

ITTO Tropical Forest UPDATE

A newsletter from the International Tropical Timber Organization to promote the conservation and sustainable development of tropical forests

The road forks for tropical forests

TROPICAL FORESTS are approaching a fork in the road, both in the way they are managed and, more importantly, in the way that their management and conservation is funded. In terms of management, ever larger areas are being devolved to some form of community tenure. According to advocacy groups like Forest Trends and the Rights and Resources Initiative, policy shifts to recognize traditional and indigenous rights have resulted in a doubling of community-owned and administered forest lands in developing countries over the past two decades, to around 370 million hectares of natural forest (nearly one-quarter of all forests in these countries, three times the amount owned by individuals and firms).

Current trends indicate that community tenure will double again by 2020 to more than 700 million hectares.

As Cameroon's model forest experience (page 11) illustrates, there are many advantages to involving communities in forest management, including employment and protection of environmental services of forests. A recently concluded ITTO conference in Brazil (to be featured in a future *TFU*) found that community forestry enterprises employ more than 110 million people



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Cover image Logging roads in PNG. Photo: A. Sarre

worldwide, among them indigenous peoples and other forest dwellers. Such enterprises harvest wood and collect bamboo, rattan, fibers, nuts, resins, medicinal herbs, honey, wood for charcoal and other natural products to increase local wealth. Community forest managers also get high marks for ensuring that the environmental services important in combating climate change and protecting water sources, biodiversity and natural landscapes that are important both locally and internationally are not damaged or degraded by forest exploitation.

Communities, like most other forest managers in the tropics, however, face many challenges in managing forests sustainably, including a lack of financial, human and technical resources. Since all of these shortcomings can be addressed by more adequate and consistent financing of sustainable forest management (SFM) in the tropics, it is exciting that new options for this are appearing on the horizon.

At a recent meeting in Australia to establish the Global Initiative on Forests and Climate, participants were told that billions of dollars would be needed to stem tropical deforestation. Australia has pledged AUD\$200 million to this initiative, with part of the money to go to a World Bank Forest Carbon Partnership Facility (FCPF) which is seeking to raise US\$250-300 million in initial funding to assist countries to avert deforestation (or reduce emissions from deforestation and degradation, REDD in the climate change vernacular). Depending on negotiations underway for a successor to the Kyoto Protocol, countries might then be eligible to sell credits for any emissions cuts due to such averted deforestation. While there are many issues to be resolved (including the crucial one of whether SFM will be included as an approved REDD activity), one of the keys to making such schemes work will be the monitoring mechanisms put in place. The World Bank has stated that countries desiring to participate in a pilot FCPF program, which is expected to start by the end of this year, would have to demonstrate that they are tackling illegal logging. Log tracking systems (eg, Guyana, page 16) and other forest monitoring mechanisms being supported by ITTO clearly have a role to

play in ensuring that these exciting new revenue streams, if and when they become available, find their way to community and other forest managers that are managing the resource sustainably.

Another climate change-related opportunity for increased tropical forest management funding comes from the biofuels boom. A recent ITTO conference (page 24) found that wood-based bioenergy offers tropical countries opportunities for improved energy security/reduced energy costs and the potential for income from carbon credits under the Kyoto Protocol's Clean Development Mechanism. However, the development of wood-based bioenergy needs to be sustainable, again requiring careful monitoring of any schemes aiming to promote it.

This fork in the road for tropical forests comes at an opportune time for ITTO. The Organization should see the International Tropical Timber Agreement (ITTA), 2006 enter into force within the next year, and work is proceeding on defining the thematic programs called for in the new agreement. A new six-year action plan will be approved at the November 2007 International Tropical Timber Council session, as will a more detailed work program for 2008-09. In this issue's *Out on a limb*, Mr Emmanuel Ze Meka (recently appointed ITTO's third Executive Director in a transparent process that ITTO can be proud of) shows that he is ready to seize new opportunities for implementing and funding SFM in tropical forests as the Organization defines its strategic direction into the next decade.

Steve Johnson

The US market for tropical wood products

US domestic manufacturers are feeling the effects of surging imports of tropical hardwood products

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THE US consumes only a very small percentage of the world's tropical wood-based products despite being one the world's largest producers, consumers and importers of hardwood forest products. In 2006, the us imported hardwood products valued at an estimated us\$3.6 billion. This number, which does not include furniture and builders' joinery, is more than double that of five years ago. Only an estimated 30% of us hardwood product imports are of tropical timber origin.

Surge in imports of tropical wood products from China

Much of the expanded imports have been the result of a surge in low-cost production in countries such as China, Brazil and Indonesia. For many hardwood products, us supply sources have shifted from domestic manufacturers to overseas suppliers. This trend is particularly prevalent for plywood, flooring and mouldings as a consequence of the major expansion of Chinese production capacity over the past few years. The value of imports of tropical wood products (excluding wood furniture) to the us was an estimated us\$1.6 billion in 2006 (Table 1). Despite being a large share of imports, domestic consumption of tropical hardwood-based products accounts for less than 2% of the total us hardwood consumption.

Tropical timber species are used in distinct and important niche markets, most often in high-end market segments of furniture, cabinets, flooring, architectural woodwork, decking and mouldings. Other unique markets include



High-end markets: Kitchen cabinets and doors of *Tectona grandis* (teak).

Photo courtesy of Scottiedog Woodworks

specialized industrial applications such as for marine use and truck beds. In some applications, tropical species compete directly with temperate domestic species such as oak, maple, birch and cherry. For some uses, such as in boat-building and decking, tropical wood has distinct performance advantages. Tropical wood species often compete successfully with us domestic species because of their unique properties and aesthetics.

Three other market segments that are of particular interest to suppliers of tropical hardwood products (plywood, lumber and flooring) are discussed in more detail in this article.

Doubling of hardwood plywood imports

The us market for plywood is huge, totaling an estimated 18 million m³ in 2005. However, three-quarters of us plywood consumption is softwood, which is primarily for structural purposes. Although the manufacturing sector is large, the us still imports more than 22% of its needs, predominantly from Asia and Latin America. Unlike softwood plywood, which has been losing market share to oriented strand board (osb) in the structural panel sector, overall demand for hardwood plywood has been fairly stable over the past five years.

Imports of hardwood plywood have accounted for an increasing share of total consumption. The us import value of hardwood plywood has gone from us\$1 billion in 2003 to almost us\$2 billion in 2006. As with so many other changes in the commodity market, China is the major driving force behind these increases. From practically no imports at all from China in 2001, the country is now shipping over 2.3 million m³ of temperate and tropical hardwood plywood to

Trending up

Table 1: Value of US imports of tropical wood products, 2002–2006 (million US\$)

	2002	2003	2004	2005	2006	CHANGE (%)	
						05/06	02/06
ROUNDWOOD	0.8	0.8	1	0.7	0.9	29	13
SAWNWOOD	160	163	218	252	274	9	71
PLYWOOD	322	326	547	476	531	12	65
VENEER	31	32	36	41	40	-2	29
FLOORING	43	66	131	185	146	-21	240
MOULDINGS	52	54	77	78	81	4	56
BUILDERS JOINERY	266	285	372	419	509	21	91
TROPICAL HW, TOTAL	875	927	1382	1452	1582	9	81

Sources: US Customs data, Seneca Creek estimates

the us (Figure 1). Other major suppliers of tropical hardwood plywood in recent years have been Malaysia, Indonesia and Brazil. Tropical hardwood plywood, which is often used for flooring, cabinets and furniture, typically has a tropical veneer face and poplar, pine, rubberwood or eucalyptus in its core. Common tropical species are *Shorea* spp (meranti) from Malaysia, *Aucoumea klaineana* (okoume) from Africa, *Dipterocarpus* spp (keruing) from Malaysia and Myanmar, and *Dryobalanops* spp (kapur) from Malaysia.

US companies have multiple complaints about Chinese plywood: 1) it is being sold at artificially low prices because of Chinese government subsidies; 2) it is being shipped with fraudulent labeling; 3) it is being misclassified to avoid tariffs; and 4) it is being manufactured from illegally harvested Southeast Asian logs.

us domestic plywood manufacturers are clearly feeling the effects of the surge in Chinese imports and have questioned practices conducted by Chinese plywood manufacturers and exporters. us companies have multiple complaints about Chinese plywood: 1) it is being sold at artificially low prices because of Chinese government subsidies; 2) it is being shipped with fraudulent labeling; 3) it is being misclassified to avoid tariffs; and 4) it is being manufactured from illegally harvested Southeast Asian logs. In addition, there are criticisms that this plywood emits higher levels of formaldehyde than American-produced plywood. The us government has formally filed a request with the World Trade Organization (WTO) regarding Chinese manufacturing subsidies and the us Senate has requested a government study on the competitive conditions affecting us hardwood plywood and flooring manufacturing.

To keep or increase market shares in the us market, manufacturers of tropical hardwood plywood should be cognizant of HPVA voluntary plywood standards, focus on quality, reduce formaldehyde (particularly for product sales in the State of California where stricter regulations are

expected), work more closely with us market intelligence sources and introduce lesser-known species that can be easily stained. In order to invest in quality, it is important to work through the entire production chain. Important steps include maintaining consistent quality of the veneer, having a better oversight of the gluing process and strict control of the moisture content (often less than 12%), ensuring consistency in dimensions and reliable supply for the customer, and finally, keeping timely deliveries and responding to customer complaints without delay.

Tropical species: less than 2% of hardwood lumber demand

The total consumption of hardwood lumber in the us has averaged approximately 25 million m³ per year over the past ten years, with surprisingly small fluctuations over this time period. Demand surged briefly in 1999 and 2000 during the 'dot-com era', when demand for furniture and flooring increased hardwood lumber consumption to 28.5 million m³. The us relies predominantly on domestic sources of hardwood and very few imports. Less than 7% of consumption, or 1.6 million m³, was imported in 2006 (including both temperate and tropical hardwood), while total imports were valued at over \$710 million (Figure 2). In fact, the us has been a net exporter of hardwood lumber for many years. The major end-uses for high-quality hardwood are for furniture and remodeling, while much of the low-grade lumber is consumed in the industrial sector.

Hardwood lumber import volumes to the us fell last year from a record 1.9 million m³ in 2005, but were still twice as high as imports ten years ago. The biggest increase in imports in recent years has occurred for temperate hardwood species. However, tropical hardwood lumber accounted for 21% of hardwood imports by volume and 38% of value in 2006. Canada is by far the dominant supplier of hardwood lumber to the us, accounting for 54% of total imports in 2006. Germany is the second largest supplier of temperate hardwood, including oak and beech, accounting for about 4% of total imports.

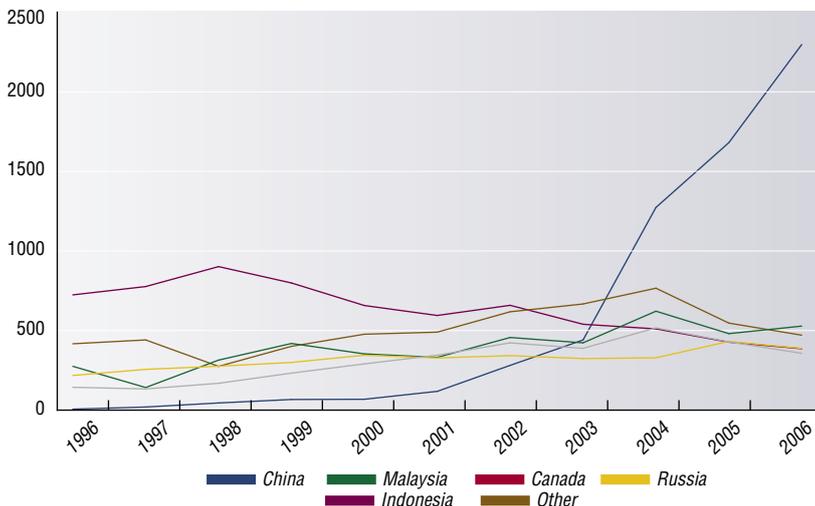
Overall, importers and distributors are optimistic about the prospects for imported tropical hardwood lumber, although the softening in housing and construction activity will result in a short-term reduction in demand for hardwood lumber. While still accounting for a very small portion of us hardwood lumber consumption, the use of tropical lumber has been steadily increasing, and tropical species have found expanded use in applications such as decking and flooring.

Plummeting mahogany imports from Brazil

The majority of tropical lumber imported by the us originates from Latin America. Other major supply regions include Southeast Asia (Malaysia and Indonesia) and West Africa (principally Ghana and Cameroon). *Swietenia* spp (mahogany) has long been one of the most popular tropical

Soaring China

Figure 1: US imports of hardwood plywood, 1996–2006 ('000 m³)



Source: US Customs data



In demand: Floor of jatoba, also marketed as Brazilian cherry (*Hymenea* spp).
Photo courtesy of Scottiedog Woodworks

species as well as one of the more expensive species imported to the us. Historically, Brazil was the largest supplier, but trade restrictions have curtailed most exports. Instead, Peru has taken Brazil's position as the major mahogany supplier, and in recent years mahogany lumber has also been sourced from Bolivia and a few other Latin American countries.

Mahogany imports plummeted after it was listed on the Convention on International Trade in Endangered Species (CITES) Appendix II in 2003. A listing requires official US permission for imports and a certificate from the exporting country assuring that exporting the product is non-detrimental to the survival of the species and that the product was obtained in compliance with all domestic laws.

The full impact of reduced availability of *Swietenia macrophylla* (big-leaf mahogany) is just starting to be recognized as fabricators have been working off of fairly large inventories built up before curtailments in shipments. Furniture and flooring manufacturers, as well as millwork shops, are beginning to use substitutes including less expensive species such as *Entandrophragma cylindricum* (sapele) and *Entandrophragma utile* (sipo, also marketed as utile or African mahogany). Other common species imported from Latin America are *Tabebuia* spp (ipe) and *Peltogyne* spp (purpleheart).

Manufacturers of tropical lumber need to understand the National Hardwood Lumber Association (NHLA) grading standards to enjoy more success in the US market, as well as work closely with importers to be able to ship the dimensions required by manufacturers of flooring, decking and furniture. Exporters can also increase the value of lumber by shipping kiln-dried wood (preferably with a moisture content less than 10%) and by offering products that are consistently high in quality and in dimensions.

Traditional oak flooring challenged

The US market for wood flooring has been growing fairly steadily since the second half of the 1990s. Government statistics put the hardwood flooring market at about US\$2 billion, but other market research suggests it to be higher. The best estimate of hardwood flooring sales in 2005 places them at US\$2.5 billion and laminate flooring sales at an estimated US\$1.5 billion. Because laminate flooring sells for half as much, it has overtaken hardwood flooring in volume.

In the mid-1990s, imports of hardwood flooring to the US were insignificant, totaling only around US\$20 million annually. In 2005, hardwood flooring imports totaled US\$371 million and laminates added US\$667 million. The big change came between 2002 and 2005, when China dramatically increased shipments to the US market ten-fold from US\$15 million to US\$140 million. With the declining US housing market in 2006, demand for flooring decreased slightly and Chinese imports were down to about US\$115

million. Total imports of hardwood flooring in 2006 were valued at US\$347 million.

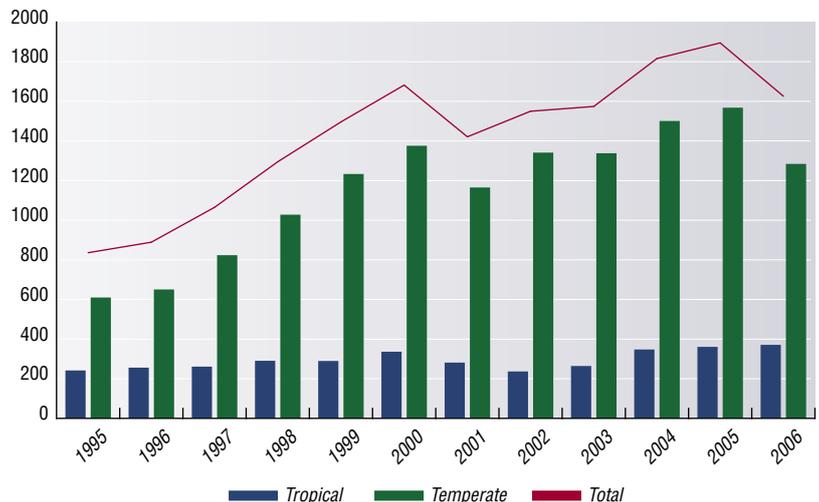
China supplies about one-third of all imported hardwood flooring

Although China has supplied about 30% of all imports by value for the past five years, a number of tropical wood-producing countries such as Brazil, Taiwan and Indonesia have also benefited from the increased interest in sourcing flooring products from outside the US. About one-third of flooring imports are supplied by ITTO-producing countries, including Malaysia, Indonesia and Brazil.

China is exporting flooring products of both tropical and temperate hardwood species predominantly produced from imported logs and lumber. This includes domestic species from the US shipped to China in the form of lumber for further processing into flooring products, and then re-exported back to the US market, as well as both temperate and tropical species from Asia, Latin America and Africa. Based on interviews and field work for this assessment, it

Holding steady

Figure 2: Hardwood lumber imports to the US, 1995–2006 ('000 m³)



Source: US Customs data

is believed that approximately 65% of US total hardwood flooring imports and as much as 80% of US imports of Chinese flooring use tropical timber species. This estimate recognizes the fact that European and, to a lesser extent, Canadian flooring companies also produce some tropical wood flooring for export to the US market.

Although *Quercus* spp (oak) has traditionally been the species of choice for hardwood flooring in the US, demand has shifted to a broader mix of species, including many exotic tropical species. Among the popular tropical species for flooring are *Hymenaea* spp (jatoba), sapele, and mahogany. Jatoba, also marketed as Brazilian cherry, accounts for the largest single share of the imported flooring market, an estimated 8%. While *Intsia bijuga* (merbau) from Southeast Asia used to be imported into the US, it accounts for a negligible volume of flooring sales today.

... it is believed that approximately 65% of US total hardwood flooring imports and as much as 80% of US imports of Chinese flooring use tropical timber species.

Market research by the organization Metafore shows that there are opportunities for suppliers of tropical hardwood flooring products to increase sales in the US market, particularly for fixed-width lumber and pre-finished flooring products. In particular, light-colored species that can be easily stained to uniform colors have great potential. This trend towards higher usage of pre-finished products should create excellent prospects for suppliers that can deliver lesser-known tropical species of uniform quality.

Although there are opportunities to increase shipments of tropical hardwood flooring to the US by promoting certified wood, wood from plantations and by marketing new lesser-known species, there are also some major obstacles to an expansion of the market share for tropical wood. Some large importers of hardwood products to the US believe that certifying the wood might not help much in terms of marketing, as many in the general public are suspicious of all wood coming from tropical regions of the world, certified or not.

Challenges and opportunities ahead

Producers and exporters of tropical wood products will face a number of challenges in the US market in years to come. There will be increased pressure from large retailers to ensure legality of timber sourcing. Certain panel products will also have to meet stricter US standards in some places (eg, new regulations on permissible levels of formaldehyde emissions from panel products in California). It can also be expected that the demand for certified wood products will increase but probably not until sufficient and stable supplies are available without a significant premium. To date, the US market is not offering much of a premium, if any, for certified wood products. In 2007 and 2008, it can be expected that demand for most forest products, domestically produced

as well as imported, will slow down, as the economy is weakening and housing starts are declining.

Despite these issues, there will continue to be great opportunities for manufacturers willing to adapt to new market conditions by producing high-quality products made to customers' specifications.

This article is an excerpt from the report Tropical Timber Products in the U.S. Market by Seneca Creek Associates and Wood Resources International, LLC which was commissioned by ITTO in October 2006. The complete report is available from the ITTO Secretariat (itto@itto.or.jp)

Further processing in Central Africa

Legislation to encourage further processing in Central African countries has resulted in a noticeable reduction in log exports but additional measures are needed

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CENTRAL AFRICA is the richest region of the African continent in production forests, offering considerable potential for the promotion of social and economic development. However, this potential is still to a large extent undeveloped. The forests of the Congo Basin—in particular Cameroon, Gabon, Congo, Democratic Republic of Congo (DRC) and the Central African Republic (CAR)—make up the second largest continuous area of tropical forests after the Amazonian forest. Particular attention is focused on these forests for they play an important role in the supply of public goods as well as in protecting biological diversity and stabilizing global climate.

Numerous conventions have been established to regulate the management of the environment and natural resources at the international level. The majority of states in the sub-region have signed and/or ratified most of these conventions, and a process of harmonizing forestry policies in Central Africa is under way; however, taking account the specificities of each country, progress is being made at different rates.

The main producer countries (Cameroon, Congo, Gabon, CAR and DRC) are all members of the Central Africa Forest Commission (*Commission des Forêts d'Afrique Centrale*—COMIFAC), the African Timber Organization (ATO) as well as ITTO, and are all engaged in efforts to achieve sustainable development of their forest resources.

Production essentially focused on primary processing

These five countries were traditionally log exporters; in recent years, however, there has been a noticeable reduction in log exports as a result of legislation aimed at encouraging the processing and added value creation within these countries. In Cameroon and elsewhere, this legislation has been accompanied with the setting up or modernization of industrial processing plants.

In 2004, the five countries produced 7.2 million m³ of logs and exported 2.8 million m³, representing 39% of the total production. However, as shown in *Table 1*, there are significant differences in export volumes between countries, indicating that those countries which export a large number of logs process fewer.



Going up: Utilization of wood for construction, Cameroon. Photo: P. Langbour

The timber industry is dominated by primary processing (sawing, peeling and slicing), and is mainly geared towards export markets. In 2004, the five countries produced 1.1 million m³ of sawnwood and exported 0.94 million m³, representing 87% of total production. As noted earlier, however, there are significant differences between countries (*Table 1*).

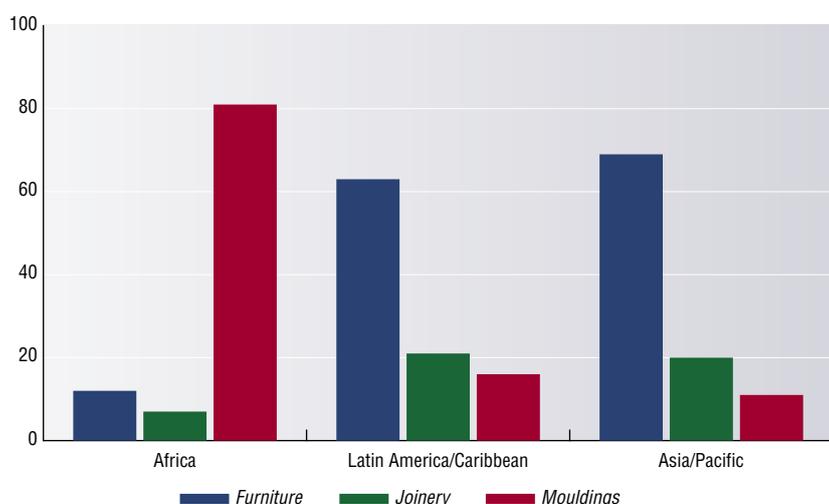
Generally speaking, sawnwood is traded in its raw state and only some sawmills in the countries concerned bring added value by offering dried lumber, and possibly by applying milling techniques to produce mouldings, parquet flooring and other materials.

Moreover, the figures in *Table 1* suggest 'apparent' local consumption of sawnwood (a difference between production and exports), which is quite low in Cameroon, Congo, DRC and, to a lesser degree, in Gabon. In fact, consumption is not as low as the figures indicate: the rapid development of the small-scale sawnwood production sector, both formal and informal, makes it possible to meet the ever-growing demand for sawn timber resulting from the urban demographic expansion of the countries in the region, as local populations need wood for construction and housing (in addition to their need for firewood). A study undertaken in Cameroon in 2002 (AGRECO-MINEF/DFID 2002) reveals a volume in the order of 1 million m³ of logs processed in this country by small-scale operators using mobile sawmills or chainsaws.

Production and export data in 2004 for veneer (205 000 m³ was produced, of which 84% was exported) and plywood (87 000 m³ produced, 76% exported) show that these activities remain relatively limited throughout the five countries with the exception of Gabon, where the activity

Specialization

Figure 1: Breakdown of further processed timber by region, 2004 (%)



is essentially focused on a single species, okoumé. As with sawnwood, these products are mainly destined for export.

At the international level, for many years the countries of the region exported logs and primary processed products to Europe. Today, Europe is no longer the only consumer: Asia and notably China are purchasing on a massive scale.

There is also an 'African' market for sawnwood from producer countries, not only from South Africa, which imports significant volumes of okoumé from Gabon, but also from the countries of the Maghreb (Morocco, Tunisia and Algeria). It is also worth mentioning Senegal, which is diversifying its supplies in the wake of events that have occurred in particular in neighbouring countries, and Côte d'Ivoire, which supplies itself from Central Africa to feed its many processing plants due to the reduction of its own forest production.

Operating in parallel to these official markets, there are informal trading links for sawnwood between Central Africa and several adjoining countries: between Cameroon and Chad and Nigeria, or between DRC and Uganda, Zambia and Tanzania. There is a real lack of transparency about this informal sector, which is responding to the needs of local markets neglected by industrial production geared

¹1000 CFA francs = 1.525 euros or US\$2.10

essentially for export. In the next few years this trade will probably increase at a rate where demand is closely linked to population growth, particularly in urban areas.

The further processing of timber

The further processing of timber for the manufacture of parquets, mouldings, furniture and joinery generate additional added value to timber and create employment. While data and statistics are dispersed and difficult to record in the countries of the region, there are some studies available, notably in Cameroon and Gabon, which show that these activities play an important socioeconomic role in the countries of the region. In addition, a recent study carried out in Yaoundé, Cameroon (JMN Consultants 2005) shows that, from an economic point of view, the sector accounts for 6 billion CFA francs¹ annual turnover for small-scale enterprises (carpenters, cabinet makers, woodcarvers, etc). The average timber consumption of the sector is estimated at 85 250 m³ of sawnwood per year (equivalent to approximately 284 000 m³ of logs per year), showing the importance of this sector in terms of both activity and timber consumption.

Two development approaches are being followed in the countries of the region in regards to the further processing of timber:

- 1) Widening the range of production (generally lumber) of both existing and newly established large-scale operators by adding additional equipment suitable for processing more sawnwood (drying, machining, etc). The resulting products are mainly exported.
- 2) Developing the formal and informal small-scale wood-processing sector, which requires additional measures totally lacking at present but would likely meet local and regional wood needs. This area is largely neglected by large-scale operators who prefer to export and take advantage of the prices offered in international markets.

The production of goods from the further processing of timber is still dominated mainly by Asia and Latin America. In 2004, 69% of further processed products (FPP) exported by all ITTO producer countries came from Asia, 29% from

Exports rule

Table 1: Production and exports of logs and sawnwood in the five main producer countries of Central Africa ('000 m³)

COUNTRY	LOGS			SAWNWOOD		
	PRODUCTION	EXPORTS	% EXPORTS/PRODUCTION	PRODUCTION	EXPORTS	% EXPORTS/PRODUCTION
CAMEROON	1750	228	13	702	682	97
CAR	570	195	34	107	44	41
CONGO	1321	844	64	175	143	91
DRC	90	58	64	15	14	93
GABON	3500	1517	43	133	91	68
TOTAL	7231	2842	39	1132	974	87

Source: ITTO 2006

Latin America, and 1% from Africa. Ghana and Côte d'Ivoire make a large contribution to the African trade in FPP.

This worldwide trade is focused mainly on furniture, joinery for construction and mouldings. Europe, North America and Japan are the main consumers of these processed products. Alongside these international markets, national markets are also important consumers. It is in the development of their own markets that the main Asian exporters (Indonesia, Malaysia, etc) have gained the upper hand in this niche. Emerging countries such as China, India and Brazil are following the same route and are now producers and exporters of processed goods.

Some African countries involved in further processing specialize more in shaped timber products such as parquets and mouldings (Table 2 and Figure 2). Within Central African countries, further processing still occupies only a small niche, although such activities help create employment and added value.

Trends in the further processing of timber in Africa

Like other sectors, the forestry sector is evolving and its situation and that of the associated timber chain are linked to economic, environmental, demographic, social, technological, political and institutional influences. The trends observed over the last few years indicate that the manufacture of wood-based products has shifted to new 'producers', whereas new timber markets are opening across all continents. Some of the changes observed/expected are described below.

Africa

Trade flows will increase between Central African countries and those of West Africa with depleted forest resources but industrial processing plants (sawmills, industrial mills, plywood and veneer factories, etc) in need of supplies to maintain production. Trade flows will also increase between Central African countries and other African countries which have only very limited resources (countries of the Maghreb, Chad, Niger, Egypt, etc); this trade is being established and could develop considerably.

Europe

Europe has been evolving over the last 40 years or so and a decline in industrial employment in western European countries (France, Great Britain) is noticeable. At the same time, a fair number of recent entrants to the EU (Poland, etc) or situated on the European periphery (Morocco, Tunisia, Turkey) are developing technically, economically, and socially. Transfers of activities are occurring from the 'old European countries' to these countries which benefit from real competitive advantages: cheap labour, taxation and attractive regulations.

Asia

Asia, in particular China and also India, will be consumers of raw timber and primary timber products to meet their own



Mill work: Processed okoumé sawnwood ready for export in Gabon. Photo: J. Gerard

needs for a long time to come, given the expansion of their housing and furniture sectors, their processing capacity and the development of their external markets.

Population growth

Population growth is one of the main factors which impacts the use of land, forests and timber resources. The development of urban centers towards which some of the rural population is migrating is accompanied by growing needs (food commodities, construction raw materials, etc). Although the purchasing power of many of these people is relatively small, it must both feed and house them. Wood is therefore naturally used to meet the needs for construction timber and for joinery and furniture.

The population of the five countries—Cameroon, Congo, Gabon, CAR and DRC—may increase from 83 million inhabitants in 2005 to 123 million in 2020, an increase of 40 million in 15 years. Moreover, some countries of West and North Africa using increasing quantities of timber sourced from Central Africa also have rapidly growing populations: West Africa may increase from 234 million inhabitants in 2000 to 344 million in 2020, and North Africa from 170 million in 2000 to 239 million in 2020.

Providing assistance to Central African countries

Countries differ in their capacities to take advantage of the benefits brought by the manufacture and export of processed products with significant added value. The main producer countries of processed products in Asia (Malaysia, Indonesia) and Latin America (Brazil) have well-

Still tiny

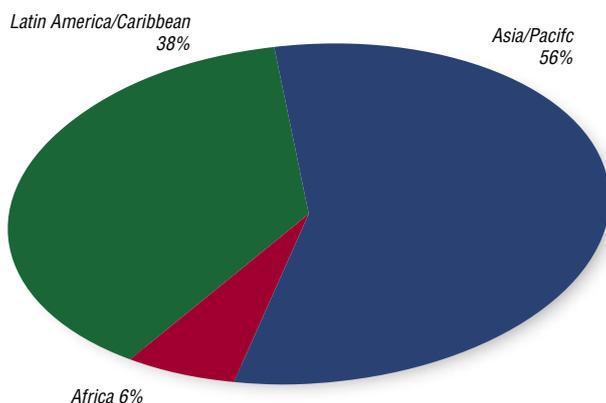
Table 2: Further processing exports by region, 2004 (million US\$)

	FURNITURE	JOINERY	MOULDINGS	OTHER
AFRICA	9.8	5.6	67	9.2
LATIN AMERICA/ CARIBBEAN	1564	535	395	475
ASIA/PACIFIC	3852	1221	588	1267
TOTAL	5425.8	1761.6	1050	1751.2

Source: ITTO 2006

Moulded niche

Figure 2: Share of moulded wood exports by region



established primary processing industries and developed export markets. They also have in place the necessary bases for the development of a further processing industry mainly geared towards export markets.

On the other hand, many African countries have difficulty in consolidating their primary processing sectors, strengthening their domestic markets and limiting their log exports. Of the five major producers of Central Africa, only Cameroon has been able to limit its log exports mainly by strengthening its sawing capacity; further processing has not yet developed to any significant extent.

For several years, major efforts have been undertaken and encouraging results have been achieved in the promotion of sustainable forest management. These must be accompanied by additional measures aimed at developing the further processing sector and the marketing of forest products, wood and secondary products, as well as non-wood forest products.

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In that respect, during its 38th session in Brazzaville in June 2005, the International Tropical Timber Council launched a study to promote synergies between ATO's Action Plan for the further processing of timber in Central Africa and COMIFAC's Regional Convergence Plan. Based on the results of this study, a proposal for a regional plan has been drawn up to develop the further processing of timber in those COMIFAC countries who are members of ITTO in Central Africa.

This project should lead to the establishment of a supporting mechanism for the further processing of timber. It is based on: 1) establishing an inventory of the small-scale, semi-industrial, and industrial timber processing sectors, and

analyzing their operating methods; 2) identifying the needs of the parties operating within the supply chain and defining ways of responding to these needs; and 3) setting up and implementing a system to support the parties involved in timber processing.

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This article is a summary of the report Exploitation et gestion durable des forêts en Afrique Centrale, which arose from ITTO Council Decision 10(XXXII) on the promotion of sustainable forest management in the Congo Basin. The complete report (in French) is available from the ITTO Secretariat (itto@itto.or.jp)

The model forest experience in Cameroon

Two model forests in Cameroon are building broad-based partnerships between diverse stakeholders to make sustainable forest management a reality

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FORESTRY IS A critical element in the Cameroonian social fabric, providing employment, recreation and cultural identity. The humid forest zone of Cameroon (270 162 km²) is considered the most diverse of all Central African forests, with a wide variety of resources of plant, animal and human origin. Gartlan (1992) reports that in some sites, more than 200 woody plant species can be found in one-tenth of a hectare. However, there are serious and dynamic problems of environmental degradation, equity and persistent poverty in the forestry sector, which translate into increased deforestation, unequal social access to resources and benefits, degraded environmental services, low productivity of land and labour, and a weak policy and institutional environment.

For the entire colonial period up to the mid-1990s, the forests of Cameroon were managed through a centrally directed structure and process, which expropriated resources and control over resources from local communities, and excluded such communities from accessing forest resources as well as economic benefits accruing from them (Diaw et al. 1997; Ngwasiri 1998). Since the early 1990s, Cameroon has undergone a general overhaul of its institutional and political structure through a process of macro-policy, sectoral and constitutional reforms affecting all aspects of society, particularly the relationships between the forest, agriculture and people. A variety of interacting factors including donor pressures, international economic interests, local political considerations, sheer weight of local tenurial and use pressures, as well as pressures from civil society movements ushered in a pro-people trend in policy, which culminated in the enactment of the 1994 forest law and its complementary decree of application (Ekoko 1997; Essama-Nssah & Gockowski 2000; Brown & Schreckenbergs 2001).

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With the introduction of community-based approaches in rural development and in forest management in the



Model workers: Model forest facilitators and workers with harvested log in Bosquet, a Baka Pygmy Community forest site in Dja et Mpomo. Photo: Cyprain Jum/CIFOR

early 1990s throughout the entire region, principles such as participation and the involvement of local communities have been progressively embraced by practitioners. With regards to Cameroon, Nguingiri (1999) and Vabi et al. (2000) underline the fact that the promulgation in 1994 of a new forestry legislation that focuses on the devolution of management responsibilities to local communities has reinforced this participatory trend. This has an impact in the whole of rural Cameroon (Oyono and Temple 2003).

Cameroon's Model Forest Project

In 2003, the Center for International Forestry Research (CIFOR) and its partners commenced the Model Forest Project in Cameroon. This project is part of the International Model Forest Network (IMFN). The goal of the IMFN is to work towards sustainable management of forests around the world, while taking into account the needs of local communities. In 2005, the government of Cameroon recognized the sites of Campo Ma'an and Dja et Mpomo as model forest sites. With the support of the government, the area is even more likely to adopt successful collaborative management. The initiative has received considerable attention in Cameroon and other African countries have shown interest.

Model forests (MF) are large multi-functional landscapes governed by a voluntary partnership representing all the important uses and values within that landscape. They constitute a novel and functional way to fully and constructively engage civil society, together with government, industry, indigenous groups, research organizations, and non-governmental organizations (NGOs) on a large landscape. Partners with an interest in the land and its many values come together to identify practical land



Model planners: Dja et Mpomo model forest Board of Trustees (BOT) meeting in Lomie, East Cameroon. Photo: Marjolaine Veilleux/University of Laval, Canada

and forest management problems and to find collaborative answers. Through this process, they develop a shared vision of their future, establish representative, transparent and accountable governance structures, and commit resources to joint initiatives and credible, peer-reviewed research and development. The model forest is, therefore, a platform of innovation where development and conservation interests can work with local stakeholders to make sustainable development a practical reality. There are about 40 model forests around the world. Only two are in Africa, both of which are in Cameroon.

The minimum defining attributes of a model forest according to the International Model Forest Network Secretariat (IMFNS 2000) are as follows:

- Based upon an inclusive, voluntary partnership of stakeholders—from local to national levels;
- Commitment to sustainable forest management (SFM) by all stakeholders in the partnership;
- Large enough in scale to reflect the environmental, social and economic values of the landscape and for it to have potential to affect policy;
- A strategy and program of action that reflects partner needs, values and priorities;

The model forest is, therefore, a platform of innovation where development and conservation interests can work with local stakeholders to make sustainable development a practical reality.

- A transparent and accountable governance structure that includes concrete efforts to give capacity and voice to non-traditional partners; and
- Commitment to sharing and exchange (networking) so that innovations can be shared and their introduction accelerated at local, national and international levels.

Scope of the partnership

Since 2005, Campo Ma'an and Dja et Mpomo have been pilot model forest sites for the Congo Basin. Together, these model forests cover some 1.5 million hectares of forested

landscapes (about 800 000 hectares each). In both sites, stakeholders are building large-scale development and management platforms based on voluntary partnerships respecting a range of interests and values.

The two model forests comprise territories of ten municipalities (four in Dja et Mpomo and six in Campo Ma'an). Together, they include operations of five logging companies (Campo: 2; Dja: 3), two industrial agro-plantations (rubber, oil palm) in Campo, a national park (Campo Ma'an) and a Biosphere Reserve (Dja). Two local NGO networks (ROLD and ROCAME), with a dozen NGOs in each site, and several community forests (about 75 established or seeking recognition) are active in the sites. Representatives and traditional chiefs of a wide range of Bantu, Baka and Bagyeli pygmy communities are also actively involved, as well as women's platforms (one in each site), cooperatives (GECEC; Dja et Mpomo), and the GEOVIC mining company in Dja et Mpomo.

In addition to the broad support of government institutions (MINFOF, MINER, IRAD and the Territorial Administration of the South and East Provinces), a number of publicly or privately funded institutions have joined the model forest partnerships, thus demonstrating their national credibility and relevance to the rural development challenge in Cameroon. Such institutions include FEICOM (a rural development fund), MEAO (the Evaluation, Planning and Management Mission for the Ocean Division in Kribi), the Memv'ele Dam Socioeconomic Project in the Campo-Ma'an area, FEDEC (the Environment and Development Fund created by the government of Cameroon and the Chad-Cameroon Pipeline/oil consortium), PNDP (the National Program of Participatory Development) and ECOFAC (the EU-funded regional environment program) in Dja. The Dutch facilitation NGO, SNV, has committed support to the MF process in both sites, while WWF, also present in both sites, has promised a greater involvement in the future.

CIFOR and IMFNS, which initiated the process in 2003 in partnership with the government of Cameroon (MINEF/MINFOF), COMIFAC, CIDA (Cameroon Office), FAO, and IUCN-CEDHAC, have maintained strong support for the Cameroon Model Forests, including cross-site, regional, and international facilitation, as well as research, monitoring, and action-research in the field.

The problem

The need to overcome the many conflicts between forest actors is a prerequisite for establishing frameworks for good governance, innovation, and equitable use of, and benefits from, forest resources and revenues. Reforms in Cameroon have led to the establishment of land-use and management plans for logging concessions, protected areas, agro-plantations and community and council forests. Unfortunately, the functional link between these various forest management units is weak, which has contributed to the fragmentation of local landscapes upon which

sustainable development policies should be based. The establishment of model forests in Cameroon was designed to help to address these problems. They constitute a coherent network at the global scale for experimenting with sustainable management principles on the basis of voluntary partnerships.

Methodology

Selection of sites

In May 2003, CIFOR and the IMFNS organized a workshop in Nkolbisson, Yaoundé, in collaboration with MINEF and FAO. The aim in Nkolbisson was to shed light on the model forest concept and to determine if there was interest in developing a site in the Congo Basin. The response of the workshop was overwhelmingly positive. A key recommendation was for MINEF and regional organizations such as the Central Africa Forests Commission (COMIFAC) to take a lead role in establishing the initiative in the region. CIFOR was to facilitate this work and the establishment of a follow-up committee on the Model Forest Initiative. Follow-up contacts, discussions and initiatives continued for the remainder of the year.

In June 2004, CIFOR and the IMFNS arranged a series of workshops in Cameroon. A range of organizations including IMFNS, COMIFAC, the Cameroon Ministry of Forestry and Wildlife, the Canadian International Development Agency (CIDA), FAO and the World Conservation Union (IUCN) agreed to work together to plan for the development of model forests in the Congo Basin. Meetings were chaired by Cameroon's Ministry of Forestry and Wildlife with CIFOR acting as facilitator. It was agreed that a competition would be developed to choose a model forest in Cameroon that could serve as a pilot site for the Congo Basin. Ten sites were invited to a workshop discussing how the pilot sites should be selected.

A site criteria framework was presented at a workshop in Kribi. Salient points of the criteria framework were: 1) strong commitment of site actors and partners in the process; 2) nature and relevance of site management problems; and 3) ability of the site to generate financial resources. The potential sites and other actors welcomed the model forest concept, the idea of partnership and accepted the site selection criteria guide as a basis for assessment. It was required that potential sites should commit their sites to submitting a dossier for candidature to be evaluated by the technical committee. The three sites which produced the most impressive dossiers were visited in the field, noted and ranked by the technical evaluation committee.

In June 2005, CIFOR's Assistant Director General visited the Prime Minister of Cameroon who expressed his support for the model forest approach. In August, the government decided to choose the two highest-ranked sites, rather than just one, and the Minister of Forestry and Wildlife officially requested that the IMFNS accept Cameroon as a full member of the network.



Next generation: Marjolaine Veilleux, student intern, with Baka-Pygmy children in the model forest site of Dja et Mpomo, East Cameroon. Photo: Cyprain Jum/CIFOR

Initiating site activities

By early 2005, the project had initiated contacts with site actors in Campo Ma'an and Dja et Mpomo by developing a common vision of the situation using techniques such as brainstorming and discussions with a wide range of stakeholders. This was followed by a series of planning workshops to gain a holistic view of the problem and context.

One of the outcomes of these workshops was that site actors committed themselves to develop jointly a Participatory Action Plan (PAP). The key features of a PAP are: 1) each category of stakeholder works separately to identify and rank their problems regarding natural resources management, then later, all stakeholder groups come together to jointly agree on their priority problems; 2) stakeholder groups separately analyze possible solutions and their impacts before meeting in a plenary to share their analysis and form a consensus on win-win solutions and actions; and 3) the participants prepare in more detail an action plan for natural resources management.

The potential sites and other actors welcomed the model forest concept, the idea of partnership and accepted the site selection criteria guide as a basis for assessment.

The PAP is designed to encourage participants to express their views, while avoiding a process that is dominated by locally powerful and vocal people, and to develop a shared framework of understanding regarding resource management.

Framework for participation

Both model forests have initiated a unique relational framework that promotes vertical, horizontal and cross-sectoral linkages. The site actors have already identified gaps in knowledge, defined research needs and identified how to manage projects to obtain the required knowledge. The actors are in the process of determining how change in forest management practices might be achieved within their respective organizations.

Technical activities

Among the activities undertaken are expert workshops and enhanced communication and strategic planning exercises to identify broad values and develop management approaches. The model forest partnerships are currently being implemented through stakeholder platforms (women, baka-bagyeli pygmies, logging companies, private media, conservation groups, NGOs and municipalities). Each platform is represented by a board of 17 directors (BOD) elected at the first annual constitutive assembly of the model forest in January 2006. These platforms are in the process of establishing their membership and grassroots governance rules and mechanisms. Actions already taken to date by the model forests include legal recognition and the setting up of governance structures. However, it is not possible to address all challenges at once. Activities that are currently being planned include micro-projects that will generate revenues for the site and the development of local indicators to measure the effects of model forest actions.

Proposed future strategy

The development of a model forest program in Cameroon is the first step in the establishment of a model forest network in the Congo Basin. There are three main phases for the establishment of this model forest network:

- **2000–05:** policy preparation, site selection and development of basic partnerships with local stakeholders.
- **2006–08:** setting up of governance structures, operational projects and sustainable, autonomous initiatives. Strengthening local involvement of stakeholders beyond administrative units.
- **2008–09 (and beyond):** consolidation and extension – expansion of development projects and increased sustainable management of local forest resources.

This process will learn from successes in Cameroon, which can be attributed, at least in part, to the following factors:

- *Cameroon's openness to changes in the forestry sector* has ensured a lively and purposeful debate. Democratization of the forest sector has resulted in a renewed interest in learning from the experiences of field projects and new concepts, thus paving the way for forest actors to take on new challenges.
- *The commitment of civil society organizations to dialogue* makes it possible for stakeholders to participate in formally organized national processes to ensure that their views are heard.
- *Clear government commitment*, especially that of the Ministry of Forestry and Wildlife through its staff of central and external services, in giving purpose and leadership to the process.
- *Appropriate external financial and technical support* from the Canadian International Development

Research Center (IDRC), IMFNS and CIFOR allows the process to maintain momentum, direction and purpose, without loss of state ownership and commitment.

Conclusion

The program provides the framework for flexibility, innovation and collective learning at the broad landscape level. Partnerships between stakeholders have proven by far the most consuming and challenging to implement, and have affected progress on understanding diverse land resources and on shared learning. Demonstrating progress and results is also a challenge. There is considerable expectation that the program will result in on-the-ground change and influence forest policy.

It is Cameroon's experience that government alone cannot map the route to SFM, which must be built from the ground up, with cross-sectoral, local participation. This is the advantage of the model forest process.

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Forest rehabilitation and management in eastern Brazil

An ITTO project in the Middle Doce River Valley of Brazil is rehabilitating water recharge areas and riparian forest stands

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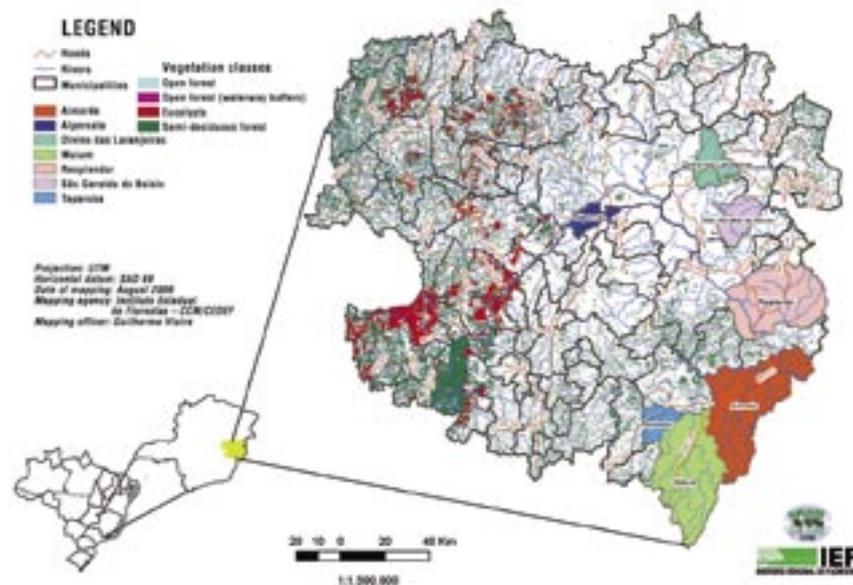
OVER THE PAST 50 years, the Middle Doce River region, which was once covered by lush inland Atlantic forests, has experienced an extensive loss of forest cover. The forests have been almost completely replaced by pasturelands for cattle-raising purposes, based on the general belief in the region that all trees should be cut down because they interfere with cattle grazing. The lack of forest cover, the burning of grasslands and compact and shallow soils have all reduced the retention and infiltration of rainwater as well as the number of river sources, contributing to this rural area's status as one of the poorest and most inhospitable regions in Minas Gerais and in Brazil as a whole.

To combat this situation, a pilot project on forest rehabilitation and management in degraded areas is being implemented with financial support from ITTO in the municipalities of Aimores, Divino das Laranjeiras, Governador Valadares, Mutum, Resplendor, São Geraldo do Baxio and Taparuba in the Middle Doce River Valley in Minas Gerais, Brazil (Figure 1). The executing agency is the State Forest Institute of the National Secretariat for the Environment and Sustainable Development of the State of Minas Gerais. This project, PD 62/99 REV.3 (F) 'Reforestation pilot project for the recovery of degraded areas in the Middle Doce River region, state of Minas Gerais, Brazil', became operational in October 2004 with an expected duration of four years. The total project budget is nearly US\$800,000, with an ITTO contribution of US\$524,000.

The overall objective of the project is the establishment of pilot demonstration units for the rehabilitation of degraded forest areas in the micro-watersheds of the Middle Doce River, with a view towards rehabilitation of the forest cover and establishment of production forests. Thus, the project

Project sites

Figure 1: The Middle Doce River region, including its seven micro-watersheds



will contribute to the implementation and dissemination of reforestation and forest management models that are compatible with the realities of the region.

The project is specifically aimed at rehabilitating 300 hectares of water recharge areas and riparian forest stands along riverbanks and river sources; planting 100 hectares of production forest; and managing 1000 hectares of degraded secondary forests where the species *Miracrodruon urundeuva* (aroeirinha) is predominant. The project strategy is based on the establishment of plots by rural producers in each of the seven micro-watersheds of the area. Up to 40 families will implement field activities.

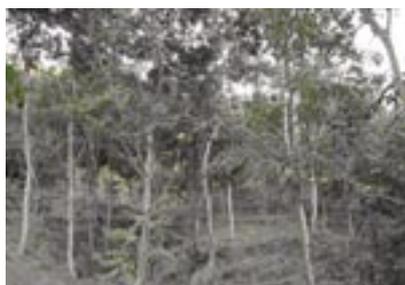
Project resources are being used to assist in covering the costs of activities related to the production of site-specific seedlings and their subsequent planting and management. Resources are also being used for training activities, exchanges between rural producers and technicians, the implementation of a social and environmental diagnostic and monitoring program, and the dissemination of project outputs.

Forest management activities are being implemented in areas that were previously occupied by aroeirinha, as this forest species has an enormous capacity for both sexual reproduction and vegetative propagation in degraded soils and inhibits the regeneration of other native plant species. By appropriately managing aroeirinha, it will be possible to control its dominance, rehabilitate forest productivity and improve the quality of pastures.

It is expected that after its completion, the project will have contributed to the sustainable utilization of forest resources in the region and will have improved the income levels of rural producers, thus helping to reverse the current cycle of impoverishment that affects the region.



Natural regeneration of aroeirinha.
Photo: Danilo Rocha



Regeneration of aroeirinha under forest management.
Photo: Danilo Rocha

Keeping track of Guyana's logs

An ITTO activity examines the effectiveness of Guyana's log tracking system in the identification of illegally harvested timber

by
James Singh

Guyana Forestry Commission

IN GUYANA, encouraging verification of legality in forest operations has been a priority at the national level. As the demand for tropical timber grows, and at a time when increasing pressure is being placed on natural tropical forests, Guyana has positioned itself to take on the challenge of providing verification of the origin of all timber products harvested from its forests.

To this end, in 2000, Guyana instituted a national log tracking system as a means of providing verification of the origin of forest products and also, of equal importance, as a means of controlling illegal logging activities. The system is comprehensive and applies to all state forest operations in Guyana, as well as indigenous lands and private property. It provides verifiable evidence of the legitimacy, location and magnitude of forest operations whereby log tags are assigned to legal operators at the commencement of their annual operations. The implementation of this system was timely for the forest sector of Guyana, as international buyers are increasingly demanding certified timber products, or at the very least, legally verifiable timber products.

Following six years of generally successful operation of the log tracking system, the Guyana Forestry Commission (GFC) identified the need for an audit in an effort to enhance the overall functioning of the system.

The objectives were threefold: 1) to perform an audit of the existing log tracking system; 2) to develop a database to record the current status of all log tags; and 3) to train forest users in the effective use of the log tracking system.

Enhancing log tracking

The activity 'Enhancing law compliance in the forest sector in Guyana through an audit of GFC's log tracking system' was submitted to ITTO by the GFC in 2006 for funding under the Organization's 2006–2007 Work Program. This Work Program activity calls on ITTO, upon request, to assist countries to develop systems to demonstrate the legality of timber exports. The GFC acted as implementing agency for the activity. The objectives were threefold: 1) to perform an audit of the existing log tracking system; 2) to develop a database to record the current status of all log tags; and 3) to train forest users in the effective use of the log tracking system.



Sourced: Tags like this are an important part of Guyana's chain of custody tracking system.

Photo: P. Bholanath

Main activities

In June 2006, ProForest, a UK-based consulting firm, was contracted by the GFC to audit the log tracking system that Guyana has in place for its timber products. Consistent with the European Union Forest Law Enforcement, Governance and Trade (EU-FLEGT) and the Global Forestry Trade Network (GFTN) requirements, the legal assurance systems for Guyana have taken into consideration the definition of legality and a mechanism to ensure that there is a secure chain of custody for timber products. The definition of legality for timber products was envisioned to encompass all laws and regulations that must be complied with in the production process in Guyana. Traceability was identified as an important element in the chain-of-custody system, which should adequately track timber from the forest where it is harvested through different owners and stages in processing, to the point of export.

A local IT consultancy firm and training consultant were contracted to develop the database to track log tags issued and utilized, and provide training in log tagging, respectively. Training in the use and documentation of the log tracking system was conducted by the GFC in collaboration with the Forest Products Marketing Council of Guyana, Inc (FPMC).

Audit procedure

In order to achieve the planned activities, including a definition of legality and adequate traceability, ProForest developed a checklist for a comprehensive assessment of the current timber legality system operating in Guyana covering all existing measures, documentation and current implementation in terms of the system's ability to indicate legality and traceability from the stump to the final consumer.

The assessment process included discussions with industry, governments, non-governmental organizations (NGOs) and other key individuals with knowledge and experience in Guyana's forest sector. The assessment focused on identifying gaps in the existing documentation and current operational mechanisms, in relation to the ability to indicate legality and traceability, with particular attention given to requirements set out in internationally recognized schemes.

Results

The project activities revealed areas where corrective action is warranted, but also indicated that the GFC has successfully formulated a log tracking mechanism involving log identification tags and a documentation system. Although the basic elements of a tracking system are in place, the consultants identified inconsistencies in its current application. These included the determination and issuance of the Annual Allowable Cut (AAC) for the species utilized by concessionaires, and accompanying permits/tags, including reconciliation of the usage, identification and documentation of logs in transport, and control and identification of timber during processing.

Recommendations were made to address ways in which the system can be improved to correct these inconsistencies, and the GFC developed an action plan to address the identified inconsistencies at every stage of timber operations. This action plan is currently being implemented by the GFC. A database to track the issuance and usage of tags by concessions was developed by the IT consultant. This is already proving to be useful to allow reconciliation of tags issued and tags used by concessions in a timely manner.

Training was completed in eleven strategic locations across Guyana. The sessions were very successful and attendance was excellent. The delivery of the training was carried out by GFC's senior management team in collaboration with the FPMC. The interaction at these sessions was effective in illustrating the operation of the log tracking system and receiving feedback on further improvements.

Conclusions

This project has been very useful in identifying the key areas where the Guyana Forestry Commission needs to place increasing emphasis in the near future. The main lessons learned from the project are:

- an audit of the log tracking system needs to be carried out periodically to ensure that the system is working effectively;
- adequate reconciliation of tags issued and used is regularly required in order to track the updated status of tag usage;
- training needs to be carried out on a periodic basis on the use of the log tracking system;
- the documentation of logs tag usage needs to be more consistent and systematic to identify and track defaulters;
- there is a need for a widely accepted national definition of forest legality which can be used in the verification of legality in the chain of custody of timber products; and
- annual allowable cuts should be based on the level of species availability/ utilization.



Ready for loading: Tagged logs in a concession in Guyana's Mabura region stacked prior to transport. *Photo: P. Bholanath*

It was found that the mechanisms necessary for a robust chain of custody are in place, but must be strengthened in order to ensure legal trade in all forest products. Guyana's forest sector is on the path of expansion and development and brings with it additional demands on the existing monitoring and regulatory mechanism of the GFC. The GFC has indicated every intention to embrace these challenges and to commit the necessary resources to bridge the gaps which were identified. Training in the use of the log tracking system is also of vital importance. This is especially necessary for the system to continue functioning smoothly despite staff turnover or shortage of resources at the forest operations level.

The database, developed as the third output of this project, is necessary to aid the matching of log tags with actual production. This was one of the areas that the auditors emphasized as being vital to aid effective monitoring of the log tracking system. Further, a clear definition of legality and increased monitoring of the use of log tags are imperative to ensure that the system continues to function effectively and provide the basis for ascertaining legal verification.

The GFC and the FPMC are currently building on the activities completed by this activity in establishing a legal verification system for timber products in Guyana (see PD 440/07 REV.1 (M,I), page 18). It is envisaged that this system will be used to provide verification of the legality of forest products originating from Guyana at the concession level. This system will greatly assist forest products exporters who are seeking to penetrate and retain international markets that seek legally verifiable products.

ITTO's recently funded projects

The projects and pre-projects summarized below were financed at the Forty-second Session of the International Tropical Timber Council, which was held in May 2007. A total of US\$5.3 million was committed for approved projects, pre-projects and activities at the session

Projects

Conservation and reforestation of threatened mangrove forest areas along the Pacific coast of Panama (PD 156/02 Rev. 2 (F)–Phase II)

Budget	ITTO:	\$316,887
	Government of Panama:	\$168,290
	Total	\$485,177

Implementing agency ANAM–National Environmental Authority

Mangrove forests in Panama account for approximately 5.6% of the natural forest cover (approx. 170 000 hectares), the majority of which are located along the Pacific Coast. These mangrove forests are being subjected to constant pressures that lead to their degradation and destruction, mainly from aquaculture, agriculture and cattle-raising as well as forest product harvesting. The proposal, which builds on the results of the project PD 128/91 REV.2 (F) 'Management, conservation and development of the mangrove forests in Panama', will ensure the collective conservation and sustainable management of 4000 hectares of mangrove forests along the Panamanian Pacific Coast and to implement rehabilitation activities on 1250 hectares of degraded lands to maintain the contribution of this ecosystem to the welfare of the Panamanian society, particularly the communities that directly depend on these natural resources.

Training on demonstration, application and extension of the ITTO manual on Restoring Forest Landscapes in tropics of China (PD 423/06 Rev.2 (F))

Budget	ITTO:	\$372,060
	Government of China:	\$159,025
	Total	\$531,085

Implementing agencies Research Institute of Forest Resource Information Techniques, Chinese Academy of Forestry (CAF)

The Chinese central as well as local governments in the tropical regions of China have made great efforts to improve tropical forest management, which has resulted in increased forest cover. However, forest degradation, fragmentation and modification continue to take place for various reasons including lack of understanding on the tropical forest landscapes by stakeholders, lack of a mechanism for stakeholders to participate in forest management decision-making, poverty, lack of appropriate approaches and demonstrations, lack of financial incentives for forest landscape restoration and weak national policy.

This project will promote landscape restoration, sustainable management of tropical forests and sustainable development in the tropical region of China. Its specific objectives are to: 1) train and apply the ITTO manual, 'Restoring Forest Landscapes', in tropical China; and 2) demonstrate and extend the application of the ITTO manual in the tropical regions of China.

Restoring the ecosystem functions of the Lake Toba catchment area through community development and local capacity building for forest and land rehabilitation (Indonesia; PD 394/06 Rev.1 (F))

Budget	ITTO:	\$549,974
	Government of Indonesia:	\$192,430
	Total	\$742,404

Implementing agencies Forestry Research and Development Agency, Ministry of Forestry

This project is a follow-up to the recommendations of the ITTO Technical Mission to Indonesia regarding rehabilitation of watersheds in Indonesia and the study by JICA on the development of the Lake Toba catchment area (LTCA). The project will contribute to the improvement and sustainability of ecosystem functions of the LTCA through prevention of continued forest clearing and promotion of rehabilitation programs on degraded forest and land in the area. Its specific objectives are to: 1) reduce the rate of forest clearing for agricultural uses through community development; and 2) improve accomplishment of forest and land rehabilitation programs surrounding the LTCA by strengthening the of local institutions.

Promotion of sustainable management of African forests (PD 124/01 Rev.2 (M)–Phase II Stage 1)

Budget	ITTO:	\$320,000
	ATO:	\$40,000
	Total	\$360,000

Implementing agencies African Timber Organization (ATO), ITTO

This project was formulated pursuant to ITTC Decision 4(xxix) in order to develop a framework of cooperation between ITTO and ATO for the promotion and application of ATO/ITTO principles, criteria and indicators (PCI) for the sustainable management of African forests, which could eventually lead to credible assessment and certification systems. The specific objectives of the project to establish key elements of adequate capacity are to: 1) implement ATO/ITTO PCI at the national level in the African member countries of ITTO; and 2) support individual member countries to implement the ATO/ITTO PCI for effective regional-level cooperation through the ATO. Phase II of the project has been split into two one-year stages to facilitate funding and implementation.

Improving the detection and prevention of illegal logging and illegality in shipment and trade of wood products in Guyana (PD 440/07 Rev.1 (M,I))

Budget	ITTO:	\$574,101
	Government of Guyana:	\$184,019
	Total	\$758,120

Implementing agency Guyana Forestry Commission

While the extent of illegal logging in Guyana may not be as high as reported in some other countries, it does have a significant impact on Guyana's relatively small and developing economy as well as having environmental and

socio-cultural consequences. Two of the reasons for the sub-optimal detection of illegal logging and other activities are: 1) the extensive and largely inaccessible forest estate which is difficult to effectively monitor, and 2) a manual log-tracking system that has tendencies for errors and does not facilitate rapid transfer of information and data.

The project will address these two issues by 1) developing an integrated and dynamic GIS that will incorporate satellite image analysis, illegality indicators and a legality database, and 2) establishing a bar-code log-tracking system that will feed into a central database linked to a nationwide area network. This will allow for near real-time transfer of data and the availability of tracking information for the regulatory agency and operators in the private sector.

Strengthening of the Forest Statistics and Information Center (CIEF) (Honduras; PD 443/07 Rev.1 (M))

Budget	ITTO:	\$230,023
	Government of Honduras:	\$168,928
	Total	\$398,951

Implementing agency Administración Forestal del Estado (AFE-COHDEFOR)

This project, an output of ITTO pre-project PPD 93/04 (M), 'Analysis of the current status and development of a project proposal for the strengthening of the Forest Statistical Information Centre in Honduras', will strengthen the Forest Statistics and Information Centre (CIEF) of the National Forest Administration-Honduran Forest Development Corporation (AFE-COHDEFOR). This project will establish an integrated forest statistics and information system that will increase the contribution and relevance of the forest sub-sector to the country's social, economic and environmental development, while at the same time strengthen local, regional and institutional capacities.

Promoting the utilization of plantation timber resources by extending environmentally sound preservation technology (China; PD 398/06 Rev.2 (I))

Budget	ITTO:	\$291,060
	Government of China:	\$122,500
	Total	\$413,560

Implementing agency Guangdong Forest Research Institute (GDFRI)

This three-year project will follow up and build on the results of ITTO project PD 52/99 REV. 2 (I), 'Development and extension of preservation technology of tropical plantation timber'. It will develop environmentally sound timber preservative technologies and establish a treated timber products monitoring system in South China to ensure the efficient use of plantation timbers. It also will focus on the establishment of a demonstration plant for treated timbers with preservatives in South China to increase safety and quality control of wood preservatives.

International workshop on innovations in tropical forestry and forest product industries (Innovations for Tropical Timber) (Côte d'Ivoire; PD 268/04 Rev.3 (I))

Budget	ITTO:	\$147,960
	Government of Côte d'Ivoire:	\$40,244
	Industries:	\$36,000
	Total	\$224,204

Implementing agencies Directorate of Forest Production Industries, Ministry of the Environment and Water and Forest

The objective of this project is to organize an international conference on assessing the current state of research and development, innovation and other technological developments in the global forest and wood product industries. The conference will also determine policies and strategies to further increase innovation and its uptake to continually improve the sustainability and competitiveness of the forest and wood products industries, and provide opportunities for building on existing collaborative and strategic alliances as well as developing new ones to assist the transfer of technology, skill and knowledge.

Pre-projects

Guidelines for the restoration of mangroves and other coastal forests damaged by tsunamis and other natural hazards in the Asia-Pacific region (Japan; PPD 134/07 Rev.1 (F))

Budget	ITTO:	\$129,038
	ISME and others:	\$11,250
	Total	\$140,288

Implementing agency International Society for Mangrove Ecosystems (ISME)

Mangrove and other coastal forests provide livelihood for human communities living in and around the forests and protect coastal areas against tsunamis and other natural hazards including cyclones, typhoons, floods and abrasion. However, no manuals or guidelines are available to date for the restoration of damaged mangroves and other coastal vegetation.

This pre-project will re-evaluate the role and functions of mangroves and coastal forests in mitigating natural hazards in the Asia-Pacific region and to assist countries in the region to facilitate rehabilitation efforts aimed at reducing future hazard damages.

Training needs analysis for the builders' woodworks industry in the Philippines (PPD 133/07 Rev.1 (I))

Budget	ITTO:	\$79,199
	Government of the Philippines:	\$8,050
	Total	\$87,249

Implementing agency Forest Products Research and Development Institute (FPRDI)

This pre-project will determine the training needs of the builders' woodworks industry in the Philippines. Specifically, it will determine the current level of skills in the builders' woodworks industry and compare it against standards required for each job/position. Target beneficiaries of the project are builders' woodworks associations and micro- and small enterprises engaged in the manufacture of builders' woodworks who are not affiliated with any industry association.

Producers

Africa

- Cameroon*
- Central African Republic*
- Congo*
- Côte d'Ivoire*
- Democratic Republic of the Congo*
- Gabon*
- Ghana*
- Liberia*
- Nigeria*
- Togo*

Asia & Pacific

- Cambodia*
- Fiji*
- India*
- Indonesia*
- Malaysia*
- Myanmar*
- Papua New Guinea*
- Philippines*
- Thailand*
- Vanuatu*

Latin America

- Bolivia*
- Brazil*
- Colombia*
- Ecuador*
- Guatemala*
- Guyana*
- Honduras*
- Mexico*
- Panama*
- Peru*
- Suriname*
- Trinidad and Tobago*
- Venezuela*

Consumers

- Australia*
- Canada*
- China*
- Egypt*
- European Community*
 - Austria*
 - Belgium*
 - Denmark*
 - Finland*
 - France*
 - Germany*
 - Greece*
 - Ireland*
 - Italy*
 - Luxembourg*
 - Netherlands*
 - Poland*
 - Portugal*
 - Spain*
 - Sweden*
 - United Kingdom*
- Japan*
- Nepal*
- New Zealand*
- Norway*
- Republic of Korea*
- Switzerland*
- United States of America*

Market concerned about short supply and export taxes

by
Jairo Castaño

PRICES FOR TROPICAL timber products firmed in the second quarter of 2007. Contributing to this are continued strong demand from China and India, declining exports of primary timber products, growing exports of processed wood products and the prospect of steep export taxes on Russian logs.

African prices stable on the back of steady demand

Prices for Central/West African timber products remained relatively stable in the second quarter of 2007, helped by robust demand from China and India for lower log grades, heavy rains in producing areas, mild weather in Europe and rising prices and tightening supply in Southeast Asia. Prices are expected to remain firm through spring and beyond. However, okoume and okan logs for the Chinese market lost ground as stocks built up in some Chinese ports. The log inventory build-up was deemed temporary. *Figure 1* shows that prices for African mahogany (khaya) logs are about to match the historical high reached in 1993.

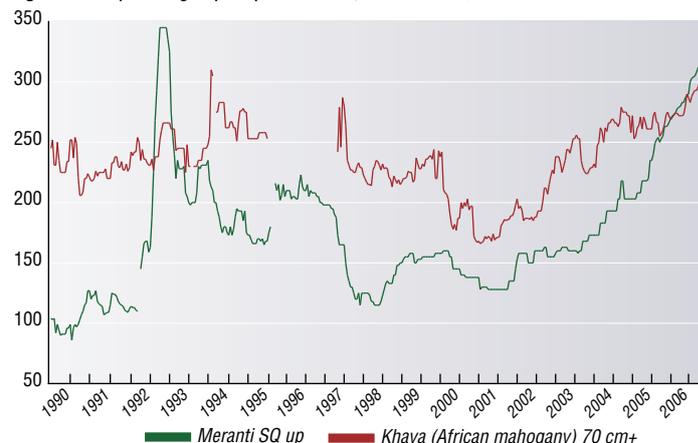
In Ghana, exports of wood products fell almost 8% in value and 3% in volume in 2006 due to inadequate supply of raw timber materials to meet export contracts. Ghana and the EU held their first voluntary partnership agreement (VPA) meeting in Accra in March 2007. Once concluded, the agreement will bind both parties to ensure that only legally or properly harvested timber will be exported to the EU market. The EU initiated similar formal VPA talks with Malaysia in September 2006 and with Indonesia in January of this year.

Southeast Asia concerned about tightening timber supply

Prices for Southeast Asian timber products continued to surge unabated through the second quarter of the year, particularly after Chinese New Year celebrations came to

Logs

Figure 1: Tropical log export price trends, nominal US\$/m³ FOB



an end. Prices in Malaysia and Indonesia rose across the board, fuelled by demand from China and India and due to the continued weakening of the US dollar. In the second quarter of 2007, meranti logs reached new 14-year highs while dark red meranti sawnwood prices broke the record levels achieved in previous months (*Figure 2*).

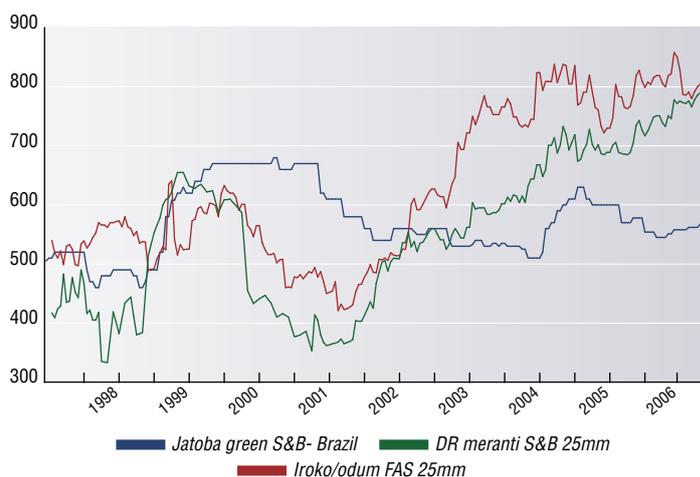
The timber processing industry in these Southeast Asian countries continues to face growing shortages of raw timber materials. Malaysia is developing policies to promote plantations while Indonesia increased its logging quota for natural forests from 8.13 to 9.1 million m³ in 2007. Sources close to the Ministry of Forestry indicated that the new quota could be revised up to 12.4 million m³. Indonesia is also pondering imports of timber from neighbouring countries to meet local industry demand. The tight availability of rubberwood continues to harm Malaysian furniture manufacturers, who are striving to remain competitive against formidable rivals such as China and Vietnam amid rising rubberwood prices and a strengthening Malaysian ringgit. China is the world's largest furniture exporter while Vietnam displaced Malaysia in 2005 as the largest tropical exporter of furniture. This is despite the fact that China and Vietnam import most of their timber raw materials.

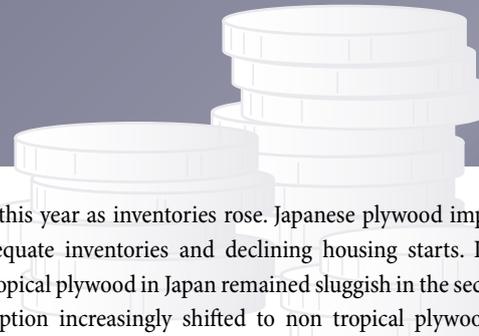
The EU has recently suspended imports of ramin wood from Malaysia. The suspension was related to the listing of ramin in Appendix II of CITES, which took effect in January 2005. The suspension came as a surprise to both the federal and state authorities in Malaysia. The Malaysian Ministry of Natural Resources and Environment was seeking clarification from the EU on what has been deemed as a unilateral decision despite ongoing VPA talks.

Average prices for all Myanmar teak grades rose across the board early in the second quarter of 2007. The main reasons were better log quality in March tenders and limited teak cargoes available in Yangon. Another factor driving prices up was an increase in prices by the Myanmar Timber Enterprise (MTE) for direct sales contracts of teak and other hardwoods in mid March. Moreover, the European market is reportedly strong, with good demand for teak veneer logs.

Sawnwood

Figure 2: Tropical sawnwood export price trends, nominal US\$/m³ FOB





Delays in forest management plans slow Brazilian exports

Brazilian exports of solid wood products grew marginally in 2006, amid rising exports of added value products and despite a contraction of exports of primary products. Exports have been hit by a strong Brazilian currency and import duties in major markets. Delays in the approval of forest management plans remain an issue in the tropical regions of Brazil, which have led to production stoppage and lay-offs. Some Brazilian timber companies are in joint ventures with Chinese companies to take advantage of low production costs and high productive capacity. About 12% of large Brazilian companies have already transferred part of their production to China, either by installing their own plants or by outsourcing part of the production. Finished products are then re-exported to major markets. Figure 3 shows that prices for white virola plywood continued to rise gradually in the first half of 2007 but trail behind Southeast Asian plywood prices which have increased the price gap with their Latin American counterparts.

Brazil now has the largest area of FSC-certified tropical forest in the world. With 5.1 million hectares of certified forests (2.8 million hectares of natural forests and 2.3 million hectares of forest plantations), the country ranks sixth worldwide, behind Canada (18 million hectares), Russia (16.9 million hectares), Sweden (10.4 million hectares), the US (9.3 million hectares) and Poland (5.9 million hectares). In Latin America, Brazil is followed by Bolivia (2.1 million hectares) and Mexico (0.8 million hectares). In global terms, Malaysia follows Brazil with 4.73 million hectares of MTCC-certified tropical forests.

In Peru, INRENA halved the logging quota for mahogany from 23 239 m³ in 2006 to 13 477 m³ in 2007. Further reductions are likely following CITES' review of the implementation of mahogany's Appendix II listing. INRENA is requiring replanting of logged mahogany at a 10:1 ratio, a condition for the approval of a yearly plan of operations in the Amazon. The measures have been praised by CITES and other stakeholders. Meanwhile, stakeholders in Guyana were discussing whether to adopt a restricting policy or ban on log exports.

Sluggish plywood demand in Japan

Japanese imports of tropical plywood surged in 2006, thanks to larger supply from Malaysia and China that offset declining imports from Indonesia. However, domestic plywood prices underwent a correction in the first

quarter of this year as inventories rose. Japanese plywood imports slowed due to adequate inventories and declining housing starts. Imports and prices of tropical plywood in Japan remained sluggish in the second quarter, as consumption increasingly shifted to non tropical plywood. However, plywood prices are expected to recover and peak in the third quarter ahead of the slowdown in the Japanese construction sector in winter.

Russian export log tax may bring structural change

Russia, the world's largest exporter of logs, announced in February that it will raise log export duties steeply from 6.5% to up to 80% but not less than €50 per m³ by January 2009. The move is intended to boost the country's domestic wood processing industry. A major structural change in global wood markets is expected as a result since Russia accounts for about 40% of the world's exports of softwood logs. The decision has caused concerns in several countries, as Russian logs account for over 80% of the log imports in China and Finland, for almost half of imports in Japan and for a large proportion in Korea. Importers reckoned that log imports from Russia would become unprofitable. Some tropical log suppliers were bullish following the announcement. The decision reinforces the shifting perception of wood (or at least logs) being a relatively abundant commodity to a relatively scarce one.

Ongoing correction in US housing sector

In the US, housing starts continued slowing down in the second quarter of 2007, compared with a year ago. Private housing starts have reached the slowest pace in more than nine years as builders worked down inventories. The 2007 forecast has been trimmed several times amid weaker confidence. The National Association of Home Builders (NAHB) recently forecast a 20% decline in 2007 to 1.44 million units, down from 1.8 million in 2006 and 2.06 million units in 2005.

Meanwhile, congressmen sought support for a bill to ban US imports of wood products derived from illegal logs. The bill would extend the Lacey Act, which prohibits importation of wildlife taken in violation of conservation laws, to apply to wood and timber products.

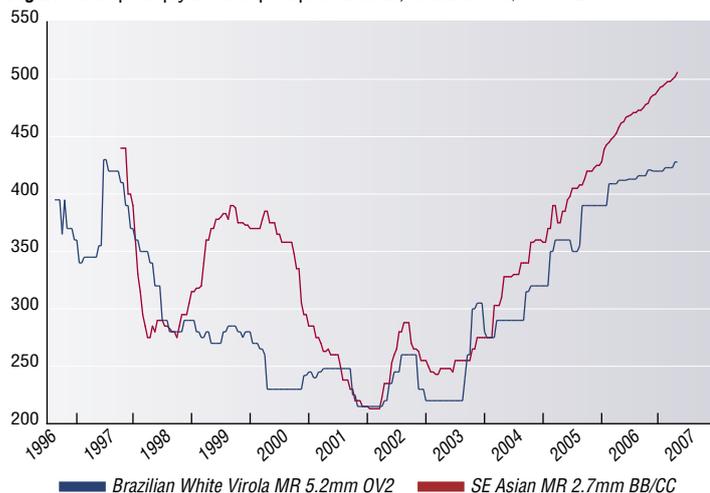
China expands wood products trade surplus

As the foreign trade of China's forest products developed rapidly in recent years, the country recorded its first trade surplus in 2005. Recent custom statistics show that China expanded its trade surplus of wood products by 171% to \$5.8 billion in 2006. This was due to the fact that China mainly imports timber raw materials (primary products such as logs, chips and pulp) and exports more valuable wood products such as wooden furniture (49% of global exports) and plywood (30% of global exports). However, China's plans to further expand the production and trade of wood based panels are hampered by log shortages in tropical countries.

Editor's note: Thanks to Jairo Castaño, who recently left ITTO to pursue new professional goals, for his regular contributions to Market trends over the last two years.

Plywood

Figure 3: Tropical plywood export price trends, nominal US\$/m³ FOB



Fellowship report

A database provides comprehensive information on India's tropical forest resources

by
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India

INDIA, with 2.4% of the world's area, has over 8% of the world's total biodiversity, making it one of twelve recognized megadiversity countries. This status is based on the species richness and levels of endemism recorded in a wide range of plant and animal taxa. The diversity can be attributed to the vast variety of landforms and climates, resulting in habitats ranging from tropical to temperate and from alpine to desert. Adding to this is a very high diversity of human-influenced ecosystems, including agricultural and pasture lands, and a diversity of domesticated plants and animals, one of the world's largest. India is also considered one of the world's eight centers of origin of cultivated plants. Being a predominantly agricultural country,



More than meets the eye: Indian evergreen forests house significant biodiversity.

Photo: P. Shanmughavel

India also has a mix of wild and cultivated habitats, giving rise to biodiversity specific to the confluence of two or more habitats.

One of the recent approaches to classification of India's ecosystems is based on biogeography. This system divides the country into biogeographic zones, further sub-divided into biotic provinces. These zones are the Trans Himalaya, the Himalaya, Desert, Semi-Arid, Western Ghats, Deccan Peninsula, Gangetic Plain Coasts, North-east, and the Islands.

Within this broad classification, it is necessary to look at the diversity of specific ecosystems. Natural terrestrial ecosystems in India are forests (ranging from thorn scrub to wet evergreen, classified into 16 major forest-type groups and 221 minor forest-type groups), five types of grasslands, deserts (ranging from sandy salt to cold) and permanently snow-bound areas. Within each of these, there is an immense diversity.

Indian forests house numerous medicinal and economically important plant/tree species that yield various products such as gums, resins, bio-pesticides, underutilized food and fodder plants, and industrial starch yielding plants.

About 45 000 to 47 000 plant species are reported to occur in India, representing 11% of the known world flora. Nearly 90 000 species of fauna have been reported, over 7% of the world's known animal diversity. There exists considerable information on the patterns of species richness, endemism and the diversity of different plant groups (angiosperm, gymnosperms, pteridophytes, lichens, bryophytes, algae, fungi), various animal groups (including marine and terrestrial), and microorganisms, but much more needs

Fellowships awarded

Twenty-eight fellowships worth US\$150 150 were awarded at the 42nd session of the International Tropical Timber Council in May 2007. Awardees were:

Kenneth Agbesi Anyomi (Ghana), to undertake masters research on teak in Ghana; **Judith Alonfe Armand** (Cameroon), to attend a training course in tropical forest ecosystems and climate change; **Jeimmy Rossmar Avendaño** (Colombia), to prepare a masters thesis on generic biomass models for native species; **Bruno Bokoto de Samboli** (Central African Republic), to undertake a masters program in administration and participatory management of forest resources; **Wiyau Boroz** (Togo), to undertake research on the contribution of SFM in Alédjo, Togo; **Alvaro Gustavo Cañadas López** (Ecuador), to prepare a technical document on decentralization of the forest sector in the Ecuadorian Amazon; **Trixie Ann Cruzat Clemente** (Philippines), to attend an international symposium on forest soil and ecosystem health; **Sumana Devkota** (Nepal), to undertake a masters program in forestry at Tribhuvan University, Nepal; **Agathe Die** (Cote d'Ivoire), to undertake PhD research on the seasonal cambium activity of teak; **Prudencia Ikombe Dikua** (Cameroon), to attend a post diploma course at Cyprus Forestry College; **Parag Dubey** (India), **Ombir Ombir Singh** (India) and **O.K. Remadevi** (India), to attend the IUFRO All Division 5 Conference on Forest Products and Environment; **Ishmael Hashmiu** (Ghana), to attend the EarthCorps International Program for Environmental Restoration Training; **Paulo César Hernández Arango** (Colombia), to prepare a masters thesis in environmental socio-economics; **Luis Francisco Hilton Guardado** (Guatemala), **Mirian Noelia Reyes Abanto** (Peru) and **Claudio Patricio Zanabria** (Peru), to attend the CATIE XIX International Intensive Course in Diversified Management of Natural Tropical Forests; **Caroline Imun** (Papua New Guinea), to attend the International Plantation Certification Symposium 2007; **Thomas Bobway Koffa** (Liberia), to attend a training course on monitoring and assessment techniques for tropical forest resources; **Binod Koirala** (Nepal), to attend a training course on participatory approaches in forestry and natural resources development projects; **Kikelomo Iririnke Kola-Oladiji** (Nigeria), to attend a training course on environmental management at Galilee College, Israel; **Thein Kywe** (Myanmar), to prepare a technical document on the properties, identification and utilization of hardwoods; **Justin Menie Ngoua** (Gabon), to undertake a masters program in agronomy and agribusiness; **Prem Raj Neupane** (Nepal), to attend a CATIE joint summer module; **Michael Ofo** (Ghana), to undertake masters research on lesser utilized timber species for furniture and construction; **Symphorien Ongolo Assogoma** (Cameroon), to undertake a professional license program in landscape management at the Université de Limoges, France; **Yongyut Trisurat** (Thailand), to attend the International Conference on Parks, Peace and Partnerships 2007.

to be understood and appreciated. Information on microorganisms is particularly deficient.

Forestry and related disciplines are widely recognized for rapid, reliable and universal access to quality information that is essential for informed decision-making concerning forests and all their inherent values. Information related to flora and fauna can be found in documents aimed at readers in a wide range of disciplines. Recent developments in information technology and telecommunications have led to an increasing proportion of this literature now being available in electronic format (Bisby 2000; Colwell & Coddington 1994; Soberson & Peterson 2004).

The aim of this study was to design a digitized inventory/database of tropical timber resource information of India under the major priority areas of ITTO, to help to develop human resources and professional expertise in securing the tropical timber resource base for sustainable forest management.

The basic structure of the relational database maintains a list of species names in Latin and literature source names, which are linked to distribution parameters such as biotic zones, habitats, soil types, state, district and other lower administrative boundary descriptions. Other species names ('Synonyms' and 'Common Names') are also included. The classification details of the species are maintained hierarchically in a separate data structure.

The main source of information is secondary data available in the form of regional flora monographs and other published literature. Complete details of all references, acknowledgements and authorship for all the collated information will be an integral part of the database. About 320 species belonging to 52 families have been identified as tropical timber resources in India and these are all included in this digitized inventory.

Practical utility

In connection with the growing interest worldwide in the conservation, cultivation and use of medicinal, aromatic and other related groups of plants, there has been a four-fold increase in the volume of literature published on these plants during the past two decades. Until the early 1970s, printed publications were the almost exclusive means available for recording and disseminating scientific information. Developments in information technology during the 1980s and 1990s have led to an increasing proportion of this pool of information now being held in electronic format in databases, which either can be searched online from remote sites or consulted offline at the reader's own desk. Whereas the bulk of the information held in databases is still copied from or entered simultaneously with its appearance in printed publications, we are now beginning to see documents published exclusively in electronic form. This digitized inventory provides information on tropical timber resources of India and can serve as a quick reference source for researchers and forest managers involved in the sustainable management of biodiversity.

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Complete copies of Fellowship reports are available on request from the ITTO Secretariat (fellowship@itto.or.jp)

ITTO fellowships offered

ITTO offers fellowships through the Freezailah Fellowship Fund to promote human resource development and to strengthen professional expertise in member countries in tropical forestry and related disciplines. The goal is to promote the sustainable management of tropical forests, the efficient use and processing of tropical timber, and better economic information about the international trade in tropical timber.

Eligible activities include:

- participation in short-term training courses, training internships, study tours, lecture/demonstration tours and international/regional conferences;
- technical document preparation, publication and dissemination, such as manuals and monographs; and
- post-graduate studies.

Priority areas: eligible activities aim to develop human resources and professional expertise in one or more of the following areas:

- improving transparency of the international tropical timber market;

- promoting tropical timber from sustainably managed sources;
- supporting activities to secure tropical timber resources;
- promoting sustainable management of tropical forest resources;
- promoting increased and further processing of tropical timber from sustainable sources; and
- improving industry's efficiency in the processing and utilization of tropical timber from sustainable sources.

In any of the above, the following are relevant:

- enhancing public relations, awareness and education;
- sharing information, knowledge and technology; and
- research and development.

Selection criteria: Fellowship applications will be assessed against the following selection criteria (in no priority order):

- consistency of the proposed activity with the Program's objective and priority areas;

- qualifications of the applicant to undertake the proposed fellowship activity;
- the potential of the skills and knowledge acquired or advanced under the fellowship activity to lead to wider applications and benefits nationally and internationally; and
- reasonableness of costs in relation to the proposed fellowship activity.

The maximum amount for a fellowship grant is US\$10 000. Only nationals of ITTO member countries are eligible to apply. The next deadline for applications is **5 September 2007** for activities that will begin no sooner than 1 January 2008. Applications will be appraised in November 2007.

Further details and application forms (in English, French or Spanish) are available from Dr Chisato Aoki, Fellowship Program, ITTO; Fax 81-45-223 1111; fellowship@itto.or.jp (see page 2 for ITTO's postal address) or go to www.itto.or.jp

ITTC appoints new Executive Director

42nd session of the International Tropical Timber Council

7–12 May 2007

Port Moresby, Papua New Guinea

The International Tropical Timber Council appointed the third Executive Director of ITTO, Mr Emmanuel Ze Meka, during its 42nd session. Mr Ze Meka follows Dr Manoel Sobral Filho, ITTO's incumbent Executive Director. After his appointment by consensus, Mr. Ze Meka, a national of Cameroon, addressed the Council and pledged to continue to build on the strong foundations put in place by Dr Sobral, while addressing new challenges and opportunities facing the Organization during his term. Mr Ze Meka, who will commence his duties as Executive Director in November 2007, provides some insights on his vision for ITTO in this issue's *Out on a limb*.

The Council committed US\$5.3 million for nine projects and two pre-projects at this session, including one to promote reduced impact logging in the Congo Basin and another to improve the detection and prevention of illegal logging and illegal timber trade through timber tracking and satellite monitoring in Guyana. Also financed were two projects to support rehabilitation of degraded forests in Indonesia and China and a project to strengthen a forest statistics and information center in Honduras. The Council allocated additional funds to a project working to expand the Pulong Tau National Park in Sarawak, Malaysia, through establishment of a transboundary conservation reserve with neighbouring Indonesia, and a large project to help African member countries of ITTO to improve sustainable management of their forests through the adoption and implementation of criteria and indicators for sustainable forest management (see page 18 for descriptions of all funded projects).

Twenty-eight fellowships were awarded, with a total of US\$150 150 going to deserving candidates from 18 different countries (see page 22 for a list of fellowship awardees).

A report detailing the work of ITTO over the past two decades was also released during the session (see page 27 for a description and ordering information).

The Council also received reports on proposed listings of tropical timber species on the CITES Appendices, and on the relationship between climate change and tropical forests. Reports on forest management and the forest industry in Papua New Guinea also featured prominently in Council (where a diagnostic mission reported on progress towards sustainable forest management) and in events organized by the Council's trade and civil society advisory groups. A decision was taken by Council to fund the design of a multipurpose forest inventory for Papua New Guinea based on a recommendation in the report of the diagnostic mission.

The major donors at this session were the governments of Japan and Switzerland, while the governments of France, Norway, the Republic of Korea, Finland and Australia also pledged funds. In addition, funds were mobilized from the Organization's unearmarked resources, including the Bali Partnership Sub-account B.

Wood's future energy role

International Conference on Wood-based Bioenergy

17–19 May 2007

Hannover, Germany

People have used wood for energy since they lit the first campfires. In the industrial age, though, the role of wood in the formal energy sector (at least in developed countries) has been superseded by oil, gas, coal and uranium. Now, wood is coming back in favour. Wood-based bioenergy—renewable and CO₂-neutral—will play a huge and perhaps critical role in the future global energy economy.

This conference, organized by ITTO in collaboration with the Food and Agriculture Organization of the United Nations and the German Federal Ministry of Economics and Technology, was attended by about 90 people from 32 countries. It was convened amidst growing interest in the use of logging and wood-processing residues and dedicated bioenergy timber plantations for energy generation, driven by concerns over energy security, climate change and resource-use efficiency.

The conference was held in conjunction with LIGNA-2007, the world's largest biannual international woodworking machinery fair. This allowed conference participants to see, first-hand, recent technological developments in wood processing and the use of wood-based biomass for energy generation. It included a demonstration of wood pellet production, which greatly increases the efficiency of transport and combustion of wood fuel. A study visit to a site near Hannover focused on the optimized use of wood-processing residues in the application of finger-jointing technology for the assembly of off-cuts combined with wood pellet-based heat generation for drying. A second site demonstrated the integrated local use of agricultural biomass (conversion to biogas) and forest-based wood residues as fuel for joint energy generation (electricity and heat) at the village/community level.

The conference delivered five key messages:

- 1) wood-based bioenergy offers countries, including developing countries in the tropics, an opportunity to improve their energy security;
- 2) wood industries can use wood residues for the co-generation of energy, thereby increasing the cost-effectiveness of their operations and improving energy efficiency;
- 3) the use of wood-based bioenergy, both in the wood industry and generally, can help reduce greenhouse gas emissions;
- 4) the wood-based bioenergy sector needs to be developed on the basis of sustainable forest management; and
- 5) the international community should support the development of efficient and cost-effective wood-based bioenergy in tropical countries, including by facilitating the transfer of appropriate technology and investment.

Specific recommendations for international organizations, national-level policy-makers, and the wood-based bioenergy sector were to:

- 1) assist countries in strengthening their capacity to assess, monitor and report on forest- and wood-energy-related information;
- 2) convene regional fora for government, the private sector and civil society and support demonstration projects to increase awareness about the potential of efficient wood-based bioenergy and support the exchange of best practices in this field;
- 3) commission regional and global studies to assess the extent to which wood-based bioenergy can substitute for fossil fuels in the energy economy;
- 4) encourage and assist governments, in partnership with the private sector and other stakeholders, to formulate and implement policies and strategies to develop efficient, cost-effective and sustainable bioenergy as an alternative to fossil fuels;
- 5) develop measures to increase the participation of the tropical wood-based bioenergy sector in international carbon markets and the Clean Development Mechanism of the Kyoto Protocol;
- 6) investigate the creation of small-grant schemes to stimulate local- and community-level development of wood-based bioenergy, especially in tropical countries;
- 7) work with producers to identify suitable markets for wood-energy products such as charcoal, wood and charcoal pellets, briquettes and other biofuels and to ensure they meet any standards that may be required for export;
- 8) support research and development, including through pre-projects and projects, into wood-based bioenergy technologies and the marketing of bioenergy, and make efficient wood-based bioenergy generation technologies available to developing countries in the tropics;
- 9) support, through projects, investment and other means, the development of integrated wood-processing industries that use wood residues to efficiently and cost-effectively generate thermal energy and electricity for both their operational needs and those of local communities.

The report of the conference will be published shortly and will be available from ITTO on www.itto.or.jp or by request to itto@itto.or.jp.

CITES and tropical timber

14th Conference of the Parties (CoP) to the Convention on International Trade in Endangered Species

3–15 June 2007

The Hague, Netherlands

Timber trees have only recently started to be covered by CITES. However, concern has grown over the need for better controls due to unsustainable practices in many countries (see *TFU 17/1*). To date CITES has focused primarily on tropical timber species, with Latin America's bigleaf mahogany and Southeast Asia's ramin trees included in Appendix II in the past few years. Appendix II listing requires countries to issue documentation with all exports of listed species confirming that their trade is non-detrimental to the continued survival of the species in the wild.

At the recently concluded 14th CITES CoP, several other tropical timber species were proposed for Appendix II listing. All species in the genus *Cedrela* and the rosewood species *Dalbergia retusa*, *Dalbergia granadillo* and *Dalbergia stevensonii* were proposed by Germany on behalf of the EU, while *Caesalpinia echinata* (pau brasil or pernambuco) was proposed by Brazil. The rosewood species grow in the swamp forests of southern Belize and nearby regions of Guatemala and Mexico. The proposal argued that these species are threatened by increasing deforestation in the region, are subject to strong demand as tonewood for musical instruments and that easier access to their habitat and declining stocks of other rosewoods may boost trade levels. *Cedrela* spp (the most common and valuable of which is *Cedrela odorata* or Spanish cedar) are native to Central and South America and have been selectively cut for at least 250 years for their timber. This timber is valued locally and internationally for its resistance to rotting and insects. The proposal stated that *Cedrela* is affected by extensive deforestation throughout its range.

After substantial discussion amongst member states and observers, the German proposals were withdrawn due to strong opposition from range states and others, who claimed that the *Cedrela* and *Dalbergia* proposals were incomplete, that further population assessments were needed and (in the case of *Cedrela*) that the existence of substantial plantation resources both locally and internationally needed to be taken into account. A decision was subsequently adopted calling on countries to update available information on these species, assess their populations, provide information on plantations, and compile accurate trade data, including the proportion arising from plantations. Range states were also encouraged to consider listing populations of these species in Appendix III. Information compiled on the species is to be reviewed by the CITES Plants Committee and will inform any debate on these species at the 15th CITES CoP. The decision also calls on CITES to seek technical and financial support from ITTO for its implementation.

Pernambuco was accepted for listing in Appendix II. This species, highly desired for manufacturing bows for stringed musical instruments, has been subject to harvest and export controls for some time from Brazil which is the only range state. The listing will apply only to raw materials of the species (including the sawnwood blanks from which the bows are made), with finished bows not subject to CITES requirements.

Several other issues relevant to ITTO were considered at CoP 14. These included:

- a review of Peru's implementation of the Appendix II listing of bigleaf mahogany by the 55th session of the CITES Standing Committee (2 June) which resulted in Peru agreeing to restrict mahogany exports to material sourced from areas with approved management plans in 2007 and thereafter;

- a resolution (sponsored by the US) on cooperation between CITES and ITTO regarding trade in tropical timber which was approved by consensus after minor amendments;
- the report of the June 2006 meeting of the Mahogany Working Group (co-sponsored by ITTO) which gave rise to a CoP decision to develop principles, criteria and indicators for making non-detriment findings for timber species, to develop explanatory materials to assist interpretation of the annotation of the mahogany listing, and to the adoption of an action plan for the control of international trade in bigleaf mahogany;
- the report of the April 2007 international expert meeting on non-detriment findings for bigleaf mahogany (co-sponsored by ITTO), which gave rise to a CoP decision calling for a larger international expert meeting on non-detriment findings for high priority taxa;
- a proposal on physical inspection of timber shipments which led to the establishment of an electronic working group to compile existing procedures for the inspection and identification of CITES-listed and look-alike timber species; and
- an ITTO sponsored side-event to present and seek input on collaboration with CITES, including via a large capacity-building project funded through ITTO's 2006–07 Work Program (see *TFU* 17/1).

In addition, the Government of the Netherlands organized CITES' first Ministerial debate on Wednesday 13 June. The debate focused on timber, fisheries and how CITES can best support the enforcement efforts of its Parties to combat illegal trade.

Reports of all meetings and text of all CoP decisions and resolutions are available on www.cites.org; information on ITTO-CITES collaboration (including papers presented at the side event referred to above) is available on www.itto.or.jp.

President of Honduras addresses Central American regional workshop on illegal logging

FAO/ITTO Regional Workshop on Forest Law Enforcement in Central America

27–29 June 2007

San Pedro Sula, Honduras

Honduran President José Manuel Zelaya Rosales was the guest of honour at a recent ITTO-FAO sponsored workshop to promote better forest law compliance in the Central American region. President Zelaya told the more than 60 experts from nine countries attending the workshop that social change was required in Honduras and many other countries in the region to improve recognition of

the importance of sustainable development and management of forest resources. He noted that such change would often be resisted by vested interests, and that vigorous efforts needed to be maintained to fight illegal logging, illegal trade of timber and illegal deforestation. He stressed the importance of implementing and enforcing existing laws, noting that his government was mobilizing the armed forces (including thousands of armed troops, helicopters and other supporting infrastructure) in its battle against commercial illegal loggers.

The workshop, one of four being jointly convened by ITTO and FAO throughout the tropics, was held in the northern Honduran city of San Pedro Sula from 27–29 June. Participants included forestry administrators, environmental prosecutors, civil society and the private sector from Belize, Costa Rica, Dominican Republic, El Salvador, Guatemala, Honduras, Mexico, Nicaragua and Panama. The workshop was convened in collaboration with the Honduran Forest Administration (AFE-COHDEFOR) and the Central American Commission for Environment and Development (CCAD). All participating countries were CCAD members with the exception of Mexico, which is an observer.

Objectives of the workshop were to:

- facilitate an interchange between countries and representatives of different sectors from the region on their experiences in dealing with illegal logging and illegal timber trade;
- promote dialogue between the various actors working in forests in the region;
- develop recommendations of best practices to improve forest law compliance, emphasizing the policy and legal framework, institutional structures and mechanisms for participation of civil society, and technology/information; and
- prepare recommendations for CCAD to assist member countries to improve the implementation of forest laws.

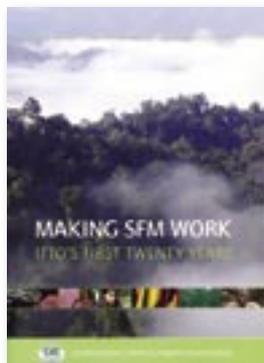
The final report (including a declaration from the participants) and all presentations from the workshop will be available on www.itto.or.jp and www.fao.org, or on request from itto@itto.or.jp.

ITTO's Executive Director, Dr Manoel Sobral, attended the workshop and took part in a signing ceremony for a new Honduran project with President Zelaya and Mr Ramon Alvarez, General Manager of AFE-COHDEFOR. The US\$400,000 project is designed to strengthen Honduras' forest statistics and information centre, including providing information required to combat illegal forest activity. Information on this project (PD 443/07 REV.1 (M)) is available on page 19.

Edited
by
Hana
Rubin

► **ITTO 2007. Making SFM Work: ITTO's First Twenty Years. ITTO, Yokohama, Japan**

Available from: ITTO Secretariat (see page 2 for contact details)



ITTO takes a look at its first 20 years in this new report that explores the Organization's historical background, its structure, its approach to sustainable development, and its work areas. This concise report focuses on ITTO's impact over the past two decades through the words and images of people who have

been directly affected by the Organization's activities. The overview also looks to ITTO's future following the recently adopted (and soon to enter into force) International Tropical Timber Agreement, 2006. Available in English, French and Spanish.

► **ITTO 2007. Issues and Opportunities for Investment in Natural Tropical Forests. ITTO Technical Series 27. Yokohama, Japan. ISBN 4 902045 32 X**

Available from: ITTO Secretariat (see page 2 for contact details)



This report presents the proceedings of the International Tropical Investment forum held in Cancun, Mexico, in April 2006. It provides several examples that illustrate how investment in natural tropical forests can benefit a number of stakeholders, including private investors, governments, and

communities who depend on the forests. It notes, however, that these stakeholders must themselves help to create an enabling environment for investments in natural tropical forests in order to realize these benefits. The report also identifies new options for stimulating investment, such as non-timber forest products, timber investment management organizations, and ecosystem service payments. Available in English.

► **ITTO 2006. New Directions for Tropical Plywood. ITTO Technical Series 26. Yokohama, Japan. ISBN 4 902045 31 1**

Available from: ITTO Secretariat (see page 2 for contact details)

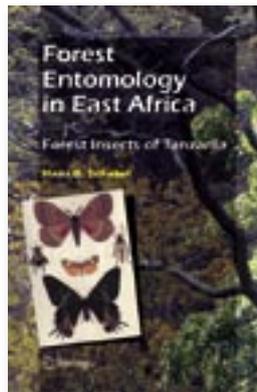


This volume is a compilation of all presentations from the ITTO/FAO International Conference on Tropical Plywood, convened in Beijing, China, in September 2005, an appropriate venue given China's rapidly emerging role in the production, consumption and trade of tropical plywood. It examines

the opportunities and challenges for international trade and technological developments in plywood manufacturing. In addition, the presentations focus on sustainability and accountability, as well as the importance of corporate responsibility in business activities for both producers and consumers of tropical plywood. The full report is available in English, with summaries of key outcomes from the conference provided in English, French, Spanish and Chinese.

► **Schabel H. G. 2006. Forest Entomology in East Africa: Forest Insects of Tanzania. Springer, Dordrecht, the Netherlands. ISBN 10 1 4020 4654 5**

Available from: the publisher or commercial book vendors



East African forests, among the world's most biologically rich and diverse, are subject to multiple pressures, including many damaging insects. As the first work to focus exclusively on East African forest insects, this monograph distills 135 years of scientific and historical literature extending from before

the colonial era to the present into an authoritative survey of this region's major forest pests of trees and wood, as well as their natural predators. The book also addresses insects of social and economic importance, including endemic, edible and collectible insects, wild bees and silk producers. It should be of great value to foresters, conservation biologists, resource managers, and anyone else interested in the natural history of this region. Available in English.



Edited
by
Hana
Rubin

Ecuador seeking compensation to save the Amazon

Ecuador President Rafael Correa is asking the international community to come up with a plan to compensate Ecuador for not exploiting the Ishpingo-Tiputini-Tambococha (ITT) forest. The ITT is an oil concession area within Yasuni National Park, which covers 2.5 million acres (1.01 million hectares) within the Ecuadorian Amazon. If foreign governments, businesses and environmental organizations match half of the projected revenue for 10 years' worth of oil extraction, Ecuador will not allow drilling in the region. However, the plan for such compensation must be developed before foreign companies finish bidding on the oil concession (expected to take eight to twelve months). The government estimates that the revenue from the ITT block would be US\$700 million per year for ten years, putting the compensation figure proposed at US\$350 million per year for ten years. A financing plan for Correa's proposal to not allow drilling has not yet been detailed, but according to the Christian Science Monitor (Rich Clabaugh, 'Ecuador Invites the World to Save Its Forest', 5 June 2007), Ecuador's minister for energy, Alberto Acosta, envisions a combination of "bilateral and multilateral debt-for-conservation swaps, bilateral donations, individual contributions, contributions from environmental and human rights NGOs, and the placement of certificates for non-exploited crude on international markets." Foreign governments are also expressing interest, as are groups such as Save America's Forests (www.saveamericasforests.org/Yasuni/index.html) and the campaign 'Yasuni depends on you!' (www.sosyasuni.org).

New species discovered in Suriname forest

US-based NGO Conservation International (CI) recently presented the results of a 2005 expedition and 2006 follow-up survey to government officials, reporters and others that details eastern Suriname's biodiversity. The expedition was led by CI's Rapid Assessment Program (RAP), during which researchers found 24 species previously unknown to science, including a frog with fluorescent purple markings (*Atelopus* spp) four other new frog species (*Eleutherodactylus* spp), six fish species, 12 dung beetle species and a new ant species. They also rediscovered a rare armored catfish (*Hartiella crassicauda*) that had not been seen for more than 50 years. The Suriname government was called upon to take swift action in declaring the area a protected zone in order for the new species and the biodiversity in the region to survive. Although the places where the discoveries were made are far from civilization, they are totally unprotected and threatened by illegal small-scale gold mining thriving in the Suriname interior. To view pictures and read more about the CI expedition, see <http://web.conservation.org/xp/frontlines/2007/06040701.xml>.

Tropical deforestation and climate change

According to new research published in *Science*, tropical deforestation releases 1.5 billion tonnes of carbon each year into the atmosphere. An international team of experts from the US, UK, Brazil and France compared data from eleven climate-carbon computer models. The results show that deforestation in the tropics accounts for nearly 20% of carbon emissions due to human activities and will result in the release of an estimated 87 to 130 billion tonnes of carbon over the next century. This is greater than the amount of carbon that would be released by 13 years of global fossil fuel combustion at current levels. This new research shows the considerable value of maintaining and managing tropical forests as carbon sinks. The study's authors stated, "If by 2050 we slow deforestation by 50 per cent from current levels, with the aim of stopping deforestation when we have 50 per cent of the world's tropical forests remaining, this would save the emission of 50 billion tonnes of carbon into the atmosphere. This 50/50/50 option would avoid the release of the equivalent of six years of global fossil fuel emissions." The article and other outputs from the Global Carbon Project are available at www.globalcarbonproject.org/products/publications.htm.

Market shift in China

The world's third largest home improvement retailer, B&Q, recently announced a scheme to root out illegal supplies and guarantee within three years all timber products sold at its China stores will be from certified responsible forestry programs. This announcement follows a Greenpeace survey, which revealed that many timber species commonly sold in home improvement stores across China, including merbau, teak, jatoba and sapelli, come from countries where it is alleged that up to 80% of the logging is illegal and destructive. B&Q, with 60 stores across China, is one of the biggest home-improvement retailers in a country that has seen double-digit growth in demand for such materials due to its rapid economic development and urbanization. B&Q Asia's Chief Executive Officer said that the company has started working to ensure that all the timber products it sells in China come from legal sources. B&Q also guaranteed that, within three years, all product lines it sells in China will come from certified ecologically responsible forestry operations, in keeping with its parent company Kingfisher's global purchasing policy. B&Q China has recently stopped selling flooring made from merbau, due to allegations of unsustainable management of this species in major exporting countries.

FNC International Workshop for Silviculture of Intensively Managed Plantations

Merida and Acarigua, Venezuela

12–16 November 2007

Cost: Cooperative members: US\$250; non-members: US\$1200; international teachers and students: US\$200; ULA students: US\$100 (fees include training materials, certificate, refreshments and travel to the city of Acarigua)

Presented in English (with Spanish interpretation) and Spanish, with materials in Spanish

The Forest Nutrition Cooperative (FNC) is an international partnership committed to creating innovative solutions to enhance forest productivity and value through the sustainable management of site resources. The partnership is led by the forestry faculty at North Carolina State University, Virginia Polytechnic Institute and State University, and the Universidad de Concepción (Chile).

Over the last few years, considerable progress has been made in the understanding of eco-physiological processes affecting forest productivity and how these processes are influenced by genetics, the availability of resources (light, water and nutrients) and their interactions. Through appropriate silvicultural treatments, including plant and soil manipulation, it is possible to significantly increase productivity and production efficiency and establish the basis for sustainable forest management in the 21st century.

The objective of this course is to provide participants with the most updated knowledge available on the ecological and physiological factors that affect forest productivity within the framework of silvicultural treatments, so that they will be able to use this knowledge for the development of site-specific silvicultural prescriptions that are cost-effective as well as environmentally sustainable.

The course will focus on coniferous and broadleaved forest plantations in temperate and sub-tropical regions as these are the species and regions where intensive plantation silviculture is most commonly practised. However, the concepts to be discussed in the course may later be applied to any other ecosystems where site resources and vegetative material are actively managed.

The course will include lectures, discussions and case studies (32 hours teaching time) and two field days.

Contact: Centro de Estudios Forestales y Ambientales de Postgrado, Facultad de Ciencias Forestales y Ambientales, Universidad de Los Andes (ULA), Mérida, Venezuela; Tel (0274) 2401517; Fax (0274) 2401519; Omar Carrero G. (neto@ula.ve), Mauricio Jerez (mjerez@cantv.net) or Tori Batista (vbatist@ncsu.edu)

Study tour: mangrove forests in Malaysia

Kuala Sepetang, Selangor and Putrajaya, Malaysia

3–7 September 2007

Cost: US\$750 (fees include course, learning materials, accommodation, meals and local transportation)

APAFRI is organizing this study tour in cooperation with the Forest Research Institute of Malaysia (FRIM). Participants will visit the Matang Mangrove Forest Reserve, the largest mangrove forest reserve in Malaysia and among the best managed of such forests worldwide. They will then visit Sungai Besar, located in Selangor, to give participants a new experience on how mangrove trees are grown to protect the shores and lessen the impact of waves in the future. Finally, participants will travel to the Putrajaya Wetlands, believed to be the largest constructed freshwater wetlands in the tropics.

Please note that participants are responsible for obtaining the necessary visa and insurance coverage as well as air tickets to and from Malaysia. A deposit of US\$350 is required before the study tour to confirm participation. Accepted participants would be contacted regarding payment of this deposit.

Contact: Sim Heok-Choh, Executive Director, APAFRI; Tel 6–03–62797536, 6–03–62722516; Fax 6–03–62773249; sim@apafri.org, simhc@frim.gov.my or Ms Syuqiyah Abdul Hamid, Information Officer, APAFRI; Tel 6–03–62797586/62722516; Fax 6–03–62773249; syuqiyah@apafri.org

Smithsonian Tropical Research Institute's Center for Tropical Forest Science (CTFS)

CTFS supports research through its Research Grant Program, which provides opportunities for senior researchers, post-doctoral fellows, and graduate students to utilize its extensive global network of Forest Dynamics Plots and to conduct research with scientists associated with the establishment and monitoring of these plots. CTFS also organizes thematic workshops and offers courses and fellowship opportunities in the fields of global carbon cycling, climate change and soil ecology to develop powerful research protocols for its global network of forest plots.

For more information, visit the CTFS website at http://www.ctfs.si.edu/doc/grants_fellowships/index.html

Courses are in English unless otherwise stated. By featuring these courses ITTO doesn't necessarily endorse them. Potential applicants are advised to obtain further information about the courses of interest and the institutions offering them.

Breaking news

Norway bans tropical timber in public procurement

Norway has banned the use of tropical timber in all public buildings, citing concerns about deforestation rates in the world's most biodiverse forests. The decision comes after a series of scandals where governmental institutions were found to be using wood from allegedly threatened rainforests in building projects, despite a 2002 appeal by two ministers to only use sustainably logged tropical wood. Since the government does not recognize any tropical forest certification system as reliable, the Directorate of Public Construction and Property has created this new law banning the use of all tropical wood, including certified wood. "We are not fundamentally against logging in tropical forests," said Lars Løvold, director of the Rainforest Foundation Norway. "The problem is that today there exist no reliable

certification scheme for logging in tropical countries. Until such reliable schemes are in place or we have other ways to secure that logging is done in a sustainable way, we support the government's decision to ban the use of tropical wood."

Although Norway's imports of tropical timber are small (averaging under 3000 m³ of tropical sawnwood, about 1000 m³ of tropical veneer and 5000 m³ of tropical plywood annually since 2000), tropical timber exporters are expected to react strongly due to the potential implications that acceptance of such a blanket ban could have on the development of emerging public procurement schemes for timber in several other major import markets.

For more information, see <http://www.rainforest.no/html/481.htm> or <http://news.mongabay.com/2007/0702-norway.html>

- ▶ 6–8 August 2007. **Asia-Pacific Tropical Forest Investment Forum: Issues and Opportunities for Investing in Natural Tropical Forests.** Bangkok, Thailand. **Contact:** ITTO Secretariat, Forest Industry Division; Tel 81-45-223 1110; Fax 81-45-233 1111; fi@itto.or.jp; www.itto.or.jp
- ▶ 19–23 August 2007. **International Symposium on Forest Soils and Ecosystem Health: Linking Local Management to Global Challenges.** Sunshine Coast, Australia. **Contact:** Centre for Forestry and Horticultural Research, School of Science, Faculty of Science, Griffith University, Kessels Road, Nathan, Brisbane, QLD 4111, Australia; Tel 61-7-3735 6709; Fax 61-7-3735 7656; cfhr@griffith.edu.au; www.griffith.edu.au/centre/cfhr
- ▶ 28–30 August 2007. **West and Central Africa Tropical Forest Investment Forum: Issues and Opportunities for Investment in Natural Tropical Forests.** Accra, Ghana. **Contact:** ITTO Secretariat, Forest Industry Division; Tel 81-45-223 1110; Fax 81-45-233 1111; fi@itto.or.jp; www.itto.or.jp
- ▶ 28 August–1 September 2007. **VI Congreso Latinoamericano de Derecho Forestal.** Quito, Ecuador. **Contact:** Tel 593-2 2261075; congresodf@sur.iucn.org; www.derechoforestal.org
- ▶ 29–31 August 2007. **Congreso Forestal Centroamericano.** San Salvador, El Salvador. **Contact:** Guillermo Mayorga; Tel 503-2241 1714/15; gmayorga@mag.gob.sv
- ▶ 3–6 September 2007. **BIOENERGY 2007.** Jyväskylä, Finland. **Contact:** Ms Mia Savolainen; Tel 358-207-639 602; <http://seminaarit.ohoi.fi/default.asp?seminarID=6>
- ▶ 3–7 September 2007. **International Conference on Poverty Reduction and Forests: Tenure, Market and Policy Reforms.** Bangkok, Thailand. **Contact:** conference@recoftc.org; <http://conference.recoftc.org>
- ▶ 3–14 September 2007. **Eighth Session of the Conference of the Parties to the UN Convention to Combat Desertification (COP 8).** Madrid, Spain. **Contact:** www.unccd.int
- ▶ 5–7 September 2007. **Strategies for the Sustainable Use and Management of Timber Tree Species Subject to International Trade.** Kuala Lumpur, Malaysia. **Contact:** Harriet Gillett, UNEP-WCMC; Tel 44-1223 277314; harriet.gillett@unep-wcmc.org
- ▶ 9–12 September 2007. **Parks, Peace and Partnerships Conference.** Alberta, Canada. **Contact:** Tel 403-220-8968; info@peaceparks2007.org; www.peaceparks2007.org
- ▶ 10–14 September 2007. **5th Meeting of the CBD Ad Hoc Open-ended Working Group on Access and Benefit-sharing.** Montréal, Canada. **Contact:** CBD Secretariat; Tel 1-514-288 2220; Fax 1-514-288 6588; secretariat@biodiv.org; www.biodiv.org/meetings/default.shtml
- ▶ 11–13 September 2007. **Regional Workshop on Improving Forest Law Compliance and Governance in Southeast Asia.** Manila, Philippines. **Contact:** johnson@itto.or.jp or eva.muller@fao.org
- ▶ 18–21 September 2007. **Plantation Certification Symposium 2007.** Stellenbosch, South Africa. **Contact:** Poppie Gordon; Tel 27-21-808 3603; mgor@sun.ac.za
- ▶ 19–20 September 2007. **EU-China Forest Law Enforcement and Governance.** Beijing, China. **Contact:** Wang Guiqin, Sino-German Program on Forests for Sustainable Development; Tel 86-10-8238 4900 ext. 318; Fax 86-10-8238 6040; guiqin.wang@gtz.de; www.gtz.de/china
- ▶ 22–24 September 2007. **China International Wood Products Summit—Millwork and Panel Product Focus.** Qingdao, China. **Contact:** Tel 1-604-801 5996; Fax 1-604-801 5997; info@woodmarkets.com; www.woodmarkets.com
- ▶ 23–28 September 2007. **International Conference to Promote the Development of Non-timber Forest Products and Services.** Beijing, China. **Contact:** ITTO Secretariat, Forest Industry Division; Tel 81-45-223 1110; Fax 81-45-223 1111; fi@itto.or.jp; www.itto.or.jp
- ▶ 24–26 September 2007. **International Scientific Conference on Hardwood Processing.** Quebec City, Canada. **Contact:** Francois Julien, Forintek Canada Corp, 319 rue Franquet, Quebec, Canada G1P 4R4; Tel 1-418-659 2647 #3330; info@ischp.ca
- ▶ 25–28 September 2007. **Regional Workshop on Processing and Marketing of Teak Wood Products of Planted Forests.** Peechi-Kerala, India. **Contact:** Hwan Ok Ma, ITTO Secretariat; Tel 81-45-223 1110; Fax 81-45-223 1111; ma@itto.or.jp; www.itto.or.jp
- ▶ 27–29 September 2007. **Expo Forestal Mexico Siglo XXI.** Guadalajara, Mexico. **Contact:** Ramon Carillo, CONAFOR; Tel 52-33-3777 7047; rcarillo@conafor.gob.mx
- ▶ 30 September–3 October 2007. **Global Vision of Forestry in the 21st Century.** Toronto, Canada. **Contact:** Shashi Kant, University of Toronto; Tel 1-416-978 6196; Fax 1-416-978 3834; www.forestry.utoronto.ca/centennial/int_congress.htm
- ▶ 8–10 October 2007. **UNECE Timber Committee.** Geneva, Switzerland. **Contact:** Kit Prins, UNECE; Christopher.prins@unece.org
- ▶ 16–18 October 2007. **The Future of Forests in Asia and the Pacific: Outlook for 2020.** Chiang Mai, Thailand. **Contact:** Patrick Durst, FAO Regional Office for Asia and the Pacific, 39 Phra Atit Road, Bangkok 10200, Thailand; Tel 66-2-697 4139; Fax 66-2-697 4445; patrick.durst@fao.org; www.fao.org/forestry/site/39701/en
- ▶ 23–27 October 2007. **2nd Latin American IUFRO Congress.** La Serena, Chile. **Contact:** Santiago Barros; Tel 56-2-693 0700; Fax 56-2-638 1286; sabarros@vtr.net; seminarios@infor.gob.cl; www.infor.cl
- ▶ 29 October–2 November 2007. **IUFRO—All Division 5 Conference.** Taipei, Taiwan. **Contact:** Susan Shiau, Local Conference Organizer, 53 Nan Hai Road, Taipei 10066, Taiwan; Tel 886-2-2314 7905; Fax 886-2-2389 0318; susanshiau@tfri.gov.tw; www.alldivsiufro2007.org.tw/index.htm
- ▶ 5–7 November 2007. **5th Ministerial Conference on the Protection of Forests in Europe.** Warsaw, Poland. **Contact:** Liaison Unit Warsaw; Tel 48-22-331 7031/39; Fax 48-22-331 7032; liaison.unit@lu-warsaw.pl; 5th.mcpef.org
- ▶ 5–10 November 2007. **Forty-third Session of the International Tropical Timber Council and Associated Committees.** Yokohama, Japan. **Contact:** Information Officer (Mr Collins Ahadome), ITTO Secretariat; Tel 81-45-223 1110; Fax 81-45-223 1111; itto@itto.or.jp; www.itto.or.jp
- ▶ 7–10 November 2007. **V Encuentro Nacional de Estudiantes de Ciencias Forestales y V Juegos Nacionales Forestales.** Popayán, Colombia. **Contact:** accif@gmail.com
- ▶ 12–15 November 2007. **Asia Forest Partnership 7.** Yokohama, Japan. **Contact:** afp@cgiar.org
- ▶ 3–14 December 2007. **United Nations Framework Convention on Climate Change Conference of the Parties (COP 13) and Third Session of the Meeting of the Parties to the Kyoto Protocol (CMP 3).** Nusa Dua, Bali, Indonesia. **Contact:** Climate Change Secretariat (UNFCCC); Tel 49-228-815 1000; Fax 49-228-815 1999; secretariat@unfccc.int; www.unfccc.int
- ▶ 8 December 2007. **Forest Day: Shaping the Global Agenda for Forests and Climate Change.** Nusa Dua, Bali, Indonesia. **Contact:** Rachel Carmenta, Climate Change Research Officer, CIFOR; Tel 62-251-622 622; Fax 62-251-622 100; rcarmenta@cgiar.org; www.cifor.org

environment. This implies value-adding and control of production costs, which in turn depend on technological advances and the availability of qualified personnel. Thus, capacity building and the transfer of technology are essential. But it is also essential that tariff and non-tariff barriers that hinder tropical timber trade are overcome.

The fourth area of growing concern is climate change and the impact of human activities in accelerating this phenomenon. As we know, forests, including tropical forests, are a key element in strategies aimed at combating climate change. ITTO must play its part by helping its members to reduce deforestation and forest degradation on the one hand and to increase the extent of forest cover on the other. As serious as climate change will be, it also represents an opportunity for tropical countries. ITTO can and should help its members to tap into global carbon markets and the Clean Development Mechanism of the Kyoto Protocol, as well as tapping opportunities for the sustainable production of biofuels.

Opportunities and challenges

ITTO offers unique opportunities through sustainable forest management and the promotion of the international tropical timber trade to address these pressing areas of concern. Over the last 20 years, it has achieved a great deal in terms of policies and guidelines and its substantial project portfolio. However, the rate of tropical deforestation and forest degradation is still high. Likewise, the contribution of forest resources to the development of countries and local communities remains, in many cases, marginal. ITTO can and must do more. And I see scope for this in the new International Tropical Timber Agreement (ITTA).

The ITTA, 2006 is an advanced instrument for promoting mutually beneficial relationships between the environment, trade and development. Important changes contained in the new agreement include:

- strong emphasis on the Organization's role in reducing poverty;
- the need to take into account all forest resources—an integrated forest management approach;
- the need to establish/strengthen active partnerships, in particular with the United Nations and its specialized organs and institutions, and also with other international and regional organizations/institutions, the private sector, civil society, NGOs and local and indigenous communities;
- an innovative and attractive financial scheme based on thematic programs of work which will encourage the contribution of additional resources for the organization's activities; and
- an agreement with a longer duration, which can allow the organization to formulate and implement long-term development strategies.

The objectives of the ITTA, 2006 cannot and should not be taken in isolation of each other. However, I believe that, in line with the areas of concern I outlined earlier, priority should be placed on the following:

- Objectives (c), (e) and (i), which particularly address sustainable development and poverty reduction;
- Objectives (j) and (m), which emphasize the protection of the environment;
- Objectives (d), (p) and (r), which are directed towards capacity building;

- Objectives (k), (n) and (o), which promote good governance and social responsibility; and
- Objective (g), which is about generating new and additional financial resources for capacity-building in producer member countries.

I would like to expand briefly on this last point because it is possibly the most important element in the Organization's future success. A comprehensive fundraising strategy must be developed and implemented, aimed not just at donor countries but also, importantly, the private sector. ITTO has not adequately targeted the private sector in past fundraising efforts. I think the time has come.

I have many ideas on what ITTO must do to continue its development as the pre-eminent tropical forest development institution. For example, we could, and should:

- identify the Organization's strategic priority actions in the light of the new Agreement and establish a process for their implementation and assessment;
- improve the system of monitoring and evaluation, not only for projects but also for other activities undertaken by the Organization;
- seek greater alignment between ITTO's work and international goals, such as the UN Millennium Development Goals, and continue to strengthen partnerships with the UN and other institutions, including the Collaborative Partnership on Forests;
- speed up capacity building in member countries by boosting training and skills-development programs;

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- strengthen the Organization's dialogue and partnership-building with civil society and the private sector;
- expand the Organization's public relations strategy with the specific aim of boosting fundraising in key sectors; and
- review the effectiveness and efficiency of the operation of the Secretariat and develop a plan of action to improve the management of ITTO's human and financial resources.

I look forward to working with Council, all member governments and other ITTO partners as we together face the opportunities and challenges I have identified. There will no doubt be others, since the future has a habit of surprising us, but I am sure that the adaptability of ITTO and the goodwill of its members and partners will serve us well as we move into the Organization's third decade.

Out on a limb



Emmanuel Ze Meka, recently appointed ITTO's next Executive Director, on his background and vision for the Organization

THE PROMOTION of sustainable forest management and timber use has been the main focus of my 30 years of professional life. After completing forestry and wood sciences degrees in Canada, I worked as an executive at the Wood Promotion Center of Cameroon. I then joined Cameroon's Forestry Administration, where I was quickly promoted through the ranks to become Director of the Forest Department, a position I held for more than six years.

As Director I was responsible for strategic planning in the development of the forestry sector and the preparation and enforcement of the various regulations and other legal texts pertinent to the forestry sector. Among my responsibilities was the coordination of the Tropical Forest Action Plan in Cameroon, one of the first in this process and acclaimed at that time as a model. In addition, I initiated the revision and modernization of the country's legal structure for forestry; this resulted in the 1994 Forestry Law, which is also considered a model and has inspired many of the subsequent forest laws in Central Africa.

I have worked in tropical forestry all my professional life. I have worked across the three tropical regions. I know ITTO intimately. This experience will serve me well in my new role as Executive Director.

As Director I was responsible for more than 1200 employees, including office and field staff and professionals. During my tenure, I initiated a program with the assistance of the Canadian International Development Agency (CIDA) to improve the efficiency of forestry administration staff, which included redefining tasks and responsibilities and developing training programs. Also with the assistance of CIDA, I developed a system to improve the control of harvested timber and rationalize tax collection that remains in place to this day.

My international career began in 1991 with ITTO. I worked as Project Manager in the Division of Reforestation and Forest Management until, in 2000, I was promoted to Assistant Director for Forest Industry. In this position I took on responsibility for implementing the Organization's policy to promote value-added production and further and more efficient wood processing. I also managed the division's staff and supervised a number of ITTO projects in the three tropical regions.

Since 2004, I have been Assistant Director for Reforestation and Forest Management, responsible for implementing the Organization's policies on the management of natural and planted forests, the rehabilitation of degraded and secondary forests, and the conservation of biodiversity. I also supervise the Division's professional and secretarial staff and several ITTO field projects.

This, then, is my basic experience. I have worked in tropical forestry all my professional life. I have worked across the three tropical regions. I know ITTO intimately. This experience will serve me well in my new role as Executive Director.

Areas of concern

I believe there are four emerging areas of concern that will figure prominently in ITTO's future.

The first is the search for greater social responsibility in conducting business and managing natural resources. Social responsibility aims to secure higher equity in benefit-sharing, which is particularly important for tropical countries, many

of which are confronted by acute poverty. It calls for good governance and harsh measures to combat fraud, illegality and corruption. I plan to work with the International Tropical Timber Council to strengthen our work on good governance, law enforcement and the fight against illegal forest activities, including by increasing our engagement in relevant regional and global initiatives and processes.

The second area of great importance concerns key elements of the UN Millennium Development Goals: halving extreme poverty and reducing hunger, ensuring environmental sustainability, and promoting a global partnership for development. Forests represent vital opportunities for development in tropical countries. ITTO's role in contributing to the achievement of the UN Millennium Development Goals, therefore, cannot be over-emphasized and should be a focus of our work in the years ahead.

The third area of concern to ITTO is globalization. No matter how one feels about this phenomenon, it is happening and is unlikely to be reversed. One of the key issues is competitiveness. If tropical forest industries are to be agents of sustainable development they must be able to compete in a global

