THE PHU KHIEO BUFFER ZONE PROJECT- SUSTAINABLE RURAL DEVELOPMENT THROUGH COMMUNITY MANAGEMENT[1]

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ABSTRACT

This paper presents an overview of the processes involved in a project based on the theory that damage caused to Phu Khieo Wildlife Sanctuary by communities occurs as a result of their reliance on the forest resources in times of economic hardship. For the forest to survive, villagers must revise their relationship with both the forest and other resources, based on sustainable development. The objective of the project is to accomplish community-based protected area management. To achieve this, the number of families developing viable economic alternatives to unsustainable forest management has been increased. Concurrently, local interest has been mobilised to encourage involvement in environmental conservation and rehabilitation. Equal consideration has been given to institutionalise local management capacity and to enable communities to assume responsibility for sustainable management of resources in partnership with local government. Further research is needed to ascertain if sustainable development has been achieved.

INTRODUCTION

Policies and legislation, governing all aspects of forestry in Thailand, are being revised. In the past, emphasis has been on timber production. However, following public concern about devastation of natural resources, the emphasis of forest policy is now moving towards conservation and increasing opportunities to include the public in forest policy. Another reason for such a policy change in Thailand is that it is a member country of the International Tropical Timber Organisation (ITTO) and is therefore obliged to achieve sustainable forest management as prescribed in the Year 2000 Objective (ITTO, 1990). As a result of the redirection of forest policy two changes in particular have been proposed:

1. The Thai Forestry Sector Master Plan (ANON., 1993).
2. The Community Forestry Bill (HONGTHONG, 1997).

Both these significant pieces of legislation are awaiting passage through the bureaucratic system. However whatever the final form of these documents, their acceptance

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will create more opportunities for local communities and government officials to work together for sustainable use and conservation of forest resources (McQUISTAN, 1998).

In October 1994 the Thailand Environment Institute[3] (TEI) began implementing a project, as executants of the Government of Thailand and funded by the ITTO. The project, *Sustainable Forest Management Through Collaborative Efforts* (ITTO Project: PD202/91 (F) Rev.) involved creating a conservation buffer zone adjacent to Phu Khieo Wildlife Sanctuary, in the Northeast of Thailand (Figure 1.). The project was of limited success in contributing towards conservation of the protected area. However, as a result of phase 1 of the project, many valuable lessons were learned concerning the actions and approach required to succeed in making the conservation buffer zone effective. As a result of these lessons, phase 2 was implemented in 1997.

Figure 1. Location of Phu Khieo Wildlife Sanctuary

PHASE 1 OF THE PROJECT

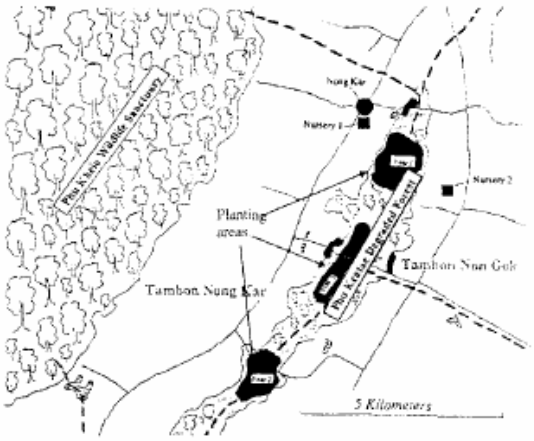
The original ITTO project was initiated in one village in Tambon (sub-district), Ban Nong Kar, Kasetsomboon District, Chaiyaphum Province. After project initiation, activities soon spread into additional villages in all four Tambons in the valley. All villages (Figure 2.) were located within 5 km of Phu Khieo Wildlife Sanctuary.

The project implemented activities in four main areas: social, economic, cultural and the natural environment. Tree planting and forest restoration were prolific during the three years of project implementation and provided a medium for improving community cohesion, implementing environmental education and income generation. By promoting

[3] Founded in May 1993, the Thailand Environment Institute (TEI) is a non-government organisation that works closely with the private sector, the government and local communities to link policy with action and facilitate progress in sustainable development and management of the environment.

villager empowerment via collaborative activities, the project attempted to encourage the communities to become more responsible for their environment. The project worked closely with a locally established group, the "Phu Kratae Conservation Committee", which was created by the District Governor (Ministry of Interior). The Governor designated a number of local government officials, including schoolteachers and forestry personnel, to organise conservation and forestry related activities in the reserved forest of Phu Kratae. This committee comprised 58 local officials and was organised into three separate committees to manage project activities. The management committee was responsible for planning and organising all activities, including educational activities in the schools and villages. These activities included tree planting for reforestation.

Figure 2. Area of the 'Phase 1' Reforestation Project.



Critique of project action

This project achieved several valuable objectives in respect of both the community development and tree planting. At the end of December 1997, the project had facilitated planting of 50 ha of economic forest and 47 ha of community designated forest at its two project sites in Chaiyaphum and Uthai Thani Provinces. Altogether, 519 ha of conservation forest had been reforested. The total area falling under improved management by local communities, in a collaborative effort with the Royal Forest Department (RFD) and project staff, totalled more than 1,500 ha. More than 1,000 ha of this was protected project-facilitated agreements with the local Phu Kratae Rehabilitation and Protection Group. Firebreaks were cut and maintained around conservation forests. Cattle grazing, hunting, fuel-wood and collection of non-timber forest product were restricted. Weeding, fire prevention and replanting resulted in seedling survival rates approaching 90% in a few areas and averaging more than 75% after three years.

Planting native tree species enriched conservation forests. Fire prevention and selective weeding in degraded forests facilitated natural regeneration through maturation of existing stock, coppice recovery and protection of volunteer seedlings. Therefore, tree planting and forest conservation targets were met. The project established three nurseries with a combined production potential of around 1 million seedlings per year. Local villagers, who were both paid and trained by the project, operated nursery facilities. The project provided financial support for 189 families at the two project sites to develop several alternative income-generating activities, aimed at reducing forest exploitation by alleviating poverty.

The Final Project Review[4] concluded that income generation and poverty alleviation were of a secondary importance compared with tree planting and forest conservation. Furthermore, villagers involved in the pilot efforts were not the very poorest, who are most likely to engage in destructive practices in forests. This situation resulted from the income-generating activities being selected as a result of consultant input and recommendations by local leaders, a process that completely ignored the important link between forest use and development activities. Therefore, although the project worked hard to facilitate local communities, the pathway of the project into the local communities followed a top-down approach. Contact occurred between the lone project field team worker and selected villagers introduced via local leaders. The Review stated that the project worked hard to raise local environmental awareness via tree planting and forest conservation and that project-supported forestry activities in the buffer zone created widespread recognition that community action can be highly effective at improving the quality of local forest resources. While the primary motivation for these activities appeared to have been respect for local authority and encouragement of villager's participation by local leaders, the reforestation and forest conservation activities had reoriented the manner in which most people perceived their environment.

The project's collaboration with the Phu Kratae Conservation Group was intended to provide a mechanism to ensure that conservation activities would continue even after financial support from the project ended. However, in reality a very different local situation arose. The project mistakenly assumed that local authority figures were an appropriate conduit through which to reach the local population. Unfortunately this linkage was weak and also complicated by local politics. After the first phase ended, there was a two-month lag before the new project phase could be initiated in the communities. During this period a number of unfortunate events occurred which clearly illustrated the tenuous linkage between the villagers and local leaders.

Firstly, in January 1998, four disastrous fires occurred which destroyed a wide swath of replanted and improved forest. This occurred because village fire volunteers had not bothered to clear the fire breaks, due to lack of motivation and transportation. The second fire was deliberately started by a group of the poorest villagers to provide dead wood for later collection and conversion to charcoal. During three years of operation, the project had not addressed or acknowledged the local charcoal industry. This occupation was a welfare activity of the very poorest villagers, who collected dead wood for conversion to charcoal for sale. This oversight reflected the authoritarian management of the project with local

[4] Final Project Review by Mr. Andrew Mittleman and Dr. Sureeratna Lakaanavichian, July1977

activities being directed by six-monthly steering committee meetings that occurred between project management and forestry specialists in Bangkok.

Secondly, the partnership with the Phu Kratae grassroots environmental group proved to be heavily reliant upon the interest and involvement of the local administrative leaders with financial support coming directly from the project. This committee operated in a managerial fashion, resulting in activities being presented to the villagers to undertake and not activities actually desired by the local people.

At the end of the initial project phase all project-sponsored income-generating groups in the target area chose to cancel further activities and dissolve the group. This decision was made in the belief that if the group resigned, then no member of the group was responsible to the project for loan repayments. This behaviour replicates a common occurrence with development projects, where failure of the activity results in any outstanding loans being written off. This occurrence clearly indicated that these groups had no real desire for their selected activity, no long-term objectives and no genuine cohesion. In fact, when interviewed several months later, one group leader admitted to initiating the group as a hobby to alleviate boredom.

Although the project's reforestation and forest rehabilitation efforts had transformed the landscape, no change of the villager's relationship to the forest occurred. The project initially relied exclusively upon a consultant's report of the baseline situation in the communities to direct project action. Although this report was well written and presented, the overall recommendations were too general for accurate planning. Additionally, the recommended actions focused on agricultural activities, but presented no suggestions as to how these activities should be undertaken. The report overlooked analysis of the local communities, local leaders, facilitation structures and capacity or administrative problems. The methodology involved questionnaires on economic factors and overlooked the social structure of the village. Ultimately the project was unable to act upon the strong linkage the villagers had with their forest resources, because forest resource use was overlooked in the consultant's pursuit of monetary factors, which related solely to economic agriculture.

The project additionally relied heavily upon the Phu Kratae Conservation Group for extension into the communities and for the local decision-making function. This resulted in lack of continuation when the group disbanded due to the transfer of the District Governor and a local secondary school headmaster. Conservation activities and tree planting resulted from these local officials' personal ideas and did not represent a genuine desire of the villagers. Therefore, one very important lesson from this project was that while anybody can be encouraged to plant trees, tree planting will only be of real benefit to local people if they participate in the management of such activities. Forest restoration must grow out of a strongly felt local need, as this will provide motivation for communities to care for the trees once planted.

It seems that there is no single approach to promote collaboration in responsible natural resource and forest management. The appropriateness of any particular approach depends on the social and cultural values present in the village, enforced by local knowledge, skills and particularly personal experiences. Anthropogenic factors are related to local physical environmental conditions, especially limiting factors they present to communities in their day to day lives.

The overall recommendation from the ITTO project was that co-operation with the local population, rather than confrontation is the best method to ensure that forest destruction and associated environmentally damaging practices are reduced. Establishing peoples' involvement in local management is fundamental to this idea. It should be realised that this inclusion in the decision-making process must be accompanied by facilitation and capacity-building for such people.

Conclusions from 'Phase 1' of the project

In order for such projects to succeed, local people must be made aware that their involvement is necessary and their inclusion must be accepted by government agencies, especially at the local level. This process is long and slow and relies on encouragement and stimulation to promote their input. This inclusion will be minimal at first, but as encouragement continues and experience is gained, people will become effective managers of their local resources. Local people must also perceive tangible benefits from inclusion in this process. Initially this will act directly via income-generating projects, but eventually benefits will become more diffused as assistance is provided via facilitation and encouragement, especially to build upon the strengths inherent in the local communities and as partnerships and co-operative ventures are started at the community level.

The overriding focus of the ITTO project upon forestry aspects reduced the emphasis of the project to involve villagers in a dialogue, to identify local economic problems and to enlist recommendations regarding how these problems could be solved most effectively. The project focus, which attempted to alleviate poverty and strengthen community resolve to rehabilitate and conserve forests, was accurate. However, top-down management greatly reduced the project's effectiveness in the villages. Project staff learned that community structure greatly influences participation in project activities.

PHASE 2 OF THE PROJECT

In order to build upon the valuable lessons learned by the ITTO-funded project, TEI wrote a proposal for a second, three-year project – phase 2. To revise the method of project implementation, advice was sought from established and respected forest management and community development specialists in Thailand. Thus a meeting between the TEI Project Director, experts from the Regional Community Forestry Training Centre (RECOFTC) and senior staff from the Royal Forest Department (RFD) was convened. RFD personnel included individuals from the Community Forest Division, Natural Resource and Conservation Office and the Forest Research Office.

The summary recommendations from this meeting were:

1. Increase project presence at the project site and select staff with suitable extension experience.
2. Undertake extensive Participatory Rural Appraisal (PRA) in all target villages and ensure project staff, not hired consultants, undertake data collection.

3. Identify via PRA the current economic, social and environmental status and flows at the project site at all scales from village to district.
4. Ensure resulting local community plans are developed, which identify specific activities linked to definite environmental and social benefits.
5. Facilitate local capacity-building and organisational improvement.
6. Promote community forestry within independent villages and explore and develop mechanisms by which communal or district wide forest areas can be jointly managed.
7. Develop activity-focused groups, village-based groups and district-wide networks to ensure collaboration and partnerships at all levels.
8. Ensure that the project encourages local responsibility and that local people respect the integrity of the wildlife sanctuary, which the project is designed to conserve.
9. Ensure the project works closely with local government agencies to promote local collaboration.
10. Buffer zone activities must occur outside the boundary of the protected area and not encroach within the boundary.

The new project was funded exclusively by the Royal Netherlands Embassy, Development and Co-operation section and entitled *Participatory Buffer Zone Management for Forest Conservation and Sustainable Rural Development* (Activity Number TH003302). Acting as project executants, the Thailand Environment Institute initiated the three-year project on 1st January 1998.

Phase 2 project strategy was clearly indicated within the detailed project proposal which outlined a proactive, facilitatory, development and conservation project, which would act in a flexible and adaptive way to implement activities and overcome problems when they arose. This was very different to the rigid work plan oriented process of the previous project. The goal of the project was to ensure long-term conservation of Phu Khieo Wildlife Sanctuary by mobilising interagency co-operation and building the capacity of the local partners to manage forest resources sustainably, and develop sustainable livelihoods for residents of the protected area buffer zone.

This goal was to be achieved by establishing a solid and capable project management capacity for both the project team and local area partners. The partners included formal and informal community leaders, members of both the project facilitated and existing local community organisations and representatives of involved government line agencies.

The project management prowess was to focus on successfully implementing a set of integrated conservation and development oriented activities associated with three central project components. These components formed a tripartite and closely inter-linked set of complementary activities aimed at ensuring accomplishment of conservation, development and enhancement of local capacity which are integrated for long term project sustainability. The three project objectives and their sub-components were:

Objective 1: Forest conservation and rehabilitation

"Conservation of Phu Khieo Wildlife Sanctuary by facilitating community agreements and action to conserve protected area forests, increase forest cover in the buffer zone and generally improve the status of local forest resources by replanting and regenerating

degraded forests and promoting and supporting the development of farm and community forestry in the project area."

Objective 2: Sustainable development of local communities

"Enhance the income-generating capacity of participating farm families enabling their full-time residence in the project area (precluding the need for urban labour migration) and revitalise social cohesion and the sense of community."

Objective 3: Organisational development and capacity building

"Enhance capacity and organisational prowess to design, support and implement sustainable resource management, forest conservation and integrated community development among participating villages and implementing partners."

Implementing Phase 2

The project target area was selected on the basis of recommendations of the superintendent of Phu Khieo Wildlife Sanctuary, who had 15 years experience in these villages. A consensus was reached by the project steering committee regarding the location before the project commenced. The area was situated within four sub-districts of Kasetsomboon District of Chaiyaphum Province, which included a total of 43 villages.

Participatory Rural Appraisal

After consulting RECOFTC for advice concerning the number of villages that would be practical for the project to work with, it was originally decided to select a total of 23 villages during the three-year project period. However, once the project was initiated it became evident that this figure was over-ambitious due to the relatively small field staff team (four in number). The number of target villages was therefore reducwed to 19. The project began by initiating 9 villages (Figure 3.) into the project in the first year. It was decided that an additional five villages were to be initiated into the project in the second year and a further 5 in the third and final year.

In order to implement such a broad-based, community-focused project and select the particular villages with which the project was to work, a strong understanding of the communities and their current socio-economic situation, their relationship to the forest and social dynamics was required. Therefore, detailed Participatory Rural Appraisal (PRA) was undertaken. However, this could not be attempted until the project had developed a team of field workers with the necessary skills, and most importantly, the project had established trust with the villages. This could only be achieved by a gradual introduction process, both formal and informal and through dialogue and skilled recognition of and contact with stakeholders to ensure that no village group was excluded from this preparatory process.

Once trust and rapport was present, the project visited each village on several separate occasions and collected data verbally concerning: family structure, education, provenance, land holding, socio-economic situation, current occupations and practices and relationship to the environment and forest utilisation, including both traditional practices and current usage. The PRA process visited 25% of the resident families in each village interviewing all members of each family to develop a composite picture of community life. In total, 324

separate data sets where created for the nine target communities, representing a total population of 3,906 people, with 102 separate issues covered in each questionnaire set.

Figure 3. The Phase 2 – '1st Year' Project Target Villages.

Local Government Administrative Structure

The local situation was complex. In all villages, from the smallest to the largest, there was a social structure with a recognised local administration present. Each village had a village headman, two village assistant headmen and two sub-district council representatives. All four sub-districts had a nominated government chief administrator and the representative local government unit, known as the Tambon[5] Administration Organisation (TAO). There was also development infrastructure present with electricity reaching all villages.

All four sub-districts included six health stations, twenty-five primary schools, three schools to secondary grade 9 and one secondary school, grade 6 to 12. The Ministry of Agriculture had one designated extension worker for each sub-district. A number of water development projects, most notably reservoirs, had been initiated during recent years. The 'success' rate for these was less than 50%, which local people mostly blamed on poor design. The average village size was 94 families, with a mean family size of 4.5 people. The average village contained around 400 people. Population growth rate was 1.5%, which is insignificant when compared with the national average. The majority of villages were established 50-70 years ago by gradual migration.

In addition to basic community data (Table 1.), information was also collected concerning villagers' incomes. As with any development project looking at community use of natural resources, the link between income and degree of destructive practices is often cited (TONGPAN *ET AL.*, 1990). Therefore, the project attempted to calculate villagers' income, identify what income sources were available and what relationships occurred between sources.

Table 1. Project Basic Community Data.

Tambon	Village	Village size Households	Mean Education	Immigrants from outside the:		
				Village	Province	Total
Nong Gok	One	147	grade 5	33.3%	11.1%	44.4%
Nong Kar	Two	96	grade 4	26.1%	65.2%	91.3%
	Three	135	grade 5	23.7%	2.6%	26.3%
	Four	78	grade 5	27.0%	8.1%	35.1%
	Five	80	grade 4	60.0%	35.0%	95.0%
Bua	Six	75	grade 4	54.3%	6.2%	60.5%
	Seven	149	grade 4	60.5%	0	60.5%
Dua	Eight	30	grade 5	66.6%	33.3%	100%
	Nine	78	grade 4	60.0%	20.0%	80.0%

Furthermore, the project focused on the extent to which villagers relied on nearby forest (Table 2.). Incomes derived from agriculture, manual labour, other sources and

[5] Tambon - an administrative grouping of villages.

dependence on forest were calculated in monetary terms. Forest 'Income' (Table 2.) was derived from data collected during the PRA. The majority of products collected from the forest were for household consumption; therefore the average quantities reported were converted into monetary terms, based on local market price.

Table 2. Mean Annual Family Income within Project Target Villages (Baht).

Village	Labour[1]	Forest 'Income'[2]	Average Debt
One	12,833	5,855	19,844
Two	5,917	2,087	29,567
Three	13,157	19,107	22,381
Four	15,324	19,411	20,000
Five	17,850	14,120	12,100
Six	6,468	2,125	8,387
Seven	8,055	8,903	15,763
Eight	9,666	6,204	10,000
Nine	22,700	5,850	16,675
Mean	12,441	9,295	17,190

[1] Expressed in terms of cash paid as wages.

[2] Represents the equivalent local market value of the products collected and consumed by the households, not cash income generated from their sale.

Table 3. Percentage of Villagers Engaged in Labour and Forest Product Collection.

Village	Seasonal Labour	Forest products collection	Debt
One	69.4%	86.1%	69.4%
Two	47.8%	73.9%	95.7%
Three	86.8%	89.8%	84.2%
Four	83.8%	81.1%	67.6%
Five	90.0%	90.0%	90.0%
Six	43.8%	87.5%	81.3%
Seven	57.9%	76.3%	73.7%
Eight	77.8%	100%	77.8%
Nine	85.0%	85.0%	70.0%
Mean	**71.4%**	**85.5%**	**78.9%**

The majority of the products collected from the forest were for home consumption, although some items, especially charcoal, were produced for sale. Therefore, the average quantities reported were converted into monetary terms based on local market price, with seasonal price fluctuations taken into account. In addition, an assessment of the percentages

of those villagers engaged in both seasonal labour and also subsidising their income from the collection of forest products was undertaken (Table 3.).

Gender Distribution

If the data is assessed in terms of permanent village residents, (i.e. not including those individuals who work elsewhere and only return for important festivals), then the population is dominated by females (62.7%). It is predominantly women and girls who go into the nearby forest to collect non-timber forest products (NTFP's), whereas males work on the farms. Women play a minor role in traditional village-based decision-making organisations.

Findings from the Appraisal

Overall half the total local income generated resulted from labour, with construction work and sugar cane cutting being the two dominant activities undertaken. Within these occupations, two trends were apparent. The first group includes villagers who choose sugar cane cutting because they have some land but wish to increase their income. This is because it occupies only a short period of time and therefore does not intrude upon their traditional agricultural practices. The second group of people, who work in the service sector, seek employment of a more permanent nature. These people have no land and support their family by sending a substantial portion of their wage home to their relatives. They only return home for major ceremonies or to help the family to harvest the rice from the fields

After seasonal labour, the second most important local additional income source was the forest. Utilisation of the forest was variable, some products being utilised by the majority of the population, others only being partially or seasonally utilised. This situation reflects to some extent local variation in external factors such as rainfall and labour opportunities and indicates the villagers close association with annual cycles. Their activities are synchronised with the seasons that affect agriculture and the productive status of the forest.

All use of the forest stops once the fields are prepared and the rice seedlings are ready for planting. The villagers are then employed in a period of hard work with all members of the family working together in the fields. Many of the short-term seasonal labourers return to help with the planting. Once the rice is in the fields, these workers return to the cities and the older and younger members of the family remain in the village. During the rice-planting period, the families use savings and cached supplies, including bamboo shoots, having no time or energy to enter the forest and collect products. The linkage between forest usage and seasonal activity appears to indicate a strong association.

On analysis of the data, there appeared to be a strong relationship between periods of collection of forest products and agricultural inactivity. The communities appeared to utilise the forest areas, not simply because of a lack of income, but also because they have traditionally collected forest produce during non-productive periods. It seemed reasonable to assume that, if income-generating activities were to increase the participants' free time, then an increase in forest resource use would probably occur. For example, traditional rice farmers at the project site were actively engaged in the cultivation of rice for only six

months of each year and they therefore had plenty of free time to enter the forest to collect various products. Therefore development activities were implemented in such a way as to extend the productive phase of the village so that employment and supply could be distributed more evenly throughout the year. The purpose of initiating income-generating activities was not therefore solely to increase monetary income.

It therefore appeared likely that, by extending the agricultural season, the farmers timetables would become more equally distributed throughout the year. The agricultural production of the village would become more diversified, reducing reliance upon external markets and promoting a strong local village market. Villagers would therefore produce their communities' requirements first and then market the excess, rather than producing crops for sale and surviving, for the remainder of the year, on external products purchased with their savings.

Selection of Target Communities

Using the data collected from the PRA, a ranking system was employed to select the project target villages using the following criteria:

1. Proximity to forest
2. Dependence on forest
3. Knowledge relating to local forest
4. Access to community
5. Poverty status
6. Village size
7. External influences
8. Community strengths
9. Village cumulative knowledge
10. Village leadership
11. Development potential
12. Acceptance of project concepts

The nine highest-ranking villages were initiated into the project during the first year. The five villages with the next highest ranking joined the project in the second year and five additional villages were to be initiated into the project in the final year.

Once target villages were selected, the next stage of implementation involved establishing economic-generating activities within those communities. Before this could be done, it was necessary for the field staff team to identify which types of activity were appropriate for the respective target villages. Appreciation Influence Control (AIC) (planning sessions) were initiated with the villagers by posing such key questions to the villagers as: what do you wish to include in your village development plan; how can this be initiated and who will be responsible for implementation? In order to provide examples of potential income-generating activities, study tours were provided for the villagers by the project. These enabled villagers to visit sites where organisations had been involved in development projects and had formed village groups identified with specific activities within communities. The project encouraged diversification between the income-generating

activities and included occupations to provide the communities with adequate income throughout the year. The purpose of this action was to address the strong relationship between periods of collection of forest products and agricultural inactivity, thereby reducing the extent to which the communities relied on the local forest. On completion of the study tours the villagers were asked by the field staff to summarise their visit, identify the activities they found most useful, the lessons they learned and select activities for their respective villages.

This exercise resulted in the formation of income-generating group activities in each target village including: integrated farming, cattle raising, water bore-well drilling construction (to reduce agricultural dependency on seasonal rainfall), soil-cement brick production (to reduce reliance on timber used in local house construction) and women's groups, producing silk, shampoo and household detergent.

Developing Community Organisations

The project implemented development of the communities by starting small activity groups and progressing through a process of accretion and mutual assistance until these groups develop into a village organisation and ultimately the Community Network Organisation. This approach was intended to ensure that ultimately the majority of the population within the project target communities were both involved in and represented by the processes concerned with management of the buffer zone area. The organisational development and capacity building of the project target communities included four specific fields:

***1. Project Activity Groups*:** democratically elected within the first six months of each village, having been initiated into the project to develop and ultimately manage each of the income-generating activities. Revolving funds were provided to individuals within the target communities for implementing project activities such as integrated farming.

2. Village Development Committees: the objective of these democratically elected groups was the general management and co-ordination of their respective villages and in particular the formulation of Sustainable Community Development Plans. The inclusion of women in each of these groups was promoted by the field staff to ensure that they had equal opportunities to participate in the project. These groups were to assume responsibility for vetting applications from villagers for project financing of income-generating activities.

3. Community Forestry Management Committees: the objective of establishing community forest management plans was originally identified during the PRA and AIC undertaken at the beginning of the project. In July 1999 members of the project field staff and RECOFTC organised a three-day training course on the subject of community forestry. The objective of the course was to establish Community Forest Management Committees in the project target villages and facilitate the members of such in developing management plans for their respective forests. RFD officials who were invited by the project and attended the training course included the Superintendent from Phu Khieo Wildlife Sanctuary. The training course marked the beginning of the development of strategies for community forest development within project target communities, which was in effect the first stage in their developing village resource zoning plans.

4. A Community Network Organisation (CNO): formed during the second year of phase 2 of the project, with 56 members consisting of four representatives from each target village. The purpose of these groups was to co-ordinate the respective Village Development Committees, in order to create a cohesive and holistic approach to manage the buffer zone on a sustainable basis. The CNO also represents all villages in negotiations with government officials or other organisations and will ultimately manage the buffer zone area after project completion this year. The project provided members of the network with the necessary training to develop their management skills to the levels required to independently manage the buffer zone area. The field staff and project management has included the CNO in meetings to review and manage project progress. The network has been working closely with the project field staff team in the management and development of the majority of project activities, including the final year work plan.

Participatory Management

Both the project executants and the CNO recognise that, to be successful, the process of participatory management of the buffer zone area must include government authorities. With this in mind the CNO has developed working relationships with the Tambon Administration Organisations (TAO's) by including officials from each of the four sub-districts in the project target area within its membership. The CNO and project field-staff team has developed working relationships with the Ministry of the Interior, Ministry of Agriculture, Royal Forest Department and Ministry of Education at a district level.

Integrating Development and Conservation

The most challenging aspect of the project to date has proved how to ensure that development and conservation are integrated within the buffer zone. Throughout phase 2 of the project, the field staff have made a conscious effort not to over-emphasise the importance of any one particular activity, such as tree planting or income generation. Instead they have concentrated on developing the capacity of the target communities to adopt a holistic approach to the management of their environment.

The CNO has gained verbal agreement from the RFD for permission for certain villages within the buffer zone to use areas of land under the jurisdiction of the RFD as community forests. The ultimate objective of both the project and the CNO is to strengthen these agreements and also to gain permission from the RFD to allow local communities to participate in the management of areas of land within Phu Khieo Wildlife Sanctuary.

To ensure that future management of the buffer zone is effective, the CNO will need to develop and implement methods of participatory monitoring and evaluation. The project has therefore arranged for RECOFTC to initiate on-site training for the CNO in the subject of participatory monitoring and evaluation. In addition, the project has initiated nineteen schools within the area into the project, with the objective of establishing a youth community network organisation. The purpose of this is to raise awareness amongst the local youth concerning sustainable development of their communities and involve them in monitoring and evaluation of activities within the buffer zone.

It is intended that the CNO will continue to function and manage all activities within the buffer zone after completion of the project at the end of this year. The CNO will eventually establish and manage one central revolving fund with the money originally supplied to each target village by the project for funding of income-generating activities. This will enable these funds to be employed amongst new villages in the buffer zone, which the network may decide to include in their membership and assist with the development of economic-generating activities in order to achieve sustainable development. Construction of a community centre is underway, which will serve as the headquarters of the network, which is developing plans to run the centre as a regional training centre for sustainable development for community organisations.

DISCUSSION

Phase 1 of the project demonstrated that, to achieve sustainable development of the buffer zone, organisational development and capacity building of the local population is essential. Therefore phase 2 of the project specifically included three processes: firstly, to increase awareness, knowledge and understanding of local communities with regard to the rational and logic on which the project is based. Secondly, to empower communities in the management of their villages and the buffer zone through development of community organisations at both village and district levels. Thirdly, to encourage and facilitate community organisations in developing their own ideas and direction in terms of both economic and social development of their communities and the buffer zone area.

Considerable progress has been made in achieving these objectives with the result that the management capability of the community organisations has reached a stage where they are now able to offer advice and training to others. For example, field staff consider that the nine villages which were initiated into the project during the first year of phase 2 of the project are now capable of assisting new villages joining the project in developing community organisations of their own. The project has therefore reached a stage where the target communities themselves can assist other non-target villages in participating in management of the buffer zone.

CONCLUSIONS

The fundamental lesson learned from the Phu Khieo project is that development of communities surrounding the wildlife sanctuary is not an assurance of conservation of that area. If rural development activities target the wrong sectors of those communities, and especially if they exclude members of those communities who utilise forest resources, such development will not reduce the impact of those individuals upon the forest area.

Phase 1 of the project may prove to be only part of a long learning process for all those concerned in achieving the ultimate objective of sustainable development of the buffer zone. Further research is required in order to ascertain if the project is achieving such development and subsequent long-term conservation of Phu Khieo Wildlife Sanctuary. Up

until now, TEI has initiated such research. However, for the process of participatory management of the buffer zone to be successful in the long-term, local communities must possess the ability to conduct their own research and development.

FUTURE DIRECTIONS

There remains much work to be done before the activity of forest restoration for wildlife conservation becomes a significant part of the buffer zone management regime. The project has made great progress in identifying the underlying causes of the damage, which is occurring to local forests. It has also succeeded in recognising the underlying reasons for those causes. The challenge remaining is how to integrate conservation and development within the buffer zone to the extent that it not only includes conservation, but also restoration of local forests.

The district Community Network Organisation has stated that they intend to maintain a working relationship with TEI after completion of the current project. TEI is now in the process of developing one method of doing so by including the CNO in a new national initiative it is developing, entitled the Thai Forest Watch Network (TFWN). The overall objective of the TFWN is to develop a national network to facilitate participatory management of Thailand's forests. It is intended that network members would include local communities, NGO's, the scientific community and the Government. The ultimate objective of the TFWN is to build partnerships around solution-orientated approaches in order to achieve sustainable participatory forest management, thereby reversing the process of deforestation in Thailand. The TFWN intends to raise public awareness about the need for and the potential of participatory forest management in sustainable development. This will be achieved by implementing and co-ordinating a forest monitoring network and conducting research on sustainable forest management. It is intended to create a database concerning forest resources and their sustainable development and use it to develop the potential of TFWN members. In this way, participatory forest management can be developed with the ultimate objective of contributing toward sustainable development of the region, including forest restoration for wildlife conservation.

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QUESTIONS AND COMMENTS

Marlea Munez

How much investment was given to the project and for how many years? Also, how many people were on staff and involved in the community?

Chamniern Vorratnachaiphan

ITTO supported our project, which is unusual because they rarely support rural development. This support was just for the first three years for a total of 20 million Baht. The northern government has supported phase 2 of the project by spending 15-20 million Baht. So for the first 6 years more than 30 million Baht has been invested. Currently we have 8 permanent field staff.

Marlea Munez

How can you do it in a way that it can be replicated in some other areas where you may not be able to provide so much investment while still keeping with the community approach with putting in village scientists, foresters, etc.?

Chamniern Vorratnachaiphan

In the 1st phase we had only 3 villages, but now we have expanded to 14 villages because we have extended our target group. But we are still not satisfied, so under the established network, we are hoping to work with other organisations so that we can expand even further. We are providing training, collaborating with the Thai Forest Network and trying to use existing regional organisations.

Payong Chatwiroon

Forestland in Thailand is governed under 5 Acts. The first act, known as the Forest Act, was established in 1941. The second is the National Park Act 1961, the third is the National Reserved Forest Act 1964 and the fourth is the Wildlife Sanctuary Act 1992. Finally the fifth, the Community Forestry Act, is currently under review. According to the laws, people are forbidden to live inside forested areas within national parks and wildlife sanctuaries in Thailand. The people in the villages misunderstood the laws, so they invaded the land, cut down trees, destroy buildings and try to sell the land. The Community Forestry Act is presently being drafted, but this is causing much debate, because villagers want to have unlimited access to national parks and wildlife sanctuaries. There is a rush to occupy areas that might be declared community forests under the Community Forestry Act. Presently, there is conflict between the villagers wanting to carry out activities inside national parks and wildlife sanctuaries and others wanting to protect them for conservation and watershed management. That is why we do not want to let anyone inside these areas. We are also sure that people who get into the protected areas will want to stay there. The Community Forestry Act focuses on planning, so that anyone who wants to declare a community forest must submit a plan to the concerning agency. The problem with this is that there is only one word for plan in Thai, but at least ten in English, e.g. master plan. So we need to know exactly what this plan is about; for instance, is it for only one year or ten years? I used to be involved in an investigation committee in Thailand and teach law at Kaset University. The Community Forestry Act is not yet ready. There is a long debate between the forestry sector and NGO's, because NGO's want to get inside the land because they misunderstood the role of the act. Villagers can obtain benefits from the forest and at the same time conserve the area for other people.

Chamniern Vorratnachaiphan

I agree with what you said. There are too many plans. There is no enforcement of the implementation of these proposed plans that pose problems in Thailand. Also there are too many researchers doing research that is not applicable. The problem that we experience is a lack of integration of plans. The plan has no vision, no clear-cut mission and no interest in others' plans. What needs to be done is an integration of all the plans both horizontally and vertically. We need to deal with land issues, as this is the reason we experience conflicting laws and people wanting to invade the land. Planning is still just a plan; nothing is accomplished. Many plans, zones, etc. are created, but they are only good to hang on the wall. So what we now must do is to come back to the realities of implementation. The problem now is that the task has become so immense, as we must now restore forests, and not only the trees but also the animals. How do we protect the land, and what is the most effective way? One organisation is too small for this big task. So we must work in partnership if we are to succeed.