

A ban on logging in natural forests, which has been in place since 1989, may inadvertently have contributed to a decline in the quality of forest administration in the country. But SFM is still possible

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Log jumble: the mission found that log yards are not organized to make best value of the raw material. *Photo: M. Simula*

THE ROYAL THAI GOVERNMENT requested ITTO to organize a technical mission to Thailand to identify those factors that limit the country's progress towards ITTO's Objective 2000 and sustainable forest management (SFM) and to recommend measures to overcome these constraints. The mission took place in March and April 2006; this article summarizes its findings.

Background

Four phases can be identified in Thai forestry: (i) early exploitation (from the mid-1890s to the early 1930s); (ii) expanding exploitation and management (from the 1930s to the early 1960s); (iii) forest exploitation and decline (from the 1960s to the late 1980s); and (iv) a struggle towards SFM under a logging ban in natural forests (from 1989 onwards). The current phase has had three main components: (i) an expansion of designated protected areas; (ii) an increase in the forest plantation resource base; and (iii) the development of community forestry.

The area of permanent forest estate (PFE) reported in 1991 was 23.5 million hectares, much of it already without forest cover; this had shrunk by almost 50% to 12.0 million hectares in 2001. About 1.15 million hectares of the original PFE had been converted to agriculture, 8.3 million hectares to settlements and infrastructure, and 1.1 million hectares to other uses. The balance now available comprises about 10 million hectares of protected areas and 1.9 million hectares of plantations. Practically all natural forests are owned by the state and managed by the Royal Forest Department (RFD), the Department of National Parks, Wildlife and Plant Conservation (DNP) or (in the case of mangroves) the Department of Marine and Coastal Resources.

Diagnosis **Forest conservation**

Thailand's aim is to have 25% of the country's total land area in protected areas; coverage is about 20% at present. The protected area system is comprehensive—one of the best in Southeast Asia—and includes 227 declared protected areas (11.3 million hectares) under the control of the DNP. Although extensive, the protected areas contain disproportionate amounts of upland forest and very little lowland evergreen forest.

Of the total 103 gazetted national parks, the government has prepared master plans for only 55, and valid management plans exist for only 15 gazetted parks. Another 45 areas have been proclaimed but not yet gazetted. Management plans are under preparation for only 25 of the 55 wildlife sanctuaries. This shows that the extension of the protected-area network has far exceeded the capacity of the administration to bring it under effective management. In any case, management plans do not always lead to improved protection because they often lack implementation.

The Thai conservation policy initially revolved around a 'wilderness' approach, which recommended the total exclusion of people from protected areas. Such an approach is no longer possible; 1.2–2 million people dependent on forest resources live inside protected areas. This is the key issue for the future of the protected-area network.

Forest reserves

The country's 1221 national forest reserves cover 23.4 million hectares and are managed by the RFD; less than half of the area is forested. Combined, the reserves and protected areas

cover about 63.2% of the total area of the country. Thailand has never had a long-term silvicultural management system, despite the successful experiences of neighbouring countries with similar forest types. There are no records of national-level forest inventories.

The 1985 forest policy was unsuccessful and attempts to improve it in 1992 through the Forest Sector Master Plan were incomplete. The management of forest reserves is therefore hindered by something of a policy vacuum. Since the 1989 logging ban, the main policy goal has been protection. However, large areas of forest reserves without forest cover have become de facto common public lands that are encroached by expanding agricultural activity. Many reserves need management interventions to guarantee their health and vitality, but the logging ban impedes any silvicultural improvements.

Community forestry

In addition to the people living in and around protected areas, another 20–25 million people live nearby to forest reserves and harvest them for non-wood forest products, which constitute an important part of many local livelihoods. Community (or village) forestry was introduced as early as the 1970s as a way of improving forest management. Some 11 400 villages (or 15.5% of all villages) are now involved in managing community forests, of which about half have formally registered their community forests. These cover only 200 000 hectares, or 1.2 % of the total forest area.

The RFD has developed a variety of ways to support local communities in managing their forests, albeit only at a pilot scale. However, the future of these community forests is in doubt because the government cannot guarantee their long-term status. In any case, the area under community forestry is so small and the speed at which such forests are established so slow that the practice has not had a nationally significant impact on poverty reduction or the status of forest management.

The main reason for the slow progress and lack of security is an inadequate legal framework. Several versions of legislation called the Community Forestry Bill have been drafted, but adoption has been delayed by a lack of consensus, particularly on a clause that would allow community forests in protected areas and also on a proposed expansion of community forestry beyond degraded sites in forest reserves. There is deep mistrust among civil servants and some non-governmental organizations (NGOs) about the capacity of local communities to manage forests.

Combating deforestation

The available data on deforestation in Thailand suggest that it continues at an unacceptable rate, particularly at forest margins. Public policies on combating deforestation have focused on measures to maintain forest cover through the rehabilitation of degraded areas and the reintroduction

of trees to deforested marginal lands. Rural poverty, the main root cause of deforestation, has not been adequately addressed, and the impacts on forests of policies in other sectors have not been duly considered.

Illegal logging and logging ban

The 1989 logging ban has had mixed effects. It needed to be supported by complementary measures but these came late, were inadequate and did not have the desired effect. The ban also transmitted part of the problem of illegal logging to neighbouring countries because local supply could not respond to demand.

The ban also provoked a surge in illegal operations; there has since been a tightening of control, although it is questionable whether this has been truly effective. According to some stakeholders, illegal logging, which in the past was carried out on a large scale, has become a more small-scale activity. Authorities admit that corruption can be a problem but its importance is difficult to quantify.

Rubberwood

Existing rubber plantations could theoretically supply the market with about 21 million m³ of timber per year. However, there is little coordination between the latex and timber production sectors, with the result that this potential is under-used.

Teak

The area of natural teak forest in Thailand decreased from 2.3 million hectares in 1954 to about 150 000 hectares in 2000. During the same period, the private and public sectors established 836 000 hectares of teak plantations and their thinnings are now being sold. Apart from genetic improvement, practically no research has been done regarding teak, even though the species was the mainstay of the forestry sector for more than a hundred years.

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Eucalypts

Eucalyptus plantations cover about 480 000 hectares, of which 10% is in paddy fields; wood production from these plantations is estimated to be about 7 million m³ per year. Most (70–80%) of the harvest is used by the paper and pulp industry, while 10–15% goes for charcoal and 5% for construction poles; eucalypts are also starting to be used in the manufacture of medium-density fibreboard, hardboard and particleboard. The substantial potential of *Eucalyptus* for sawnwood and plywood still remains to be tapped.

Markets

Market transparency is limited in the log trade; small-scale producers often do not have a clear understanding of the value of their timber crops and have limited negotiating

power with buyers. Wood measurement practices cannot be controlled effectively by sellers and therefore provide opportunities for misuse. The establishment of producer cooperatives or associations would help protect the interests of growers.

Furniture industry

Without a concerted effort by government, Thailand's thriving furniture industry—a significant source of export earnings—is likely to become stagnant due to heavy competitive pressure. The industry has not taken a strategic approach to resource management, sector-wide research and development, marketing support, standardization and quality control systems, or specialist technical training. The key problem is a shortage of competent supervisors and middle managers who can improve operations on the mill floor and implement effective quality control systems. In addition, there is only limited domestic capacity for furniture design.

The Thai export industry has already taken some action to respond to increasing market demands for certified and legally produced products. However, the Thai furniture and wood-based panels industries cannot yet meet these demands due to obstacles in certifying rubber plantations for timber.

Public administration

Since 2002, the RFD has been stripped of some of its key functions and lacks a clear vision on its mission, role and resources, and there is no proper line of command. This is a serious bottleneck for making progress towards SFM. The duplication of extension work confuses farmers because different agencies often provide conflicting advice. For proper forestry development, RFD extension efforts need to be augmented and better coordinated with other field offices and NGOs. The higher and middle management levels in the RFD headquarters are over-staffed, but there is a shortage of manpower at the field level.

Thailand has accumulated a wealth of knowledge and has a strong cadre of well-trained natural resource management professionals, providing a basis for further progress towards the SFM goal. But a lack of a coherent policy towards forests at the higher levels of government has created confusion at lower levels and in the community at large.

Decentralization

The legal provisions for local government at *tambon* (subdistrict) and village level provide a suitable administrative structure for transferring the responsibility of forest resource management to villages and villagers' groups. A paradigm shift in the role of the public administration of forests is taking place in Thailand. However, this shift, involving a transfer of management responsibility towards the local level, will be a long learning process.

Forestry education and extension

There appears to be no capacity in the country for technical and vocational forest-related training, and concerned organizations and companies have taken on the responsibility of developing their own human resources. However, there is a particular need to provide further training for supervisors and other middle managers of wood and specifically the furniture industry. This is one of the key constraints in industrial development.

The Ministry of Natural Resources and Environment, which has overall responsibility for forests, appears to have no plan for developing a forestry extension program. This is unfortunate, given that the management of forest resources and production is shifting to the private sector and communities. Most RFD funds go towards maintaining infrastructure and paying staff salaries, with little left over for training or other outreach activities.

Information system

The present statistical reporting in the forestry sector in Thailand is far from satisfactory. Information is a powerful tool in managing the sector but it has been neglected in the past. There is no overall strategy for information management. The purpose of data collection is unclear to middle-level staff, which tends to perceive it as an administrative burden rather than a management tool. The entire forest statistical system needs to be reviewed.

Organization of the private sector

Membership in tree farmers' associations is still limited in Thailand; the organizational development of smallholders will not happen without the catalytic support of RFD or other public agencies. International experience in setting up cooperatives for groups of community forests is mixed, but this option could be viable in Thailand, particularly where community forests are small and stakeholders cannot develop downstream activities on their own.

Civil society

Past suspicions between NGOs and authorities have been diminishing gradually, partly as a result of the opening-up of the policy processes to broader participation, but access to information still needs to be improved. From the government's perspective, the fragmentation of the NGO community makes dealing with them cumbersome. Government continues to receive mixed messages on how policies related to forest-dependent people should be designed and implemented.

Constraints and opportunities

The diagnosis of the mission has shown many gaps and weaknesses in the current situation, but SFM is still possible if corrective action is taken. Thailand has accumulated a wealth of knowledge and has a strong cadre of well-trained

natural resource management professionals, providing a basis for further progress towards the SFM goal. But a lack of a coherent policy towards forests at the higher levels of government has created confusion at lower levels and in the community at large.

Future vision

The following elements constitute a possible strategic vision of SFM in Thailand: (i) net deforestation is arrested; (ii) most degraded areas are rehabilitated; (iii) community forests are established with secure tenure; (iv) most industrial wood is obtained from plantations, with reduced dependence on rubberwood; (v) the wood-based industry has an active role in the development of its raw-material supply; (vi) all timber harvesting operations are verifiably legal and certifiable according to a national SFM standard; (vii) tree resources outside forests are substantially expanded; (viii) there is an efficient forest product market with adequate transparency; (ix) the Thai forest-based industry is internationally competitive; (x) bamboo and rattan resources are under systematic management and utilized sustainably; (xi) protected areas are managed in a way that helps improve the livelihoods of the people living in and around them; (xii) a firmly grounded forest policy process is in place; (xiii) decision-making is based on adequate information; (xvi) the Forest Industry Organization—currently state-owned—is privatized; (xv) forest communities and forest owners are organized effectively; (xvi) civil society is well organized and educated in forestry; and (xvii) the private sector promotes its common interests through strengthened associations.

Main constraints

The most critical constraints impeding progress towards SFM in Thailand are: (i) bottlenecks in the regulatory framework; (ii) a lack of coherence in public policies; (iii) people's widely varying perceptions about how Thailand's forests should be conserved and managed; (iv) a lack of support to communities and the private sector to sustainably manage forest resources; (v) institutional uncertainty related to public forest administration; (vi) deficient information systems; and (vii) a lack of strategies for human resource development and extension, including in the processing industries.

Opportunities

Despite the constraints highlighted above, the sustainable management of Thailand's forests would offer a number of significant opportunities: (i) the potential of community forestry to contribute to poverty alleviation; (ii) a major expansion of commercial tree-planting on marginal lands; (iii) improved forest-based environmental services through payment mechanisms to forest managers and owners; and (iv) the expansion of the production of non-timber forest products in high demand both in the domestic and export markets.

Recommendations

The mission made a total of 45 recommendations identified by stakeholder groups. The following are among the priority actions that should be taken:

- the Community Forestry Bill should be approved without delay and its implementation supported. Community forestry should be allowed in national forest reserves;

ITTO should build partnerships with education and training institutes in Thailand to design and deliver capacity-building products and services aimed at implementing the mission's recommendations.

- the government should promote private-sector plantation investment by, among other things, arranging adequate credit facilities, improving market transparency, supporting the organization of producers, and promoting landowner-industry partnerships;
- a national ecotourism development strategy should be developed;
- the forest policy should be updated through an inclusive and structured process (eg the national forest program). Conflicting policy goals related to land-use should be removed;
- national criteria and indicators for SFM should be developed with ITTO assistance;
- a detailed assessment should be carried out on options for the institutional structures of the RFD and the DNP. The RFD needs to establish a proper line of command;
- a human resource development plan and extension strategy should be prepared for the forestry sector;
- the forest industry should take a stronger role in the development of its raw-material supply and wood procurement;
- NGOs should improve their dialogue to avoid mixed messages on policy adjustment. An NGO forest network should be established;
- all stakeholders should identify and assess options for the development of forest certification in Thailand;
- ITTO should support a project to strengthen the national forest information system; and
- ITTO should build partnerships with education and training institutes in Thailand to design and deliver capacity-building products and services aimed at implementing the mission's recommendations.

The comprehensive list of recommendations are contained in the full report, which can be obtained from the ITTO Information Officer (itto@itto.or.jp)