



Cultivating *peace*

Conflict and Collaboration in Natural
Resource Management

edited by Daniel Buckles

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Conflict and Collaboration
in Natural Resource Management

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INTERNATIONAL DEVELOPMENT RESEARCH CENTRE
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Chapter 2

NAM NGUM, LAO PDR: COMMUNITY-BASED NATURAL RESOURCE MANAGEMENT AND CONFLICTS OVER WATERSHED RESOURCES

Philip Hirsch, Khamla Phanvilay, and Kaneungnit Tubtim

Nam Ngum watershed is of vital importance to Lao PDR. Its resources provide a subsistence livelihood to about 80 000 lowland and upland cultivators from diverse ethnic groups. Over the past two decades, Nam Ngum Dam has provided about one-quarter of the country's foreign-exchange earnings and most grid-linked electricity. Timber cut from the watershed also generates a sizeable foreign-exchange income. However, these demands have heightened competition for resources and conflict. This case study describes the types of conflicts experienced at a local level in four main localities in Nam Ngum watershed and document the ways in which the conflicts are being managed. Some limited project interventions are discussed and evaluated.

Alternative approaches to resolving conflicts over resource use can be examined using a basic diagnostic approach that works backward and forward from the point of conflict. Working backward usually involves seeing conflict as an outcome of resource competition among different actors. These may be similar actors, each of whom exerts more pressure on a resource to which all lay claim, or different types of actors making a combination of direct and indirect claims on a resource for various uses. The next stage backward is, thus, to examine resource competition in terms of intensified or changed use of a particular resource. Ultimately, this requires examining a starting point of existing resource-use patterns by different actors in a particular context, and the forces for change that led to pressure. Thus, resource use, change, competition, and conflict are examined in sequence.

The forward-looking stages include developing cooperative solutions as a means of resolving conflicts, and this implies a combination of biophysical and social analysis of the resource conflict in question.

Understanding conflict is a prerequisite to developing approaches to resolving it through cooperative means, whether via community-based natural resource management or otherwise. This requires both a material analysis of the basis for resource use and a social analysis of the stakeholders involved. The implication here is that conflicts and their resolution need to be examined in their ecological, sociocultural, economic, political, and policy contexts. Broadly speaking, the analysis thus works within a political-ecology theoretical paradigm (Blaikie and Brookfield 1987; Bryant 1998).

With context in mind, a key problem in developing alternative approaches is the balance or tension between national policy and local implementation, that is, between generalized approaches and catering to specific instances, between top-down technocratic implementation and bottom-up participatory design, between new institutions and modification of existing institutional means of dealing with conflict. Even a single medium-scale watershed may have diverse local settings in which application of policy, however progressive, needs to be adapted to local circumstances for successful and equitable resolution of resource conflicts (Khamla et al. 1994; Hirsch et al. 1997).

The Nam Ngum case

This case study deals with intensified resource use conflicts and institutional approaches to dealing with them in the Nam Ngum watershed, Lao PDR (Figure 1). The Nam Ngum River is one of the major tributaries of the Mekong. The watershed is defined as the area draining into the Nam Ngum Dam. Its significance to the issue of conflict management arises from the multiple use of watershed resources (land, water, forests, fish) for subsistence and commercial production in the context of rapid change. The watershed is important nationally for electricity production, and locally its resources are the main source of livelihood for about 80 000 mainly subsistence cultivators from diverse ethnic groups living above the dam.

The natural resources of Nam Ngum watershed are significant in a number of ways. Over the past two decades, the sale of electricity generated at the Nam Ngum Dam to Thailand has contributed on average one-quarter of the country's foreign exchange income. The dam has also generated most of the country's own grid-linked electricity. The watershed's lowland paddies and upland swiddens are the principal source of livelihood to farmers from numerous ethnic groups including Thai Phuan, Hmong, and Khamu in more than 200 villages of three provinces. In addition, the watershed has played a disproportionately significant role as source of commercial forest products due to the scale of logging operations at and above the Nam Ngum reservoir. Timber and nontimber forest products are also highly significant for subsistence uses. Fish from the Nam Ngum reservoir form a large proportion of the catch entering the Vientiane markets and the most significant contribution of animal protein in the diets of people in numerous villages situated adjacent to the reservoir.

There are several dimensions to resource competition and actual or potential conflict in Nam Ngum watershed (Kaneungnit et al. 1996). Most immediately for many communities, competition between people of different ethnic groups in neighbouring villages arises from different traditional production systems and the proximity of communities

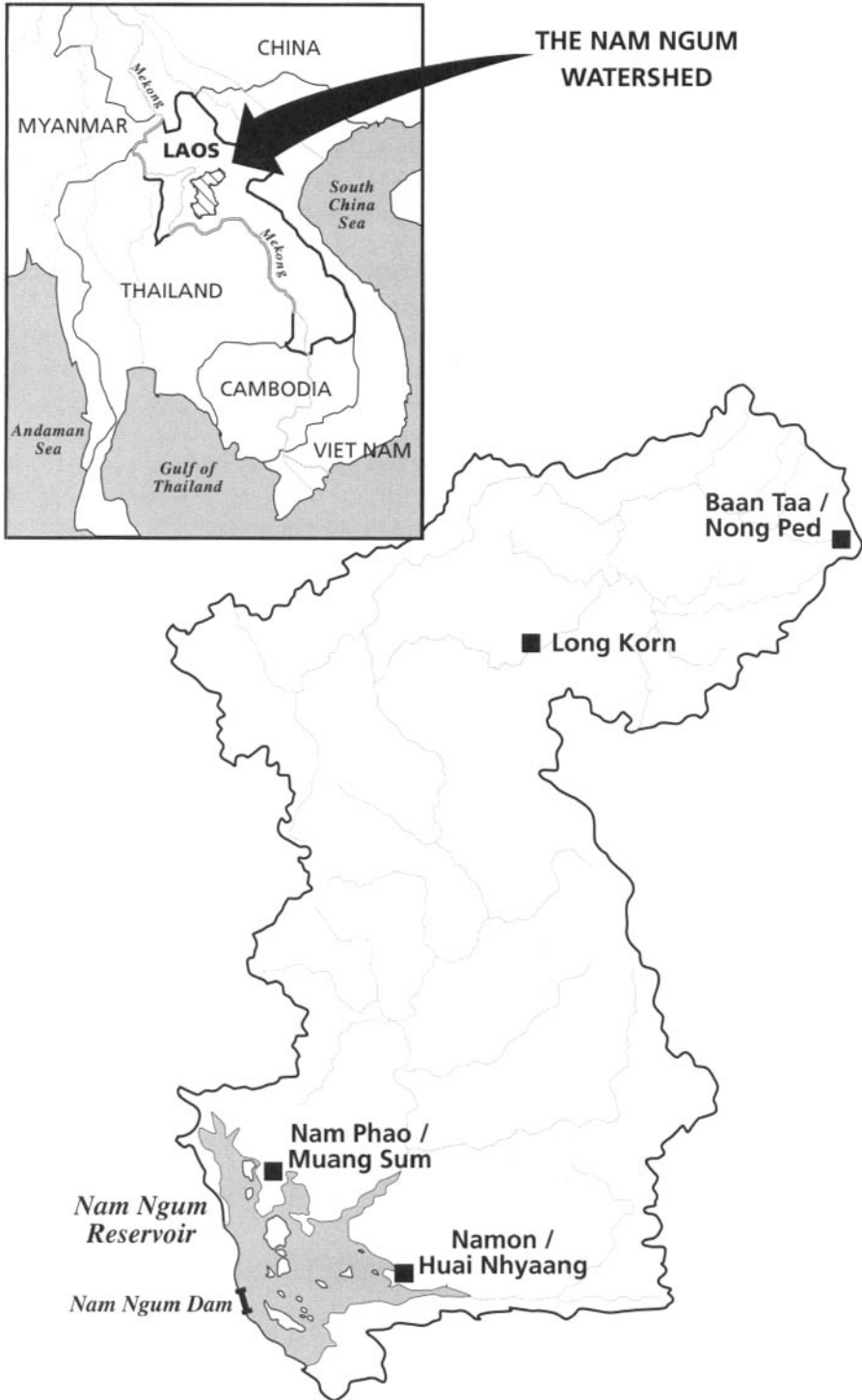


Figure 1. Nam Ngum watershed and the study sites.

resulting from a high rate of population movement within the watershed, attributable, in part, to the aftermath of wartime devastation. As in any watershed, upstream–downstream conflicts arise, both directly from extraction of water for upstream agriculture and, less directly, as upstream forest clearance affects downstream agriculturalists. Resource competition between subsistence and commercial resource uses is also increasing. Yet another dimension is competition between uses for national development and for local livelihoods, as existing and proposed hydropower developments encroach on land and water resources.

The main political–economic contextual factors relevant to the Nam Ngum case arise from the reforms of Lao PDR's transitional economy since the mid-1980s. Domestically, these reforms involve a move away from collective production within a socialist central planning system, toward a market economy. The market reforms are particularly significant in encouraging intensified resource use instead of subsistence-based production. The reforms also involve an outward orientation of macroeconomic policy, based on attracting foreign investment to develop the country's natural resources for export; within this, hydropower has received particular attention. The Nam Ngum case thus provides something of a microcosm and a baseline for anticipation of the local implications of such policies.

Significant policy reforms in the natural resources sector have accompanied the wider economic reorientation (AusAID 1996). Notably for the purposes of this case study, decree 169 dealing with allocation of forest land was seen to have potentially far-reaching implications when it was issued in late 1993. The decree involves allocation of rights and responsibilities over forest management to local communities, partly in recognition of the limited ability and effectiveness of the Department of Forestry to administer all state lands under its jurisdiction and partly in recognition of the traditional role of communities in governing local land and forest resources.

Between 1992 and 1996, we led an applied research project that investigated the changing resource use, intensified competition, emerging conflict, and cooperative solutions to resource management within Nam Ngum watershed. The study was carried out in two phases. The first involved investigating socioeconomic conditions and resource management systems in the watershed at the community level through an extensive survey of all villages and an intensive participatory study of two adjacent villages (one low-land Lao, one Hmong) on the northeastern edge of the reservoir. Phase II involved intensive study and limited interventions in four pilot areas (see Figure 1), each of which represented a particular resource conflict and management challenge. The application of decree 169 at the local level in diverse agroecological, sociocultural, and politicohistorical circumstances within the watershed was a primary focus of the second phase of study.

The situation requiring institutional change

The overall situation prompting institutional change has been the intensification of resource use among the many users of Nam Ngum watershed resources. The competition over a limited resource base has resulted in degradation and unsustainable use of increasingly scarce land, forests, water, and fish. This scarcity necessitates some formalization of allocation procedures, dispute resolution, and devolution of management authority at various levels.

As indicated above, it is necessary to refer to local contexts to understand and find points of intervention to deal with particular instances of conflict. The four areas subjected to intensive study were selected according to key aspects of intensified resource use and competition within and between communities in the locality and with reference to external policies or resource demands affecting local natural resource use. Long Korn is in a resource-rich area that has suffered from the aftermath of geopolitical conflict, but where ethnic minority farmers at last have the potential to reestablish their livelihoods. The Nong Ped and Ban Taa area was selected, because potential conflicts have emerged there due to the forced return of land from an ethnic minority community to a neighbouring Lao community as geopolitical conditions have “stabilized.” Nam Phao and Muang Sum were chosen because conflict has emerged as this stable, long-established community has had to cope with demands on its resource base from more transient neighbouring villages and official resettlement programs. The Namon and Huai Nhyaang area was selected as a microcosm of conflicts between lowland and upland ethnic groups, with different cultivation systems, which have been exacerbated or brought to a crisis point by external demands on the resource base.

Long Korn

Long Korn village in Phukood District of Xieng Khouang Province is a recently reestablished village; it has been at its present location since 1994. Settlement in the area has been affected by periodic insecurity and displacement — first as a result of bombing by the United States and deliberate depopulation of Xieng Khouang during the early 1970s, later by remnants of right-wing Hmong forces previously led by the ex-CIA supported Vang Pao. The insecurity and associated high rate of population movement reflects one of the key background problems that have historically constrained the livelihoods of most communities in Nam Ngum watershed. The Khamu villagers of Long Korn are at an early stage in terms of securing their livelihoods in an area of relative abundance, but isolated. Because of the loss of livestock to wartime destruction and difficulty in reestablishing herds during recent moves, a major constraint to sedentary farming is a shortage of draught animals and thus also natural fertilizer. This problem is quite general to communities on the Plain of Jars. Long Korn and surrounding areas are eyed by the district as potential sites for resettlement of communities from elsewhere, lending particular significance to a participatory approach to establishing the limits of sustainability in agricultural production.

Nong Ped and Baan Taa

Nong Ped in Paek District of Xieng Khouang Province is an established Lao Loum village in the upper part of Nam Ngum watershed. The village was destroyed during the 1960s by aerial bombardment; thus, it has experienced major upheaval like other communities in the area. Baan Taa is a neighbouring upstream Hmong village that was established shortly after the end of the war in 1975. Some of the rice terraces at Baan Taa include old fields previously worked by Nong Ped villagers. The Hmong newcomers also cleared and established new rice terraces higher up the stream system. Baan Taa is one of many Hmong communities that have resettled in line with government policy but face pressure as their cultivation demands place them in competition with adjacent and longer established lowland communities.

For the first few years after both communities resettled, land was farmed cooperatively and no claims were made on the older fields that had been rehabilitated by the Hmong newcomers. However, in the mid-1980s, individual Nong Ped farmers began to claim their former family plots. In 1994, after several years of negotiation involving district and provincial authorities, the older rice terraces at Baan Taa were returned by Hmong farmers to their original owners from Nong Ped.

This marked the culmination of not only the settlement changes in the area, but also changing tenure conditions accompanying a move from cooperative to household production and landholding. The changed conditions have prompted renewed encroachment on upper-watershed forests, causing problems for both communities, as Nong Ped rice fields are irrigated by streams whose sources are in the upper parts of Baan Taa.

Nam Phao and Muang Sum

Muang Sum village (until recently located in Vangvieng District of Vientiane Province) is an old community with a well-established and hitherto sustainable resource management system. Livelihoods are based on wet rice farming with supplementary rotational shifting cultivation. Forested areas on surrounding slopes have long been protected by a village custom prohibiting cutting and clearing in several areas. Recently, Muang Sum has been targeted as a resettlement site for Hmong returnees from Thailand. It has also been designated to receive mainly Khamu villagers evacuated from surrounding upland communities and lowland Lao villagers from reservoir-edge and island communities. There is thus a sharp increase in demands on the resource base.

Nam Phao is a more recently established adjacent community, with a mix of settlers from diverse geographic and ethnic origins. The factionalism of the village is symptomatic of many problems with the "community-based" approach that often assumes a common interest and stable, long-standing community structure. Problems of forest clearance and degradation at Nam Phao have spilled over into forests traditionally managed and protected by Muang Sum villagers.

Management of this issue has become very difficult with the redrawing of administrative boundaries that has left Nam Phao in Vangvieng District but placed Muang Sum in the new special administrative zone of Saisomboun. Not only does this complicate the district role in dealing with local resource competition and conflict; it also involves a redrawing of village boundaries between Nam Phao and Muang Sum, so that a partly forested "no man's land" is open to uncontrolled exploitation. Maintaining sustainable management of Muang Sum forests and lands requires appropriate action in neighbouring communities, notably Nam Phao. This area thus presents a complex management challenge within and between communities and involving multiple state authorities.

Namon and Huai Nhyaang

Namon village, in Long San District, Saisomboun Special Administrative Zone, used to lie in the area that is now flooded by the Nam Ngum reservoir. Villagers have reestablished their livelihoods close to their original area of settlement, but with a considerably constrained resource base. This community's resource base has been greatly affected by hydropower development, and its situation is indicative of the more widespread challenges faced by relocated communities relying on the more efficient use of increasingly scarce land, forest, and water endowments.

During the 1980s, a Hmong settlement was established at neighbouring Huai Nhyaang, reflecting the more general situation arising from the government policy of resettling shifting cultivators. One outcome of such resettlement is that upland shifting cultivators now live closer to lowland cultivators, potentially exacerbating the scope and immediacy of conflict. Since the early 1990s, prohibition of reservoir fishing in the Kaeng Noi area close to where the Nam Ngum River flows into the reservoir has led to the establishment of two more communities close to Namon: Don Samphan and Don Seua. This has created a further incremental increase in pressure on local forest resources as upper slopes have been cleared by villagers from these communities. Most recently, raised reservoir levels have flooded about 20% of the two villages' wet rice lands since 1994 and have reduced the drawdown area available for grazing. As a result, there is increased reliance on the remaining forest area for shifting cultivation. This situation is perpetuated by the Nam Song diversion, which increases energy output at the Nam Ngum Dam by raising water levels and throughput. Competition for forest and land resources has intensified as a result of this combination of pressures. Competition is most evident in a rapid and clearly observable loss of natural forests on the slopes immediately above the villages, particularly in the headwater areas of streams that are used to irrigate the remaining wet rice fields.

The change process: policy environment, local responses, and intervention

Just as competition for resources in Nam Ngum watershed must be understood at different levels, so the change process involves interaction between the national-level policy environment and reform process, on one hand, and local responses and adaptation to rapidly changing circumstances, on the other. Inserted into this dynamic of change are limited project interventions, based on analysis of the key local resource management challenges summarized above. Key actors include villagers from diverse community situations, environmental circumstances, and ethnic groups; staff of each of the four districts; and project staff from the Department of Forestry.

Institutional and policy environment

In many cases, policy supportive of community-based approaches to conflict resolution may be part of a wider policy environment that simultaneously creates difficulties and uncertainties. Some difficulties are due to lack of institutional capacity, whereas others are related to incompatible policies. The following discussion concentrates on the latter issue. In the case of Nam Ngum watershed, several areas of national policy and its provincial interpretation are relevant.

Resettlement

Vientiane Province has periodically developed plans to move people who are settled on the edge of the Nam Ngum reservoir to areas on the other side of Phou Khao Khouay protected area (that is, out of the watershed altogether). This includes communities settled on the islands and those in Namon and Huai Nhyaang who do not have permanent cultivated land (paddy). However, this plan has been cancelled due to the shortage of suitable areas

for settlement and a lack of funds for development of infrastructure. Nevertheless, population movement into and out of the area is considerable, partly as a result of government policy. Most of the movement is based on voluntary settlement and usually is based on family relationships and the search for new permanent cultivable land. However, in the case of Namon and Huai Nhyaang, the movement of fishers from Kaeng Noi has created considerable problems.

Decree 169

The Management of Forest and Forest Land Decree (3 November 1993) aimed to provide guidelines for districts and villages to demarcate their forest resources for management, protection, and conservation (forest zoning). Some detailed guidelines on forest demarcation were included in this decree. In principle, therefore, it is supportive of community-based natural resource management. However, outside limited pilot areas, the implementation of decree 169 was mostly based on dissemination of the document to the district level; this was passed on to the village level in a short verbal or written missive. Implementation of the decree thus depended mainly on the capability and competence of the district staff, notably those at the District Agriculture and Forestry Office.

Namon, Houai Nhyaang, and adjacent communities failed to implement the decree fully due to the lack of staff at the district level and weakness in communication between district and village. There was a significant difference between the expressed desires of Namon and Huai Nhyaang villagers, on one hand, who wanted to maintain collective management of the remaining natural forest between the two villages, and the district authorities on the other, who wanted to divide the natural forest area for individual village allocation, including two new communities resettled from Kaeng Noi.

Forest Law No. 125/PO

The Forest Law was issued on 2 November 1996 to replace decree 169 on the management of forest and forest land and decree 186 on the allocation of land and forest land for tree plantation and forest protection (issued 12 October 1994). Article 1 states the purpose of the Forest Law is to define basic principles, regulations, and measures on the management, conservation and use of forest resources and forest land. The law is meant to promote forest generation and plantation in Lao PDR to improve people's livelihoods as well as to sustain the natural environment and maintain equilibrium of the ecosystem. According to Article 16, the forest is divided into five categories: (1) protection forest; (2) conservation forest; (3) production forest; (4) regeneration forest; and (5) degraded forest or bare land.

Article 18 defines conservation forest as forest and forest land designated to reserve the historical, cultural, tourist, environmental, educational, and research values of wildlife and plant species and the ecosystems of which they are part. The tenure rights to forest and forest land can be obtained by transfer, allocation, and inheritance (Article 48). However, customary rights to use of forest and forest land are recognized. Customary use includes the collection of nonprohibited wood for fences and fuel, the collection of forest products, hunting and fishing of nonprohibited species for household consumption, and other uses following custom (Article 30). Village authorities are accorded significant rights and duties to organize and develop local regulations on the use and allocation of forest and forest land to individuals for management, protection, and conservation of forests,

watersheds, wildlife, and natural environment appropriate to the actual conditions of the village (Article 63). In practice, the new forestry law has not yet been translated into bylaws or regulations for detailed enforcement. The old decree 169, in some circumstances, is still valid and to be used as the guideline for legal enforcement, such as in land allocation and land-use zoning at the village level.

At the Nam Ngum watershed and project level, although all actors shared a perception that change was necessary to overcome a deteriorating resource base, there were quite different perspectives on what constituted the main reasons for such deterioration. At the national policy level, a standard explanation for deforestation in Lao PDR is vegetation clearance and burning by shifting cultivators. However, the situation becomes much more complex at the local level, particularly where forests that have been managed by communities of long-standing come under pressure either from within the community itself or from recent settlers who have been displaced from elsewhere as a result of a range of extraneous pressures and policy measures.

Local responses: dealing with conflict at the local level

Although project interventions reveal the potential and limitations of applied and participatory research in terms of material inputs and collaborative approaches to conflict management, an equally important aspect of the research process was the documentation of means of dealing with conflict at the local level. Attention was paid to aspects of conflict and its resolution, avoidance or exacerbation within and between communities, and between local villagers and district authorities. The following observations summarize aspects of conflict management in the four pilot localities.

Namon and Huai Nhyaang

Villagers in Namon and Houai Nhyaang are keenly aware of the potential for conflict within and between their communities over occasional encroachment on nearby natural forest areas. Conflict avoidance has taken a number of forms. In one case of encroachment into forest for shifting cultivation by a local Huai Nhyaang villager, other villagers initially issued a warning to the offender. When this proved insufficient, rather than impose penalties themselves, the villagers reported this case to the village head, who in turn reported it to the district for consideration and judgment. When there was no response from the district, the villagers who had petitioned and the head man perceived that the higher authority could not make any judgment. Rather than alienate themselves from other villagers, they decided to keep quiet. In general, there is a reluctance to risk social tension by reporting such offences.

Some farmers in Huai Nhyaang tried to avoid conflict with neighbours by grazing their livestock far from other villagers' fields. A few used to graze their cattle seasonally in the Phou Khao Khouai Protected Area, but this is now prohibited by protected-area managers. This creates tension between these farmers and other villages close to the new grazing areas, exacerbated by the loss of grazing land near the reservoir because of the increased capacity of Nam Ngum Dam.

The limited supply of water for paddy cultivation has resulted in conflicts between Namon rice farmers who need to irrigate their fields and paddy cultivators in the newer neighbouring communities of Don Seua and Don Samphan. However, this type of conflict had been resolved through the discussion between village committees and among

beneficiary groups who share the same weirs and canals. This type of traditional system for water allocation has involved defining the date and time to irrigate water along the weir and canal systems shared by each group. To complete the work within the constrained planting period, cooperative labour sharing is still practiced.

In some cases, to avoid conflict between villages, people have simply asked authorities to deal with disputes. For example, when villagers from Don Samphan illegally cut trees in Namon's forest area, people from Namon reported the case to subdistrict authorities to avoid direct confrontation and conflict with their neighbours. However, the authorities prefer communities to solve conflicts themselves as they have their own difficulties in dealing with such problems, such as, lack of money for travel and extension and lack of established mechanisms to deal with conflict.

An external source of conflict between villagers was a small timber mill, which was seen by some as contributing to local economic development and making use of forest resources by extracting abandoned timber cut by a former logging company and by shifting cultivators at the local level. However, this type of activity only benefited a minority of households and, at the same time, it encouraged local people to fell trees to sell to the sawmill. The mill created conflict within both communities, in part because of the highly uneven distribution of benefits when the mill was using the entire community's forest resources. It also created conflict between local people and outsiders because of the unfair distribution of benefits from the business. Ultimately, the collapse of the sawmill eliminated this source of conflict.

An instructive dispute arose when a Namon villager marked a tree for cutting, then left it too long. A Huai Nhyaang villager cut the tree without telling the person who marked it, resulting in conflict over who had the right to that particular tree. This experience led the two village committees to establish a new rule: if anyone in the two communities wants to use wood, marking is prohibited and the person must make a request to, and consult with, both village committees.

Nam Phao and Muang Sum

People from different ethnic groups came to Nam Phao at different times, resulting in five main groups in the village. For the most part, people try to avoid both confronting others and bringing cases out into the open. In principle, ethnic conflict should be resolved by the village committee, but due to the weakness of decision-making and enforcement at the village level, sources of conflict have not been addressed and tension has continued to grow.

Even more serious is the deteriorating relationship with the neighbouring village of Muang Sum. In the case of Hmong returnees at Muang Sum, The United Nations High Commission for Refugees (UNHCR) is supposed to make temporary settlement provisions for Hmong returnees within Muang Sum boundaries. It proposed to provide paddy fields for every family, but there is no water supply for the vacant land. Although UNHCR planned to build a weir to divert water from the present source used by Muang Sum villagers, this proved unsuccessful. Enough water could not be supplied to the newcomers without affecting existing users in Muang Sum downstream. Although this "managed" the potential conflict over water, Hmong families have been left with little option but to clear upland slopes, threatening to create disputes over areas of forest hitherto protected by lowlanders in Muang Sum.

In addition to pressures from neighbouring Nam Phao and the resettlement of refugees into their area, Muang Sum villagers faced another unexpected problem when the neighbouring communities of Lak 18, Lak 24, and Nam Paad started clearing land within Muang Sum boundaries. To control such encroachment, Muang Sum decided to divide some land for them on the condition that they would not encroach further on the village's protected area.

Nong Ped and Baan Taa

Villagers in Baan Taa whose land was claimed by the original owners from Nong Ped were keen to maintain paddy land, both because of the cultivation opportunities it gave them and because farming paddy land gives villagers security that they will not be resettled by the authorities because they are encroaching on forest. Because of the limits on paddy land for permanent settlement and cultivation and to avoid being moved, Hmong people in Baan Taa tried to buy paddy land from the owners in Nong Ped. However, Nong Ped people also need paddy fields and were thus unwilling to sell.

Forest encroachment by Baan Taa people caused villagers in Nong Ped to take the case to the district. However, there was no response, because the district did not want to exacerbate the conflict and tried to calm down Nong Ped villagers, encouraging them to negotiate. Part of this quiet response was due to fact that the district had no alternatives. Resettlement was not an option because of lack of appropriate sites. One site earmarked for resettlement was found to be too barren and infertile, with no trees or infrastructure.

Some Baan Taa families who lost land were threatened with eviction on the grounds of protecting the forest at the head of the watersheds in Nong Ped. Some of these villagers issued a counterthreat that they would burn forest if they had to move. This is another example of the constraints on district authorities to use external measures, such as resettlement, to deal with problems without reference to community preferences and preparedness to compromise.

Long Korn

Long Korn is particularly remote, and most of the returned villagers have previously lived in the area. Land allocation to individual households was based on available household labour, and allocation procedures were based on community consultation and perception of what was fair. The village committee is quite strong and the village is small, so achieving consensus is less difficult than elsewhere. Fair land allocation has enabled the community to preempt the type of conflict that has arisen in other areas.

Clear understanding between district and villagers over land use and zoning has also resulted in reduction in the potential for conflict. However, district plans for future resettlement in the area are still not clear to the community. It is not known whether newcomers will settle in the village voluntarily or be selected by the district.

Project interventions

Project interventions worked broadly within the framework of the forest-land-allocation policy. However, they were based on the hypothesis that different local circumstances require different measures and need to be developed by the local communities concerned in consultation with district-level authorities. In all cases, interventions were associated

with, and contingent on, a process of participatory land-use planning through the use of three-dimensional terrain models.

At Long Korn, stabilization of wet-rice-based permanent agriculture was hindered primarily by a shortage of livestock; thus, intervention took the form of a revolving fund to purchase buffalo. Twelve buffalo were contributed to the village for distribution to families without their own livestock. A buffalo bank was established to maintain these as community property with a revolving fund. Linked to this scheme was a process of participatory land-use planning to protect the watershed area of streams irrigating the rice fields.

In Baan Taa, stabilization of livelihoods among the Hmong families whose land had been redeemed by neighbouring Nong Ped farmers was seen as a priority. Although the project was intended to help seek small-scale alternative opportunities for the group of 22 households at the core of local tensions, this was initially hindered by uncertainty over the status of these households and their right to continue to live in the area. Subsequently, a German-funded participatory watershed management project selected Baan Taa as a target village and further project intervention here was deemed unwarranted.

At Nam Phao, assistance with the construction of a weir was deemed the best way to reduce pressure on the remaining forest within the village boundaries and in neighbouring Muang Sum. The weir was constructed at the site of a previous structure that had twice been washed away in floods. The original idea was to revitalize the production potential of the low-lying rice fields of Nam Phao by dividing land from those producing a surplus among those without their own wet rice fields. However, there was no certainty that the weir would live up to its promise. In fact, the potential of the weir was considerably overestimated by the villagers, possibly as a way to ensure support from the project and from the district. It is now doubtful that land division will take effect. In any case, this is well beyond the scope of outside project intervention to influence.

In the case of Namon and Huai Nhyaang, the main emphasis was on cooperative management of the common forest area of the two villages. The project intervention consisted of facilitation of meetings between the villages and the district, which otherwise has had little direct and detailed involvement with land-use planning in this remote part of Long San. A significant aspect of negotiation was over the different models of forest-land allocation between the villages, one of which (Namon) wished to maintain common management of the natural forest area between the two villages, and the district that wished to divide up the area according to its interpretation of the decree 169 procedure.

Outcomes and lessons learned

The salient findings of Phase I of the project were used to guide the next stage of activities during Phase II. The findings can be summarized as follows:

- ♦ Contrary to common assumption, there is substantial pressure on natural resources and food production systems in the Nam Ngum watershed area. *Implication — significant changes in land, forest, and water use and management are required to achieve a sustainable pattern of production.*
- ♦ The nature of resource degradation and resource conflicts varies significantly from one part of the watershed to another, based on a range of social, historical, and ecological parameters. *Implication — an overly generalized approach to*

watershed management should be avoided in favour of one based on local knowledge and participation of communities and local authorities in each area.

- ♦ Community management of forest, land, and water resources is longstanding and widespread throughout the watershed. *Implication — local and traditional practices and arrangements should be seen as the starting point for resource management initiatives and planning.*
- ♦ Resource competition and conflicts can be identified at a number of levels: within communities, between communities, between local people and external claimants (notably forestry and hydropower), and between ethnic groups with different agroecological practices, or, differently stated, between upland and lowland production systems. *Implication — there is a need to develop conflict pre-emption and resolution procedures at a number of levels, including more participatory impact assessment procedures for externally conceived projects.*
- ♦ Ambiguity of both individual and community resource tenure is a basic source of competition, conflict, and resource degradation. *Implication — demarcation and definition of resource tenure at the village level must be backed up at the district and other levels.*
- ♦ At the district level, division of duties is often unclear; district-level staff lack technical and organizational experience; and district staff tend to be involved in village-level activities, relying more often on written directives. *Implication — district level staff need support, including technical and organizational training and experience in community liaison, in combination with more clearly defined duties in the field of forest, land, and water management.*
- ♦ From a local perspective, there are ambiguities in government policy regarding rights and duties of village, district, provincial, and national authorities. *Implication — the rights and duties regarding resource management, planning, and enforcement need to be clarified.*

At this stage, it is difficult to quantify outcomes of Phase II project interventions in terms of reducing forest clearance, assisting the poorest within each community, or reducing tensions along each axis of conflict. Because the learning process among national-, district-, and village-level staff was integral to the process, the lessons learned are part of the project outcome. In this regard, heightened awareness of the importance of community dynamics among district and Department of Forestry staff was probably a more significant outcome than any immediate and measurable improvement in environment or human welfare, although, in the case of Long Korn, significant improvements in livelihoods were observed as direct project outcomes.

Less positive lessons learned from the Nam Phao case include the extreme difficulty in ensuring any linkage between project intervention and reduction of land clearance, particularly in a village with many factions and weak leadership. The weir project might well allow for an increase in rice production, although this still awaits evaluation. In any case, outcomes are likely to be less impressive than anticipated because of the overestimation referred to above. However, it is unlikely that those without immediate access to the limited area irrigated by the weir will be helped to move away from their unsustainable pattern of shifting cultivation in and around the village. Realistic appraisals of water yields and

of the limited extent of beneficiary groups are thus key to the success of such interventions.

The involvement of local staff (villagers) in the implementation of the project, through training, data collection, workshops, and a study tour, created more confidence among local people in official recognition of their role in decision-making over resource management in their village territory. This influence allowed villagers to take on the joint management of forest between Namon and Houai Nhyaang, where the two villages preferred to share the forest, land, and water resources. This case also reflects on land allocation and zoning policy, wherein the community itself has rights to decide how local resources should be managed and conserved, as well as the right to protect them from outside claimants. This is an improvement on the more widespread situation, in which villagers are unaware of their rights as governed by national policy.

A small revolving fund provided by the project to develop local livelihoods in Namon, Houai Nhyaang, and adjacent villages still awaits full evaluation and assessment. Lessons learned from Namon and Houai Nhyaang at a wider level had some influence on the Centre for Protected Area and Watershed Management (CPAWM), the national level agency within the Department of Forestry that was directly responsible for project implementation. At a practical level, running a project with such intensive local involvement from a central agency presented many logistical limitations that restricted the effectiveness of comanagement, particularly in Long San District where the intermediary local government authorities were less responsive than in other districts, notably Phukood. However, feedback and experiences from Phase I of the project had a direct influence on national policy in the development of decree 169, especially over the issue of community-level implementation, such as the establishment of village committees for land allocation and control and monitoring of forest resources. At that time, the Nam Ngum Watershed Community Resource Management Study was the only Department of Forestry project that tackled issues dealing with social aspects of forest, land, and water resources management at the village level.

The results from Phase I and Phase II of the study also provided input into CPAWM in promoting more community involvement in protected-area management. Data and information from the study have been used by other projects working in the Nam Ngum watershed, such as the large Nam Ngum Watershed Conservation Project, supported by the German Gesellschaft für Technische Zusammenarbeit (agency for technical cooperation), Nam Ngum Watershed Management and Reforestation, supported by the Japanese International Cooperation Agency, and Nam Ngum Watershed Strategic Management Planning, supported by the Asian Development Bank, to prepare a strategic plan for Nam Ngum watershed. This plan is expected to be used as a model for preparing management plans for other watersheds in Laos, including ways to return value generated by watershed resources in the form of hydropower to other watershed stakeholders.

At the district level, awareness of the complexities of community-level management was built by compiling baseline information, presented through maps and tables as a tool for resource monitoring during training courses for district staff in Phase II of the project. The districts also developed awareness of the time-consuming nature of work with communities and the need for experienced staff and proper organizational structuring. However, districts paid different levels of attention to such lessons, and Long San District was one of those in which less importance was attached to community consultation.

For the project itself — and, therefore, CPAWM and the Department of Forestry more widely — the important outcomes were that project staff had a chance to learn about applied research. Since project completion most of the staff have used the experience gained to work with other projects and local consultancy firms in the field of community development and natural resource management.

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