People's Participation in Dong Na Tham Community Forest Management Project, Ubon Ratchathani, Thailand

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ABSTRACT

This study aimed to assess the factors, extent, and outcomes of people's participation in the Dong Na Tham CFM Project and explored the influence of multi-level factors in the extent of people's participation. A total of 347 people were randomly selected for data collection using an interview schedule, including 10 project staff and five village heads in a key informant interview process. Descriptive and inferential statistics were used for data analysis. The people were mostly male, had primary school education, low income, and had a high community attachment and favorable attitude towards participation. Project staff tended to have a coordinator management style, and resource support was moderate. People mostly lived on the mid slopes of the mountain, deemed their village leadership to be of fair quality, viewed their community as highly cohesive, and had a moderate extent of participation identified in five dimensions of benefits to them. Gender, 1−2 affiliations with organizations, community attachment, the level of resource support, leadership quality, and cohesiveness influenced people's participation in the project. No time to participate, limited resources, and less transparency in village budgeting were determined as the problems, which respondents suggested could be addressed by offering equal opportunities to all participants, providing an adequate budget, supplying equipment, training, and personnel, and undertaking funds sourcing and networking.

Keywords: participation, people's participation, community forest management (CFM), Dong Na Tham community forest management (CFM) Project

บทคัดย่อ

การศึกษาครั้งนี้มีวัตถุประสงค์เพื่อศึกษาปัจจัยระดับ และผลลัพธ์ของการมีส่วนร่วมของประชาชนในโครงการบริหารจัดการป่าชุมชน ป่าดงนาทาม จังหวัดอุบลราชธานี และศึกษาปัจจัยที่มีอิทธิพลต่อระดับการมีส่วนร่วมของประชาชนจำนวน 347 คน โดยใช้แบบสัมภาษณ์และเก็บข้อมูลจากเจ้าหน้าที่โครงการ 10 คน ผู้ใหญ่บ้าน 5 คน โดยใช้การสัมภาษณ์ วิเคราะห์ข้อมูลโดยสถิติเชิงพรรณนาและอนุมาน ผลการศึกษาพบว่า กลุ่มตัวอย่างส่วนใหญ่เป็นเพศชาย จบการศึกษาระดับประถม มีรายได้ต่ำ มีความรู้สึกแนบแน่นกับชุมชนในระดับสูง และมีทัศนคติต่อการมีส่วนร่วมอยู่ในระดับดี เจ้าหน้าที่โครงการส่วนใหญ่มีรูปแบบการจัดการโครงการแบบผู้ประสานงานที่ดี การสนับสนุนอุปกรณ์ต่างๆ ในโครงการอยู่ในระดับปานกลาง กลุ่มตัวอย่างส่วนใหญ่อาศัยอยู่ตอนกลางของภูเขา มีความรู้สึกยึดติดอยู่

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กับชุมชนในระดับสูง ผู้นำชุมชนมีภาวะความเป็นผู้นำอยู่ในระดับปานกลางโดยกลุ่มตัวอย่างเข้ามามีส่วนร่วมในโครงการในระดับปานกลาง ซึ่งนำไปสู่ผลประโยชน์แก่ประชาชนใน 5 มิติในระดับสูง ผลการศึกษาความมีอิทธิพลของปัจจัยต่างๆ ต่อการมีส่วนร่วมของประชาชน พบว่า เพศ การเป็นสมาชิกขององค์กรชุมชนไม่เกิน 2 องค์กร ความรู้สึกแนบแน่นต่อชุมชน ระดับการสนับสนุนอุปกรณ์และเครื่องมือในโครงการ ภาวะผู้นำ และความรู้สึกยึดติดอยู่กับชุมชน มีอิทธิพลต่อการเข้ามามีส่วนร่วมของประชาชนในโครงการนี้ สำหรับปัญหาของโครงการได้แก่ ประชาชนไม่ค่อยมีเวลาเข้ามามีส่วนร่วม วัสดุอุปกรณ์และเครื่องมือต่างๆ มีจำกัด และความไม่โปร่งใสด้านการจัดการงบประมาณซึ่งประชาชนได้เสนอแนะว่าควรให้โอกาสประชาชนทุกคนในการเข้ามามีส่วนร่วม มีงบประมาณ วัสดุอุปกรณ์ การฝึกอบรม และบุคลากรที่เพียงพอ และควรมีการสร้างเครือข่ายเพื่อสนับสนุนงบประมาณ

คำสำคัญ: การมีส่วนร่วม การมีส่วนร่วมของประชาชน การจัดการป่าชุมชน โครงการจัดการป่าชุมชน ป่าดงนาทาม

INTRODUCTION

Thailand has a total land area of 513,115 square kilometers, or about 51 million hectares of which 30 million hectares is forested land. For many years, the country's forests have been subject to clearing and degradation, although the situation has improved in recent times. In 1961, forests covered over half of the country's land area, but by 1995, they had been reduced to just over 25 percent. Between 1981 and 1990, the rate of deforestation was about 515,000 hectares, or 3.3 percent per year. In particular, in Ubon Ratchathani province, northeastern Thailand, reports showed that the forested area considerably declined by 86 percent, from 245,440 hectares in 1983 to 34,414.24 hectares in 1993 (Royal Forest Department, 1999).

The Community Forest Network, Dong Na Tham Forest is a non-government organization that aims to help preserve the forest and natural resources in Dong Na Tham Forest National Park, Ubon Ratchathani province. With budget support from the national government and non-government agencies, the network has conducted many projects to protect the forest; Dong Na Tham Community Forest Management (CFM) Project is one of those projects. The project has centered on, in particular, the Pha Tham National Park in Na Pho Klang sub-district, Khong Jaem district, Ubon Ratchathani which is a mountainous and forested area. Many residents rely on the forests for food, fuel, and livelihood. Other people have settled in the area and established livelihood activities that sometimes have been detrimental to the forest, which has contributed to land management problems.

However, although people's participation is one hallmark of the project, reports indicate a need to strengthen people's participation in the various phases of the project. Aside from this, there exists a challenge to correctly and systematically transform and distribute knowledge of forest management to the stakeholders. Consequently, it is necessary to address the problems at hand and enhance people's participation in forest management in Thailand. This study was guided by Cohen and Uphoff's (1980) participation model which views participation in a project framework of four distinct but interrelated phases—namely, planning, implementation, benefit sharing, and evaluation. The general objective of this study was to assess the factors, extent, and outcomes of people's participation in the project. Besides individual, project, and community factors influencing people's extent of participation, barriers to people's participation were also identified as particular objectives.

MATERIALS AND METHODS

Locale of the study

The project is located in Na Pho Klang sub-

district, Khong Jaem district, Pha Tham National Park in Ubon Ratchathani province, Thailand, and covers an area of approximately 6,300 hectares. It consists of nine villages with 1,413 households and 6,976 people. Five villages were chosen as study sites. The data were collected in 2010.

Sampling procedure

Simple random sampling was used to select 347 people for the study. The total sample size was computed using Slovin's formula (Gintingsugihen, 1993). The proportional allocation technique was used to determine the sample size from each village.

Instrumentation

A structured interview schedule and data collection guide were formulated and used to generate information from the people on the factors, extent of people's participation, and outcome of participation in the project. Key informant interviews were carried out with 10 project staff and five village heads.

Data analysis

Data were analyzed using a statistical package. Descriptive statistics were used to describe the factors, extent of people's participation, and benefits and disbenefits of people's participation. Stepwise multiple regression analysis of independent variables was used to identify the important predictors of participation.

RESULTS AND DISCUSSION

Brief of Dong Na Tham CFM project

The Dong Na Tham CFM Project aims to encourage and enhance people's participation in managing and preserving community forest and natural resources, and to improve the potential of local leaders in handling community forest issues. It also seeks to develop a learning network for the exchange of experiences regarding management, preservation, and utilization of forest resources. The network initially covered five villages in the Na Pho Klang sub-district, Khong Chaim district in Ubon Ratchathani province. The network covers 36 communities in five sub-districts of three districts in the province. The project has been through three distinct phases with corresponding milestones.

Phase 1 (1995–1999) was characterized by a rapid decline in the state of the forest flora and fauna. Alarmed by the situation, officials of what would become the Community Forest Network (CFN) initiated community meetings and instigated a massive information campaign to convince local people to join the project. The second phase (2000–2005) saw the birth of the project. People became conscious of their situation and realized that they needed community rules. They identified solutions, but knew little of forest conservation, so they consulted CFN officials. Participatory management strategies, tools, and techniques in forest management were used, which ushered in gains on various fronts. The third phase (2006–present) is an extension of the project. Its focus is on the transformation of local beliefs and knowledge to the next generation (Figure 1).

The project agency provided technical and administrative support to the project Structured around two divisions—Development, and Public Relations and Coordination. Each village had a CFM committee formed from among elected and designated community members. Local and outside facilitators were engaged to deal with the different career groups and members of the community.

Individual factors

Since the project participants were mostly married middle-aged males, they were functioning as the patriarchs of their Thai families, were still at the prime of their physical strength, and moreover, could speak on behalf of their spouse and supported children. They had usually proceeded beyond the compulsory primary education level which could be linked to the nature of project activities. Their mean household size was 3.10, slightly below the provincial

(4.2) and national (3.9) averages (National Statistical Office, 2009a). Some people leave the community to seek a better life in the city and enjoy the amenities lacking in the mountain areas. This partly explains the relatively smaller household size in the sample. Participants in the survey were affiliated with one to two organizations, mainly, the Dong Na Tham CFM Project.

The people generally earned an income from two sources, both before and after they were involved in the project. Most of them were engaged in crop production, in particular, rice, vegetables, and fruits. Some people began earning a living by utilizing forest products, like, mushroom, fruits, bamboos, insects, and herbs after having project involvement. The mean gross annual family income was 30,065 baht before and 34,078 baht after the project; both amounts are below the national per capita income of 99,000 baht and the provincial level of 72,000 baht (National Statistical Office, 2009b). Thus, the people were relatively poor.

The people had high community attachment; this was markedly visible in the high mean ratings obtained affirming the people got along well with

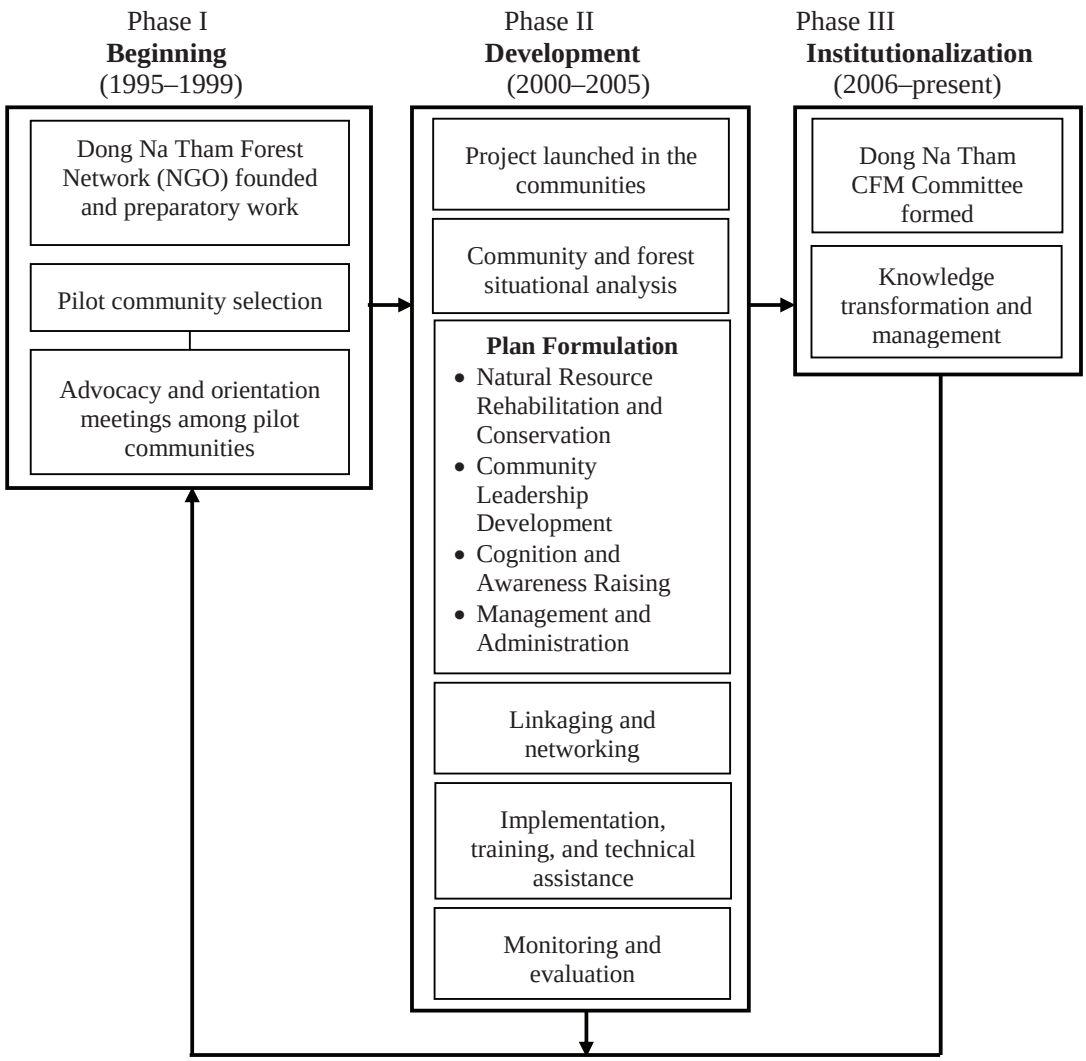

Figure 1 Phases and strategies of Dong Na Tham CFM Project

most other people and wanted to spend the rest of their lives in the community. This implies that people generally felt positive about their community, which means they had greater capacity to make the community a better place to live in. On the other hand, it is best to keep in mind the observation of O'Brien and Hassinger (1992) that locals with a strong sense of fit are less likely to search for new alternatives. Following the argument of these authors, the respondents run the risk of getting attached to the community in ways that inhibit searching for extra development options. Generally, the people had a favorable attitude towards participation, which bodes well for the Dong Na Tham CFM Project. In particular, the people were inclined to participate in planning, more so in implementation, and to a certain extent in monitoring and evaluation as well as the benefit sharing phases of community undertakings. This indicates openness to participatory projects. According to Thongma (2000), people with a favorable attitude towards participation will behave in a way that gives them more control of their destiny.

Project factors

The people viewed the management style of the project staff as that more of a coordinator and sometimes a driver, and a project challenge is to strengthen its resource support to the people, specifically in monetary and material terms, since overall, the project's resource support was found to be moderate. Having the needed resources is exigent for the project to succeed. Where there is enough resource support from the project, people will be encouraged to participate, a view supported by Basita (1993) who reported that a program support system, including among others, material resources and incentives, was significantly related to community participation in the Family Welfare Movement Program. Moreover, a program support system was a factor which influenced the level of community participation in the program.

Community factors

The majority of the people lived on the mid slopes of the mountain which have a total land area of 480 hectares and they rated the quality of their village leadership as fair, indicating a need to enhance such leadership, or capitalize further on its potential. Enhancing the capacity of the community leaders is strategic, considering their vital role in orchestrating local energies and resources. The people deemed their community to be highly cohesive. They had high trust, respect, and concern for each other. They shared views with each other and were open to working as a group. This could be explained by the fact that the people were natives of the locale and they had lived there together for many years. Being a highly cohesive group, mobilizing the people to engage in community undertakings, like the Dong Na Tham CFM, was not expected to be an uphill battle.

Overall, the results showed a moderately high level in individual, project, and community factors, which could suggest a moderately high level of people's participation in any development project.

Extent of people's participation in Dong Na Tham CFM project

Overall, the people had a moderate extent of participation. However, there was higher participation in implementation than planning, with M&E somewhere in between. Planning, along with M&E, requires a certain consciousness and some competencies, something that people need in the right amount. Examples are the formulation and allocation of the budget, identification of strategies, annual evaluation, and report making. It is possible that the people were not fully equipped and given enough opportunities to participate in these kinds of activities in the project.

Nonetheless, the findings support studies by Sriraungrith (2006), Baltazar (2003), and Thongma (2000), which showed that people participated less in planning and M&E, and more in the implementation of development activities. In contrast, Kowprasert

(1989) reported that community participation in the various phases of a community forestry development project was generally of the cooperation type. However, the participation was slightly higher in planning than in implementation which, in turn, elicited slightly higher participation than did monitoring and evaluation.

Outcomes of people's participation in the project

Individual level

The respondents perceived that their participation in the Dong Na Tham CFM Project highly benefited them in terms of the various aspects of development. Socially, they became better in dealing with other people and gained more friends and acquaintances. This confirms the finding of Patel (1991) that community activities became places for social and community building. Notably, people claimed that their project involvement, to a certain extent, entailed more social responsibility. This is logical because as people's social circle expands, so do their social functions and obligations. Although they had more tasks and social functions from the project activities, the people could manage to have time for the family. Also, they indicated that they had opportunities to help others, be popular, and be respected by other people. Psychologically, they had improved their knowledge, attitude, and skills in community development as forest management improved their self-confidence and self-image. This conforms to the observation of Libunao (2002) that participation in an NGO agricultural extension project enhanced people's self-confidence, self-image, and self-concept.

Economically, people had more access to forest products for supplementary income and generating more savings than before. It is of interest that the people could afford to save because the people were relatively poor, based on their mean annual family income of 34,029 baht, which was below the country's gross per capita income of 99,000 baht. More likely, people had a propensity to save. They would tend to spend less because they could just tap locally available materials for their food, health, shelter, and other needs. Certainly, there were attendant costs, like having to comply with project fees. Sometimes, they also had to provide their own tools, like knives, hoes, spades, shovels and bicycles during tree planting and forest reconnaissance. Politically, they had more opportunities to participate in decision-making activities such as budget allocation, and community activities like wildfire protection zoning and tree planting. Some people might have had a problem voicing their opinion and influencing decisions in the presence of influential and more experienced people. However, this was easily outweighed by the benefits derived in participating in the project. Environmentally, they lived in a cleaner and safer environment, with clean air and a good water supply. Their project participation came at a certain cost, such as having a greater number of tasks. However, the people viewed the benefits as far exceeding the costs.

Project level

Effectiveness: There was a change in the forest area delimited. The trees grew bigger and were denser. Hence, the sunlight could no longer penetrate through to the ground as it had done before. The Royal Forest Department in Ubon Ratchathani province reported an 80 percent improvement in forest density (Figure 3) compared with before project implementation (Figure 2). This could be attributed to the massive replanting of forest trees. The natural dynamics of the forest to reproduce over time contributed to the increase in the density.

Furthermore, through training, people developed a body of knowledge that fused local and external wisdom. Various stakeholders cooperated and discussed together the ways to manage, preserve and conserve natural resources (Table 1). The efforts emphasized the link between the community and the forest. Although the bottom-line of CFM is community welfare, in this case it was to be accompanied by a pitch for the proper utilization of forest resources.

According to the scientific principles of forest management, forest areas must be delineated and the boundaries made clear; a plan to preserve and manage the forest must be formulated. For community management, an organizational structure must be set up, rules and regulations formulated, budget allocated and provided, and administrative capabilities enhanced.

Finally, as part of preserving and promoting local wisdom, community leaders coordinated with the local primary and secondary schools to set up a local curriculum. Here, the teachers served the people and educator members of the curriculum committee. They taught subjects such as herb utilization and food processing, amongst others.

Coverage: The area of the project covers 36 communities in the five sub-districts of three districts of Dong Na Tham Forest. People in the 36 communities were the beneficiaries of the project. In total the communities managed a community forest area of 77,173 rai or 12,347.68 hectares. The project's benefits radiated to other communities and people. As the project communities became known in community forest management circles, outsiders came to learn about the project. Visitors from other countries such as Denmark, the Philippines, Indonesia, China, Vietnam, Nepal, India, and Laos came to

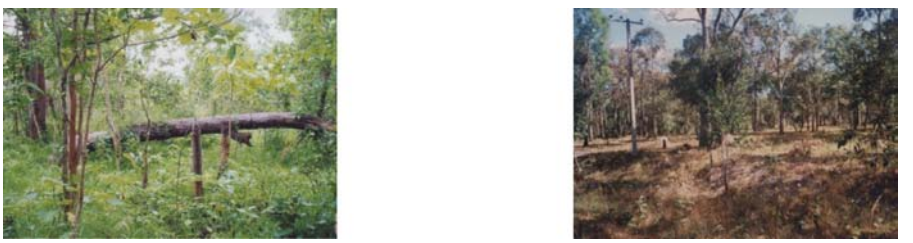

Figure 2 State of community forest before Dong Na Tham CFM Project implementation

Figure 3 State of community forest after Dong Na Tham CFM Project implementation

Table 1 Scientific and local knowledge in CFM

Community forest scientific knowledge	Management local knowledge
Forest Management (FM)	Forest Management (FM)
Determine forest areas and clarify boundaries	Belief in forest utilization
Have a plan to preserve and manage the forest	Have model/way of forest utilization
Community Management (CM)	Community Management (CM)
Have a structure	Formulate community's regulation
Formulate community regulations and rules	Have forest belief
Budget	Foster family relationship
Strengthen administration and management	Have faith in the leader

observe. The communities packaged briefing materials for the visitors. They conducted forest tours, enabling the visitors to witness the natural resources, including the trees, waterfalls, and other scenic spots. Not only did the project provide direct benefits to the people, it indirectly benefited others by serving as a model in CFM.

Self-reliance: The project activities were sustained by financial support obtained from both external and local sources. The United Nations Development Program (UNDP) and the Social Investment Fund (SIF) were the main sources of financial support. The funds were channeled to each community to be used in forest conservation activities. Funds also provided training and some equipment for forestry activities. Recently, the communities have generated income by various means. For example, they charged a forest tour fee of 50 baht per person. For the various project enterprises, community members established career groups to which a person could subscribe for a fee of 20 baht per month. They also collected a forest entrance fee of 10 baht. However, these revenue sources for activities were not enough and the project provided some of the equipment used in various activities. However, a big factor was the government's consistent care and support. Accordingly, people wanted government and non-government organizations to support the activities to make them sustainable and each community came to have some budget allocated for forest management. Essentially, the local people were satisfied with the current improved state of the forests from which they reaped benefits, so that they could be expected to continue supporting and participating in the project activities.

Sustainability: To ensure the project's continuity, rules and regulations on forest utilization were formulated in each community. During the drafting of the rules and regulations, efforts were made to solicit public opinion and active participation. This helped increase the likelihood that the provisions would be appropriate, acceptable, and would be strictly observed. Some rules and regulations were flexible and sometimes, additional rules and regulations were formulated to fit local conditions. Moreover, some community beliefs were reconciled with community forest rules and regulations; hence, they were helpful to the project. These included:

1. No cutting of trees during the Buddhist lent period.
2. No houses shall be built from a tree that was hit by lightning.
3. No houses shall be built from a tree in a graveyard and "Don Pu Tar" forest.

To sustain the project gains, each village set up a community forest committee consisting of an elected committee with a president, vice president and subcommittee heads. The subcommittees included:

1. Assistance subcommittee
2. Secretary and Center subcommittee
3. Administration, Governance and Defense subcommittee
4. Support subcommittee
5. Public Relations subcommittee
6. Animal Preservation subcommittee

Community level

The people's project participation resulted in multifaceted gains in the communities. Socially, people's participation in the project enhanced community cooperation and relations; they brainstormed on how they could turn forest products into valuable and quality commodities. Through this, they developed a system of allocating the workload where some were tasked to take care of the visitors, while the rest simply welcomed the visitors.

While social disbenefits were reflected in the factions in the community, these were not a cause for concern. There were social tensions but usually these were minor, primarily stemming from the insufficient budget or delayed budget availability. Psychologically, the project enhanced attitudes and skills regarding CFM. The process also harmonized local knowledge and skills, with lessons gained from the training conducted by the project. Clayton (1998), in summarizing the hypotheses on the

benefits of participation in rural development programs, pointed out that participation could increase the effectiveness of activities. Economically, people obtained more income from extracting forest products that became more abundant. These included mushrooms, bamboo shoots, and other fruits and vegetables that were sold to visitors and travelers (Figure 4). As more trees grew in the forest, people were able to harvest more fruits for extra income. The career groups they formed helped people to be more economically productive. On the other hand, due to the lack of tools, people were forced to use their own tools in the project, for example knives, hoes, spades and shovels for delineating wildfire protection zones and for tree planting.

Politically, people's participation in the project led the community to be more united in action and in spirit. The project did not discriminate on sex and age. Community members were all given an equal chance to participate in the project activities. During meetings, the people, community leaders, and project staff could voice their views and opinions. They took part in decision-making and if ever there were unresolved issues, the group consulted the ranger from the Royal Forest Department or personnel in the concerned organizations. According to Ramos (1982), allowing people to participate in this kind of activity is one way of lowering resistance to change and facilitating its implementation. Usually, conflict arose when discussion was on budget allocation. Here, internal struggles preceded every resolution. However, these were not great enough to disrupt the continued functioning of the group. This was especially the case when influential people were not willing to share their power with the common people. Those holding power resent the need for power sharing and this is compounded where the government is unwilling or unable to change the situation (Nientied, 1990).

Environmentally, the fauna and flora improved by 80 percent. The trees became larger and the forest canopy became denser than before. Wild animals like fowl and boar began to inhabit the forest. This suggests an enhanced biodiversity. People could now breathe fresh air, the watersheds could supply the water needed for farming and other agricultural activities, and fish and other aquatic animals could be seen in rivers and creeks, even during the dry season.

Overall, participation in the Dong Na Tham CFM Project considerably benefited the people and communities with regard to the social, economic, psychological, political, and environmental aspects of development. It also yielded certain project-level gains in terms of effectiveness, coverage, self-reliance, and sustainability. This correlated to the moderate participation of people in various phases of Dong Na Tham CFM Project activities.

Multiple regression analysis of the factors and extent of people's participation in Dong Na Tham CFM Project

For the planning phase, organizational affiliation (1–2 organizations), attachment to the community, income before the project, driver management style, level of resource support, leadership quality, and community cohesiveness were variables used to predict participation. The variables used to

Figure 4 Some of the forest products that local people could sell

predict participation in the implementation phase were gender, age, having an affiliation with one to two organizations, attachment to the community, attitude towards participation, level of resource support, leadership quality, and community cohesiveness. For the monitoring and evaluation phase, civil status (whether married), organizational affiliation, management style (coordinator), level of resource support, leadership quality, and cohesiveness were variables used to predict participation (Table 2).

Table 2 shows that the combined effects of the seven variables of the planning phase, eight variables of the implementation phase, and six variables of the M&E phase accounted for 40.2, 45.20 and 33.70 percent, respectively, of the explainable variance and contributed significantly to the extent of people's participation. Over all the phases, six independent variables predicted the overall participation of people participation in the project activities. These were gender, organizational affiliation (1−2 organizations), attachment to the community, level of resource support, leadership quality, and cohesiveness. The coefficient of determination obtained was $R^2 = 0.493$, indicating that 49.30 percent of the variations in people's extent of participation in all phases can be explained by the combined effect of the six variables mentioned. The finding confirms observation that the variables influenced participation. Attachment to the community, while it was not initially related to participation, became a predictor when its interaction with other independent variables was considered. Community cohesiveness had the greatest impact (Beta value = 0.384), while gender had the least impact (Beta value = 0.092).

Barriers to people's participation and suggested solutions

A lack of or having no time, inadequate know-how and experience in CFM activities, as well as insufficient land for agricultural activities due to community forest preservation, and too many responsibilities and tasks were the problems which arose at the individual level. The suggested solutions to these problems by the respondents were: an equal chance for all participants to share their ideas during meetings; proper distribution of tasks; continued training, seminars, and information sharing; and proper allocation of land for agricultural activities and preservation.

At the project level, the most common problems were: limited resources for project activities; poor coordination among villages due to distance and difficult road conditions, and passive leadership of village leaders. To address these problems, the following were suggested: provide adequate budget, equipment, training, and personnel; establish a coordination center and improve road conditions; and motivate the village leaders and recognize them as an important part of the CFM project.

Less transparency in village budgeting, inadequate consciousness and ability of the villagers to sustain the project activities, not enough information regarding project activities from the project staff, and too many rules and regulations for forest utilization were the predominant problems at the community level. To address these problems, the people considered it vital: to fund sourcing and networking by village officials; to set up a committee to audit accounts; to provide for continuing education and a communication campaign in the village; to improve coordination between project staff and village leaders; and to provide for more flexible rules and regulations on forest utilization.

CONCLUSION

Participation is an essential element in the success of any community development program. This study sought to contribute to the concept and practice of participation in the context of rural development in terms of CFM. As a result, people's participation is a process consisting of distinct but interrelated steps—namely: project preparatory phase, community organization and capacitation, planning, implementation, replication, and institutionalization.

Table 2 Stepwise multiple regression analysis of significant factors and people's participation in Dong Na Tham CFM Project

Variable	People extent of participation in Dong Na Tham cfm project	
	β	t-VALUE
Planning phase		
Constant		-5.605
Organizational affiliation (1−2 organizations)	0.323	6.921**
Attachment to the community	0.236	5.021**
Income before the project	0.114	2.613*
Management style (driver)	-0.095	-2.072*
Level of resource support	0.191	3.797**
Leadership quality	0.235	4.984**
Cohesiveness	0.397	8.706**
	R^2 = 0.402	F value = 32.691**
Implementation phase		
Constant		-5.588
Gender	0.138	3.320**
Age	0.110	2.706**
Organizational affiliation (1−2 organizations)	0.233	5.084**
Attachment to the community	0.102	2.135*
Attitude towards participation	0.156	2.751**
Level of resource support	0.356	6.802**
Leadership quality	0.181	3.858**
Cohesiveness	0.205	4.584**
	R^2 = 0.452	F value = 34.842**
Monitoring and evaluation phase		
Constant		3.330
Civil status (Married)	0.110	2.444*
Organizational affiliation (1−2 organizations)	-0.108	-2.231*
Management style (coordinator)	-0.134	-2.704**
Level of resource support	0.239	4.765**
Leadership quality	0.290	6.151**
Cohesiveness	0.244	4.975**
	R^2 = 0.337	F value = 30.277**
Overall phase		
Constant		-4.392
Gender	0.092	2.296*
Organizational affiliation (1−2 organizations)	0.201	4.952**
Attachment to the community	0.239	5.635**
Level of resource support	0.336	6.925**
Leadership quality	0.201	4.886**
Cohesiveness	0.384	9.124**
	R^2 = 0.493	F value = 55.199**

Community stakeholders are organized and capacitated so that they are able to meaningfully participate not just in the implementation, but in the other phases of the project as well. Benefit sharing was attained in terms of social, psychological, economic, political, and environmental aspects. The project team members maintained a development exchange with community stakeholders through continuing technical backstopping, and M&E. There was further development through the mechanism of the policy instrument, and networking and forging linkages, and through knowledge management to strengthen project implementation. As a result, the project was able to bring multifaceted benefits to the people and communities participating. Consequently, it becomes easy to replicate and institutionalize the process. However, the process is more complex than it may at first appear. As Figure 5 shows, it is integrated, multi-stepped, and multi-dimensional. The findings indicated the interplay of factors operating at the individual, project and community levels. However, the stakeholders should place importance on the other uncontrollable factors which might affect the various steps of participation.

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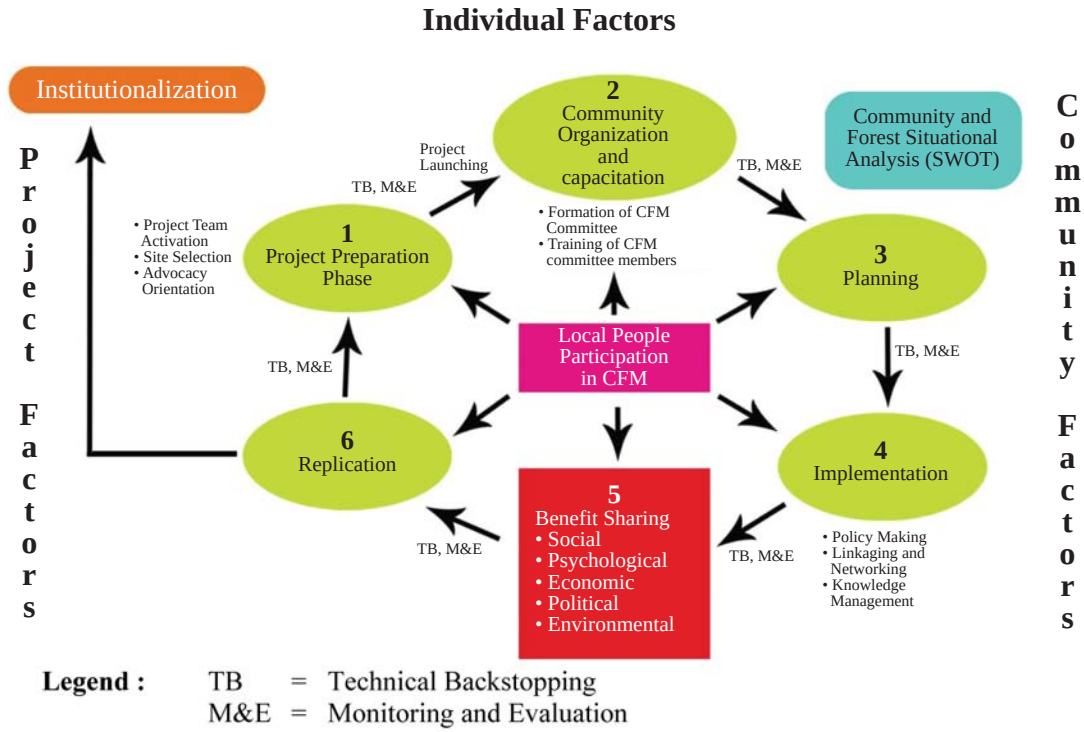

Figure 5 Participatory CFM Model

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