

Overview of Asia & the Pacific

Forest resources

There are ten ITTO producer member countries in the Asia-Pacific region: Cambodia, Fiji, India, Indonesia, Malaysia, Myanmar, PNG, the Philippines, Thailand and Vanuatu. These countries vary considerably in many respects, including forest endowment, ownership, management systems and capability, forest product processing and utilization, trade in forest products and institutional arrangements. While Cambodia, Indonesia, Malaysia, Myanmar and PNG are producers and exporters of tropical timber and timber products, India, the Philippines and Thailand are now net importers. Fiji and Vanuatu are small but still largely forested. In all countries except Malaysia and the Philippines, more than half the population lives in rural areas; in PNG, the figure is as high as 83%. Malaysia's GDP (total and per capita) is much higher than those of the others. Three of the ten ITTO producer member countries (Cambodia, Myanmar and Vanuatu) are designated by the UN as least-developed countries (UNCTAD 2004).

Most of the countries of the region can be grouped into three general categories according to their endowment and use of forest resources:

- (i) high resource availability and low level of forest industry development (eg Cambodia and PNG);
- (ii) low resource availability and high level of forest industry development (eg India, the Philippines and Thailand); and
- (iii) high resource availability and high level of forest industry development (eg Indonesia and Malaysia).

Asia's closed tropical forests include wet evergreen, moist semi-deciduous, moist deciduous, freshwater swamp and mangrove forests; there are also sub-montane and montane forests. With some minor exceptions, such as the peat swamp forests in

Borneo and the upland pine forests in the Philippines, the main timber production forests of tropical Asia are all dipterocarp forests with varying proportions of species of *Shorea*, *Parashorea*, *Dipterocarpus*, *Dryobalanops* and other less-abundant dipterocarp genera. These forests also contain timber-producing species of the families Leguminosae, Burseraceae, Meliaceae, Anacardiaceae, Apocynaceae, Datisceae, Sapotaceae, Sterculiaceae and many others. The conifer genera *Agathis* and *Araucaria* occur locally. In Borneo, large areas of peat swamp forests produce two valuable non-dipterocarp timbers, *Gonystylus bancanus* (ramin) and *Dactylocladus stenostachys* (jongkong). To the east of the Wallace line², dipterocarps are generally poorly represented, though species of *Anisoptera* and *Hopea* occur in PNG. The forest there is much more mixed and often of less commercial value, though exceedingly rich forests may occur locally, such as the swamps of *Terminalia brassii*. In Thailand and Myanmar, the moist tropical forests grade into drier dipterocarp and teak forests in the north and east.

Two of the ten ITTO producer member countries in the region reportedly increased their forest cover during the period 1990–2000 – namely India and Vanuatu. Myanmar, the Philippines, Indonesia and Malaysia lost forest at an annual rate of greater than 1%.

The production and consumption of industrial wood have grown enormously during the last half-century, accompanied by a growing demand for the full range of forest goods and services (wood and non-wood, processed and unprocessed, and traded and untraded). By 2003, the ten countries were producing about 556 million m³ of roundwood, of which just over 75 million m³ were industrial roundwood (most of the rest being fuelwood).

The region is by far the largest trader of tropical timber: more than 70% of all internationally traded tropical wood products originate within it. NWFPs make a substantial contribution to trade in some countries; for example, they constitute more than 75% of all forest-based exports from India.

² The Wallace line is a hypothetical line that separates the zoogeographical regions of Asia and Australasia

While there have been few overt civil wars in the ITTO member countries of Asia and the Pacific in the last decade or so, civil unrest has probably affected forest management in parts of several countries, including Cambodia, Indonesia and Myanmar. In Fiji, a contributing factor to a military coup in the 1990s was a dispute over the ownership of the country's valuable *Swietenia macrophylla* plantation resource.

PFE

Of the estimated 204 million hectares of closed natural tropical forest in ITTO member countries in Asia and the Pacific, an estimated 97.4 million hectares (48%) are in production PFE and 71.0 million hectares (35%) in protection PFE (Table 3a). In addition, there are about 38.3 million hectares of plantations (more than 80% in India), giving a total PFE of 207 million hectares.

By far the largest area of natural production PFE is in Indonesia (46.0 million hectares), followed by India (13.5 million hectares), Malaysia (11.2 million hectares), Myanmar (9.70 million hectares) and PNG (8.70 million hectares). Thailand has no natural-forest production PFE, since it has banned logging in natural forests. The production forests of Fiji and Vanuatu could not be classed as PFE, since there are no firm legal grounds for expecting that they will be maintained as forests in the longer term. India has the largest area of protection PFE (25.6 million hectares), followed by Indonesia (22.5 million hectares) and Thailand (8.26 million hectares).

Institutional arrangements

Forest tenure

Forests in Asia are mostly owned by the state. On the other hand, customary community ownership applies to most forests in the Pacific Island countries of Fiji, PNG and Vanuatu, but even in these countries the forests are mostly administered by the government. At present, few forests are owned by private individuals or companies, but the proportion of privately owned planted forest is likely to increase. In several countries, non-forest private sources already meet many needs for wood; rubber plantations, for example, are a major source of wood for downstream industries in several countries, particularly Malaysia and Thailand.

In Cambodia, forests are mostly owned by the state, but local communities are allowed certain limited rights and privileges. In Fiji, communal groups called *mataqali* – of which there are more than 6,000 – own 84% of the forests; most of the remaining 16% is owned privately. In India, all legally constituted forests are owned and controlled by the state. Now that farmers and households are engaged in growing trees, a new category of private forest owners (of farm forests, home gardens and agro-industrial plantations) is becoming significant there. Nearly all natural forests in Indonesia are owned by the state. However, many claims by individuals and communities over traditional rights and ancestral domains have been brought into the open by recent political reform, and decentralization and forest tenure is unclear in many places. Traditional community rights (*adat*) are widely recognized. In Malaysia, where forestry is a state (provincial) matter, 90% of natural forest and 69% of planted forest are state-owned; the remainder is owned privately. In Sarawak, forests cleared by native communities for agriculture before 1958 are recognized as Native Customary Rights' Land. All forests in Myanmar are owned by the state; they are designated as reserved forests and public or unclassified forests. In PNG, customary land ownership is guaranteed by the constitution and is the key factor influencing the use of the forest: 97% of the land is held as communal or clan commons. In the Philippines, the government holds title to most forest land, but considerable portions (excluding protected areas) are held by the private sector, communities, people's organizations and indigenous people under various forms of agreement. All natural forests in Thailand are owned by the state, but trees established on private lands are private property. Rural people have rights to the collection of certain NWFPs, and some 'disturbed' state forests are available for long-term rent at low cost for grazing, cropping and tree-planting. In Vanuatu, all lands are customarily owned.

Forest policy and legislation

Most ITTO producer member countries in Asia and the Pacific have introduced new forest laws and policies – or revised the old – since 1990 to address the changing forestry situation and to highlight the role of forests in conservation. Exceptions include

Fiji, which still follows a forest policy developed in 1950, and India, the national forest policy of which dates from 1988. The Philippines lacks a comprehensive forest policy; its forestry is still governed by Presidential Decree 705 of 1975 (known as the Revised Forestry Code). Policies are not always effective or supported by strong institutions; some, such as logging bans and the decentralization of forestry administration, have had mixed effects at best and, at worst, unfortunate harmful consequences.

In all ITTO member countries in Asia and the Pacific, specialized government agencies have administrative jurisdiction over forests. Their composition, competencies, component activities and affiliations depend on the national importance of forestry and on other political factors, including the degree of decentralization to state, provincial, district and village levels. In some places, including India (at the state level) and Sarawak (Malaysia), components of the forestry administration have been corporatized. In others, the central forest authority is playing a much-reduced role in forestry regulation; in Indonesia, for example, authority over forest management is increasingly vested in the provinces and particularly the districts.

With the exception of Malaysia, no country in Asia and the Pacific appears to have sufficient information for the thorough planning and implementation of forest management. Information is often inadequate on: the condition of the resource and changes in it; growth and yield; production and productivity; harvesting and utilization; processing and trade; conservation and protected areas; the achievements of plans and programs; and costs and benefits, and the means for their allocation.

Status of forest management

Natural production forests

The main systems for the allocation and regulation of the production PFE vary considerably according to responsibility (private, cooperative or public), size of operation and length of contract. Except for Fiji, India, Myanmar and Vanuatu, countries have tended to use concession systems³, but this is

³ For many years India and Myanmar have used a system of departmental 'working circles' with contract logging to manage reserved forests under the provisions of approved working plans

changing. Thailand closed its forest concessions in the early 1990s, some years after they were introduced, and banned the logging of natural forests. Cambodia cancelled licences for 24 concessions in 2002 and suspended those for the remaining twelve concessions pending a fundamental evaluation, and the Philippines is phasing out its remaining concessions and expects to eliminate them by 2006. Indonesia's forest concession system has also been changing; for example, the period of licences in natural forests was recently increased from 20 to 55 years. However, decentralization has caused confusion there, with some small-scale operators being granted forest concessions at the provincial or district level that overlap with the concessions designated by the national government.

Forest concessions have been reasonably successful in encouraging forest-based economic development in some forest-rich developing countries, but they have not always encouraged SFM. In the Philippines, where the rise of the forest industry in the 1970s coincided with the widespread loss and degradation of natural forests, many of the problems associated with forest destruction can be linked to a combination of land and concession tenure issues and a lack of ability or will to enforce regulations. In PNG, there are concerns about the manner in which timber concessions are awarded and controlled.

Almost all concessions in the region are at least nominally under some sort of management based on selective silvicultural systems. Diameter limits of 45–50 cm and cutting cycles of 25–35 years are common. If applied strictly, these systems can provide relatively constant volumes of timber for at least the first two cutting cycles.

Illegal logging is considered to be a significant problem in the region. In Cambodia, the government recently closed more than 1,000 illegal sawmills, although the suspension of legal logging activities (through the cancellation or suspension of all forest concessions) appears to have stimulated a significant illegal timber industry. In India, logging is banned in many natural forests, but there are no adequate measures to enforce the ban. Illegal logging is recognized as one of the most critical problems of forestry and the forest industry in

Indonesia, with annual losses estimated in the billions of dollars. In Myanmar, logging in remote border areas is largely uncontrolled and has reportedly had serious environmental impacts there. In Thailand, where logging in natural forests is banned, forests remain under pressure from illegal tree-cutting, encroachment, fire and other agents. Similar problems affect the Philippines, where a logging ban has been in place in primary forests since the early 1990s.

The logging bans in the Philippines and Thailand were imposed after loggers and farmers had already depleted most commercial timber resources. Yet forest clearing for agriculture continues in both countries. In Indonesia, local logging bans have been imposed, particularly in East Kalimantan. But experience over the past ten years has shown that logging bans have rarely served to conserve forest resources: in some places legal logging has been replaced by more destructive illegal logging.

Table 3b summarizes the management status of the production PFE in ITTO producer member countries in Asia and the Pacific. The estimated natural-forest production PFE is 97.4 million hectares. Some 69.1 million hectares of it are under licence in concessions or other systems, of which an estimated 55.1 million hectares are covered by management plans – a much higher figure than in either Africa or Latin America and the Caribbean. At least 14.4 million hectares (15% of the natural-forest production PFE) are estimated to be managed sustainably.

The main advances in certification have been in Malaysia, where the government started to develop a national timber certification scheme (the Malaysian Timber Certification Council) in 1998; some 4.62 million hectares of natural-forest production PFE are now certified. Indonesia also has its own scheme (the Indonesian Ecolabelling Institute), although it has only just started to be operationalized: a total of 275,000 hectares of natural forest have been certified, some of which has also been endorsed by the Forest Stewardship Council (FSC) scheme. The total area of natural production forest certified as of late 2005 in Asia and the Pacific was about 4.91 million hectares.

Planted forests

The total plantation estate in the region's PFE amounts to about 38.3 million hectares (Table 3b). There is much variation between countries: India has 32.6 million hectares (85% of the total and more than twice the area of its natural production PFE), but Indonesia, with the second-largest timber plantation estate, has only 2.50 million hectares in its PFE; Thailand is next with 1.87 million hectares. Most other countries have much smaller areas of plantations. All countries have a further stock of timber species planted in home gardens and as trees along roads, as well as in agricultural tree crops such as rubber and coconut and oil palm.

Hardwoods are much more important than softwoods in the region's plantation estate. Teak and various species of eucalypt are most commonly planted, the vast majority of the latter being in India. Teak plantations cover more than 5 million hectares, mostly in India, Indonesia, Myanmar and Thailand. Other important hardwood species include *Dalbergia sissoo*, *Acacia mangium*, *Gmelina arborea* and *Swietenia macrophylla*, between them covering nearly 24 million hectares. Rubber has recently become a significant timber species, particularly in Peninsular Malaysia and Thailand, which export large volumes of value-added rubberwood products. Products made from coconut timber are also of importance, particularly in the Philippines. Nearly a third (11.5 million hectares) of plantations have management plans but only 184,000 hectares have been certified.

There has been an increase in the use of agroforestry and other trees outside forests over the past 15 years to meet household requirements for fuel, poles, timber and medicines, and to satisfy local markets. Different combinations of agro-silvo-pastoral systems are used. Many countries have encouraged forest restoration and land rehabilitation on marginal private and public lands. In India, for example, 50% of plantations established since 1980 are in an agroforestry setting.

Protection forests

Table 3c summarizes the management of the protection PFE in ITTO producer member countries in Asia and the Pacific; Map 2 shows the distribution

of protected areas in IUCN categories I–VI against a background of forest cover. Hardly any information is available on the degree of protection and quality of management in these forests. In the early 1990s, large areas of degraded and unproductive forests were declared as protected areas and logging was banned by law in some countries. But illegal logging and hunting continue to take place in many protected areas. Moreover, some of the parks and nature sanctuaries are ‘islands’ without buffers or corridors. The protection PFE amounts to an estimated 71.0 million hectares. An estimated 8.25 million hectares of these are covered by management plans and 5.15 million hectares are estimated to be sustainably managed, including 3.21 million hectares in Malaysia and 1.36 million hectares in Indonesia. No estimates could be made in this regard for six of the ten ITTO producer member countries in the region.