had a strong leadership quality. For that everybody of the village paid attention to his word and provided support his work. People also communicated with government officer worked in the village regarding development programs for the welfare of the community.

Table 24 Relationship between respondent's level people media of forest conservation and people participation

| Participation phase | Level people media of forest conservation | Level of participation | | | |
|---|---|---|---|---|---|
| | | Low(%) | Medium(%) | High(%) | Total (%) |
| Problem idenfication Chi-square= 15.391, df=2, significance = 0.000 | Low<br>Moderate<br>High | 42(68.9)<br>65(94.2)<br>22(88.0) | 19(31.1)<br>4(5.8)<br>3(12.0) | 0(0.0)<br>0(0.0)<br>0(0.0) | 61(100.0)<br>69(100.0)<br>25(100.0) |
| Planning phase Chi-square= 11.859, df= 4, significance= 0.018 | Low<br>Moderate<br>High | 13(21.3)<br>2(2.9)<br>4(16.0) | 38(62.3)<br>56(81.2)<br>19(76.0) | 10(16.4)<br>11(15.9)<br>2(8.0) | 61(100.0)<br>69(100.0)<br>25(100.0) |
| Practical activity Chi-square= 6.907, df= 4, Significance= 0.141 | Low<br>Moderate<br>High | 3(5.1)<br>2(2.9)<br>2(9.1) | 47(79.7)<br>64(92.8)<br>19(86.4) | 9(15.3)<br>3(4.3)<br>1(4.5) | 59(100.0)<br>69(100.0)<br>22(100.0) |
| Follow-up and control Chi-square= 9.689, df= 4, significance= 0.046 | Low<br>Moderate<br>High | 11(18.0)<br>3(4.3)<br>6(24.0) | 40(65.6)<br>49(71.0)<br>13(52.0) | 10(16.4)<br>17(24.6)<br>6(24.0) | 61(100.0)<br>69(100.0)<br>25(100.0) |
| Overall participation Chi-square= 11.409, df= 4, significance= 0.022 | Low<br>Moderate<br>High | 11(18.0)<br>3(4.3)<br>5(20.0) | 46(75.4)<br>65(94.2)<br>20(80.0) | 4(6.6)<br>1(1.4)<br>0(0.0) | 61(100.0)<br>69(100.0)<br>25(100.0) |

Table 25 illustrated the relationship between respondent's level media of forest communication and level of people participation in forest conservation. From the results it was found that respondent's level media of forest communication was significantly related to people participation in forest conservation. The statistic significant value found for overall participation was 0.001 ($p < 0.05$). This indicated that both mass media and people media in term of forest communication had much influence on people participation in forest conservation. Most (95.2 %) respondents participated in overall participatory phases in community forest conservation at moderate level.

Table 25 Relationship between respondent's level media of forest communication and people participation

| Participation phase | Forest communication | Level of participation | | | |
|---|---|---|---|---|---|
| | | Low(%) | Medium(%) | High(%) | Total (%) |
| Problem idenfication Chi-square= 7.668, df=2, significance = 0.022 | Low | 38(71.7) | 15(28.3) | 0(0.0) | 53(100.0) |
| | Moderate | 74(89.2) | 9(10.8) | 0(0.0) | 83(100.0) |
| | High | 17(89.5) | 2(10.5) | 0(0.0) | 19(100.0) |
| Planning phase Chi-square= 21.169, df= 4, significance= 0.000 | Low | 14(26.4) | 31(58.5) | 8(15.1) | 53(100.0) |
| | Moderate | 1(1.2) | 69(83.1) | 13(15.7) | 83(100.0) |
| | High | 4(21.1) | 13(68.4) | 2(10.5) | 19(100.0) |
| Practical activity Chi-square= 16.874, df= 4, Significance= 0.002 | Low | 4(7.8) | 37(72.5) | 10(19.6) | 51(100.0) |
| | Moderate | 2(2.4) | 80(96.4) | 1(1.2) | 83(100.0) |
| | High | 2(6.3) | 13(81.3) | 2(12.5) | 16(100.0) |
| Follow-up and control Chi-square= 15.793, df= 4, significance= 0.003 | Low | 11(20.8) | 32(60.4) | 10(18.9) | 53(100.0) |
| | Moderate | 4(4.8) | 63(75.9) | 16(19.3) | 83(100.0) |
| | High | 5(26.3) | 7(36.8) | 7(36.8) | 19(100.0) |
| Overall participation Chi-square= 18.386, df= 4, significance= 0.001 | Low | 11(20.8) | 38(71.7) | 4(7.5) | 53(100.0) |
| | Moderate | 3(3.6) | 79(95.2) | 1(1.2) | 83(100.0) |
| | High | 5(26.3) | 14(73.7) | 0(0.0) | 19(100.0) |

**Hypothesis eight**: Meeting with the government officer is relating to people participation in Ban Thung Soong Community Forest conservation.

Table 26 illustrated the relationship between respondent's meeting with the government officer and people participation in conservation of community forest. Result showed that the respondents' meeting with the government officer is relating to people participation in Ban Thung Soong Community Forest conservation. The statistic significant value obtained for overall participation was 0.012 ($p < 0.05$). This indicated that government officer had an important role in community development and enhanced quality of life of people. From the results, it was found that 90.3 percent respondent's participated in community forest conservation. In Ban Thung Soong Village, government officer from Royal Forest Department and Department of Agricultural Extension worked in the village. People met and talked with the government officers regarding concerning field. With the effort of Agriculture department, Ban Thung Soong Village became a center of Agricultural Technology Transfer.

Table 26 Relationship between respondent's meeting with the government officer and people participation in forest conservation

| Participation phase | Meeting with the government officer | Level of participation | | | |
|---|---|---|---|---|---|
| | | Low(%) | Medium(%) | High(%) | Total (%) |
| Problem idenfication<br>Chi-square= 0.108, df=1, significance = 0.742 | Never<br>Yes | 44(84.6)<br>85(82.5) | 8(15.4)<br>18(17.5) | 0(0.0)<br>24(23.3) | 52(100.0)<br>103(100.0) |
| Planning phase<br>Chi-square= 6.635, df= 2 , significance= 0.036 | Never<br>Yes | 11(21.2)<br>8(7.8) | 36(69.2)<br>77(74.8) | 5(9.6)<br>18(17.5) | 52(100.0)<br>103(100.0) |
| Practical activity<br>Chi-square= 8.478, df= 2, Significance= 0.014 | Never<br>Yes | 5(10.2)<br>2(2.0) | 37(75.5)<br>93(92.1) | 7(14.3)<br>6(5.9) | 49(100.0)<br>101(100.0) |
| Follow-up and control<br>Chi-square= 8.095, df= 2, significance= 0.017 | Never<br>Yes | 12(23.1)<br>8(7.8) | 28(53.8)<br>74(71.8) | 12(23.1)<br>21(20.4) | 52(100.0)<br>103(100.0) |
| Overall participation<br>Chi-square= 8.777, df= 2, significance= 0.012 | Never<br>Yes | 12(23.1)<br>7(6.8) | 38(73.1)<br>93(90.3) | 2(3.8)<br>3(2.9) | 52(100.0)<br>103(100.0) |

**Hypothesis nine**: Knowledge in forest conservation is relating to people participation in Ban Thung Soong Community Forest conservation.

Table 27 illustrated the relationship between respondent's knowledge in forest conservation and people participation in conservation of community forest. Result showed that the respondents' knowledge in forest conservation was not relating to people participation in Ban Thung Soong Community Forest conservation. The statistic significant value obtained for overall participation was 0.912 ($p > 0.05$).

Table 27 Relationship between respondent's knowledge in forest conservation and level of people participation in Ban Thung Soong Community Forest conservation

| Participation phase | Knowledge in forest conservation | Level of participation | | | |
|---|---|---|---|---|---|
| | | Low(%) | Moderate(%) | High(%) | Total (%) |
| Problem idenfication Chi-square= 4.994, df=1, significance = 0.025 | Moderate<br>High | 0(0.0)<br>129(83.9) | 1(100.0)<br>25(16.2) | 0(0.0)<br>0(0.0) | 1(100.0)<br>154(100.0) |
| Planning phase Chi-square= 7.204, df= 2 , significance= 0.027 | Moderate<br>High | 1(100.0)<br>18(11.7) | 0(0.0)<br>113(73.4) | 0(0.0)<br>23(14.9) | 1(100.0)<br>154(100.0) |
| Practical activity Chi-square= 0.155, df= 2, Significance= 0.925 | Moderate<br>High | 0(0.0)<br>7(4.7) | 1(100.0)<br>129(86.6) | 0(0.0)<br>13(8.7) | 1(100.0)<br>149(100.0) |
| Follow-up and control Chi-square= 3.721, df= 2, significance= 0.156 | Moderate<br>High | 0(0.0)<br>20(13.0) | 0(0.0)<br>102(66.2) | 1(100.0)<br>32(20.8) | 1(100.0)<br>154(100.0) |
| Overall participation Chi-square= 0.184, df= 2, significance= 0.912 | Moderate<br>High | 0(0.0)<br>19(12.3) | 1(100.0)<br>130(84.4) | 0(0.0)<br>5(3.2) | 1(100.0)<br>154(100.0) |

**Hypothesis ten**: Settlement period is relating to people participation in Ban Thung Soong Community Forest conservation.

Table 28 illustrated the relationship between respondent's settlement period and people participation in conservation of community forest. Result showed that the respondents' settlement period is not relating to people participation in Ban Thung Soong Community Forest conservation. The statistic significant value obtained for overall participation was 0.305 ($p > 0.05$). From the overall participation, it was found that respondent's mostly participated from every range of settlement year. This indicated that settlement year was not relating to people participation in forest conservation.

Table 28 Relationship between respondent's settlement period and level of people participation in Ban Thung Soong Community Forest conservation

| Participation phase | Settlement period | Level of participation | | | |
|---|---|---|---|---|---|
| | | Low(%) | Moderate(%) | High(%) | Total (%) |
| Problem idenfication Chi-square= 6.279, df=3, significance = 0.099 | Less than 30 | 55(84.6) | 10(15.4) | 0(0.0) | 65(100.0) |
| | 31-40 | 15(68.2) | 7(31.8) | 0(0.0) | 22(100.0) |
| | 41-50 | 23(79.3) | 6(20.7) | 0(0.0) | 29(100.0) |
| | More than 50 | 36(92.3) | 3(7.7) | 0(0.0) | 39(100.0) |
| Planning phase Chi-square= 7.394, df= 6, significance= 0.286 | Less than 30 | 8(12.3) | 49(75.4) | 8(20.3) | 65(100.0) |
| | 31-40 | 4(18.2) | 17(77.3) | 1(4.5) | 22(100.0) |
| | 41-50 | 4(13.8) | 17(58.6) | 8(27.6) | 29(100.0) |
| | More than 50 | 3(7.7) | 30(76.9) | 6(15.4) | 39(100.0) |
| Practical activity Chi-square= 11.907, df= 6, Significance= 0.064 | Less than 30 | 1(1.6) | 53(84.1) | 9(14.3) | 63(100.0) |
| | 31-40 | 3(14.3) | 16(76.2) | 2(9.5) | 21(100.0) |
| | 41-50 | 2(6.9) | 27(93.1) | 0(0.0) | 29(100.0) |
| | More than 50 | 1(2.7) | 34(91.9) | 2(5.4) | 37(100.0) |
| Follow-up and control Chi-square= 3.320, df= 6, significance= 0.768 | Less than 30 | 7(10.8) | 43(66.2) | 15(23.1) | 65(100.0) |
| | 31-40 | 5(22.7) | 14(63.6) | 3(13.6) | 22(100.0) |
| | 41-50 | 4(13.8) | 19(65.5) | 6(20.7) | 29(100.0) |
| | More than 50 | 4(10.3) | 26(66.7) | 9(23.1) | 39(100.0) |
| Overall participation Chi-square= 7.174, df= 6, significance= 0.305 | Less than 30 | 6(9.2) | 55(84.6) | 4(6.2) | 65(100.0) |
| | 31-40 | 5(22.7) | 16(72.7) | 1(4.5) | 22(100.0) |
| | 41-50 | 4(13.8) | 25(86.2) | 0(0.0) | 29(100.0) |
| | More than 50 | 4(10.3) | 35(89.7) | 0(0.0) | 39(100.0) |

**Hypothesis eleven**: Benefit gained from the forest is relating to people participation in Ban Thung Soong Community Forest conservation.

Table 29 illustrated the relationship between respondent's benefit gained from the forest is relating to people participation in conservation of community forest. Result showed that the respondents' benefit gained from the forest was not relating to people participation in Ban Thung Soong Community Forest conservation. The statistic significant value obtained for overall participation was 0.456 ($p > 0.05$). This meant that benefit from the forest did not have any affect on people participation. From the overall participation, it was found that most (88.6 %) of the respondent's participated in forest conservation without getting any benefit from the community forest. Actually, Ban Thung Soong Community people conserved and protected their forest for the greater interest of intangible benefits like water, amelioration of environment and also amenity of their way of life. Since the conservation of the forest, people started to have water for irrigation, timber for communal purposes, and also some minor products from the forest. This effort of conservation also turned the opportunity of community-based eco-tourism in the village.

Table 29 Relationship between respondent's benefit gained from the forest and people participation in Ban Thung Soong Community Forest conservation

| Participation phase | Forest benefit | Level of participation | | | |
|---|---|---|---|---|---|
| | | Low(%) | Moderate(%) | High(%) | Total (%) |
| Problem idenfication<br>Chi-square= 0.337, df=1, significance = 0.562 | No<br>Yes | 28(80.0)<br>101(84.2) | 7(20.0)<br>19(15.8) | 0(0.0)<br>0(0.0) | 35(100.0)<br>100(100.0) |
| Planning phase<br>Chi-square= 0.622, df= 2, significance= 0.733 | No<br>Yes | 3(8.6)<br>16(13.3) | 27(77.1)<br>86(71.7) | 5(14.3)<br>18(15.0) | 35(100.0)<br>120(100.0) |
| Practical activity<br>Chi-square= 2.052, df= 2, Significance= 0.358 | No<br>Yes | 1(3.0)<br>6(5.1) | 31(93.9)<br>99(84.6) | 1(3.0)<br>12(10.3) | 33(100.0)<br>117(100.0) |
| Follow-up and control<br>Chi-square= 0.714, df= 2, significance= 0.700 | No<br>Yes | 5(14.3)<br>15(12.5) | 21(60.0)<br>81(67.5) | 9(25.7)<br>24(20.0) | 35(100.0)<br>120(100.0) |
| Overall participation<br>Chi-square= 1.572, df= 2, significance= 0.456 | No<br>Yes | 4(11.4)<br>15(12.5) | 31(88.6)<br>100(83.3) | 0(0.0)<br>5(4.2) | 35(100.0)<br>120(100.0) |

## 6. Results from Chi-square analysis

In this study, hypothesis was independent variable gender, age, educational level, main occupation, household income, communication and media in general in the village, meeting with the government officer, knowledge in forest conservation, settlement period, communication and media for forest conservation, and benefit gained from the forest is relating to people participation in forest conservation. The results from chi-square analysis were summarized in Table 30. The results found that respondent's educational level, main occupation, household income, communication and media in general in village, communication and media for forest conservation, and meeting with the government officer were significantly related to people participation in Ban Thung Soong Community Forest at 0.05 level. While gender, age, knowledge in forest conservation, settlement period, benefit gained from the forest were not significantly related to people participation in forest conservation.

Table 30 Results from Chi-square analysis for independent variables and people participation in forest conservation.

| Independent variables | PI | P | PA | FC | OPC |
|---|---|---|---|---|---|
| | Significant value of independent variables of people participation | | | | |
| Gender | 0.317 | 0.357 | 0.315 | 0.611 | 0.760 |
| Age | 0.878 | 0.651 | 0.664 | 0.128 | 0.448 |
| Educational level | 0.000** | 0.000** | 0.000** | 0.000** | 0.000** |
| Main occupation | 0.241 | 0.000** | 0.000** | 0.000** | 0.000** |
| Household income | 0.023* | 0.001** | 0.655 | 0.016* | 0.009* |
| Communication and media in general | | | | | |
| -Mass media | 0.286 | 0.008* | 0.004* | 0.000** | 0.000* |
| -People media | 0.001* | 0.005* | 0.052* | 0.220 | 0.017* |
| Communication and media for forest conservation | | | | | |
| -Mass media | 0.044* | 0.142 | 0.000** | 0.017* | 0.003* |
| -People media | 0.000** | 0.018* | 0.141 | 0.046* | 0.022* |
| Meeting with the government officer | 0.742 | 0.036* | 0.014* | 0.017* | 0.012* |
| Knowledge in forest conservation | 0.025* | 0.027* | 0.925 | 0.156 | 0.912 |
| Settlement period | 0.099 | 0.286 | 0.064 | 0.768 | 0.305 |
| Benefit gained from the forest | 0.562 | 0.733 | 0.358 | 0.700 | 0.456 |

Remarks: *Significant relationship at 0.05 level
**Significant relationship at 0.00 level
PI= Problem identification, P= Planning, P=Practical activity
FC= Follow-up and control, OPC= Overall Participation

# CONCLUSION

Thailand is a country started to put more emphasis on forest conservation through conserving the existing forest designating them as national parks and wildlife sanctuaries, relocation of forest dwellers, encourage private reforestation, and community participation. It tries to find new ways of forest management to deal with the danger of forest loss and degradation, and conserve the remaining forest areas. Community forests are one solution that involved local people in the management of forest resources that would eventually mobilize the people to conserve and utilize the resources for their livelihood improvement. A growing number of villages claim their ability to conserve forest area within the community as community forests.

Ban Thung Soong Community Forest, located at Khao Yai Sub-district, Ao Luek District in Krabi, a southern province of Thailand, is a good case of community-based forest conservation. Its communication and people participation was assumed as effective and efficient. The study was conducted to explore socio-economic condition, people participation activities, uses of communication and media, and factors relating to people participation in conservation of Ban Thung Soong Community Forest. In this connection, the study was done through quantitative and qualitative methods. The population was 252 families who live adjacent to the forest. Simple random sampling method was employed for data collection. The respondents' were 155 villagers. The data were collected periodically during February 2005-2006 by using in-depth interviews and group discussion with using a set of structured questionnaire, and also activity observation of villagers' life, in order to find out the study objectives. The data analysis was done using a statistical package program (SPSS) and literature review was done on: 1) Concept of Community Forestry, 2) Concept of Forest Conservation, 3) Concept of People Participation, 4) Concept of Communication, 5) Concept of Media, 6) Related Researches The study findings are concluded here according to the objectives as follows:

## 1. Socio-economic of people in Ban Thung Soong village

Majority of the respondents were male and 35.5 percent were female. Their average age was 49.86 years, and most of them belong to the age range of 41-50 years. Many of the respondents passed the basic education. Their main occupation was agriculture; average household income was 106, 438.70 baht per year. Agriculture farming was the major source of their income; other earning sources of income were livestock, agronomy, wage of labor, and small business. Only 3.9 percent earn income from small business. The respondents average duration of staying in the village was about 40 years. Regarding understanding and knowledge in forest conservation was very high. It was found that majority of the respondents meet and talk with the officer working in their village.

**2. People participation and their activities in forest conservation**

Participation in community forest activities of Ban Thung Soong village was obtained at different phases of the program, at the problem identification, planning, practical activity, and follow-up and control. Several concerns were employed in every phase for the determination of the participations in community forest conservation. It was found that respondents participated in forest conservation was at moderate level ($\overline{X}$ = 2.8). The highest mean of people participation was in term of practical activities ($\overline{X}$ = 3.04), while the lowest mean was in problem identification phase ($\overline{X}$ = 1.9).

**3. Communication and media used for Ban Thung Soong village and Community Forest conservation**

In Ban Thung Soong village, among different kind of media used by the people, television was most frequently (71.6 %) exposed followed by radio (44.5 %) and newspaper (7.1 %), and village meeting (4.5 %) consequently for general use. Among the media in general, television was the highest mean ($\overline{X}$ = 3.46). Respondents overall general communication in the village was at moderate level ($\overline{X}$ = 2.27) and the highest mean of general communication was in term of mass media ($\overline{X}$ = 2.47)

Regarding receiving forest information by the people of the village, television considered as most frequent (45.8 %) mass media followed by radio (31 %), newspaper (3.9 %). and village meeting (3.9 %) in the village. Among the media in forest conservation, television was the highest mean ($\overline{X}$ = 2.92). Respondents overall forest communication in the village was at moderate level ($\overline{X}$ = 2.10) and the highest mean of forest communication was in term of mass media ($\overline{X}$ = 2.28)

**4. Factors relating to people participation in Ban Thung Soong Community Forest conservation**

The results found that respondent's educational level, main occupation, household income, communication and media in general in village, communication and media for forest conservation, and meeting with the government officer were relating to people participation in Ban Thung Soong Community Forest.

# RECOMMENDATIONS

## Recommendation in general

1. Multi-media approach should be applied to activate the stakeholders and it bridging the gap between the government authority and community leader and people. Also one should remember research, development and extension (RDE) as an essential tool to improve the linkage of target people.

2. It is important to note that many tropical countries are now restructured the paradigm shift to improve their roles and responsibilities in their ultimate goals. Development communication can be the one of the important task that can bring people to participate in forest management and greening the country.

## Recommendation for Ban Thung Soong Village

1. Village authority should upgrade the People Centre into information centre where information related to the village will be systematically collected.

2. Government authority should upgrade the school library so that villager can participate whenever time is permitted.

3. Government authority and related agencies should upgrade carrying capacity of people responsible in Village media system (Hor Krajai Kao).

4. Village authority should arrange the information on medicinal plants in Parataxonomist Hub for learning local wisdom about health treatment in the goal of good heath of people.

5. Government and relevant authority should develop Andaman Youth Centre in the village to help the youth in building leadership quality among the youth.

6. Related agencies should utilize the value added of left over palm leaves, rubber roots and other materials found from oil-palm and rubber plantations.

## LITERATURE CITED


Achariyacheevin, N. 2000. **The People Participation in Forest Resource Conservation on Khok-Nong Takrong Forest, Tambon Nong-Khamarn, Amphoe Khu Muang, Changwat Buri Ram.** M.S. thesis, Kasetsart University, Thailand.

Acharya, K.P. and B.N. Oli, 2005. Impacts on community forestry in rural livelihoods as a case study from Bharkhore Community Forest, Parbat District. **Banko Janakari**. 14(1): 46-50.

Barrebo, L. 2005**. Participatory Approaches in Natural Resources Management and Development Strategies of Two Community Forest Programs in Thailand.** A comparative field study the karen community forest in the Ban Na Suan/Sama Kae village in Kanchanaburi Province and the Thai community forest in the Ban Thung Village in Krabi Province. Umea University, Department of Social and Economic Geography.

Bumroong, S. 2002. **Factors Affecting People Participation in Management of Khao-Cha- Ome Community Forest, Chon Daen District, Phetchabun Province.** M.S. thesis, Kasetsart University, Bangkok.

Boonkong, S. 1998. **Women and Men's Participation in Rural Community Based Development: A Case Study of Sakhlee Community, Ayuthaya, Thailand**. M.S. Thesis, Asian Institute of Technology, Bangkok.

Banerjee, A.K. 1995. Some observation on community forestry, pp. 31-40. In M. Vector, ed. **Seminar on Income Generation Through Community Forestry**. Regional Community Forestry Center, Bangkok.

Bessette, G. 2004. Involving the Community: A Guide to Participatory Development Communication. Jointly published by Southbound, Penang and International Development Research Centre, Ontario, pp. 1-27.

Chaiwirattana, C. 2001. **Communication Strategies for Sustainable Development of Community Business for Women Farmer Groups in the Central Region of Thailand. Bangkok**. M.S. thesis, Kasetsart University, Bangkok.

Dagron, A.G. 2001. **Making Waves: Stories of Participatory Communication for Social Change.** The Rockefeller Foundation, New York.

Diller, O.D. 2005. The practice of **Forest Conservation**. Available source: http://www.questa.com./PM.qst? a = o &d = 61630694. questa, Retrieved 16 November, 2005.

Forest Department. 1999. Trainer's Manual: Social Forestry Module. Forestry Sector Project (1997/8-2003/4). Dhaka.

Genilo, R.W.J. 2004. **Community-based Communication: A New Approach to Development Communication.** Great Books publishing, Quezon City.

Hirunchunha, J. 1999. **Factors Affecting People Participation on Highland Social Forestry Project in Huai Ong Pho Watershed, Changwat Kanchanaburi.** M.S. thesis, Kasetsart University, Bangkok.

Infante, A.D., A.S. Rancer and D.F.Womack. 1990. **Building Communication Theory**. Waveland Press, Inc., Illinois.

Jiaqi, X. T, Zachernuk and Z. Yongjun. 2003. Sustainable poverty alleviation model for community forestry in a mountainous region of China, pp.105-111. In H.C. Sim, S. Appanah and W.M.Lu, eds. **Proceedings of Workshop on Forests for Poverty Reduction: Can Community Forestry Make Money?** 1-2 September, 2003, Beijing.

Julthom S. 2002. **People Participation in the Conservation: A Case Study of Pang-Sak Community Forest, King Amphoe Mae-Poen, Changwat Nakhon Sawan.** M.S. Thesis, Kasetsart University, Bangkok.

John-Walters, L. 2000. Communication: the basics. European Centre for Nature Conservation. Manual. January, 2000. pp.7-14.

Kanel, K.R. and D.R. Niraula. 2005. Can rural livelihood be improved in Nepal through community forestry? **Banko Janakari.**14 (1): 19-26.

Ongkiko, I.V.C, and A.G. Flor. 2003. **Introduction to Development Communication**. SEAMEO SEARCA and the U.P. Open University, Los Banos.

Ongart, T. 2002. **Factors Affecting the Conservation of Kho Rao Thien Thong Community Forest, Noen Kham Sub- district, Chai Nat Province.** M.S. thesis, Kasetsart University, Bangkok.

Poudel, M. 2003. Assessing sustainability of community forestry through analyzing field and remotely sensed indicators in the Nepal's Terai. **Banko Janakari.** 13(1): 43-48.

Panichpan, S. 2005. **Media Affecting Opinion of Backpackers' Tourists to Visit Thailand**. M.S. thesis, Kasetsart University, Bangkok.

Pinpak, C. 2000. **People Participation in Forest Resources Conservation and Land Use at Ban Jan, Tambon Huai Sai, Amphoe Nong Khae, Changwat Saraburi.** M.S. thesis, Kasetsart University, Bangkok.

Qinglin, jia. 2005. Campaign begun to raise awareness of **forest conservation**. Available source: http:// www.english. People.com.cn / 200307 /13 / eng 20030713- 120110 /shtml, Retrieved 13 November, 2005.

Rakjit, P. 2004. **Communication Methods and People Participation in Promoting Mangrove Conservation of Bangkaew Sub-District Adminstration Organization , Samut Songkhram Province**. M.S. thesis, Kasetsart University, Bangkok.

Sutthisrisilapa, C. 2003. The contribution of community forestry to rural livelihood in Thailand, pp. 143-149. In H.C. Sim, S. Appanah and W.M.Lu, eds. **Proceedings of Workshop on Forests for Poverty Reduction: Can Community Forestry Make Money?** Food and Agriculture Organization of The United Nations Regional Office for Asia and The Pacific, Bangkok.

Saranark, T. 2002. A review of forestry and related legislation, policies and practices and their impacts on SFM and on the MF approach in Thailand, pp. 73-94. In T.H. Tat, R. Hegde and D. Gee, eds. Proceedings of Regional Workshop on Forestry and Related Policies, Legislation and Practices and their Impacts on Sustainable Forest Management and on the Model Forest Approach. Field Document No. 6, June, 2003. Organised and sponsored by Forest Mgt. Bur. / Dept. of Env. & Nat. Res, Phillipines; Inter. Model Forest Network Sec. and FAO/ Govt. of Japan (GCP/ RAS / 177/ JPN).

Subarudi, M.M. Idris, B. Achmad and M. N. Iman. 2003. Community forestry for poverty reduction- lessons learned in Indonesia. Pp. 71-75. In H.C. Sim, S. Appanah and W.M. Lu, eds**. Proceedings of the Workshop on Forests For Poverty Reduction: Can Community Forestry Make Money?** Food and Agriculture Organisation of the United Nations, Regional Office for Asia and the Pacific, Bangkok.

Susak, W. 2004. **Factors Relating to People Participation in the Conservation of Mangrove Forest at Khun Thian, Bangkok.** M.S. thesis, Kasetart University, Bangkok.

Suchai, H. 2004. **People's Participation in Conservation of Mu Ko Lanta National Park, Amphoe Ko Lanta, Changwat Krabi.** M.S. Thesis, Kasetsart University, Bangkok.

Sawatdee, W. 2002. **Plant Diversity and Ecotourism Potential in the Community Forest and Homestead: A case Study in Ban Thung Soong, Krabi, Thailand.** M.S. thesis, Kasetsart University, Bangkok.

The European Commission. 2005. Conservation of Ecosystems and Biodiversity of Tropical Forests. Available source:http://www.europa.eu.int/comm/development/body/publications/forests/en/en3-t02.htm, Retrieved 17 November, 2005.

Usa, T. 2004. **The Contribution of Communication Factors to Na So Community's Empowerment**. M.S. thesis, Kasetsart University, Bangkok.

United Nations development Program. 2004. Community Forests in Thailand, pp. 9-13, Bangkok.

World Wildlife Fund. 2005. The issue on **Forest Conservation**. Available source:http://www.worldwildlife.org/forests/index.cfm, Retrieved 16 November, 2005.

Yamane, T. 1973. **Statistics: An Introductory Analysis.** 3rd ed. Times printer, Singapore.

# APPENDIX

# APPENDIX A

## Questionnaires

## Questionnaires

Title: Communication and People Participation in the Conservation of Community Forest at Ban Thung Soong village, Ao Luek District, Krabi Province.

Please put a tick (√) mark in the space provided at the front of every question that you think matches you the most.

1. Gender

- ❑ Male
- ❑ Female

2. Age ---------- years

3. How old the members of the household?

| Age | Male | Female |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |

4. Educational level

- ❑ No education
- ❑ Graduated level
- ❑ Other (Specify)----------

5. What is your main occupation?

- ❑ Agriculture and /farming related
- ❑ Other (Specify)----------

6. Household income (approximately baths) per year from

- ❑ Agriculture---------- bath
- ❑ Livestock---------- bath

- Rice ---------- bath
- Agronomy ---------- bath
- Wage of labor--------- bath
- Other (Specify)---------

7. How long have you been settled in this village?

-----years, since--------

8. Communication and media

8.1. Communication and media in general in the village

| Media | Frequency | | | |
|---|---|---|---|---|
| | Everyday | Once/2-3 days | Once/week | Others |
| Radio | | | | |
| TV | | | | |
| Newspaper | | | | |
| Village meeting | | | | |
| Family member | | | | |
| Head of village | | | | |
| Government Officer | | | | |
| Others | | | | |

8.2. Communication and media for forest conservation in the village

| Media | Frequency | | | |
|---|---|---|---|---|
| | Everyday | Once/2-3 days | Once/week | Others |
| Radio | | | | |
| TV | | | | |
| Newspaper | | | | |
| Village meeting | | | | |
| Family member | | | | |
| Head of village | | | | |
| Government Officer | | | | |
| Others | | | | |

9. Knowledge in Forest Conservation

| Item | Yes | No |
|---|---|---|
| 1. Forest provides food, fodder, fuelwood, timber for rural people. | | |
| 2. Forest conserve soil and water resources. | | |
| 3. Forest makes income opportunities for rural people. | | |
| 4. Forest conservation will ensure future generations the environmental and economical value they do today. | | |
| 5. If there is no forest conservation, forest may deplete in the future. | | |
| 6. Forest rehabilitation and conservation is government's responsibility. | | |
| 7. Community based Forest Conservation will ensure sustainability of forest. | | |
| 8. Forest restoration increasing flora and fauna of the area. | | |
| 9. Over-exploitation of forest resources causes destruction of forest. | | |
| 10. Community people are best manager of the forest. | | |

10. Since the conservation forest established, have you ever gain any benefit from the forest?

- ❑ No
- ❑ Yes, please specify----------

11. How often do you meet and talk with the Government officer? What is mostly concerned?

- ❑ Government officer---------- Time/week/month/year

---

12. How do you participate in Forest Conservation activities?

| 1. Problem identification | The most | More | Moderately | Less | Least |
|---|---|---|---|---|---|
| What kind of problems do you participated in forest conservation?<br>1.Soil erosion<br>2.Illegal cutting<br>3. Wildlife hunting<br>4. Over-exploitation of resources<br>5. Plantation failure<br>6. Conflict in the group<br>7.Non-coperation from Govt. agencies<br>8.Local elite's influence<br>9. Weak committee<br>10.Mismanagement | | | | | |

| 2. Planning Stage | The most | More | Moderately | Less | Least |
|---|---|---|---|---|---|
| What kind of Planning stage do you participated in forest conservation?<br>1. Conservation objectives<br>2. Information collection<br>3. Decision-making<br>4. Formation of working committee<br>5. Working plan<br>6. Implementation<br>7. Benefit-sharing mechanism<br>8. Process of people participation<br>9. Needs assessment<br>10. Communication plan | | | | | |

| 3. Practical Activity | The most | More | Moderately | Less | Least |
|---|---|---|---|---|---|
| What kind of Practical activities do you participated in forest conservation?<br>1. Regular committee meeting<br>2. Protection duty<br>3. Tending operation<br>4. Tree planting<br>5. Training<br>6. Meeting with Extension Officers<br>7. Application of appropriate technology<br>8. Motivation program<br>9. Follow the rules and regulations<br>10. Creation of Fund | | | | | |

| 4. Follow-up and Control | The most | More | Moderately | Less | Least |
|---|---|---|---|---|---|
| What kind of follow-up and control do you participated in forest conservation?<br>1. Impact of soil erosion<br>2. Stop of wildlife hunting<br>3. Stop of illegal cutting<br>4. Scientific plantation management<br>5. Manpower training<br>6. Wise use of the forest resources<br>7. Rearrangement of working committee<br>8. Equal sharing of benefits<br>9. Proper communication plan<br>10. Support from external agencies | | | | | |

# APPENDIX B

## The Regulation of Resources Utilization in Ban Thung Soong Community Forest Eco-tourism

**The Regulation of Resources Utilization in Ban Thung Soong Community Forest Eco-tourism**

BTS (Ban Thung Soong ) Community Forestry for Eco-tourism is a community forest that BTS villagers have protected, conserved and rehabilitated for BTS peoples directly and indirectly. The villagers developed the regulation concerning BTS Community Forest for Eco-tourism.

Declaration

1. BTS Community Forest is a common property and shall belong to all BTS villagers. They have protected and conserved forest resources and wildlife remaining in BTS Community Forest.
2. BTS villagers have set up BTS Community Forest Committee to manage the forest. They will make use of community forest to manage the forest. They will make use of community forest to cope well with the community needs. They will protect the forest from all illegal practices both from outside the villager as well as inside the village. They also help in rehabilitating the forest.
3. Logging is not allowed in the community forest except for the communal activities. In that case, it must be agreed upon with BTS Community Forest Committee.
4. BTS villagers can gather minor forest products for their own uses and for the communal activities through sustainable management practices.
5. BTS villagers will help in transfer and exchange knowledge about forest resources conservation.
6. BTS villagers will cooperate with the authorities in forests and wildlife conservation for eco-tourism.
7. BTS villagers will not set fire in the community forest and nearby area so as to prevent fire spreading into the forest.
8. Domestic animals are not allowed to feed in the BTS Community Forest.
9. People from outside can enjoy the BTS Community Forest only for eco-tourism and recreation. They have to follow the regulations of BTS Community Forest.
10. BTS Community Forest should be developed bay based on the Master Plan. The establishment of trails and pavilion in BTS Community Forest should be simple and harmonize with the surrounding nature.
11. BTS villagers should cooperate with research agencies and education institutes so that the applications will be benefits for the society.
12. BTS villagers should cooperate with school in transferring the ecological knowledge of BTS Community Forest to the youth. This will help in giving information to the new generation.
13. Establishment of foundation to conserve BTS Community Forest to sustainable benefits for forest management and BTS villagers.
14. BTS villagers are all involved in forest and wildlife conservation, particularly on the exploration, surveying and controlling.

Penalty Charges:

1. A person who cut the trees in community forest illegally must be fined at least 1000 bath. The fall trees should be used for community activities.
2. A collecting of Minor Forest Products in BTS Community Forest for sell must be fined two times the market price of each item.
3. Any person who collects the medicinal plants from BTS Community Forest for sell must be fined 500 Baht per species.
4. Any person who hunts wild animals must be fined. Weapons will be disposed and case will be taken legal action.

Declared by BTS villagers meeting (January, 1999)