

# Improving Rural Livelihood Through CBNRM: A Case of Self-organization in Community Mangrove Management in Thailand

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## *Abstract*

*Forest resources around the world continue to decrease at alarming rates and the marginalized poor, who often depend on these resources, are often accused of being a significant cause of deforestation and degradation even as they struggle to survive. Meanwhile alternative natural resource conservation practitioners have tried to illustrate the potential of the marginalized poor to manage and conserve natural resources when they have a channel to participate in management. The participatory approach to forest management is one means for increasing the equity of poor user groups in forested regions, while at the same time promoting sustainable forest practices. This paper will illustrate the potential of participatory community-based natural resource management (CBNRM) to alleviate poverty in a mangrove community in the eastern coast of Thailand. Through the successful experience presented in this paper, I hope that the lessons learned can be applied on a broader scale to empower local communities to successfully manage the forest and improve their livelihoods.*

## **1. Introduction**

The debate over community forestry in Thailand has intensified in the last decade, becoming an increasingly politicized issue. The discourse of community forestry in this country extends between a centralized government controlled forest management scheme, which promotes reforestation and commercial tree plantations on former croplands, to a decentralized process, based on concepts of community rights and common property systems. This approach is strongly promoted by civil society organizations and academics, involving conservation-oriented, community-based forest management by forest communities in marginal areas (Hirsch and Wyatt 1997). For approximately fifteen years, grass-roots organizations have had to be patient while waiting for community forestry debates to be resolved and for the community approach to become codified into law.

The community-based resource management approach has become increasingly accepted in the past fifteen years as a means for grass-roots organizations and the government sector to motivate diverse stakeholders to become involved in natural resource management at both national and community levels. However, the debate continues over how to properly involve and encourage participation from various stakeholders and to increase the equity of access to natural resources among poor users. This research will examine how participatory natural resource management improves economic equity among rural users in Pred Nai mangrove community.

This paper will illustrate the results of a case study of the Pred Nai mangrove community, Trat province in the eastern-seaboard of Thailand. The Regional Community Forestry Training Center for Asia and the Pacific (RECOFTC) has conducted action research on local participatory community forest management planning. This type of planning is thought to improve community livelihoods through economic development. The research will demonstrate what factors and opportunities become available to the poor in participatory natural resource management and how this improves the equity in their livelihoods.

The research paper will be divided in 5 sections. This introduction will be followed by a background of the community forestry movement in Thailand in the second section. The development of Pred Nai mangrove community-based management organization and its experiences in the process of participatory community forest management will be discussed in the section 3. Section 4 will discuss the results, presenting evidence of the improvement of natural resources and the equity of the community livelihood. Finally, the conclusion will address suggestions for community forestry practitioners and stakeholders.

## **2. Background and Situation of the Pred Nai Mangrove Community**

The management of forests in Thailand has been the responsibility of the Thai government since the establishment of the Royal Forestry Department (RFD) in 1896. However, since then Thailand's forested area has rapidly declined from 53.33% of the total land area in 1961 to 25.28% in 1998 (Charuppat 1998), and further to 25.02% in 1999. In 1999, the FAO estimated that only 22.8% of the total country area was forested, including mangrove forests and highland forests (Table 1). The Thai government initiated the Land Act of 1954, authorizing land ownership rights, encouraging the clearing of forestlands as a means to gain title, promoting a policy of monoculture-cropping and continuing to allow logging for export. This act has caused conflicts over land and land rights to increase for over 50 years as people are excluded from land they traditionally used.

**Table 1: Status of Forest Area in Thailand**

| Year | Remaining Forest (Rai) | Remaining Forest (%) |
|------|------------------------|----------------------|
| 1961 | 171,017,812            | 53.33                |
| 1973 | 138,578,125            | 43.21                |
| 1975 | 128,278,755            | 40.00                |
| 1976 | 124,010,625            | 38.67                |
| 1978 | 109,515,000            | 34.15                |
| 1982 | 97,875,000             | 30.52                |
| 1985 | 94,291,349             | 29.40                |
| 1988 | 89,877,182             | 28.03                |
| 1989 | 89,635,625             | 27.95                |
| 1991 | 85,436,284             | 26.64                |
| 1993 | 83,470,967             | 26.03                |
| 1995 | 82,178,161             | 25.62                |
| 1998 | 81,076,428             | 25.28                |
| 1999 | 80,242,572             | 25.02                |

Source: Charupat (1998); 1 hectare (ha) equals 6.25 rai (Thai)

Mangrove forests in particular are exceptional ecosystems. Mangroves provide numerous benefits for people and play an important role in both human and biological systems. According to the National Economy and Social Development Plan, Thailand lost 50-60% of its mangrove forests, mainly due to conversion to shrimp aquaculture from 1961–1996. The continued shrimp farm expansion and release of chemicals that ended up in the mangroves are having a devastating impact upon the quality of the coastal environment. Many people live and work among the mangrove forests and the destruction of the resources and ecological functions that these forests provide are having negative impacts on the economic livelihoods and cultural heritage of many communities.

Ultimately, sustainable management of the diverse forests was deemed to be impossible for the government. In response, community forestry was introduced in Thailand about 15 years ago as an alternative to economic, state-oriented and scientific forestry. A community forest was identified as a “forest where local people can collect forest products to meet their local needs. Community forestry means that local people have the right to make their own decisions about how and what a forest is managed for, as long as it is in a sustainable manner” (Sukwong 2004).

Fisher (1999) made the connection between forest conservation and the livelihoods of the people who live in and near forests. He argued that because they already use forest resources for subsistence, food security and income generation, they have a direct stake in the conservation of the forest. These groups of people may be the best resource we have in conservation as they have the best local knowledge, which they rely on it for daily subsistence and market activities.

Furthermore, Fisher (1999) also suggested that equity involves everyone receiving a “fair share,” but that equity does not necessarily imply an equal share to access, resources and profits. The implication here is that the poor in a community can have an equitable share in the access of natural resources, even while they receive a smaller share than others who may have more time or power to contribute to the management of the resource. The goal of most CBRM projects is to increase equity livelihoods, however we must recognize that equity will never be equal. This paper will use the debate on the role of equity to examine the process of community mangrove forestry management in Pred Nai and how poor users gain economic and political equity to improve their livelihood at the local level.

Even though forests are the property of the state, rights of access to forest resources are determined by people who live in or near the forest through social agreements. This implies that property is a social relationship among people (Bruce and Fortmann 1993). Access, and the ability to restrict it, is vital for the ability of local communities to properly manage the mangrove forests. Since access is often controlled by people and groups with power, it is especially important to guarantee access for more marginalized groups within the community in order increase their economic equity.

In Thailand the poor are still considered trespassers in forests and accorded no legal rights of access because all forests and forest products are owned by the state. In some cases where access for the poor to forest products is recognized and permitted, income from forest products contributed to increased livelihoods. Participatory community-based management also holds the potential to defend and legitimize local property rights by granting communities authority to manage specific resources in a specific geographic area. Through this, it is hoped that the livelihoods of the poor will become more equitable.

Agarwal (2001) argues that internal heterogeneity may result in inequitable distribution of resources as voices of the poor are marginalized and not allowed to fully participate. This has serious implications for community-based natural resource management. Space needs to be made for the marginalized poor in community decision making, and they need to be encouraged to be involved in the process to guarantee their rights of access in community management plans.

However, there are constraints to the participation of the poor. Many projects are attempted in the name of participation, but recently, people have forwarded the notion that there may be more than one way to participate. Pretty (2004) created a framework useful in analyzing different forms of participation (Table 2).

**Table 2: Typology of Participation**

| Typology                                 | Characteristics  |
|--|--|
| 1. Manipulative participation            | Participation is a pretense, with representatives in power who are unelected   |
| 2. Passive participation                 | People participate by being told what to do, usually by external people. People's responses are not listened to  |
| 3. Participation by consultation         | People participate by being asked questions, which do not have to be listened to, and external agents define problems, gather information and control analysis   |
| 4. Participation for material incentives | Participate because labor is rewarded with food, cash or other incentive. People are not involved in the process of learning   |
| 5. Functional participation              | External agencies see participation as a means of lowering costs. People may be involved in decision making, but only after major decisions are made by external agents  |
| 6. Interactive participation             | People participate in joint analysis and the formation and strengthening of local institutions. Participation is a right. Multiple perspectives are sought. Communities begin to take control of local decisions     |
| 7. Self-mobilization                     | People take action independently of external institutions. Though they may seek the advice or help from external actors, they retain the control of decisions and resources. May or may not challenge existing power |

Source: Adapted from Pretty (2004)

Pretty discusses how, during the process of participatory natural resource management, poor user groups often have difficulty increasing their involvement in projects from passive participation to self-mobilization, the highest form, because of their limited time and limited vision in linking their benefits with their participation (2004). One challenge of this paper is to examine and identify factors and conditions that can open more channels of participation for the poor in the process of community-based natural resource management.

### **3. Twenty Years Experience: Involvement of Actors in CBNRM**

Pred Nai village is a mangrove community, located in Muang district, Trat province on the eastern coast of Thailand, bordering Cambodia and the Gulf of Thailand (Figure 1). The population of Pred Nai is about 591 people, including

169 families. The village area is about 380 hectares (ha), of which residential area covers 42% and agricultural land 58%.

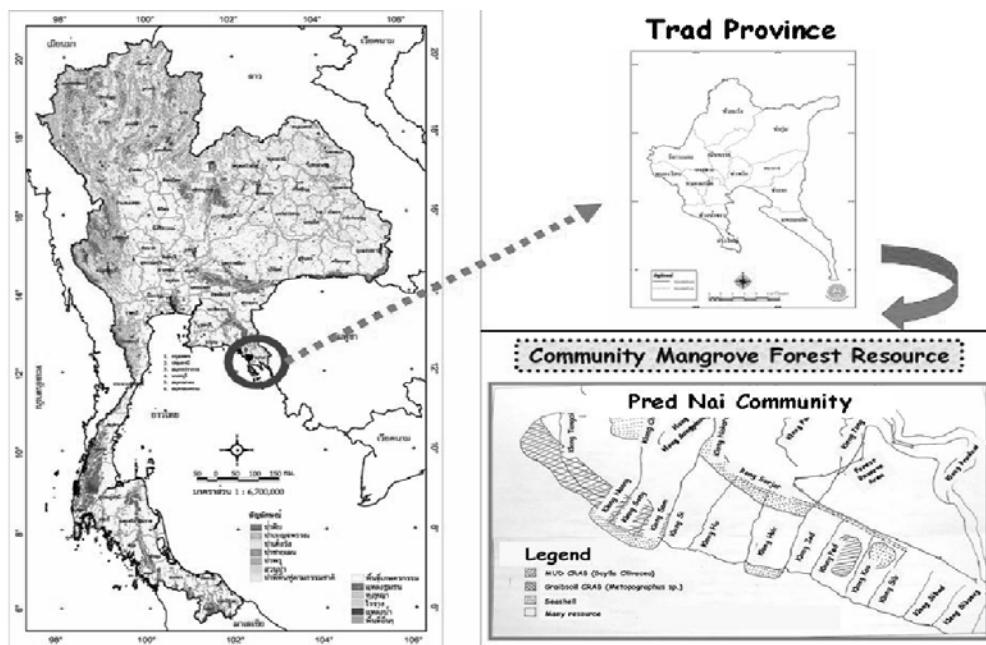


Figure 1: Thailand and the Pred Nai Mangrove Community

Settlement of the Pred Nai area began in 1850s. The main occupation of the original settlers was rice farming, but villagers also harvested crabs, fish and shellfish. Forest products from the mangrove forest were also used to supplement their livelihood. One of the main forest products was *Prong* (*Ceriops tagal*, a tree commonly found in mangrove forests), which was used to make a pole that was used in pepper fields. Currently, the main economic activities have expanded to include harvesting rubber from plantations, growing fruit, cultivating shrimp, and fishing and collecting from the aquatic resources. Many of the poor and landless families are also employed as laborers in Pred Nai.

Shrimp aquaculture flourished in the 1980s, and the local economy became quite dependant on it as a source of income. However, the industry collapsed in 1990-1996, and falling prices caused a dramatic increase in the debt of local villagers. At the same time villagers noticed increased degradation of the mangrove ecosystem and a scarcity of other marine products due to shrimp farming and charcoal production. In response to the destruction of some of the last remaining mangrove ecosystems and the associated degradation of local fisheries, the Pred Nai Community Forest Group was formed in 1986. Covering a 4800-hectare area, they have developed a sustainable system for the management of mangroves and marine resources. They have successfully involved diverse actors in the community, including government agents, religious leaders, teachers and community members of all ranks and status.

### **3.1. The Pred Nai Community Forestry Group**

Three objectives of the Pred Nai Community Forestry Group were identified: conservation and restoration of mangrove forest for the regeneration of aquatic resources; preventing exploitation of natural resources by outsiders; and development of the community and the mangrove forest for future generations. Members of the managing committee of the conservation group have a very strong sense of ownership regarding the mangrove forest. Indeed, they explicitly demand legal recognition of the forest as a community forest. They also recognize that landless villagers in Pred Nai, estimated to be about 20-30% of total households, need access to aquatic resources for their livelihood and they support improving the productivity of those resources (RECOFTC 2003).

The Pred Nai Community Forestry Group drew upon the strengths of local traditions and village elders, such as Pra Subin Pyuto<sup>2</sup>, a respected monk. They began inviting the community to collaborate using the village savings group fund as a base for meetings and discussion. The group began by creating a management plan to increase planting in the mangrove area and allow some sections to naturally regenerate. Government agencies and other supporting organizations also stepped in to support the community, such as the Social Investment Fund (SIF), the Thailand Research Fund and the Education Institute. The group has been successful in developing a forest management plan, including mapping local resources, patrolling forests and revising rules and regulations as necessary.

### **3.2. Role of RECOFTC as a Facilitator in the Participatory Process**

The Regional Community Forestry Training Center for Asia and the Pacific (RECOFTC) has been working in Pred Nai since December 1998. According to the project proposal, the villagers approached RECOFTC for support in developing the community's capacity "to conserve the mangrove forest for resource utilization, to formulate a management plan and to develop alternative technologies for improving the productivity of natural resources, particularly aquatic resources" (RECOFTC 2000). RECOFTC agreed to work with the community and support their organizing process, with the goal of helping develop a community that will eventually be able to sustainability manage the mangrove forest and natural resources themselves.

RECOFTC also promotes collaboration with communities both within and outside of Thailand to encourage the exchange of ideas about sustainable utilization of natural resources in the region. To accomplish this, several short-term objectives have to be pursued. First, the community has to be encouraged to develop technologies for sustainable production of aquatic/forest resources as part of a learning process<sup>3</sup>. Secondly, the capability of the community in developing and implementing

<sup>2</sup> Pra Subin Pyuto initiated the Savings Group in Trat Province. His idea of a savings group and strengthening civil society in rural areas has expanded and been linked with neighborhood provinces on the east coast of Thailand.

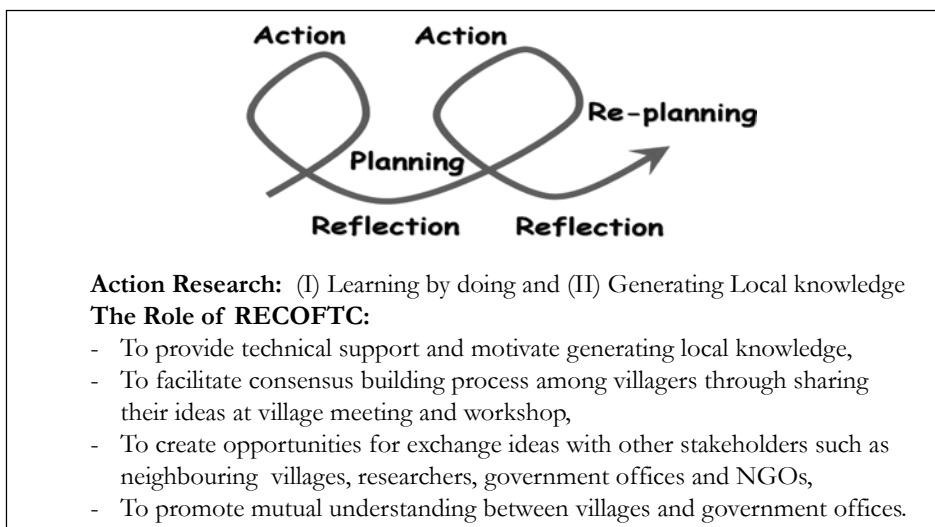
<sup>3</sup> Stated goal of RECOFTC proposal for the project in 1998.

an appropriate forest and natural resource management plan must be strengthened. Finally, for effective natural resource management, learning processes and wider networks among forest user groups in the region need to be developed, and collaborative activities among them promoted.

Support received from RECOFTC, government agencies and civil society organizations is seen as important by villagers. Government officers have suggested that without an organising agency such as RECOFTC in the beginning to advise people and connect them to the government, they will have more difficulty making progress. RECOFTC has functioned like a bridge, connecting different groups together to strengthen the project. The role of RECOFTC as an organizer and a facilitator are seen as equally important roles that support each other.

### **3.3. Participatory Action Research: Self-Ecosystem Monitoring in Pred Nai**

Since 1998, the Pred Nai Community Forestry Group and RECOFTC have worked together to conduct action research, a qualitative and participatory approach to studying and working with communities. It involves problem identification, the creation of the community-based mangrove management plan and an experiment on crab reproduction. Action research is an adaptive learning process for the researcher and the community to examine issues to generate local knowledge. Moreover the results from the research need to be reflected back to the community for the improving their situation (Figure 2).



(Source: RECOFTC 2002)

**Figure 2: Chart of Action Research: RECOFTC Approach<sup>4</sup>**

<sup>4</sup> Building Local Capacity in Sustainable Forest and Natural Resources was a 3-year project (2000-2003) supported by TOYOTA Foundation, implemented by the Thailand Program under RECOFTC.

RECOFTC approaches the project from four perspectives: participation, networking, co-management and collaboration. First, the organization facilitates the community in the initial implantation of the project. Secondly, RECOFTC encourages maximum participation of all natural resource users and facilitates networking among concerned people in Thailand. Third, RECOFTC encourages various experts from around Thailand to support the process and share their knowledge. Finally, RECOFTC encourages assistance by government agencies.

From the beginning, RECOFTC has worked with the Pred Nai Community Forestry Group by stationing staff with different families in the village to better understand the community situation. In order to achieve the project objectives, RECOFTC identified issues and implemented management programs through the participatory approach. First, problems had to be identified by the villagers, a process often accomplished in collaboration with various experts. After identification of the problem, potential solutions are explored and selected; at this stage contributions from villagers are extremely important. Villagers explored various ideas and identified possible designs for mud crab reproduction, a crab bank and other such projects. After experimenting with different designs, and the process of testing and adapting technologies, further experimentation will be done to better adapt the technologies to the community and its resources. This process has also expanded to other activities in the community, helping to include poor and marginalized groups in local natural resource management.

## 4. Analysis

In the process of monitoring and assessment, the crab harvesters used several indicators to measure the success of the management plan for restoration of mangrove products and improving the access to resources. These indicators included: quantity of Grapsoil crabs, location of crabs, number of crab harvesters, income earned per crab, time period in crab catching, quantity of difference kinds of mangrove plants and trees and diversity of marine products such as fishes, shellfish, shrimps, birds, bees and other animals. The research found that in 2005, the number of crab harvesters actually doubled from 2003. Crab harvesters caught 49,800 kg in the first 7 months of 2005, allowing the community to earn more than 2 million Baht (approximately US \$48,000) (see Table 3 and Figure 3). Since 2003, when crab products increased, the number of harvesters also increased, while the amount of time spent crabbing did not, meaning that there were more crabs available for harvesting. Additionally, villagers also reported that other marine resources were more abundant and readily harvested.

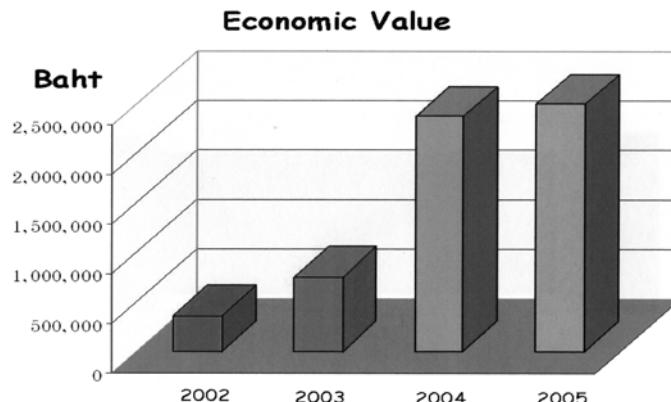
**Table 3: Results of the Participatory Ecosystem Monitoring and Assessment**

| <b>Indicators and Data in Mangrove Management Monitoring</b> |                    |                            |                                       |   |
|--|--------------------|----------------------------|---------------------------------------|---|
| <b>Resource/Indicators</b>                                   | <b>2002</b>        | <b>2003</b>                | <b>2004</b>                           | <b>2005</b>   |
| <b>Grapsoil Crabs</b>  |                    |                            |                                       |   |
| 1.Product/day/price per kg                                   | 8kg/day/<br>THB 50 | 15 kg/day/<br>THB 50       | 115kg/day/<br>THB 50                  | 15 kg/day/<br>THB 50  |
| 2.Crabharvesters (permanent)                                 | 6 persons          | 20 persons<br>150days/year | 20 persons<br>150days/year            | 40 persons<br>150days/year  |
| 3.Crabharvesters (seasonal)                                  | -                  | -<br>30 days/year          | 10 persons<br>30 days/year            | 40-50 persons<br>30 days/year                                       |
| 4.Harvesting period time                                     | 2 kg/4-5 hrs       | 2kg/3-4 hrs                | 2kg/2-3 hrs                           | 2kg/1 hrs   |
| 5. Total product   | 7,200 kg           | 15,000 kg                  | 47,400 kg                             | 49,800 kg   |
| <b>Mangrove ecosystem</b>                                    |                    |                            |                                       |   |
| Total forest area  | —<br>12,000 Rai    | —<br>12,000 Rai            | —<br>12,000 Rai                       | —<br>12,000 Rai   |
| Reforested area  | 50 Rai             | 150 Rai                    | 2,150 Rai                             | None  |
| Biodiversity   | -                  | -                          | increasing<br>birds, bees,<br>monkeys | More<br>quantity and<br>variety of<br>birds, bees,<br>trees, plants |

*Source: Interviewing, discussion and survey in the process of Participatory Monitoring and Assessment (PM&A) 2003-2005, RECOFTC/PM&A seminar report, 2005.*

Villagers have reported that numbers of shrimp, shellfish and fish have also increased. *Samae monkeys* (*Macaca fascicularis*) and several kinds of birds are returning to the area. *Hoy lod* (tube snail) is now reappearing after being unseen for almost 20 years. Bees are coming back to the mangrove area as the variety of trees has increased. Mangrove users collected more than 1,000 liters of honey, earning more than 100,000 Baht (US \$2433) in the first six months of 2005. These events have motivated villagers to continue to monitor their mangrove forests. It is accepted that this process will improve their livelihoods through increased biodiversity.

As a result of the participatory Grapsoil Crab management, crab harvesters also take a role as mangrove conservationists and watchdogs because they have the experience and local knowledge to monitor their local mangrove ecosystem. They report to the council and discuss when they observe any change in the mangrove area. It is important that their information be discussed for improvement of mangrove management for further increases of mangrove products.



Source: RECOFTC, Participatory Ecosystem Monitoring and Assessment Report, Pred Nai, 2005

**Figure 3: Grapsoil Crab Economic Value from 2002-2005**

#### 4.1. The Crab Bank

The community constitution, developed in the year 2002, later required that crab harvesting stop during the reproduction period in October, using the motto as “*Yoot jab rouy, khoy jab laan*” (Stop hundred catching, wait for million catching). Because of the economic value of mud crabs, villagers decided to increase production by starting a crab bank. In this program, those who have egg-bearing crabs are requested to put the mother crab in a crab pen in the canal. In the first year, 29 egg-bearing crabs produced millions of young crabs, which were then raised in a nursery pen until they are strong enough to survive in the mangrove area. Members constantly exchange ideas and contact fishery researchers to help with methods of monitoring and collecting relevant data. The data have been reflected in subsequent plans.

To increase Grapsoil Crab production the community members have agreed to follow these rules: All community members have the right to catch Grapsoil Crabs; all are able to catch crabs anywhere except the canals in the center of the mangrove area that are the origin of many marine products; no members are allowed to catch crabs during the crab egg-bearing season in October each year; members are not allowed to use pesticides; and they are not allowed to catch small crabs. Outsiders who want to catch crabs in Pred Nai must first ask permission from the committee and are required to follow these regulations.

After a few years of monitoring, the *phu samae* (Grapsoil Crab) has increased from 5 kg/harvest to 8-10 kg/harvest. Through this group learning process, the Pred Nai community has moved to additional projects, such as managing herbal products, honey collecting and collecting other local foods. Moreover, the Crab Bank also promotes community learning by involving members in self-action research through monitoring resources and conducting experiments. They observe the increase of mud crabs and Grapsoil crabs, while members also share their experiences and problems with other members.

As a result of the community mangrove management plan, the community has formed the Crab Bank Group to help continue conservation activities to continue increasing local incomes collected from the mangroves. Their conservation has helped alleviate poverty and facilitated local economic development. The restoration and conservation of mangrove forests also improves the long-term sustainability of the villager's economic activities as mangroves are important fish habitat and also provide many valuable ecological services (Rönnbäck 1999).

Members of the Crab Bank and Grapsoil Crab harvesters were categorized in the community as a poor group as they are landless and lack proper fishing equipment and sustainable daily earnings. Additionally, some members of the community became poor as a result of the collapse of shrimp farming. Some still have their land, but most are heavily in debt. Furthermore, few women are involved in the Grapsoil Crab harvesting group because they have to harvest at night time, though women do go crab harvesting with their husbands or children. Men harvest crabs, but the income mostly goes to the women for savings or expenditures. Because of this, women in Pred Nai should be further encouraged to participate in community economic planning through the process of community-based natural resource management.

The community of Pred Nai is internally varied in class and gender with regards to access and power. The research found, however, that even the marginalized members in the Crab Bank and the Grapsoil Crab harvesters have channels to participate in accessing natural resources through the community constitution and regulation in addition to the Crab Bank and Grapsoil Crab harvester group. The Community Forestry Group also initiated activities for opening social spaces for the poor to participate in the process of increasing their social and economic equity through participation in the mangrove herbal production group and the savings group. Both groups are also a channel for the poor and women in Pred Nai to become involved as members, and some women are able to be on committees of these activities.

Moreover, as the data from Table 4 illustrate, during the time of increased management by the Crab Bank, both the number of Grapsoil crabs and net income of villagers increased. In 2005, crab production reached 40-50 tons, valued at approximately 2-2.5 million Baht (US\$48,000-\$60,000). The case of Pim Uabol's family also illustrated that poor crab harvesters participated in accessing natural resources for their improvement of their livelihood (see Box 1).

**Table 4: Grapsoil Crab Production and Value, 2002-2005**

| Year | Quantity of crabs | Economy value(Baht) | Income/person/year |
|------|-------------------|---------------------|--------------------|
| 1998 | 7,200             | 360,000             | 45,000             |
| 2003 | 15,000            | 750,000             | 37,500             |
| 2004 | 47,400            | 2,370,000           | 79,000             |
| 2005 | 49,800            | 2,490,000           | 62,250             |

Source: RECOFTC/Thailand Country Collaborative Support Program (ThCCSP) Report of Participatory Monitoring and Assessment in Pred Nai, 2005.

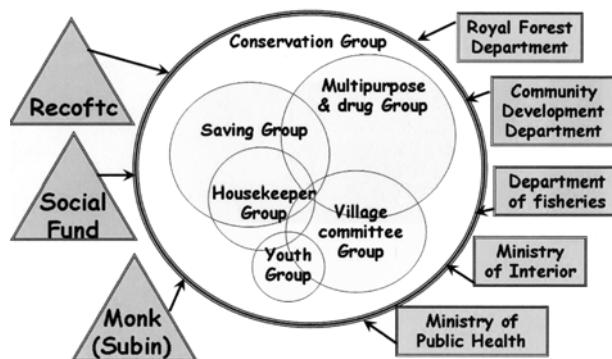
### Box 1: Grapsoil Crab Harvester Family of Pim-Uabol

There are 4 members in the Pim-Uabol family. Formerly Videch, the head of the family, had a fruit orchard but now earns a living catching crabs. Three members of the family are crab harvesters, and because of this, they earn more money to increase their living standards. Videch and his wife Napa catch crabs at night, usually about 15 kg a night, to earn about 700 Baht (US \$17) a day. Videch's son, Surapong, began catching crabs seven years ago after dropping out of school and has become one of the best harvesters in Pred Nai. He earned about 150,000 Baht (US \$3,650) in 2004 by harvesting about 25 kg/night. The youngest daughter attends college from the earnings of the family's income from crabs. Napa stated that crab harvesting is a good occupation for her family. They have a better life since the condition of the mangrove has recovered. Crabs are more abundant and easier for them to harvest, resulting in the family's ability to earn more money. Napa is a member of the savings group and has been able to borrow money from them. Now she does not worry as constantly about their economic livelihood. She now has a small house with basic furniture and has also been able to start saving for the family's future.

## 4.2. Participation of the Poor

For the villagers, management of the mangrove swamp is a valuable source of income and even a way of life. The initiative has helped to ensure that this environmentally and economically important area is managed sustainably. The local management efforts have also provoked other community development activities.

The research found that managing the mangrove area is not a problem; it is all about managing the people who represent a diversity of stakeholders that has been the biggest obstacle. Figure 4 elaborates on the diverse stakeholders who are involved in the mangrove management in Pred Nai. Not only internal groups but also external partners from both the government and NGOs also are a part of the social interactions in the Pred Nai community.



Source: RECOFTC/Thailand Program (ThCCSP) Report 2002.

**Figure 4: Relations and Interactions in Pred Nai**

During the first stage of Pred Nai Community Forestry group, local leaders and fishermen were concerned after the concessions ended and a management group was set up. Local users who depended on the area were not allowed to harvest any products from the mangrove, causing hostility and conflict within the community. To address this, Pra Subin Pyuto was invited discuss the situation with the community. He told them that managing forests or resources is possible, but the first thing we have to do is manage people. Those who are hungry will become more so if they cannot have access to the wealth of the mangroves. Since this speech, the villagers have begun to discuss and accept this and have begun experimenting with more active management techniques.

Other community activity groups tried to encourage the poor and marginalized groups to get involved and participate in the process. However, it is often difficult for poor families to equally participate in the process as they have specific obstacles that are difficult to overcome. They often lack adequate means of production thus must spend more time in harvesting activities to make a daily living, and are limited at night by the crab harvest. Further, they often will not become involved if they do not perceive any benefit from the activities.

Despite the best efforts to include all stakeholders equally in the formation of community groups, some members of the community continue to be excluded from the participation process. According to Pretty's framework of participation, the poor are in the stage of passive participation, and have yet to move through to more active forms (1999). The poor do provide their labor, but with regards to active participation in decision-making, the poor pass their rights to the community leaders who represent them.

RECOFTC recognizes that these important people continue to remain marginalized, even as their livelihoods improve. The internal heterogeneity of power, economic standing and even personalities within the community situations presents a serious challenge to any community participation project. Facilitators are limited however, in the extent to which they can promote participation; some people choose not to participate and their decision must be respected. By showing them the advantages of full participation, and giving them the space in which to do so, it is hoped that eventually, they will be brought willingly into the process.

However, despite the limited participation by members of the poorer community in Pred Nai, most still are involved in other ways; through decision-making at lower levels, participating in internal discussions and spending time and labor to manage the mangroves. Regardless of their lack of participation in large-scale decision making, their actions have helped to improve their livelihoods and their political power. The distribution of access and power may not be equal, but it is more equitable.

The Pred Nai Community Forestry Group has been successful in improving poor livelihoods through participatory processes in mangrove management. However, the question arises of why other communities have not been as successful in increasing the equity of the poor through participatory CBNRM as in Pred Nai. The research showed that not only participatory processes but other internal and external factors

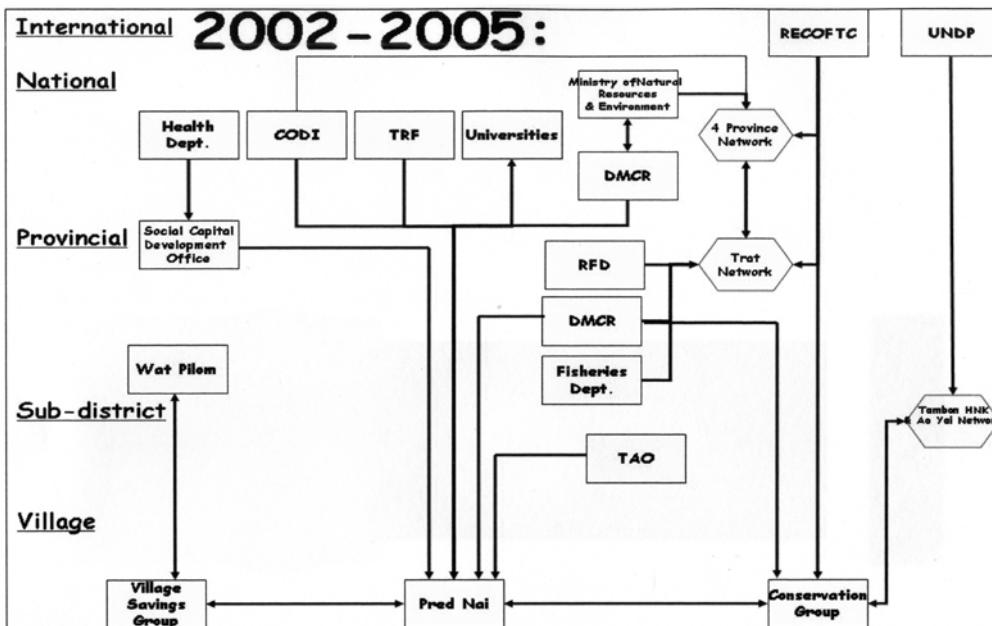
influence the ability to create equity on a larger scale. Pred Nai has been supported by various external actors such as governmental offices, educational institutes and funding agencies, and they have potential community leaders who are proactive and who know how to compromise with and negotiate between various actors in community. Thus, it is a challenge to practitioners to learn how to sustain the increasing equity in the communities by encouraging the marginalized to participate in natural resource management. As the experience from Pred Nai demonstrates, the practitioners have to clearly identify elite leaders early in the process and open channels for all to participate. Moreover, a clear picture of the internal heterogeneity of communities must be understood and respected. The inclusion of representative stakeholders in the participation process is essential for creating more economically and politically equitable conditions for the poor.

### **4.3. CBNRM: Strengthening Community Institutions**

The community of Pred Nai has implemented conservation activities because they realized that their livelihoods depend on the health of the mangrove systems. The group has also succeeded in promoting collaboration between Pred Nai and neighboring villages through the founding of the Community Coastal Resource Management Network. In addition to stopping the loss of existing biodiversity, their efforts have resulted in the return of many formerly displaced native fauna, including species of wetland birds, bees, monkeys and marine products such as shells and fishes.

As Figure 5 illustrates, Pred Nai is interlinked at the community, provincial and national level. They are also connected with multiple supporters, partners and stakeholders. It is worth noting that the Community Forestry Group is strong enough to handle and manage these complex linkages and relationships. Furthermore they have also been developing their equity in political participation at the local, provincial and national levels.

After managing their forests for some time in 2003, with the initiation of the Pred Nai Community Forestry Group together with RECOFTC, a Mangrove Network has been developed involving a number of local villages. They have realized that the people of a single village could not successfully implement sustainable forest management, especially as there was no demarcation of boundaries and no regulations on forest utilization. The idea of networking was initiated and facilitated in the nearby villages who share boundaries with Pred Nai, and later the network was expanded to many other villages to become members of the Community Coastal Resource Management Network, Trat Province. Through the exchange of knowledge and experiences, the villagers have learned from their successes and failures. Collaboration strengthens people and helps initiate new ideas and practices that respond to the communities' needs. Further, in 2004 the network linked with four coastal province networks in the Eastern Coastal and Community Forestry Network – Thailand. They have also participated in the community forestry campaign and proposed a community forestry bill to parliament.



Source: Senyk presentation 2005.

**Figure 5: Pred Nai Relationship in Community to National Level .**

## 5. Conclusions

The Pred Nai Community Forestry Group had demonstrated that the participatory process in natural resource management is an appropriate way for them to manage their forests and their community. This approach can effectively integrate marginalized groups in the community, allowing them to participate in the process of managing their access and the resource to improve the mangrove ecosystem, ultimately increasing their equity. Disadvantaged groups must continue to be encouraged and supported to engage in higher levels of participation. Recognizing this, the Pred Nai Community Forestry Group is continuing to adopt measures that attempt to better incorporate the poor into the management of the mangroves.

RECOFTC has an important role as facilitator, but they must continue to recognize the diversity within the community to enhance and empower marginalized groups. This will encourage these groups to participate in the process of community-based natural resource management. Moreover, the facilitator should be able to reflect back to the community their progress in order to strengthen the community organization and open a social space for the poor to position themselves advantageously.

Since the Pred Nai Community Forestry Group was formed in 1986, the community has also developed and expanded their activities, supporting various sectors

of the community and receiving support in turn. When the community had successfully restored and replanted their mangrove coastal areas, several outsiders stepped in to support the Community Forestry Group. This group has gained valuable experience and learned many lessons to help strengthen themselves and continue to support and improve their natural resource and community livelihoods.

In addition, the Community Forestry Group and the Savings Group have provided opportunities to marginalized members of the community, increasing their equity through participatory natural resource management for their better livelihoods. Moreover, these activities also have built up a network of villages who use the mangrove area. Today other villages nearby have set up community forests to regain the wealth that they have previously lost.

Pred Nai has developed a strong village network, a strong sense of identity and a willingness to put in the effort required to successfully manage the mangroves. This is considered a good base for grassroots action. The community has started networking with neighboring villages, with the intention of eventually expanding to the provincial and regional levels. The local efforts will hopefully be sustained as long as there are economic, environmental and cultural incentives. Further, with every new meeting, the villagers are able to organize more people. They have made tremendous progress and they have confidence that in a few years time, they will be able to manage the mangroves themselves. The greatest danger may be that intrusive national legislation restricts the rights of villagers or fails to recognize efforts of villagers to manage the local forests.

According to the community constitution and regulations on access for all people in mangrove production, the poor are in the process of achieving equitable access to coastal mangrove products. The implications for the poor are significant. These marginalized groups are gaining channels to increase their political presence and make decisions on resource management that directly affect them. Pred Nai has extensive experience in the participatory process that has spread to other communities. As equity continues to increase in Pred Nai, they become a valuable example for community-based resource management in other areas where marginalized groups continue to lack a voice to change their livelihoods. However, there are still questions and challenges of how practitioners can use the successful case of Pred Nai to create a framework for practitioners of participatory community-based natural resource management to provide equitable access rights to natural resources for the poor.

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