INTERNATIONAL TROPICAL TIMBER ORGANIZATION

ANNUAL REVIEW AND ASSESSMENT

OF THE WORLD TIMBER SITUATION

2007

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SUMMARY

This Review provides data on production and trade in tropical forest products in ITTO member countries, as well as overview statistics of production and trade of all timber products in these countries. Data are presented up to and including 2007 based on estimates mostly made in the third quarter of that year; these estimates should be viewed with caution due to the poor or missing data provided by many countries. The base year for analysis is 2006 as this is the latest year for which reliable data for most countries were available at the time of preparation. Statistics comparing tropical to all timber production and trade for all 60 ITTO member countries in 2006 are given in Table 1.

Production

Production of tropical industrial roundwood (logs) in ITTO producer countries totalled 125.4 million m^3 in 2006, representing a decline (4.6%) from 2005. Log production in 2007 is estimated to remain relatively level at 124.9 million m^3. The proportion of tropical logs in total industrial roundwood production from all forests in all ITTO member countries was 9.6% in 2006, a small decline from the 2005 level. In ITTO producer countries, the regional disparities in the rate of domestic conversion of primary products continued. Latin America's conversion of domestically produced logs to at least primary products was highest of the three regions, remaining at over 99% in 2005-2007. In Africa, the proportion of all logs produced that were converted domestically declined from 82.7% in 2005 to 81.1% in 2006. Asia-Pacific's domestic log processing remained at the same level from 2005 to 2006 at 88.3% and is anticipated to reach 89.1% in 2007. This reflects both increasing domestic demand for wood-based products resulting from growing populations and economies, and a growing emphasis on producing and exporting value-added products in this region.

Tropical sawnwood production by ITTO producers totalled 39.7 million m^3 in 2006, a decrease of 1.3% from 2005 levels. In 2007 sawnwood production is anticipated to rise marginally by 1.2%. Tropical veneer production in producer countries has been cyclical over the last 4 years, declining by 6.4% in 2006 to just under 2.5 million m^3 and rebounding to 2.51 million m^3 in 2007. The decline in 2006 can largely be attributed to a 29% decrease in Ghana's tropical veneer production, which is expected to show a modest recovery in 2007. Malaysia, Côte d'Ivoire, Cameroon and the Philippines also show small decreases in 2006, while Indonesia, Thailand, Suriname and Gabon marginally increased production.

ITTO producer countries' tropical plywood production has been steadily declining since 2003 and totalled 13.6 million m^3 in 2006. A slight decrease of 0.5% is expected in 2007 to 13.5 million m^3. Indonesia's tropical plywood production has continuously decreased in recent years, declining significantly by 21% in 2006. Indonesia ceded its position as the world's largest producer of tropical plywood to Malaysia in 2004. Malaysia remains the dominant producer at 5.4 million m^3 in 2006 although this is estimated to decrease in 2007 to 5.3 million m^3.

Some ITTO consumer countries continued to produce significant quantities of tropical timber products in 2007. China remained the only significant tropical log producer among ITTO consumer countries (1.4 million m^3), followed by Australia (41,000 m^3), these products being sourced from the tropical regions of both countries. Consumer countries produced over 1.1 million m^3 of tropical-origin sawnwood, 0.9 million m^3 of tropical-origin veneer and 6.3 million m^3 of tropical-origin plywood in 2006, all (with the exception of China and Australia) from imported tropical logs. In 2007, ITTO consumer countries' production of tropical sawnwood, veneer, and plywood are estimated to remain at the same level while the production of tropical logs is expected to decrease by 6.6%.

Imports

Tropical hardwood log imports by ITTO consumer countries have continued their steady decline since 2003, decreasing by 4.0% in 2006 to 10.9 million m^3. Apart from China, all the significant importers – Taiwan P.O.C., Japan, the Republic of Korea, France, Italy, Norway and Portugal – decreased their tropical log imports in 2006. China remains the largest tropical log importer, increasing by 3.4% in 2006 to 7.5 million m^3. Although slightly less significant in terms of quantities imported, Spain, Germany and Belgium's tropical log imports rose in 2006. China's non-tropical log imports increased by 20.6% during the same period, mainly supplied by the Russian Federation. This situation is expected to change significantly in the medium-term following the Russian Federation's review of its forest sector policies, particularly the imposition of duties on exported logs which are scheduled to reach prohibitive levels by 2009.

If imports by producing members are taken into account, total tropical log imports for 2006 were 14.3 million m^3, 2.1% less than 2005. The 2006 log import volume for all ITTO member countries was 1.1 million m^3 higher than the export volume. This balance was at least partly provided by non-ITTO members, although under reporting of log exports, misclassification of imports, smuggling and/or statistical errors can also contribute to such gaps. Major non-ITTO tropical log suppliers include the Solomon Islands and Equatorial Guinea, with log exports in 2006 estimated at 1.0 million m^3 and 456,000 m^3 respectively. Japan's imports of tropical logs have continued their downward trend, decreasing marginally to 1.3 million m^3 in 2006. Japan's imports have decreased strongly in the past five years due to its contracting economy, reduced supplies from Malaysia, competition from China for available log supplies, and substitution of softwood logs for tropical hardwood logs in plywood manufacture. India

Table 1. ITTO Summary Statistics (2006, million)												
	Logs			Sawnwood			Veneer			Plywood		
	All	Tropical	(%)	All	Tropical	(%)	All	Tropical	(%)	All	Tropical	(%)
Production (m^3)	1 313.2	126.8	(10)	362.2	40.9	(11)	10.2	3.3	(32)	70.0	19.8	(28)
Imports (m^3)	122.2	14.3	(12)	115.2	7.8	(7)	2.6	0.7	(27)	23.1	9.0	(39)
Imports ($)	12 444.5	3 383.6	(27)	29 546.2	3 927.7	(13)	3 215.3	656.2	(20)	10 567.0	4 056.3	(38)
Exports (m^3)	57.0	13.2	(23)	103.7	11.6	(11)	3.2	1.1	(34)	25.4	10.4	(41)
Exports ($)	6 348.2	2 206.9	(35)	26 465.2	3 678.8	(14)	2 808.1	765.3	(27)	11 141.2	4 605.3	(41)

maintains its position as ITTO's second largest importer of tropical logs although imports declined 7.2% from 3.2 million m^3 in 2005 to 3.0 million m^3 in 2006. India, Thailand and Malaysia are the major ITTO producer country log importers, India accounting for over 87% of total producer imports of 3.4 million m^3 in 2006, and Thailand and Malaysia together accounting for 11.3%. Malaysia's tropical log imports progressively increased during the period 2003 to 2006, while those of Thailand and the Philippines (previously a large importer) declined.

Although China's imports of tropical sawnwood decreased by 11.5% from 2005 to 2006, it still remained the world's largest importer in 2006, accounting for a 39.5% share of ITTO consumer country imports. Malaysia and Thailand were the next largest importers, although they are also important tropical sawnwood producers. Thailand's imports decreased significantly (27.1%) from 2005 to 2006. Thailand's economy and construction activity slowed in 2006 following political uncertainties, resulting in a decline in demand for construction grade tropical sawnwood, principally supplied by Malaysia. Japan's imports of tropical sawnwood have continued their downward trend since the mid-1990s reaching 278,000 m^3 in 2006.

The EU market continues to be important, importing 2.3 million m^3 of tropical sawnwood in 2006. Although this represents a 14.2% decline from the 2005 level, imports are expected to increase in 2007 to an estimated level of 2.6 million m^3. Imports of tropical sawnwood by all consumer countries decreased by 17.9%, from 7.3 million m^3 in 2005 to 6.0 million m^3 in 2006. Total ITTO tropical sawnwood imports declined by 18.2% to almost 7.8 million m^3 in 2006 due to a greater percentage decline in producer country markets. However, total imports are expected to recover modestly in 2007, to a little over 8.1 million m^3.

Total ITTO tropical veneer imports declined by 13.4% to 925,000 m^3 from 2005 to 2006, and are expected to remain relatively level in 2007. The Republic of Korea remained the largest ITTO tropical veneer importer in 2006, with imports totalling 210,000 m^3, a 15.6% decrease from the 2005 level. China, France and Italy were also important ITTO tropical veneer importers in 2006. France and Italy increased their imports over the 3-year period from 2004-2006. The EU imported 367,000 m^3 of tropical veneer in 2006, and 368,000 m^3 in 2007, approximately one third of total ITTO imports. Japan imported 30,000 m^3 of tropical veneer in 2006, a small decrease from 2005 levels, but a significant decline from early 1990 levels. Japan, formerly a major tropical veneer importer, has become less significant than producer countries such as Mexico.

Tropical plywood importers are led by Japan, at 3.5 million m^3 in 2006 after peaking at almost 4.6 million m^3 in 2004. Imports continue to replace domestic production of tropical plywood in Japan due to reduced availability of tropical peeler logs and relatively low prices of imported plywood. However, overall demand and imports of tropical plywood are decreasing. Japan's imports made up 40% of total ITTO imports of nearly nine million m^3 in 2006. Tropical plywood imports by ITTO members continued their moderate downward trend in 2006.

Exports

ITTO producer countries exported over 13 million m^3 of tropical non-coniferous logs worth $2.1 billion in 2006, with Malaysia (the largest exporter) providing about 36% of this volume, down from almost three-quarters of the ITTO total in the early 1990s. Malaysia's tropical log exports decreased by 19% in 2006, reflecting the country's increased emphasis on value-added processing. Papua New Guinea, Gabon and Myanmar were the next most significant log exporters. Producer exports of tropical non-coniferous logs in 2006, at 13.1 million m^3 were up 0.8% from 2005 levels.

Tropical sawnwood exports by producer members declined by almost 16% from 13 million m^3 in 2005 to 10.9 million m^3 (worth $3.1 billion) in 2006, and are expected to remain at the same levels (10.8 million m^3) in 2007. Exports from the Latin American region fell from 2005 to 2006 (from 2.1 million m^3 to 1.9 million m^3 respectively), with strengthening currencies undermining export competitiveness, but are expected to rebound in 2007 (2.1 million m^3). African exports also fell in 2006 (from 1.8 million m^3 to 1.7 million m^3), reversing a steady upward trend from 2003 to 2005. Sawnwood exports from Malaysia slumped 21.7% to 2.9 million m^3 in 2006, again reflecting an increase in domestic secondary processing of primary wood products and decreased demand from Thailand.

Tropical veneer exports from ITTO producer countries decreased by almost 12.6% from 2005 to 2006 (from 1.1 million m^3 to 1.0 million m^3). Tropical plywood exports by producer members declined by 1.9%, to 9 million m^3 in 2006, worth nearly $3.8 billion, with Malaysia (5.1 million m^3) and Indonesia (2.7 million m^3) accounting for 75% of the total volume exported by the 60 ITTO members (10.4 million m^3). Although China is not an ITTO producer, it remains the third largest exporter of tropical plywood, closely followed by Brazil.

ITTO consumer countries also exported or re-exported substantial quantities of tropical timber in 2006, accounted mainly by sawnwood and plywood exports of 679,000 m^3 (worth $518 million) and 1.5 million m^3 ($762 million) respectively. Log and veneer exports were smaller (146 000 m^3/$63 million and 96 000 m^3/$206 million respectively in 2006). Exports of tropical logs, sawnwood, and plywood by ITTO consumers increased significantly in 2006. Growth of China's tropical plywood exports continues, reaching 993 000 m^3 in 2006, a 75% increase since 2003.

Prices

Prices for most primary tropical timber products and species remained strong during 2006, as supply of raw materials tightened, global economies expanded and consumer confidence improved in most markets. In 2007 to date, prices for many primary tropical timber products reached record highs, in response to strong demand in certain regions and restricted supplies from producer countries. A recent trend in the global tropical hardwood trade, brought about by increasing supply shortages, is a move to a higher value, lower volume trade in tropical wood products. However, this trend is uncertain given the slowing US economy. The USA is the final consumer market for a significant proportion of tropical wood products exports.

African log and sawnwood prices held on to gains made in 2005, with some species reaching new record highs in 2006 and 2007. Price gains were due to greater demand (including from China and India), shortages in supply of certain species exacerbated by export restrictions, as well as rising freight rates and/or taxes and similar levies. All these factors combined to encourage many producers to seek higher prices. In 2006 and 2007, sapele and African mahogany log prices rose significantly, driven up by steady demand. Following a decline in prices for iroko logs in early 2006, they remained stable thereafter. In 2007, log export quotas were either partially or fully implemented in the Republic of Congo and Gabon, further restricting supplies and causing further upward pressure on African log prices.

Log prices for Southeast Asian species continued to rise in 2007, some reaching unprecedented levels, but some prices eased at the end of 2007 reflecting slowing demand conditions in major markets. Price gains were due to the continuing effects of tightening supply of Southeast Asian logs intensified by enforcement measures against illegal logging, restrictions on log exports and reduced logging quotas in Indonesia, even though the latter have been eased somewhat. Asian log price rises were supported by strong demand for certain species despite some resistance to higher prices by buyers from Japan, citing the downturn in demand for plywood within Japan. The significant price gains of logs from natural forests in Asia, led by meranti, exceeded the previous high levels of early 1997. Export log prices for rubberwood continued to rise dramatically due to Malaysia's prohibition of rubberwood log exports to ensure adequate supply of raw material for Malaysia's export oriented furniture sector and panel industries. Myanmar teak log prices continued to show greater month-on-month price volatility, particularly in the higher grade logs, although maintaining relative year-on-year price stability in real terms.

Prices for most Asian and African tropical sawnwood showed significant price gains in 2006 and 2007 as progressive tightening of supplies of most species dominated the trade. Iroko nominal prices reached a record high at the end of 2006 and had remained relatively firm through 2007 within periodic fluctuations of supply from Africa and demand from EU countries. Meranti and sapele also reached new record highs in late 2006 and 2007 before flattening out at the end of 2007. Prices of African mahogany (*Khaya* spp.) in the US market continued to soar through the third quarter of 2007 as the supply of the South American mahogany (*Swietenia macrophylla*) remained extremely limited.

There is increasing US market acceptance of African mahogany as a substitute for South American mahogany as familiarity grows among secondary products manufacturers and consumers. US demand for sapele as a mahogany substitute has also put upward pressure on its prices, which overtook iroko prices in late 2006. There is a continuing trend for some leading buyers to substitute West African sawnwoods for meranti from Malaysia, due to the latter's strong prices and supply limitation. South American supplies of tropical sawnwood were reported to be difficult to source by buyers in 2006 and 2007 and prices rose strongly. The Brazilian hardwood industry has been severely affected by large rises in production costs, a strengthening currency which is undermining export competitiveness, and government efforts to crack down on illegal logging.

Prices for Southeast Asian plywood continued rising in 2006 and 2007, reflecting continuous shortages in log availability, tighter control of illegal logging in Indonesia and elsewhere, bottlenecks in shipments, and higher production and material costs. Still higher prices have been in part held back by subdued consumption and continued deflation in Japan, which is the world's largest consumer, closely followed by China. Chinese "combi" tropical plywood products with poplar or bintagor cores continue gaining ground in major markets. Prices of Malaysian plywood continued to rise through 2006 and 2007 but

flattened out at the end of 2007 as the construction sectors in most major markets weakened. Prices of Brazilian tropical plywood also remained strong in 2006 and 2007 with strong consumer demand in North American and EU markets. However Brazil is facing strong competition from Chinese plywood exporters, and to some extent European plywood producers, for both its hardwood and softwood plywood. Price competitiveness, linked in part to exchange rate conditions, continue to drive plywood sourcing decisions in both Europe and the USA.

Secondary Products

Exports of secondary processed wood products (SPWPs) by ITTO producers continued their upward trend in 2006. Exports of SPWPs by these countries have been expanding steadily since ITTO began regularly tracking them in the mid-1990s. In value terms, SPWP exports by ITTO producers rose 9.2% in 2006 to reach almost $11.1 billion, led by increases by Malaysia, the Philippines, Brazil and Mexico.

Six leading ITTO producer countries (Indonesia, Malaysia, Brazil, Thailand, Mexico and the Philippines) accounted for 93% of total ITTO producers' SPWP exports in 2006. Growth in the export value of SPWPs by ITTO consumers between 2005 and 2006 was strong (10.7%), due to China's rapid export growth during that period. Chinese SPWP exports rose by almost a quarter from 2005 to 2006, to over $14.1 billion, consolidating its position as the world's largest SPWP exporter. China's rapid expansion has been due largely to global growth in demand for price competitive wooden furniture, particularly in the USA, aided by low cost manufacturing in Southern China by joint venture companies from the USA, Taiwan Province of China and other Asian producers. Although not an ITTO member country, Vietnam was another major tropical producer of SPWPs which exhibited spectacular growth in exports, growing 80% by value from 2005 to 2006, to $2.3 billion.

Japan and the USA remained the two largest markets for SPWP from ITTO producers in 2006, with such products making up 28% and 21% of their total SPWP markets respectively. The USA was the main market for both ITTO producers and consumers in value terms ($5.2 billion and $17.5 billion respectively). Growth in the market for wooden furniture has largely been driven by strong economic growth in the USA over the last decade. In 2007, growth is likely to slow significantly from the repercussions of the sub-prime mortgage crisis, which is likely to affect demand for SPWPs through reducing demand for new homes, reducing consumer wealth and generating financial turmoil due to mortgage defaults.

Although the EU imported a relatively small proportion of SPWPs from ITTO producers (15% of the EU SPWP market in 2006), the actual size of the market was large, with imports from ITTO producers imports valued at $3.5 billion in 2006. EU imports increased by 8.5% from 2005 to 2006. Although the value of SPWP imports by ITTO consumers from ITTO producers grew rapidly over the last decade, from 2005 to 2006 imports remained level at $10.9 billion.

1. INTRODUCTION

Overview

This report reviews developments in the global timber sector and wood markets, with a focus on tropical timber, in 2007. It contains data series on production and trade for 2003-2007, with a focus on the past three years. 2006 is used as the base year for all global comparisons and ITTO summary totals as this is the latest year for which reasonably reliable data for most countries were available at the time of preparation.

China's imports continue to drive the tropical log market despite a continued decline in imports since 2004. Many of China's tropical log imports are converted to plywood, with the country now the world's second largest producer and third largest exporter of this product. Japan remains the largest tropical plywood importer but imports have remained relatively stagnant since 2005. Many producer countries continue their shift from primary to secondary processed wood products exports in 2007, with trade in these products continuing to rise while the level of primary tropical timber products trade declines. China dominates the trade in secondary processed wood products (SPWPs) and although some of these products utilised tropical hardwoods, China remains a major competitor with ITTO producer countries in SPWP markets.

ITTO and its member countries remained fully committed to implementing sustainable forest management in the tropics, including reducing emissions from deforestation and forest degradation (REDD), and carbon sequestration through restoration, thus contributing to strategies aiming at addressing the issue of climate change. Recognising the importance of tropical forests in climate change mitigation, ITTO convened two side events at the Conference of Parties (COP 13) of the United Nations Framework Convention on Climate Change (UNFCCC) in Bali, Indonesia. ITTO, which has been promoting sustainable forest management (SFM) in the tropics for two decades, shared its experience in enhancing sustainable tropical forest management and its connection with reducing emissions from deforestation in developing countries in the tropics (REDD).

A decision on REDD was adopted by the COP, which encourages Parties to the Kyoto Protocol to, inter alia: continue reducing emissions from deforestation and forest degradation on a voluntary basis; support capacity building initiatives and facilitate technology transfer to developing countries; and submit views on how to address outstanding methodological issues on forests by March 2008. One of the topics of most interest to tropical countries was how to formulate sound and simple methodologies to assess carbon stocks in the context of REDD. The role of emissions from deforestation and forest degradation in developing countries is expected to play a large role in future discussions under the Protocol and in a post-2012 regime. ITTO will be convening a meeting on SFM and climate change in spring 2008 to help the Organization develop its approach to helping countries meet the challenges and opportunities of climate change and REDD. In 2007, policy interest in alternative energy sources intensified, driven by energy security interests in the US, Europe's concerns over commitments to the Kyoto Protocol, and escalating oil prices. ITTO has responded to a growing interest in the role of wood-based bioenergy in the future global energy economy, convening an international conference in 2007 on wood-based bioenergy in collaboration with FAO and the German Federal Ministry of Economics and Technology. The conference was attended by about 90 people from 32 countries.

ITTO continued to participate actively in the work of the UN Forum on Forests (UNFF) in 2007 and the Collaborative Partnership on Forests (CPF) established to facilitate its work. The Organization undertook missions to additional member countries to promote sustainable forest management in 2007. ITTO also continued to strengthen its collaboration with the various processes aimed at establishing criteria and indicators for ascertaining the status of forest management (Montreal, Tarapoto, ATO etc.). ITTO convened additional national level field training workshops to encourage forest management unit level reporting based on its revised Criteria and Indicators for the Measurement of Sustainable Management of Tropical Forests in 2007. ITTO also continued work on forest law enforcement (FLE) in 2007, convening regional workshops on improving forest law compliance and governance in Southeast Asia and Central America. Full reports on all these activities are contained in separate reports to the Council or available from the Secretariat.

The Convention on International Trade in Endangered Species (CITES) contiued to expand its work in regulating the trade in tropical timber. ITTO was active in collaborating with CITES to build capacity to implement CITES requirements for listed tropical timber species. A side event at the 14th Meeting of the Conference of the Parties (CoP14) to CITES took stock of these efforts and examined potential areas for future collaboration and assistance to range states, strengthening the support that both organizations provide to countries with regard to the responsible management of tropical forests and timber trade.

Partly due to concerns over FLE and legality of timber supplies, timber certification and responsible purchasing policies remained topical issues in 2007 for both ITTO producer and consumer countries. The EU intensified efforts to tackle illegal logging through the EU Forest, Law Enforcement, Governance and Trade (FLEGT) initiative. FLEGT negotiations were underway through the development of legality licensing systems under the terms of Voluntary Partnership Agreements (VPAs) with several tropical producer countries. In the USA, an amendment to the Lacey Act awaited Congressional action. The Act

makes it illegal to import, sell or process fish or wildlife produced illegally in foreign countries. The Amendment would extend its protection to timber illegally harvested outside of the USA, placing an obligation on importing companies to demonstrate the legality of timber products. Many other relevant developments have occurred in 2007 in ITTO member countries. This Review attempts to summarize some of these in relation to their impacts on the production and trade in tropical timber.

Scope and Structure

This Review includes data appendices on total timber production volumes and trade volumes/values for all ITTO members. These data are included to assist placing tropical timber in a global context, as called for in the ITTA (1994). However, as recommended by the 1997 Technical Working Group on ITTO's Statistical Functions, the focus of the Review remains on tropical timber. The Review consists of four substantive chapters. The first chapter summarizes developments in major markets for tropical timber. This chapter includes a discussion of current and projected economic conditions in many countries. The second chapter provides an analysis of production, consumption, trade and prices for the primary tropical timber products covered by the ITTA (tropical logs, sawnwood, veneer and plywood). A third chapter describes trade in secondary processed wood products (SPWPs) with a focus on tropical countries where these products are playing an ever greater role. The final chapter of the Review provides brief notes of relevant trends and developments in ITTO member countries not covered elsewhere.

Data Sources and Limitations

Statistics in the Review have been derived from members' responses to the 2007 Joint Forest Sector Questionnaire (JQ) wherever possible; the JQ can be downloaded from the ITTO website (www.itto.or.jp) and includes definitions of all products covered here. ITTO is responsible for sending the JQ to all of its producer members and Japan, while responses from other consumer members are forwarded from JQ partner agencies (UNECE, Eurostat and FAO). The number of countries responding to the 2007 JQ was down by 7 from the response level in 2006 (49 replies from 59 members in 2006 to 42 replies from 60 members in 2007). Only 19 of 33 producer countries (26 of 33 in 2006) responded, while 23 of 27 consumer countries provided at least partial responses in 2007. Cameroon, Central African Republic, Côte d'Ivoire, Democratic Republic of Congo, Nigeria, Togo, Cambodia, Fiji, India, Myanmar, Vanuatu, Bolivia, Ecuador, Trinidad and Tobago, Egypt, Belgium, Denmark and Luxembourg did not respond to the 2007 JQ.

Unless otherwise noted, all value units quoted in this Review are in nominal US dollars, while volumes are reported in cubic metres. "Tropical timber," as defined in ITTOs governing treaty (ITTA, 1994), includes only tropical hardwood saw and veneer logs, sawnwood, veneer and plywood. This Review includes tropical softwoods (coniferous species), which are of growing importance to many countries, in the figures given for all timber. As trade figures for saw and veneer logs are impossible to collect from existing customs classification systems, which do not distinguish between different types of industrial roundwood, figures for log trade and production given in the Review now refer to total industrial roundwood.

Estimates of trade figures for Hong Kong, Macau Special Administrative Regions (SAR) and Taiwan Province of China (POC) have been largely based on UN COMTRADE data (if available) since none of the three provide statistics directly to ITTO. Trade flow statistics for many developed countries are also derived from COMTRADE since most developed countries do not complete the direction of trade tables in the JQ. This often causes difficulties when the aggregate totals given by the countries in the JQ do not coincide with the corresponding trade figures reported in these databases.

As in previous years many of the statistics that were received from members via the JQ contained significant and obvious errors in one or more data categories. Only 12 producer and 19 consumer members met the 15 August 2007 deadline for responding to the JQ and some of the remaining 11 responses were received at ITTO Secretariat as late as March 2007, not allowing sufficient time for analysis and clarification where necessary. Table 2 shows a breakdown of responses to the JQ, illustrating the problems that many countries still have in providing information to ITTO and providing a subjective indicator of the quality of the data on which this Review is based.

Many members substantially revised statistics for 2004-2006 submitted in the 2007 JQ from those submitted in previous years. This, together with the detection of errors, resulted in several modifications and amendments to statistics; the data series presented here can differ (even substantially) from those in previous editions of the Review. Several supplementary sources were consulted to verify members' responses to the JQ, to fill in incomplete or obviously incorrect responses and to provide data for non-responding countries.

These supplementary sources are listed in the References as well as in the notes preceding the Appendices. Estimates of production and trade are, where possible, derived for incomplete responses and non responding countries based on direction of trade statistics reported by trading partners, information on processing capacity (if available) and the other sources listed. Comparisons with global totals or totals for all tropical countries for primary products are based on statistics from the FAOSTAT database, the latest summary of global forest statistics available. All other data used in the preparation of the Review are compiled in Appendices 1 - 5.

Most members that responded to the 2007 JQ reported at least some categories of data for both 2006 and 2007. Many members failed, however, to report any partial year data or forecasts for 2007; caution should therefore be exercised when interpreting the estimates for these countries and

the ITTO totals for 2007 given here. Countries for which estimates were made (or alternate sources used) are identified by the superscripts used in the Appendices.

Despite the best efforts of the Secretariat to ensure data consistency and accuracy it should be noted that discrepancies exist between available data sources in many categories, for both producing and consuming countries. The final statistics compiled for presentation here are the result of analysis and synthesis of the available data sources by the Secretariat, and of consultations with member countries and other agencies.

The assistance of those countries that responded to the 2007 Joint Forest Sector Questionnaire is gratefully acknowledged, as is the support of the FAO Forestry Department, the UNECE Timber Section, Eurostat Unit F-1, the United Nations Statistical Office, and the ITTO Market Information Service in providing relevant primary and supplementary data for the Review.

Table 2. Data Quality Indicators

No responses: (18 of 60 counries)	*Belgium, Bolivia, Cameroon, Cambodia, Central African Republic, Côte d'Ivoire, Democratic Republic of Congo, Denmark, Ecuador, Egypt, Fiji, India, Luxembourg, Myanmar, Nigeria, Togo, Trinidad and Tobago, Vanuatu.*
Good responses: (25 of 42 countries)	*Australia, Brazil, China, Colombia, Republic of Congo, Finland, France, Germany, Ghana, Guyana, Honduras, Japan, Malaysia, Mexico, Netherlands, New Zealand, Norway, Philippines, Peru, Poland, Portugal, Republic of Korea, Suriname, United States, Venezuela.* ●All major sections complete. ●Internally consistent (material balance, year on year trends, unit values, compatibility between tables). ●More or less consistent with trade partner reports.
Incomplete or erroneous responses: (17 of 42 countries)	●Tropical trade data missing or unusable: 4 of 23 Consumer responses. ●Tropical production data missing or unusable: 5 of 23 Consumer responses. ●Production data missing or unusable: 6 of 19 Producer responses. ●Tropical species trade data missing or unusable: 7 of 19 Producer responses; 12 of 23 Consumer responses.

2. MARKET DEVELOPMENTS

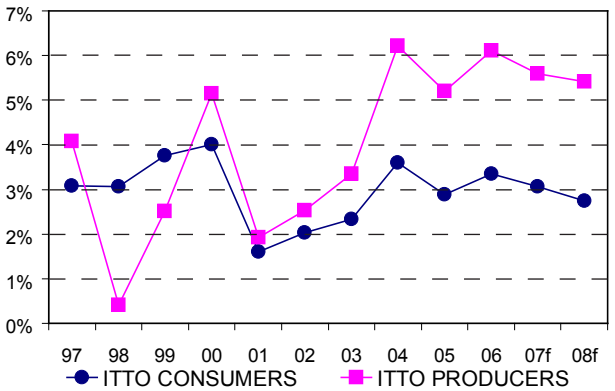
This chapter provides a brief analysis of general developments in tropical timber markets as well as an overview of tropical timber trade in 2006-2007. The analysis is based on responses to the JFSQ submitted by members, International Monetary Fund (IMF) statistics and a review of other available literature.

Economic Trends

Global

In late 2007, IMF reported that global output (real GDP) grew by 5.2% in the first half of 2007, the global economy having experienced its strongest sustained period of growth since the early 1970s. Despite strong global economic growth in the third quarter, world GDP slowed markedly in the fourth quarter following uncertainty in global financial markets originating from the US subprime mortgage crisis. In response to moderation in economic expansion in late 2007, IMF revised the World Economic Outlook in January 2008, estimating that global growth had declined to 4.9 percent (on an annual basis) in 2007, and projecting further deceleration in growth to 4.1 percent in 2008 in response to continuing financial turbulence. IMF notes significant downside risks to the outlook for global growth in 2008, the main risk being that ongoing turmoil in financial markets may further reduce domestic demand in the advanced economies and create more significant spillovers into emerging market and developing economies. Further risks noted by IMF include "potential inflation pressures, volatile oil markets, the impact on emerging markets of strong capital inflows, and continued large global imbalances. Key longer-term issues relate to addressing obstacles to sustained growth from population aging and the increasing resistance to globalization".

Figure 1 shows the trends in GDP growth for ITTO producers and consumers over the last 10 years. The strong global economic expansion in 2007 was led by strong GDP growth in the emerging market and developing economies, with China, India and Russia accounting for one-half of global growth in 2007. Economic performance in the emerging market and developing economies has outgrown the advanced economies since 1990, real GDP growth reaching an estimated 7.8% (on an annual basis) in 2007 compared with 2.6% in the advanced economies. The global economic expansion in 2007 drove real GDP growth upwards in Africa (ITTO and non-ITTO countries) and the Middle East, both regions increasing from 5.8% in 2006 to 6.0% in 2007. In Developing Asia and the Western Hemisphere regions, growth moderated at 9.6% and 5.4% respectively. The IMF expects growth in output in developing countries to ease to 6.9% in 2008, well above the 1.8% growth expected in advanced economies.



Source: IMF 2007

Fig. 1: ITTO Producers and Consumers Real GDP Growth 1997-2008

Inflation was contained in the advanced economies in the first half of 2007 but picked up in the latter half of the year and in a number of emerging market and developing countries. This reflected strong growth in domestic demand and rising food prices, largely attributed to the increased use of corn and other food items for biofuel production. In 2007, crude oil prices increased owing to a stronger growth in demand than had been anticipated by OPEC, a smaller than expected rise of non-OPEC output, and continuing geopolitical concerns. Although the global economy adjusted with relative ease to oil price increases, in early 2008 inflationary pressures were caused by further oil price spikes which threatened household real incomes in all economies. Average non-fuel primary commodity prices (US$) climbed by 28.4% in 2006, due mostly to buoyant global demand, particularly in China, which has kept both non-fuel (metal) and fuel (oil) commodity prices at high levels. Food prices have also spiked upwards, causing particular concern in developing countries where food represents a significant proportion of consumption. Average non-fuel primary commodity prices were predicted to contract by 12.2% in 2007 in anticipation of slowing global growth.

World trade volume (exports plus imports) continued improving in 2006 with a year-on-year increase of 9.2%, up from 7.5% in 2005. IMF predicted growth in world trade volume to slow in 2007 but still expand by a solid 6.6%. Although trade growth for both imports and exports grew in 2006, their rate of growth was predicted to contract in 2007 in both developed and developing countries. IMF notes the global concerns regarding persistent large trade imbalances (particularly in the USA), increasing the risk of disorderly adjustments to the US current account deficit, and the threat of rising protectionist pressures and pressures for increased trade restrictions.

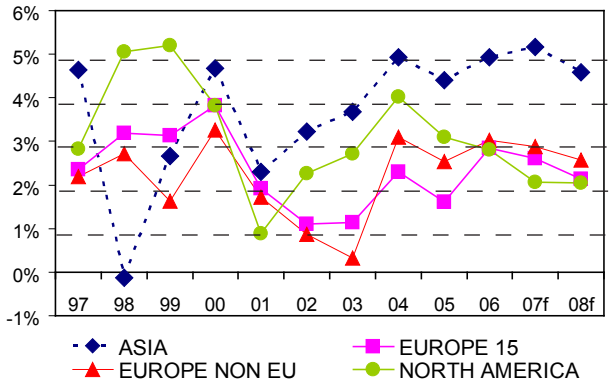
ITTO Consumers

Figure 2 shows trends in GDP growth for ITTO consumer regions from 1997 to 2008.

The USA

The USA, the world's largest economy, experienced a significant economic downturn in the latter part of 2007

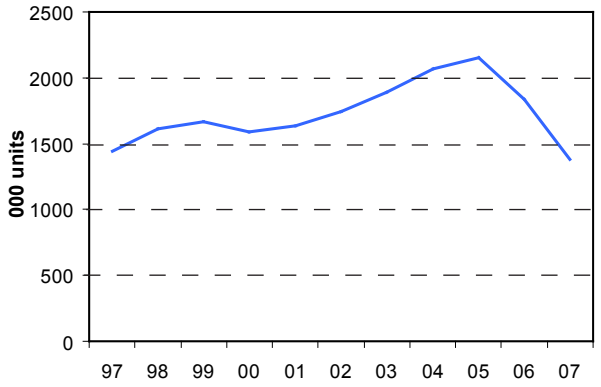
related to corrections in the residential housing sector, causing speculation regarding the repercussions of a possible US recession for the global economy. Although export growth was strong in 2007 as the US dollar weakened, US economic growth slowed in 2007, with IMF estimating real GDP growth at 2.2%, down from 2.9% in 2006. Inflation in the USA has been relatively high in recent years, and was estimated at 2.7% in 2007, although down from 3.2% in 2006, with inflation pressures moderating from the weakening economy. The USA has experienced relatively low unemployment (4.7% in 2007) but this is being threatened by the economic slowdown.



Source: IMF 2007

Fig. 2: ITTO Consumer Regions Real GDP Growth 1997-2008

Current difficulties in the US economy stem from financial problems in the subprime mortgage market for residential housing which is threatening the wider US economy, and a large current account deficit. (These issues are related in that house price appreciation has increased consumer wealth and reduced consumer incentive to save). US annual real house prices have declined sharply since 2005, leading to a decline in US residential housing investment (Figure 3). In early 2008 projected housing starts fell below 1.1 million.



Annual data, new privately owned housing starts
Source: US Census Bureau

Fig. 3: US Housing Starts 1997-2007

A decline in real house prices is expected to impact consumer spending, as credit expansion has been made possible by appreciating house prices. IMF notes that a number of advanced economies' housing markets outside the USA could be vulnerable to a correction in house prices, with tightening credit conditions and associated risks to economic growth. Uncertainties for the US economic outlook have risen with recent indications (early 2008) of weakening manufacturing and housing sector activity, employment and consumption. Export growth and declining imports are, however, expected to provide some offset to the weakening housing sector.

European Union

Average GDP growth in 2007 for Euro area countries slowed marginally to 2.6% following the region's best economic performance period since 2000, with GDP growth reaching 2.8% in 2006. GDP growth to 2007 was driven by an increase in investment spending, particularly in Germany, in response to high regional and global demand for machinery and equipment, increased construction activity and robust exports from the region. Euro area economic growth equalled the average growth for all advanced economies in 2007 but the marginal slowing of growth was in response to the continuing appreciation of the euro, higher interest rates and the economic slowdown in the USA.

IMF predicts growth to slow further to 1.6% in 2008, 0.2 percentage points less than the average for advanced economies, in response to economic contagion from the US sub-prime mortgage crisis and global financial market turbulence. Construction activity in the region boomed in 2006 but weakened in 2007. EUROCONSTRUCT estimated growth in real construction at 3.8% in 2006, slowing to 2.0% in 2007. In 2008 growth in construction activity is anticipated to slow further to 1.4%, with tightening of global credit conditions affecting residential investment.

Real GDP growth in Germany (which comprises one-third of the EU economy), reached 2.9% in 2006 but slowed to 2.4% in 2007, when a value-added-tax hike reduced private consumption. France, Italy and Portugal has under-performed compared to the Euro area average over the last two years. GDP growth in 2007 for the three economies was estimated at 1.9%, 1.7% and 1.8% respectively. All three economies experienced a slowing of growth in 2005, rebounding in 2006 before stagnating again in 2007. The UK economy has experienced a strong and steady period of growth since it peaked at 3.3% in 2004. It slowed to 1.8% in 2005 but reached 3.1% in 2007, well above the average growth for the Euro area. Growth is expected to moderate in 2008 and housing construction activity is expected to weaken.

Japan

The Japanese economy grew slightly in 2007 with GDP growth of 1.9%, having recovered from a recession in 2002 when the economy shrank by 0.3%. This recovery reflected strong export performance, although offset somewhat by a sharp downturn in housing investment. Residential housing starts declined significantly in the last quarter of 2007, dipping to their lowest levels since 1967 at 1.06 million units for the year ended December

2007 (Figure 4). This sharp decline is reported to be due to poor implementation of the new Building Standard Law in mid-2007, the new rules intended to crack down on the falsification of earthquake resistance data for buildings. Housing starts are expected to experience an upswing as the Japanese housing industry adjusts to the new rules in 2008.

Source: Japan Lumber Reports, various issues

Fig. 4: Japan Housing Starts 1997-2007

Despite a relatively steady four-year recovery, economic commentators note Japan's political failure in addressing economic risks – namely the reliance on trade for GDP growth, in the light of turmoil in the US housing and credit markets, low productivity growth and weak consumption growth. Following a long period of deflation, with consumer prices averaging an annual average decrease of 0.2% in the last decade, Japan experienced inflation of 0.3% in 2006 but had no growth in consumer prices in 2007 and IMF noting that "deflation [had] still not [yet been] decisively beaten".

The unemployment rate declined to 4.0% in 2007 but wages had not increased, wages being held down by demographic changes to the workforce. Japan's demographic profile presents risks to economic growth. Japan has had zero population growth for the last five years and a declining and ageing work force, 21% of the population in 2007 being over age 65. Although IMF notes that direct exposure of the Japanese financial system to the US subprime mortgage market is limited, revised economic projections indicate further easing in Japan's real GDP growth to 1.5% in 2008.

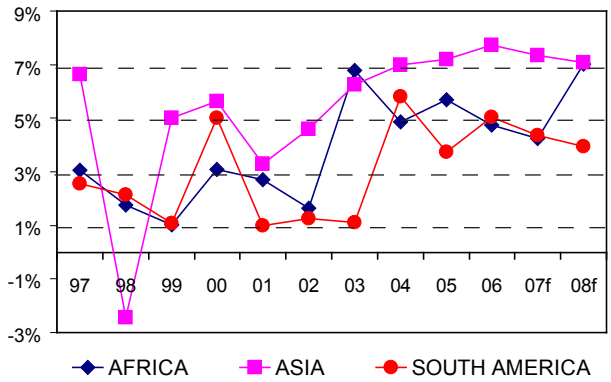
China

China's economy continued to grow at relatively high levels in 2006 and 2007, expanding by over 11% in both years as exports and investments (including outbound investments) accelerated. China's growth is projected to decelerate while still remaining impressive, from 11.4% in 2007 to 10.0% in 2008. Although the US economy is important to China, the share of China's exports to the USA has decreased from 34% in 1999 to 21% in 2007 with intra-regional trade and trade with other emerging economies becoming more important. The government is attempting to increase the contribution of private consumption to overall growth. IMF (2007) notes that the projected easing of growth may not occur if monetary policy does not allow a faster appreciation of the exchange rate. Faster growth, however, poses higher risks in overinvestment. Other risks to export growth include a lack of protection of intellectual property rights, growing protectionism in key export markets and rising costs in manufacturing, which are causing rapid growth in the manufacturing base in other parts of Asia – particularly Vietnam, Malaysia, Indonesia and India.

China's demographic profile also provides risks to China's manufacturing base in the longer term. Global Demographics (2007) estimates that the working age population, and ultimately the labour force, will peak in 2011, stagnate in size and then start to decline by 2019.

ITTO Producers

Figure 5 shows GDP growth trends in ITTO producer regions from 1997 to 2008.



Source: IMF 2007

Fig. 5: ITTO Producer Regions real GDP Growth 1997-2008

ITTO Asian producer countries continued to grow strongly in 2007, with GDP growth at 7.4%, although growth has slowed marginally since it peaked in 2006 at 7.7% following a period of sustained growth since the Asian economic crisis in 1998. ITTO Asian producer countries are also experiencing relatively high population growth and affluence. Malaysia – the wealthiest of the ITTO Asian producers with GDP/capita of $5,266 in 2007 – has a relatively high population growth rate, averaging 1.9% per annum from 2002 to 2007. The other major ITTO producer in the region - Indonesia – also has a high average growth rate (1.3% over the last 5 years) and a relatively large population (218 million in 2007).

In the ITTO African producer countries, growth slowed in 2006 and 2007, to 4.7% and 4.2% respectively. It is expected to rebound to 7.0% in 2008 due to new production facilities in oil exporting countries, rising fuel and commodity based exports and diversification of export markets. IMF estimates inflation in the Africa region, which had been running in double-digits since 2001, to reach 6.6% in 2007.

In 2006, GDP growth in ITTO South American producer economies increased on 2005 levels, but declined slightly

in 2007 to 4.3%. IMF (2007) predicts GDP growth to slow further in 2008 with Mexico and Central American countries at risk from the US slowdown because of trade linkages. Brazil was selected along with Russia, India and China by investment bank Goldman Sachs as the four BRICs – the developing economies that would share dominance of the world economy by 2050 – but has not yet achieved its economic potential. GDP has grown strongly since 2005, reaching an estimated 4.4% in 2007. Brazil's currency has continued to strengthen relative to the US dollar, although the Brazilian economy is not overly dependent on the US market, exports to other destinations have increased and domestic demand is strong.

Tropical Timber Trade Overview

The direction of trade tables for 2006 in Appendix 2 were derived from responses to the 2007 Joint Forest Sector Questionnaire (JQ) and other sources listed in the notes accompanying the Appendices. Minor trade flows are not included in Appendix 2, with only the top twelve importers and exporters for each product included. These countries accounted for over 90% of total trade of the four products in 2006. Direction of trade statistics are not collected directly via the JFSQ from most consumer countries. Data for UNECE and other countries that did not provide trade flows via the JFSQ was extracted from the UN COMTRADE database where available. This often caused difficulties in many cases where figures aggregated from these databases were significantly different from the total trade figures provided in the JFSQ. Directions of trade for tropical logs, sawnwood and plywood are also depicted in Figures 6, 7 and 8 for major trade flows.

Total values (US dollars) of 2005 and 2006 imports and exports by product are summarized in Appendix 1, together with unit values based on reported trade volumes. Value data is reported poorly or not at all by many member countries. Values have in many cases been estimated using average unit values. Many countries made errors or omissions in providing trade data, particularly by failing to distinguish tropical wood imports and exports from those of all timbers. Many countries also have serious problems in their customs statistics for tropical timber, with misclassification of imports and failure to count tropical species/ products grouped in "Others" categories of customs classification systems. If available, other data sources were used when data provided was obviously flawed. Entries in the tables of Appendix 2 consist of exporters' reports (italicised) and importers' reports (bold).

The discrepancies which are illustrated by many of these entries can be due to a number of factors, as detailed in ITTO's studies of trade statistics discrepancies under Council Decision 6(XXXI). Carelessness or inadequate training of reporting officials or correspondents is often a prime reason; this can only be remedied with better training and supervision, particularly in the application of customs classification systems. Problems with consistency in conversion factors (some countries report weights and/or surface areas instead of volumes) and/or product definitions can explain some discrepancies. Also, different scaling or measurement systems are sometimes used in different countries. Definitions of the reporting period may differ from exporter to importer, or shipments sent at the end of one period may not arrive until the following. Imports destined for re-export may not be correctly recorded, and (re-) exports of tropical timber from non-tropical countries may not be recognized as tropical by the importing country. Finally, timber theft as well as smuggling and transfer pricing to avoid tariffs, quotas and/or taxes have been documented for several tropical forest products and in several countries. It is clear that if ITTO is to fulfil its mandate to ensure greater transparency in the tropical timber market, major improvements in the collection and reporting of trade statistics are still required, in both producing and consuming countries. The sections on exports in this and the next chapter use exporters' reports unless stated otherwise; those on imports use importers' reports.

Exports

The composition of primary tropical timber exports for 2005-2007 from the ITTO producing regions is shown in Table 3. The contribution of logs to total primary timber exports of ITTO producers (in terms of both value and roundwood equivalent - rwe - volume) has fallen dramatically from over 60% in the 1980s to 22% in 2007. Only Africa continues to export a significant volume of tropical logs compared to processed primary products, with log exports making up 19% of Africa's log production and 45% of Africa's total export volume in 2007. The Asia Pacific region has replaced significant log exports with the export of secondary processed primary products, as detailed in Chapter 4. Asian log exports made up just over a fifth of Asia's total primary product export volume in 2007 (under 12% of log production).

Latin American tropical log exports are a small fraction of both production and total primary exports. Total roundwood equivalent export volume as a percentage of log production increased marginally in Latin America from 0.7% in 2005 to 1.2% in 2007, and increased in Africa from 17.4% to 18.9% but decreased in Asia-Pacific from 12.2% to 9.7%. Total ITTO producer member exports (rwe) of tropical primary products have declined since 2005, to 54.4 million m^3 in 2007. Levels of primary product exports from all three regions are complemented by increased exports of secondary processed wood products (SPWPs), as detailed in Chapter 4.

Imports

Table 4 provides an overview of the dependence of major ITTO importers on tropical wood products in 2004 and 2006. Major importers are defined here as those with imports of at least 100 000 m^3 of one or more tropical products. Table 4 indicates for which products each country qualifies as a major importer by denoting the relevant figures in bold; only Korea and Taiwan P.O.C. qualify as major importers of tropical timber under this

Table 3. Tropical Primary Product Exports by Producing Regions, 2004-2007 (1000 m³ rwe).

Region	Log Production			Log Exports			Processed Exports			Total Exports		
	2005	2006	2007	2005	2006	2007	2005	2006	2007	2005	2006	2007
Africa	17 356	17 988	18 029	3 015	3 406	3 406	4 339	4 200	4 202	7 354	7 606	7 608
Asia-Pacific	79 904	75 429	73 726	9 734	9 268	8 378	35 970	32 624	32 165	45 704	41 892	40 543
Latin America	34 205	32 010	33 151	237	415	391	6 574	5 589	5 856	6 811	6 004	6 247
Total	131 465	125 427	124 906	12 986	13 089	12 175	46 883	42 413	42 223	62 347	56 768	54 398

criterion in all primary product categories. Taiwan P.O.C. is the most dependent of the major consumer importers on tropical timber, with a significant proportion of its log, veneer and plywood imports of tropical origin. Expectedly, given the dominance of tropical plywood in international plywood trade, several of the countries in Table 4 have a fairly high dependence on tropical plywood imports (although this dependence is decreasing in some cases), with China, Japan, Korea and Taiwan POC dependent on tropical sources for close to or over 50% of total imports.

However, with the exception of France and the UK, the tropical portion of plywood imports in all the major ITTO importing countries declined between 2004 and 2006, reflecting the increasing importance of softwoods in world plywood production and trade. Tropical sawnwood has a lower market share in most non-tropical countries, with only Hong Kong S.A.R. dependent on it for around half of their total sawnwood imports. Only Taiwan POC amongst major consumers reported imports of a greater proportion of tropical than non-tropical logs in 2007. Korea and Taiwan P.O.C. were the only major tropical veneer importers in 2007.

The major ITTO producer country importers in Table 4 (with the exception of Mexico which trades extensively with the USA) are more dependent on tropical timber for their imported wood needs. This is changing, however, with for example, India, Malaysia and the Philippines now sourcing substantial quantities of timber imports from non-tropical areas.

Apart from the adverse impacts of the US economic slowdown on global consumption, a number of other developments in several of the consumer countries in Table 4 will likely affect demand for tropical timber in the near future. The EU is developing a scheme to restrict imports of timber to those legally sourced from volunteer partners under its "Forest Law Enforcement, Governance and Trade" initiative. The EU is working with a number of ITTO producer countries to develop Voluntary Partnership Agreements (VPAs) under which partner countries would be subject to strict licensing requirements. Ghana, Indonesia, Malaysia and Cameroon are now engaged in formal negotiations and Central African Republic, the Republic of Congo, Liberia and Gabon are likely to begin formal negotiations. In several countries, government procurement agencies have made commitments

Table 4. Tropical Proportion of Total Imports by Major ITTO Importers, 2004, 2006 (%).

Consumer Members	Logs		Sawnwood		Veneer		Plywood	
	2004	2006	2004	2006	2004	2006	2004	2006
Australia	41.1	32.0	**16.8**	**19.9**	38.3	28.7	28.8	23.3
Belgium	1.1	2.3	**11.2**	**8.2**	23.6	21.2	**41.1**	**33.2**
China	**26.5**	**21.3**	39.1	34.5	64.2	68.6	**61.5**	**59.0**
France	**23.3**	**16.0**	**11.0**	**10.8**	61.5	65.8	24.1	24.8
Germany	4.4	3.6	**3.0**	**3.5**	21.9	25.3	**10**	**9.8**
Hong Kong S.A.R.	41.3	30.7	**51.2**	**46.2**	14.0	13.6	**57.3**	**43.4**
Italy	**3.3**	**2.8**	**4.3**	**3.1**	37.0	41.9	16.8	11.1
Japan	**12.9**	**12.8**	**4.1**	**3.3**	32.6	32.5	**88.8**	**69.2**
Netherlands	6.7	2.0	**14.2**	**13.6**	33.1	44.4	**36.5**	**35.1**
Portugal	**56.3**	**40.8**	**45.0**	**35.0**	41.3	21.8	25.6	22.2
Republic of Korea	**7.0**	**3.9**	**34.5**	**15.2**	**77.9**	**81.7**	**91.3**	**84.3**
Spain	**3.5**	**4.4**	**10.3**	**11.2**	29.5	25.5	7.5	2.5
Taiwan P.O.C.	**81.1**	**74.7**	**36.1**	**27.7**	**81.2**	**83.5**	**76.6**	**65.0**
U.K.	3.7	4.2	**2.7**	**2.4**	43.3	42.3	**13.0**	**15.0**
USA	0.1	0.1	**0.8**	**0.4**	5.3	4.4	**32.1**	**24.6**
Producer Members								
India	**84.6**	**75.6**	21.4	69.8	68.5	62.4	62.2	31.7
Malaysia	67.0	68.0	**89.7**	**79.4**	14.7	9.2	9.1	26.3
Mexico	0.8	3.9	**1.0**	**0.9**	**20.6**	**24.5**	**42.4**	**30.7**
Philippines	**83.0**	**36.4**	**44.7**	**34.3**	74.9	9.2	7.5	10.1
Thailand	**92.3**	**95.6**	**44.5**	**32.4**	91.8	69.6	**48.1**	**35.9**

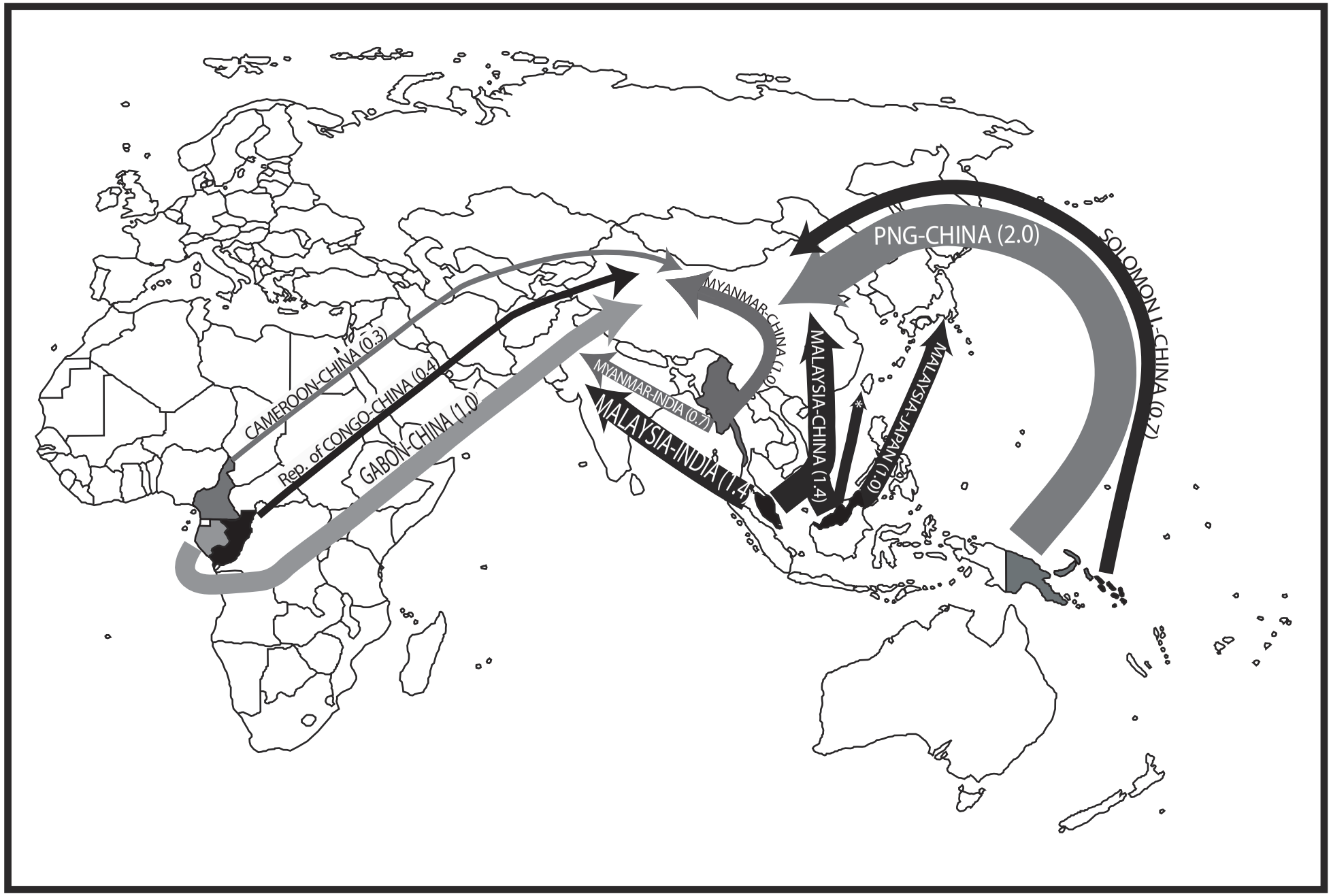
to buy legally produced and certified products, creating demand for certified products. ITTO producer countries are under-represented in the supply of certified wood products, with only about six percent of the world's certified forests in developing countries (ITTO 2006). At least eleven countries have developed timber procurement policies in public sector construction – UK, France, Germany, Belgium, Netherlands, Denmark, Switzerland, Austria, Norway, Japan and New Zealand.

Public procurement generally accounts for about 15% to 20% of the demand for timber products but the indirect effect of respective policies is significantly higher. Government policies differ widely by the extent to which they demand that wood must be "verified legal" or "verified sustainable" and their requirements for certification. This has caused/created uncertainty for tropical timber suppliers and demand for a common approach for standards of legal origin and legal compliance as well as verification procedures.

Private sector purchasing policies and codes of conduct have also grown in importance during the past few years, especially in the USA and Western Europe. Several EU industry associations, for example, have demonstrated a strong commitment to procure only legally sourced timber and give preference to products from sustainable sources.

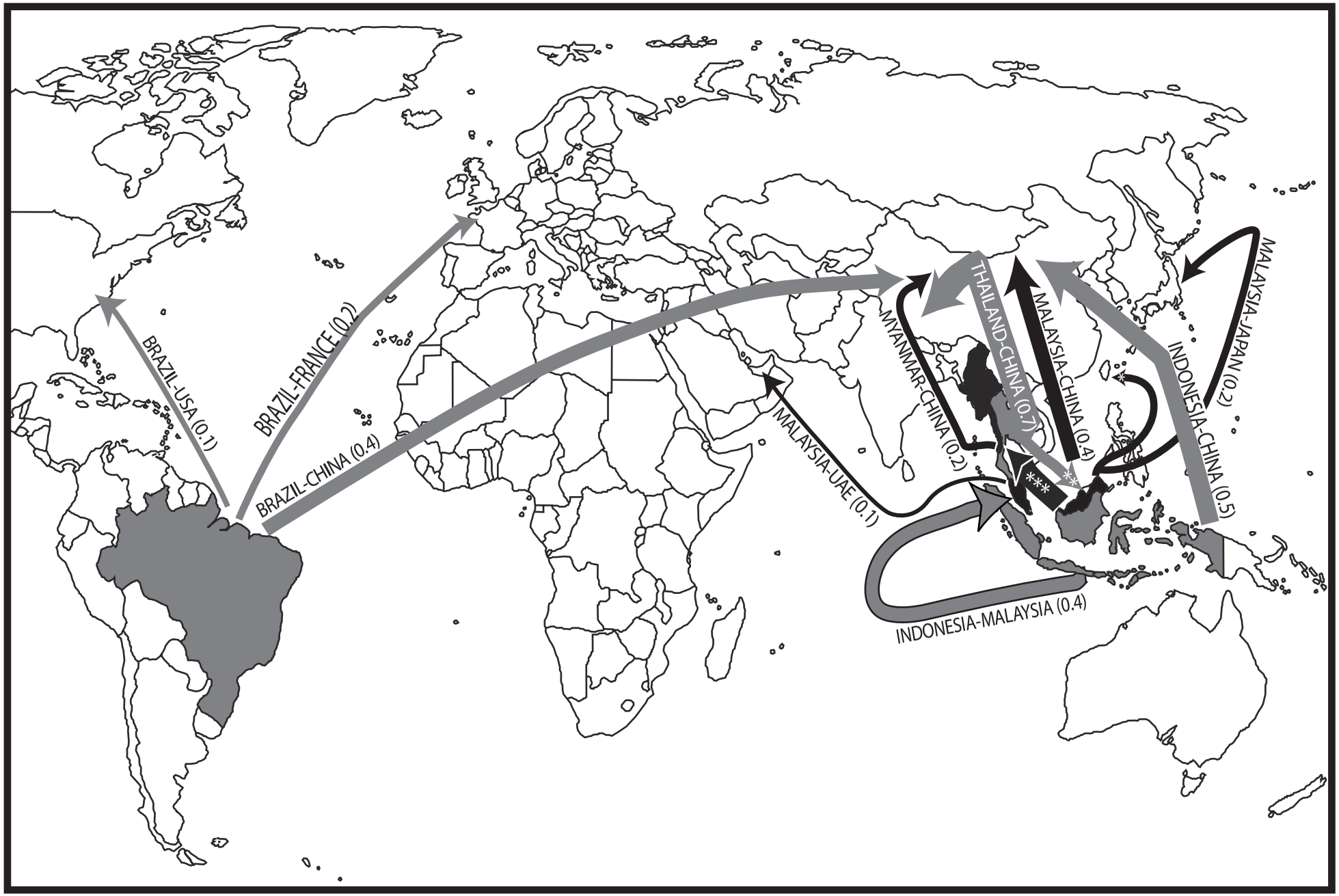
The EU Timber Trade Action Plan (TTAP) is seeking to address issues such as illegality by working through industry-led national organizations. Corporate Social Responsibility (CSR) policies are becoming an important marketing tool for many companies which are responding to market demand for products perceived as environmentally and socially acceptable.

Fig. 6: Major Trade Flows: Tropical Industrial Roundwood 2006 (million m^3).



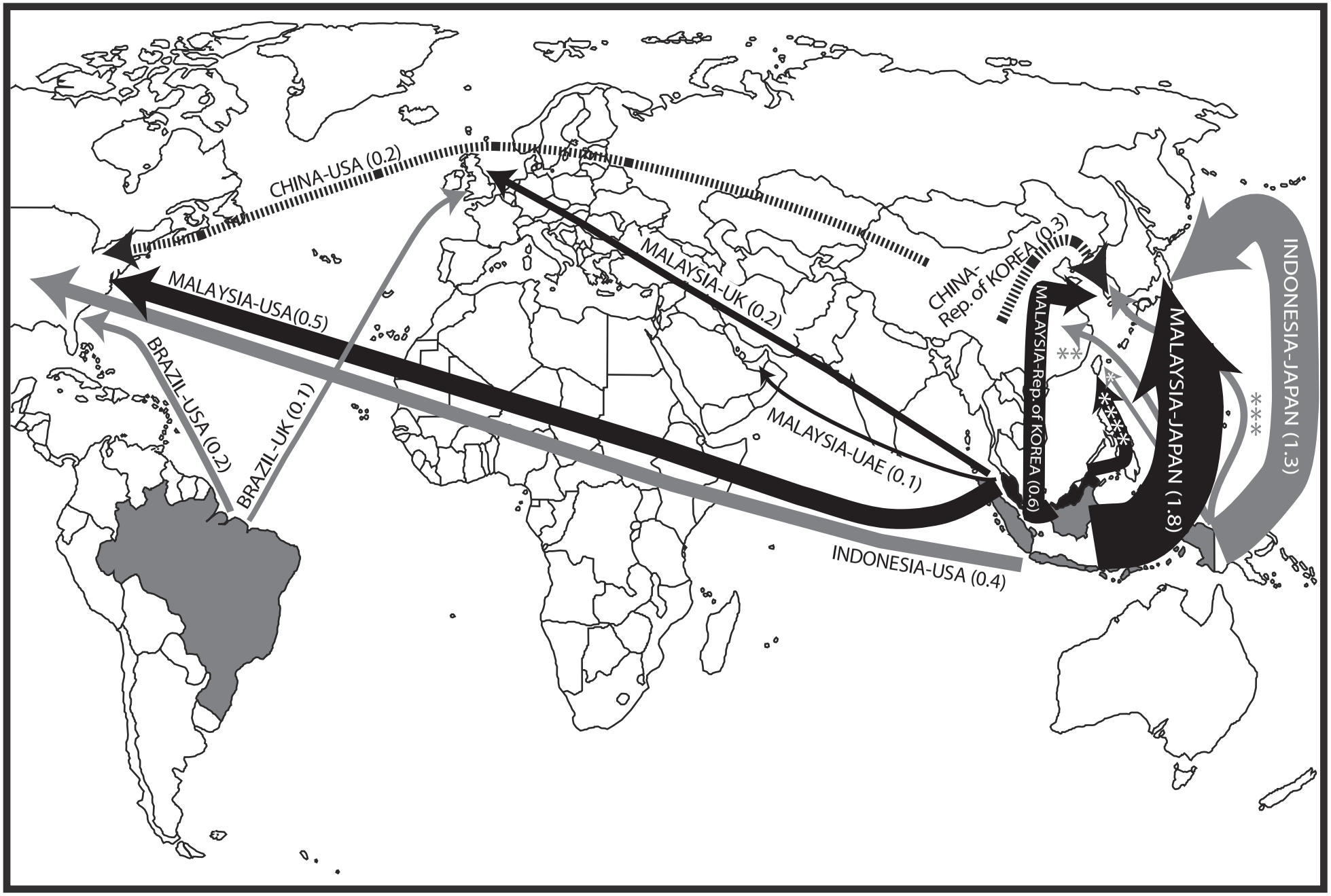
* MALAYSIA-TAIWAN P.O.C. (0.5).
Sources: ITTO, COMTRADE

Fig. 7: Major Trade Flows: Tropical Sawnwood 2006 (million m^3).



*MALAYSIA-TAIWAN P.O.C. (0.2), **THAILAND-MALAYSIA (0.3),***MALAYSIA-THAILAND (0.6).
Sources: ITTO, COMTRADE.

Fig. 8: Major Trade Flows: Tropical Plywood 2006 (million m³).



*INDONESIA-TAIWAN P.O.C. (0.1),**INDONESIA-CHINA (0.2),***INDONESIA-Rep. of KOREA (0.2),****MALAYSIA-TAIWAN P.O.C. (0.4).
Sources: ITTO, COMTRADE.

3. PRODUCTION, TRADE AND PRICES OF PRIMARY PRODUCTS

This chapter provides statistics on production and trade of primary tropical forest products in ITTO producer and consumer countries, as well as price trends for selected products. Appendix 6 contains the Market Statement released in October 2007 by the UNECE/FAO Timber Committee, providing an overview of developments in important markets for non-tropical primary timber products.

Data Sources and Conventions

Data on production presented here has been derived from JFSQ returns and supplemented by other available data sources (see Appendix 1). Production statistics in many ITTO member countries are often weak or non-existent. Many producer countries lack systems to measure both forest and industrial outputs, while many consumer countries are unable or unwilling to distinguish the processing of tropical timber from all timber processing. In several cases, production figures have been derived from available log supply. Apparent domestic consumption (production plus imports minus exports) statistics do not include changes in stock levels, which in the past were generally not reported or reported incorrectly by countries and which are therefore no longer collected.

As in previous years, production figures for many countries (including important producers like Cameroon, Central African Rep., Côte d'Ivoire, India, Nigeria, Myanmar and Papua New Guinea) were either not provided or unusable in 2007 and have been estimated from other sources and/or trade levels (if reported). Production figures for these countries should therefore be viewed with caution. Some countries (e.g. Honduras, Venezuela) include tropical softwoods in the production data reported to ITTO. Where distinguished, these products were included in the figures for all timbers but not for tropical timber in Appendix 1. Several countries (e.g. Brazil, Indonesia) are reported by various sources to have high levels of "unofficial" industrial roundwood production. Unless estimates of such "unofficial" production could be independently verified, only official production figures are presented here.

The following sections also report on exports, imports and price trends for each of the four primary tropical timber product categories covered by the ITTA. Detailed trade statistics are presented in Appendices 1 and 2, with data sources given in the notes preceding the Appendices. Major species in trade, together with volumes and average prices when these were reported, are summarized by country in Appendix 3.

Price trends through late 2007 for several important tropical log and sawnwood species and various grades and thicknesses of plywood from each exporting region are contained in Appendix 4 and serve as the basis for the analyses presented here. Nominal prices were reported biweekly by the ITTO/International Trade Center Market News Service (MNS) from 1990 until the end of 1995, and have continued to be reported by the ITTO Market Information Service (MIS) from then onwards. The nominal price series from these sources were converted to real 1990 US dollars using IMF exchange rate series and the IMF Consumer Price Index (CPI) for industrial countries. Both nominal and real price trends are given in Appendix 4.

As not all species are reported regularly, and since the MIS has added coverage of new products/species, some price series commence later than 1990 and may contain gaps. An attempt has been made to prepare price trend charts for a range of species/products identified as important in international trade. However, the products covered in the Review's price trend analyses may change from year to year since some species may drop out of regular international trade due to export bans or restrictions. Details of species banned from export by individual countries are included in the Country Notes, where this data has been provided by members. Species are identified by internationally accepted pilot/trade and scientific names; the local names of timber species used by producer countries, where they differ from pilot/trade names, are given in Appendix 3.

Average prices for species/products traded in 2006-2007 are also included in Appendix 3 for those countries that provided this data in the 2007 JFSQ. No attempt has been made to adjust or verify these nominal prices. Finally, Appendix 1 contains the average unit values of exports and imports for all products and countries in 2005-2006. These figures are highly aggregated based on total value and volume trade statistics and therefore include all species, grades and markets for each product. They are also, in many cases, based on estimates due to poor responses on trade values in the JFSQ.

Industrial Roundwood

Production

The production of tropical industrial roundwood ("logs") in ITTO producer member countries has been declining progressively since 2004, falling to 126.3 million m^3 in 2007 (down from 135.8 million m^3 in 2004). Figure 9 shows ITTO's five major tropical log producers for 2005-2007, ranked by 2006 production, as well as aggregate production by all other members. With the exception of Brazil, all other countries in the top five had declining or stable production during the period 2005-2007. Brazil's production declined between 2005 and 2006, from 26.6 to 23.8 million m^3, but is expected to increase to 24.5 million m^3 in 2007 in response to increasing domestic demand from the construction industry. Malaysian production has been declining since 2004, when production reached 24.4 million m^3, to 22.2 million m^3 in 2006. Malaysian tropical log production is still less than half of the levels of the early 1990s and

is estimated to decline further to 20.5 million m^3 in 2007 in line with government policy to implement sustainable forest management. Under the Ninth Malaysia Plan (2006-2010) log production is expected to decline progressively to 2010, with more domestic wood processing into exportable value-added products and reduced availability of logs for export. Indonesia's production declined in 2006 to 19.8 million m^3 from 22.5 million m^3 in 2005. Both Indonesia and Brazil's log production estimates are likely to be considerably higher if unofficial/illegal harvests are taken into account.

Figure 9 illustrates the dominance of the top four tropical log producing countries (Brazil, Malaysia, India and Indonesia) which together accounted for almost three-quarters of total ITTO production in 2006. Unfortunately, Indonesia, like India, has never provided reliable official production figures to ITTO, necessitating the use of estimates based on reported exports and assumed domestic consumption. Nigeria was the fifth largest tropical log producer in 2006, with production totalling 7.1 million m^3. Thailand's production (5.1 million m^3 in 2006) is based almost entirely on its rubberwood and other plantation resources. Appendix 1 (Table 1-1-d) shows that four other ITTO producer members (Nigeria, Myanmar, Papua New Guinea, Gabon, and Cameroon) had log production exceeding 2 million m^3 in 2006. Peru's production has been progressively increasing over the last four years and is estimated to reach 2.1 million m^3 in 2007.

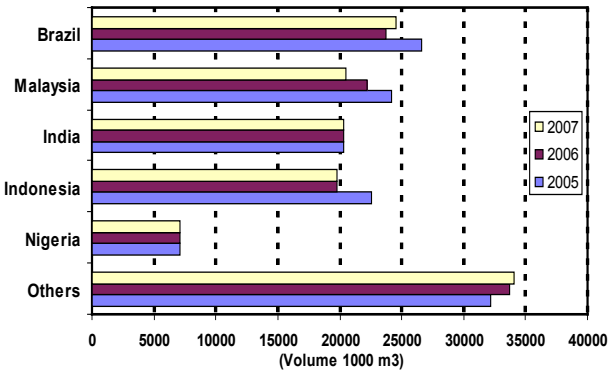


Fig. 9: Major Tropical Log Producers

Two ITTO consuming countries produced logs from their tropical forest resources in industrial quantities in 2006: China (1.4 million m^3) and Australia (41,000 m^3). China's production has decreased since 2004 when it reached 2.7 million m^3. The bulk of China's tropical log production comes from its southern provinces of Hainan Island and Yunnan. Log production from these areas is almost entirely consumed domestically. Australia's much smaller production is from north Queensland and is also consumed domestically.

The regional breakdown of tropical log production amongst ITTO producer members is given in Appendix 1 (Table 1-1-d); the Asia Pacific region produced about 60% of ITTO members' tropical hardwood logs in 2006. Latin American's share of production was about 26%, with the African region accounting for the remainder (about 14%).

Consumption

Figure 10 shows that tropical log consumption for 2005-2007 was closely linked to production trends in the top four countries. Tropical log consumption in Brazil and Indonesia declined sharply between 2005 and 2006 - by nearly 11% in Brazil and by 12% in Indonesia. Malaysian consumption declined less rapidly to 17.7 million m^3 in 2006 and Indian consumption remained relatively level. China remained the fifth largest tropical log consumer with consumption increasing slightly in 2006 to 9.0 million m^3.

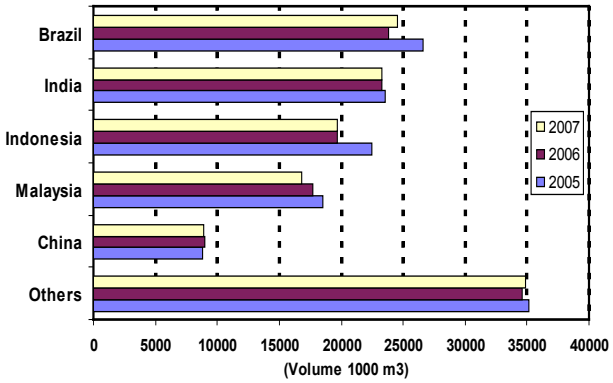


Fig. 10: Major Tropical Log Consumers

The top five log consuming countries accounted for nearly three-quarters of total ITTO consumption of tropical logs in 2005 and 2006. At a regional level, domestic tropical log consumption decreased in Asia-Pacific and Latin America/Caribbean but increased marginally in Africa between 2005 and 2006. In 2007 these trends are expected to continue except in Latin America/Caribbean, where strong consumption in Brazil, Mexico and Peru is anticipated. The proportion of log production utilized domestically (i.e. log production minus log exports) averaged about 88% in Asia in 2006-2007. In Latin America logs processed domestically accounted for virtually all production. African producers domestically consumed an average of 81% of their total log production in 2006-2007. While there will be short-term reversals when log exports will surge due to economic conditions, population and economic growth coupled with a focus on further processing will ultimately contribute to rising domestic log processing in producing countries.

Imports

Figure 6 (Section 2) shows the major trade flows for tropical logs in 2006. Total imports of tropical hardwood logs by ITTO members decreased 6% to 14.4 million m^3 in 2006, about 8% (or 1.2 million m^3) greater than total tropical log exports reported by all members. The gap between reported imports and exports was 14% in 2005 and 18% in 2003. Differences between reported ITTO imports and exports are to some extent made up by reported log exports from the Solomon Islands (1 million m^3 in 2006), Equatorial Guinea (456,000 m^3 in 2006), Viet Nam (138,000 m^3 in 2006), Mozambique (129,000 m^3 in 2006), and Laos

(102,000 m^3 in 2006), the five largest non ITTO tropical log exporters. Other non member tropical log exporters are less significant (all under 100,000 m^3 per year) and include Guinea, Benin, Costa Rica, Singapore and Madagascar. The reported sum of all tropical log exports by non-ITTO tropical countries in 2006 was 2.1 million m^3, leaving up to 3 million m^3 plus tropical imports by non-ITTO members (estimated to be around 900,000 m^3) to be accounted for by unrecorded or under-reported exports and/or over-reported imports from both members and non members.

Figure 11 shows the top ITTO tropical log importers in 2005-2007 ranked by import volume in 2006. China continued to dominate world imports of tropical logs, importing 7.6 million m^3 in 2006, a 3.4% increase from 2005. China's high economic growth rate and rising domestic consumption, sustained growth in exports of secondary manufactured wood products and incentives for exports (reductions in export tax incentives have not been fully implemented) point to continued growth in log imports to support the wood processing industry. Import growth may, however, be slightly dampened by an increase in timber harvesting from Chinese plantations. Industrial timber harvest has been increasing since 2003 and is reported to have reached levels prior to the implementation of the National Forest Protection Plan which curtailed harvests from 1998.

Although largely of non-tropical species, China's plantation resources are increasingly being used as substitutes for wood products and product components manufactured from tropical logs, such as plywood. China's tropical log imports, which accounted for approximately half of total ITTO imports in 2005-2006, have almost tripled since the mid-1990s, with PNG, Malaysia, Myanmar, Gabon, and the Republic of Congo the main sources. China's imports of non tropical logs are large (approximately 65% of all log imports) with Russia providing the bulk of the 28 million m^3 imported in 2006. China's total log imports from all sources reached 35 million m^3 in 2006, a 16% increase over 2005 and with most of the increase attributed to an increase in imports from Russia. In the medium term, tropical log exporters may benefit from the implementation of an export tax imposed on Russian logs, scheduled to reach prohibitive levels by 2009, although the trade impact of the tax has not

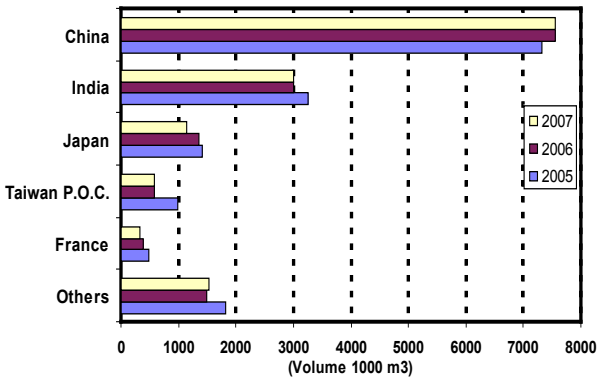


Fig. 11: Major Tropical Log Importers

yet been apparent in the trade statistics. Official Chinese statistics do not include Taiwan P.O.C. nor Hong Kong and Macao S.A.R.s, so the figures used here for these importers are based on the U.N. Comtrade database or estimates. Hong Kong S.A.R.'s tropical log imports have declined sharply since 2000, possibly due to improved accounting of re-exports to China. Taiwan P.O.C. is still a significant importer, although imports declined sharply in 2006 to 585,000 m^3. Imports were overwhelmingly from Malaysia (93%) with smaller volumes from Papua New Guinea, Gabon, Guyana, Cameroon and Myanmar, although the latter reported no exports in the opposite direction.

India, now the second largest ITTO tropical log importer, brought in just over 3.0 million m^3 in 2006, down 7% from a peak in 2005. Imports were mostly from Malaysia and Myanmar but with an increasing component from Africa. While India has had sustained economic growth over the past decade and a large population, India's rate of growth in total and tropical log imports has not matched that of China's. India's wood processing sector is unlikely to match China's highly competitive export oriented sector. A number of factors limit India's wood processing competitiveness including poor infrastructure and barriers to foreign investment.

Japan, the third largest ITTO tropical log importer, continues to become less significant in the tropical log trade, with declining imports over the last 15 years. Tropical log imports were 1.4 million m^3 in 2006, declining to 1.1 million m^3 in 2007 following a significant decline in Japanese residential housing starts in late 2007. Japanese demand for tropical logs in 2006 continued to be met primarily (78%) by output from Malaysia. Japan Lumber Journal reported that Japan's log imports from Malaysia in 2007 had declined significantly, primarily due to transportation problems which considerably reduced shipping transport capacity between Japan and Sarawak. Japan's log imports from Malaysia are mostly from Sarawak, although the volume and proportion of total log imports from Sabah has been increasing in recent years. Smaller tropical log volumes are imported from Papua New Guinea (13%) and the remainder from Myanmar and Africa (mainly Gabon, the Republic of Congo, Democratic Republic of Congo and Central African Republic).

Russia continued to be Japan's major log supplier, with imports from that country accounting for 47% of total log imports of 10.6 million m^3 in 2006. As with other countries reliant on Russian log supplies such as China, this situation is likely to change as attention shifts to investment in value-added processing in Russia in response to the imposition of log export duties. Readjustments in Japan's wood processing sector are likely as Russian larch is now a preferred species for plywood manufacture in Japan and has maintained highly competitive prices relative to tropical logs.

EU countries imported approximately 1.1 million m^3 of tropical logs in 2006, down 4% from 2005. Most EU

tropical log imports continue to come from African producers. Imports by France (the largest EU tropical log importer and the world's fifth largest tropical log importer) decreased by 19% to 392,000 m^3 in 2006 as log export restrictions in some of its main suppliers (Cameroon, Gabon, Liberia and the Republic of Congo) were tightened. French imports were anticipated to decrease further to 320,000 m^3 in 2007.

Exports

Figure 12 shows the major ITTO tropical log exporters in 2005-2007, ranked by 2006 export volume. Total ITTO producer member exports were almost 13.1 million m^3 in 2006. Log exports by producer members are estimated to decrease by 7.0% in 2007 to 12.2 million m^3. Although Malaysia continues to dominate the trade in tropical logs, with 4.7 million m^3 exported in 2006 (35.6% of ITTO producer member exports), tropical log exports declined 19% from 2005 levels. Appendix 2 (Table 2-1) shows that Malaysia's major log customers are all in Asia, with China, India, Japan and Taiwan P.O.C., accounting for 88% of the reported log export volume in 2006.

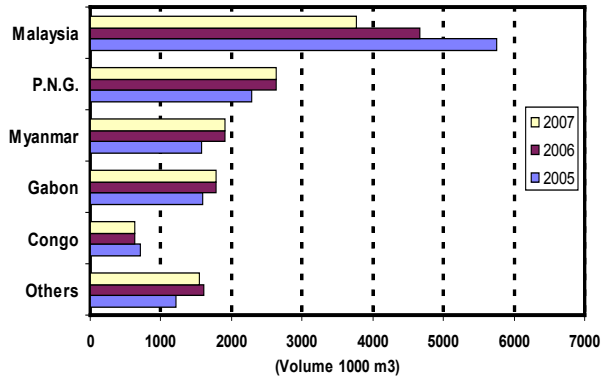


Fig. 12: Major Tropical Log Exporters

In 2004, ITTO reported Malaysia's large log trade discrepancy with China (140% or almost 1.6 million m^3) in sharp contrast to its relatively close agreement with other importers' reports. The reason suggested was the possibility of substantial mislabelling or misreporting of the source(s) of China's imported tropical logs. In 2006, this discrepancy was minimal (18%), suggesting that efforts to tackle illegal log trafficking in the region may have taken effect. In 2007, Malaysia's exports are estimated to decline to 3.8 million m^3 as tropical log supplies tighten and more tropical logs are processed domestically.

Papua New Guinea is the second largest tropical log exporter, with exports reaching 2.6 million m^3 in 2006, a 16% increase over the 2005 level. However, PNG's log exports still remain below the pre-Asian financial crisis level of almost 3 million m^3 per year. Appendix 2 shows that the Chinese market accounted for about 78% of PNG's exports in 2006, the remainder destined for Japan, the Republic of Korea, India and Thailand.

Log exports by Myanmar (the third largest tropical log exporter at almost 1.9 million m^3) increased by 21% in 2006. Myanmar's main trading partners are China and India, which together accounted for 87% of Myanmar's tropical log exports. In October 2007 the EU announced a ban on imports of wood products from Myanmar and imposed other sanctions affecting the wood processing sector, in response to human rights violations in the country. The trade impacts on Myanmar's log exports, however, were expected to be minimal in 2007 although more active purchasing was recorded at the end of 2007 in anticipation of the import ban. Although EU countries are insignificant to Myanmar's log trade, importing less than 1% of Myanmar's tropical log exports in 2006, they are major end-markets for teak products processed in China and other ITTO member countries. The new regulation was enforced in March 2008 and affects both products imported directly from Myanmar and indirectly via other countries.

Gabon's tropical log exports also increased from 1.6 million m^3 in 2005 to 1.8 million m^3 in 2006 and are estimated to remain level in 2007. Log export quotas were under negotiation in 2007 to be fully implemented in 2008, possibly dampening prospects for an increase in log exports in 2008. The regulation, intended to reduce the share of log exports in the product mix, stipulates that only those producers with operational processing facilities are allowed to export a specified percentage of the concessionaire's exports. Gabon's log exports in 2006 were predominantly to China (59%), which has overtaken EU markets such as France, Italy and Portugal in recent years.

Due to its ongoing log export ban and tighter controls to regulate illegal trade, Indonesia's tropical log exports are now minimal, stabilizing at an estimated 62,000 m^3 in 2006 and 2007. Indonesia signed agreements in 2003-2004 to stem illegal log flows with some major trading partners (e.g. China, Japan and the UK), while Malaysia introduced legislation banning the import of logs and squared timber from Indonesia. Despite these measures, trade figures continued to show major discrepancies.

In 2004, ITTO reported that China's reported imports were far greater than the level reported by Indonesian customs authorities, supporting the claims of many observers that substantial undocumented or illegal Indonesian log exports continued to take place. In 2006, the discrepancy between Indonesia and China's reported tropical log trade continued, although not in the magnitude of previous years. In 2006, China reported tropical log imports from Indonesia of 35,752 m^3 while Indonesia reported tropical log exports to China of 4 m^3. Africa supplies the majority of the remainder of world tropical hardwood log exports. Gabon was the region's largest exporter (and, as noted above, ITTO's fourth largest), but the Republic of Congo, Cameroon, Democratic Republic of Congo, Côte d'Ivoire and Central African Republic also exported substantial quantities of logs in 2006. Although now the fifth largest ITTO tropical log exporter, the Republic of Congo's exports had been declining since 2004 to 633,000 m^3 in 2006 and 2007. Exports may decline further following

the implementation of a log export quota system in 2008. Cameroon's tropical log exports have doubled from the depressed levels of 2005, reaching 491,000 m^3 in 2006, but down significantly from the peak levels of the mid-1990s. Cameroon is promoting increased local processing and has imposed limitations on log exports for certain species which appear to have variable impacts. About 61% of log exports were to China in 2006. Although the EU is the largest destination for Cameroon's wood products exports, EU countries have replaced sawntimber for logs in the import product mix.

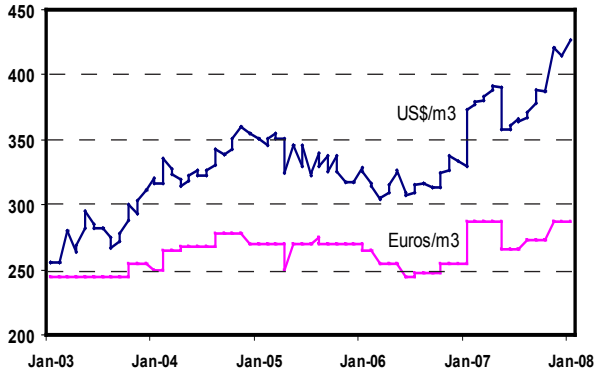
Liberia was previously a significant tropical log exporter but log exports dropped to zero in 2004. After resolving a long running civil war in 1998 (which led to drastic decreases in official log production and exports for most of the 1990's), log exports grew rapidly to offset declines from other African countries. However, due to renewed conflict, the U.N. Security Council imposed a ban on imports of logs from the country in mid-2003. The U.N. embargo was intended to halt the use of timber export revenues to fund illegal arms transactions. The embargo forced main importers such as China and France to look to other sources. It was initially imposed for ten months but was renewed for another year in 2004 despite continued pleas from the Liberian transitional government. The U.N. imposed ban was lifted in 2006 after the Government of Liberia instituted a series of regulatory reforms.

Exports of tropical logs by consumer countries increased by 5.8% to 146,000 m^3 in 2006 but were estimated to decrease to 93,000 m^3 in 2007. Consumer countries did not in general provide detailed breakdowns of exports or re-exports of tropical timber products (value or destination), but a significant portion of this trade is known to be conducted between EU countries.

Prices

Appendix 4-1 shows indicative real (1990) and nominal FOB price trends for export logs of two West African and five Southeast Asian species as well as domestic price trends for Malaysian rubberwood logs (this species is used mainly in the domestic market for the manufacture of furniture and furniture parts for export).Price trends for some of the more important internationally traded species of West African logs showed some instability but continued to rise rapidly to new highs in 2007, with the rate of increase being at least partially due to exchange rate fluctuations (prices rose more rapidly in US dollar terms than in euros). The improvement of log prices in euros reflected greater demand (including from China and India); disruptions in log supply due to political unrest in the West African region; and increasing log export restrictions in the region, with log quota systems being implemented in the Republic of Congo and Gabon in 2007. Some instability also occurred for a short period in 2007 when China abruptly halted log imports from West Africa following a substantial stockpile of logs at the ports, and in late 2007 when China reduced demand for non-premium species.

After reaching record lows of \$132/m^3 (\$171/m^3 nominal) in late 2001, Cameroon's khaya prices continued to rise during most of 2002-2007 to reach a high of \$217/m^3 (\$320/m^3 nominal) in December 2007. The continuing trend in rising prices was due to both supply- and demand-side factors. Log shortages from the region have been the result of new and tougher regulations on forest concessions and chronic logistics problems. On the demand side, khaya prices have benefited from increased demand for substitutes for South American mahogany (*Swietenia* spp.) for which supply has declined since its inclusion in Appendix II of CITES in 2003. Further price rises have been partly restrained by market substitution for khaya by more readily available Southeast Asian species.



Nominal FOB log export prices, UK market
Source: ITTO MIS
Figure 13: Sapelli Log Prices in US Dollars and Euros, January 2003-January 2008

Prices for sapelli (or sapele), another reddish brown timber from the Congo Basin found in countries from Liberia to Gabon, recovered from a downward trend between 2005 and mid-2006, when prices were affected by the strengthening US dollar and weak EU demand, in addition to strong price competition from Asian meranti, an alternative red/brown timber which is quoted in US dollars. From mid-2006, prices have trended upwards in nominal and real US dollars, reaching a high of \$400/m^3 (nominal) at the end of 2007. However, when quoted in euros (the currency in which sapelli is commonly invoiced) prices have been rising at a slower pace than in US dollars, due to the weakening US dollar in 2007. Although prices in euros were rising slower than in US dollars, price rises in euros reflected difficulties in supply. Figure 13 shows differences in trends of sapelli log export prices in US dollars and euros for the UK market. Appendix 4-1-b shows that after the sharp drop during the Asian financial crisis of 1997 and 1998, prices of some species of Asian logs have now recovered from pre-crisis levels, after a six year period to mid-2005 when prices remained in a trough, followed by a period of rapid increase during 2006 and 2007 where in some cases prices reached new record highs.

In Malaysia, selangan batu and kapur log prices rose steadily and sharply in 2006-2007, from \$146/m^3 (\$210/ m^3 nominal) and \$132/m^3 (\$190/m^3 nominal) in January 2006

to \$198/m^3 (\$292/m^3 nominal) and \$177/m^3 (\$260/m^3 nominal) in October 2007. In 2006, Selangan batu prices well surpassed the previous high price levels of the 1990's, reaching record highs in October 2006. Prices were driven up by limited supplies and strong demand in China and India. After October 2007 prices stabilised and trended slightly downwards reflecting slowing demand conditions in all major markets. Japanese importers also pressed for price reductions in late 2007, citing the slowdown in demand for plywood in Japan.

Real prices for keruing and meranti logs also rose continuously between 2005 and mid-2007, slowing in the last quarter 2007 and trending downward in early 2008. In October 2007 nominal prices for keruing reached a 15-year high of \$282/m^3 (\$192/m^3 real) before declining slightly to \$275/m^3 in March 2008. In nominal terms, meranti log prices followed a similar trend, reaching \$315/m^3 at the end of 2007, the highest level since mid-1993, with prices settling to \$305/m^3 (nominal) in March 2008. Apart from shortages in supply of Asian logs and restrictions on log exports from Indonesia, firming prices for these products were due also to continued strengthening of demand in China and India which have been importing a wide variety of sizes and grades. Japan (the traditional market for Asian logs but now declining) preferred larger sizes and much tighter grading at lower prices. For Japanese importers, the rising ocean freight rates in 2007 were offset somewhat by the appreciation of the yen relative to the US dollar, although continued substitution of softwoods for tropical hardwoods in the Japanese plywood industry has eased prices. In the UK market, the decline in prices in recent months has been reportedly due to declining demand in the UK as high prices and limited supplies have forced buyers to seek alternative species.

Domestic price trends for Malaysian rubberwood logs since early 1996 are also shown in Appendix 4-1-b. Virtually all of Malaysia's rubberwood resources are directed to local wood manufacturing and the fast growing furniture export sector. After reaching a low of \$18/m^3 (\$23/m^3 nominal) in early 1998, rubberwood log prices rose gradually during 1999-2001 and rebounded sharply and steadily through 2002 to mid-2007. Domestic rubberwood logs were trading at \$168/m^3 (\$247/m^3 nominal) in late 2007, a new record high for this species, before flattening by March 2008. In addition to the increasing demand for rubberwood in Malaysia's fast growing secondary wood processing industry, the surge in prices was driven by prices of natural rubber, which soared along with prices of oil-based synthetic rubber. This persuaded rubber planters to continue tapping existing trees and delay re-planting, resulting in reduced timber supply. Another factor driving up rubberwood log prices was the increased demand from the MDF and particleboard industry that competes fiercely with sawmills for rubberwood logs.

Prices surged despite the re-imposition of export restrictions on rubberwood logs and sawnwood. The area of rubber plantations in Malaysia continued to decline as plantation companies switched to oil palm from which returns are higher than for latex and timber. Rubberwood supply has since moved to small holder sources rather than estates, creating concerns about the sustainability of supply and logistical issues which have created further upward price pressure. Despite government incentives for the private sector to plant rubber trees, and further export restrictions being imposed on fingerjointed sawnwood, prices continued to rise before easing at the end of 2007.

Appendix 4-1-c shows price trends of three grades of Myanmar teak logs from mid-1997 when data for this product began to be regularly collected by the MIS. Teak 4th grade logs are generally used for sliced veneer production while SG-2 to SG-4 grades are for sawing. Prices for teak logs, which were practically unaffected during the 1997 Asian financial turmoil, have generally risen since then, with prices escalating since late 2006. In the case of 4th and SG-2 teak grades, real prices peaked in early 2003 at \$2,041/m^3 (\$2,740/m^3 nominal) and \$1,191/m^3 (\$1,598/ m^3 nominal) and then fluctuated sharply from month to month to mid-2006. Factors contributing to the price instability during this period included externally applied trade control measures, internal administrative changes and switch of teak-auction currency from the US dollar to the euro.

Periodic fluctuations in the higher teak grades are regarded as normal and reflect the small volumes traded, seasonal fluctuations in log availability, and periods of overpricing followed by market price corrections. In late 2006 prices for the higher grades of teak rose dramatically in response to strong demand for natural rather than plantation grown teak. In early 2008, prices for all grades of teak reached new record levels as purchasing activities stepped up before the EU import ban was imposed. A growing demand for teak subsitutes, such as iroko, has already been reported and may contribute to some price dampening in 2008. Real prices for 4th grade and SG-2 logs reached \$2,667/m^3 (\$3,925/m^3 nominal) and \$1,301/ m^3 (\$1,914/m^3 nominal) respectively in March 2008.

Prices for SG-4 grade teak have been comparatively less volatile than those of the other two grades. SG-4 teak prices have risen steadily over the last two years, reaching record highs of \$1,350/m^3 (\$1,985/m^3 nominal) in September 2007, before declining slightly to the end of 2007. As is the case with many other Asian producers, a larger proportion of Myanmar's teak is now processed domestically into higher value-added products, supported by government policy to expand domestic manufacturing. This development has reduced the supply of teak logs available for export.

Sawnwood

Production

Production of tropical sawnwood in ITTO producing countries totalled 39.8 million m^3 in 2006, down 1.4% from 2005. Tropical sawnwood production in these countries

is estimated to recover to 40.3 million m³ in 2007 due to increases in Latin America/Caribbean and to a lesser extent, Asia-Pacific. Africa, which makes up only 11% of ITTO production, still suffers from weak infrastructure and environmentally demanding export markets that constrain major investments in wood processing. Until 2006, tropical sawnwood production in Africa had been gradually rising due to log export bans and requirements for further processing in many countries. Production in Latin America, which comprised 42% of ITTO tropical sawnwood production, grew by over 21% to 17.1 million m³ between 2005 and 2006. Asian production declined 5% over the same period, to 18.3 million m³ in 2006. The Asian region accounted for around 46% of tropical sawnwood production in producer countries in 2006.

Figure 14 shows the major ITTO producers of tropical sawnwood in the 2005-2007 period, ranked by 2006 production. Brazil was the largest ITTO tropical sawnwood producer, totalling 14.7 million m³ in 2006, and estimated to increase to 15.0 million m³ in 2007. Malaysia (51.3 million m³), India (4.9 million m³), Indonesia (3.9 million m³) and Thailand (2.9 million m³) were other major producers of tropical sawnwood in 2006. Production in all of these countries was estimated to be relatively stable in 2007. Malaysia's tropical sawnwood production is estimated to increase 1.4% to 5.2 million m³ in 2007.

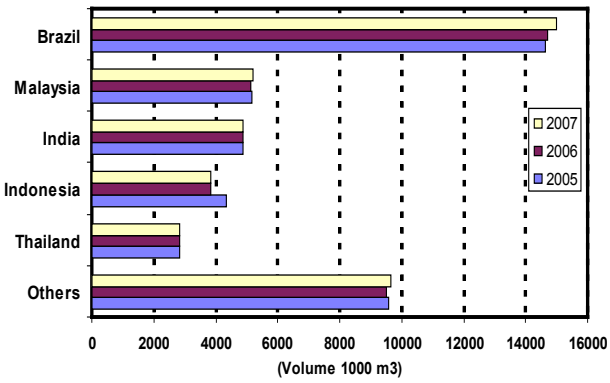


Fig. 14: Major Tropical Sawnwood Producers

The top five tropical sawnwood producing countries comprised over 79% of ITTO sawnwood production in 2006. Appendix 1 shows that six other ITTO producer and consumer countries (Nigeria, Myanmar, Cameroon, China, Peru and Ghana) produced over 500 000 m³ of tropical sawnwood in 2006. Production remains relatively stable in 2007 in all of these countries, except for China where production is estimated to increase by 4.6% between 2006 and 2007.

Consumption

Figure 15 shows the main ITTO consumers of tropical sawnwood, ranked by 2006 consumption. Consumption of tropical sawnwood by ITTO consumer countries has continued on a downward trend since 2004, declining by 17.1% between 2005 and 2006, from 7.8 million m³ to 6.5 million m³. In contrast, consumption by producer countries has been growing since 2004, reaching 30.7 million m³ in 2006, a 3.7% increase on the previous year, and estimated to reach 31.3 million m³ in 2007. The five countries in Figure 15 accounted for over 76% of ITTO members' consumption of tropical sawnwood in 2006.

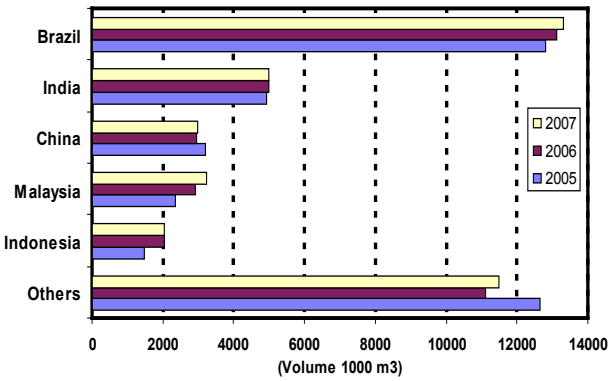


Fig. 15: Major Tropical Sawnwood Consumers

Brazil remains the largest ITTO tropical sawnwood consumer at over 13.1 million m³ (up 2.5% from 2005) in 2006, and estimated to climb to 13.3 million m³ in 2007 with strong sawntimber demand in the growing construction sector. India was second, consuming around 5 million m³ in 2006. China and Malaysia follow in third and fourth place, with tropical sawnwood consumption of over 2.9 million m³ in both countries. Both increased consumption in 2007, Malaysia more sharply than China. Nigeria was the largest (and only major) tropical sawnwood consumer in Africa, with consumption remaining stable at nearly 2 million m³ in 2006 and 2007. Japan's tropical sawnwood consumption continued to decline in 2006 (by 18%) and is estimated to plummet further by 27% in 2007 to 294,000 m³ due to the rapid decrease in housing starts in 2007. Japan's tropical sawnwood consumption had been falling for several years to 2006-2007 due to the country's slowing economy, strong competition from imported softwoods and more recently, an increase in availability of domestic log supplies.

Imports

Figure 7 (Section 2) shows the major trade flows for tropical sawnwood in 2006. Total ITTO imports of tropical sawnwood declined 18.3% to 7.9 million m³ in 2006 but are estimated to recover to 8.1 million m³ in 2007. Figure 16 shows the major ITTO sawnwood importers in 2005-2007, ranked by 2006 import volume. With imports of almost 2.4 million m³ in 2006, China is the top ITTO tropical sawnwood importer, although year-on-year imports declined by 11.6%. China's main tropical sawnwood suppliers in 2006 were Thailand (30%), Indonesia (19%), Malaysia (16%), Brazil (14%) and Myanmar (7%). Imports from African countries (Gabon, Cameroon, the Republic of Congo, Côte d'Ivoire, and Ghana) were less than 3% of China's tropical sawnwood imports in 2006.

A significant feature of the tropical sawnwood trade is that 60% of the global trade is within the Asia region.

Malaysia imported 786,000 m³ of tropical sawnwood (down 21%) in 2006, 98% from Indonesia and Thailand. The significant year-on-year decline was due to a sharp decrease in supply from Indonesia. Thailand imported 628,000 m³ in 2006 (down 27%), 97% from Malaysia, mostly lower grade material for the construction industry. Imports from Malaysia declined significantly in 2006 due to a slowdown in private sector construction activity.

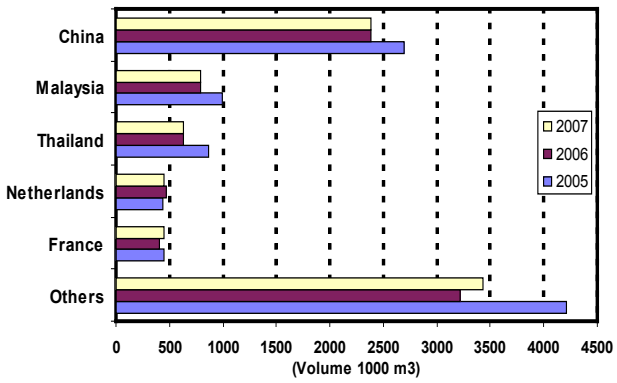


Fig. 16: Major Tropical Sawnwood Importers

Total tropical sawnwood imports by EU countries decreased by 14% in 2006 to just less than 2.4 million m³ due mainly to significant declines in imports from Italy, Spain, and to a lesser extent, the UK. Both Italy and Spain were expected to recover from their downturns in 2007, and the UK to remain level. The decline in EU tropical sawnwood imports has been attributed to a number of factors including: a lack of availability of certified timber (in the UK); fashion changes to lighter colour timbers; loss of SPWP manufacturing capacity as a result of strong competition from Asian manufacturers (particularly China); substitution by non-tropical sawnwood in furniture and joinery manufacture; and growing interest in non-tropical hardwood imports from East European countries which are perceived to have better trading relationships than tropical supplying countries. Brazil and Cameroon are the major sources for EU tropical sawnwood imports, which are estimated to increase 13% in 2007 to nearly 2.7 million m³.

The Netherlands (the fourth largest ITTO importer) is also the largest importer of tropical sawnwood in the EU, absorbing 465,000 m³ in 2006 (up 5% from 2005) and estimated to decrease slightly in 2007 to 450,000 m³. The Netherlands' imports are primarily from Brazil, Cameroon, Malaysia, Indonesia and Belgium. France became the fifth largest tropical sawnwood importer in 2006, despite an 8% decline to 409,000 m³. As the size of the bar for "Others" in Figure 10 indicates, the tropical sawnwood market is the most diversified of all primary tropical timber products, with the five largest importers accounting for only about 60% of total ITTO imports in 2006.

Exports

Figure 17 shows the major ITTO tropical sawnwood exporters in 2005-2007, ranked by 2006 export volume. ITTO producers exported a total of almost 11.0 million m³ of tropical sawnwood in 2006, down nearly 16% from 2005. This large decrease was mostly due to significant declines in exports from Indonesia and Malaysia. ITTO members account for most of the global exports of tropical sawnwood, with Madagascar (820,000 m³), Malawi (425,000 m³), South Africa (276,000 m³), Paraguay (183,000 m³) and Singapore (161,000 m³) the only significant non-member exporters in 2006.

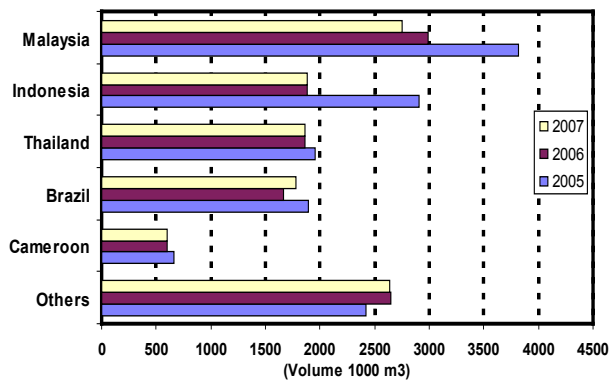


Fig. 17: Major Tropical Sawnwood Exporters

Malaysia continues to lead in the exports of tropical sawnwood, with the 3.0 million m³ exported in 2006 constituting 27% of total ITTO producer member exports. Malaysia's exports declined by 22% in 2006 from a peak in 2005 of 3.8 million m³. Most of this decline was due to a large drop in exports to Thailand, and to a lesser extent, the Netherlands. Malaysia's tropical sawnwood exports to Thailand are used mainly in the construction industry which experienced a boom period in 2005 before easing in 2006 and 2007. Appendix 2 (Table 2-2) shows that Malaysia's other major sawnwood customers in 2006 were China, Japan, Taiwan POC, Hong Kong S.A.R., Belgium, France and Italy. There were, however, large discrepancies between the trade flows reported by Malaysia and trading partners Japan and China in 2006. Exports from Malaysia are expected to decline further in 2007 to 2.7 million m³.

Indonesia's exports of tropical sawnwood also declined significantly in 2006 to 1.9 million m³, 35% less than 2005 levels. Estimates for Indonesia's exports of tropical sawnwood have severely underestimated total trade in previous years, particularly with China. In 2006, a large discrepancy continues to exist between Indonesia's official reports of exports to Malaysia, and Malaysian reports of imports from Indonesia. However, a substantial reduction in the magnitude of discrepancies identified in previous years suggests that an apparent large undocumented flow of sawnwood out of the country appears to be lessening. Thailand's exports of tropical sawnwood declined 5% to 1.9 million m³ in 2006. Thai exports were predominantly to China and Malaysia. Thailand's reported exports to Malaysia in 2006 were one-third the volume of Malaysia's reported imports, indicating the continued problems in Asian countries with unreported trade flows in tropical sawnwood.

Brazil is the fourth largest ITTO tropical sawnwood

exporter, with exports totalling 1.7 million m^3 in 2006, down 12% from 2006 levels. Brazil's major sawnwood markets are China, France, the Netherlands (where there is also a large discrepancy between reported trade flows) and Spain. Brazil's exports are estimated to increase to 1.8 million m^3 in 2007. Cameroon decreased exports slightly to 604,000 m^3, down 8% in 2006, with exports mainly to European destinations – Spain, Italy, France, the Netherlands and Belgium. Cameroon's exports were also stable in 2007.

ITTO consumer countries export small volumes of tropical sawnwood, totalling 79,000 m^3 in 2006. Most of these exports (69%) are from EU countries and most of the trade is intra-regional, within the EU. Belgium, a larger tropical sawnwood exporter than many producer countries, was the main EU tropical sawnwood exporter at 190,000 m^3 in 2006, followed by Germany and the Netherlands. Total consumer country exports of tropical sawnwood dropped to 637,000 m^3 in 2007, due to a decline of 8% (to 432,000 m^3) in EU exports.

Prices

Real (1990) and nominal sawnwood FOB price trends for three Ghanaian species, two Malaysian species and three Latin American species of tropical sawnwood are featured in Appendix 4-2.

The demand for African mahogany (khaya or acajou, one of the continent's most valuable sawnwood export species) has been on an upward trend following restrictions on the supply of South American mahogany (*Swietenia macrophylla*), a species strongly favoured by US consumers. In 2001 real prices were at a low of \$304/ m^3 (\$396/m^3 nominal) but have been rising since then, reaching \$553/m^3 (\$814/m^3 nominal) at the close of 2007. Prices in euros, however, were flat in the last quarter of 2007. Although demand was reported to be strong in EU countries in 2007, strong price competition from alternative species (particularly meranti) and slowing demand in the USA have flattened prices. Although the USA has been the major traditional market for khaya, the unfavourable exchange rate between the US dollar and euro resulted in reduced exports of khaya to the USA.

Wawa (or obeche) sawnwood prices reached a record high of \$331/m^3 (\$445/m^3 nominal) by mid-2003 when UK importers increased buying to replenish stocks. Wawa prices then declined in 2004 due to greater supply of sawn wawa from Ghana and a quiet UK market, a reflection of long term shifts in the furniture manufacturing sector towards the outsourcing of furniture components. Wawa prices firmed and recovered in 2004 before declining gradually (both in euros and dollars) to \$233/m^3 (\$334/ m^3 nominal) in early 2006. The overall market for wawa in Western Europe has been shrinking as manufacturers either relocate or import mouldings and other semi-finished components from Africa or low-cost locations in Eastern Europe and Asia. Wawa demand has also been affected by MDF substitution in some European markets. Until mid-2007 prices remained relatively stable before increasing to a high in nominal terms of \$459/m^3 (\$312/m^3 real) in late 2007, driven by strong demand for white timbers in the mouldings and sauna industries.

After reaching a new low of \$321/m^3 (\$423/m^3 nominal) in early 2002, real prices for iroko (or odum, currently West Africa's most valuable sawnwood export species) rebounded and rose steadily, reaching a peak of \$596/m^3 (\$836/m^3 nominal) in early 2005. FOB prices for iroko sawn timber subsequently firmed due to disruption of iroko trade in Côte d'Ivoire (affected by a serious political crisis) and robust demand in the UK, Germany and Mediterranean countries. At the end of 2005 prices weakened due to high stocks in Europe and increased supply from D.R. of Congo and Gabon. Prices then increased marginally to the end of 2006, reaching a new high in nominal terms of \$857/m^3 (596/ m^3 real) in the last quarter of 2007, and remaining relatively stable within periodic fluctuations of supply from Africa and demand from EU countries.

Prices for Malaysian dark red meranti sawnwood, which rebounded in 2002 due to the tight supply of the species in sawmills in Peninsular Malaysia and the Indonesian ban on log exports, continued an upward trend throughout most of 2003-2005 as Indonesia extended its ban to sawnwood exports in 2004. Prices for dark red meranti sawnwood in the UK market reached a six year high of \$524/m^3 (\$733/m^3 nominal) in early 2005, before declining gradually to \$492/m^3 (\$689/m^3 nominal) by the end of 2005 as the US dollar strengthened against the pound. Prices in British pounds continued to firm for the remainder of the year, due to restrictions on log and sawnwood imports from Indonesia and increased diversion of logs to plywood mills that deprived Malaysian sawmills of an important source of raw material. Prices then remained stable in British pounds to the end of 2007, although rising in US dollars, with prices at year-end decreasing slightly to \$517/m^3 (\$761/ m^3 nominal).

Although Asian suppliers to the EU have benefited, compared to African suppliers, from the weakness of the US dollar, EU demand for dark red meranti is reported to be slow at the beginning of 2008 due to reduced activity in the construction sector. Prices will, however, be balanced by supply restrictions resulting from continued growth in the secondary processing industries in Malaysia and the steady, successful crackdown on illegal logging in Indonesia. After declining for most of the 1995-2001 period and firming in 2002, seraya (also known as light red meranti, a medium density utility timber) scantlings prices were stable in a narrow range of \$376-384/m^3 (\$505-515/ m^3 nominal) in 2003. Nominal and real prices moved up sharply in early 2004 due largely to increased demand for this species in Japan (despite its declining overall demand for tropical sawnwood) and, to a lesser extent, in Europe. Seraya scantlings prices declined slightly in late 2004 and early 2005, climbing to \$513/m^3 (\$755/m^3 nominal) in mid-2007 and remaining relatively stable to the year-end 2007.

After reaching a peak in 2002, trade in Latin American mahogany (*Swietenia macrophylla*, the region's most valuable species) slowed significantly following a total ban on logging, transportation, processing and trade of all mahogany products imposed by Brazil's IBAMA and the subsequent inclusion of this species in Appendix II of CITES in 2003. Since mid-2003, internationally traded mahogany sawnwood has been largely from Peru. Prices for Peruvian mahogany to the US market, which were at $879/m^3 ($1,180/m^3 nominal) in 2003, started to climb in 2004 following the species' inclusion in CITES Appendix II. Prices continued upwards in 2005 after the establishment of a mahogany export quota in Peru and continued to trend upwards to late 2006 (in nominal terms). Prices levelled in 2007 as the restricted supplies of Peruvian mahogany shifted demand to more readily available substitute species such as khaya, sapelli, ipe and garapa. By early 2008, prices had declined to $1,265/m^3 ($1,861/m^3 nominal).

After peaking at a high of $524/m^3 ($680/m^3 nominal) in early 2001, real prices for jatoba sawnwood declined steadily for most of 2001-2004, reaching $387/m^3 ($530/ m^3 nominal) in late 2004 due mainly to a sharp slide in the Brazilian real. Prices for this Brazilian species rebounded in 2005, due mainly to a strong recovery of the Brazilian real, and further increased to late 2006 when prices reached $562/m^3 ($810/m^3 nominal). Prices flattened as the species lost competitiveness with other internationally trade sawnwoods, and then increased marginally to early 2008, reaching $570/m^3 ($838/m^3 nominal). Brazilian producers have been developing new markets for tropical sawnwood species like jatoba in East Asia and elsewhere in order to reduce their dependence on the US market.

A graph showing Brazilian pine sawnwood price trends is included in Appendix 4-2 to allow comparison of prices of a relevant coniferous species with those of tropical hardwoods. After reaching new lows of $89/m^3 ($120/m^3 nominal) in early 2003, Brazilian pine sawnwood prices increased gradually for most of 2004 due to strong US demand. Prices retreated slightly in early 2005 before rising again to $96/m^3 ($135/m^3 nominal) where they remained until early 2006.

Unlike jatoba sawnwood prices, sawn pine prices were less affected by the devaluation of the real as prices were supported by strong demand in export markets for value added pine products such as clear blocks, blanks and mouldings. In early 2006, pine sawnwood prices began to decline steadily, reaching a record low of $69/m^3 ($101/m^3 nominal) in mid-2007. The main cause was severe price competition from other softwood sawnwood suppliers.

Veneer

Production

Production of tropical veneer in ITTO producer countries amounted to nearly 2.5 million m^3 in 2007. Although production figures should not include veneer used in domestic plywood production, this distinction is often ignored because most veneer production is destined for the plywood industry and the volumes of decorative veneers produced and traded internationally are very small. Veneer production in producing countries decreased by 6.4% in 2006 but is estimated to remain relatively level in 2007. The Asian region produced nearly 1.5 million m^3 of tropical veneer in 2006, Africa produced 662,00 m^3 and Latin America produced 367,000 m^3. Veneer production decreased in Asia, Latin America, and Africa (down 3.8%, 2.7%, and 13.5% respectively) in 2006. The main ITTO veneer producers in 2005-2007 are shown in Figure 18.

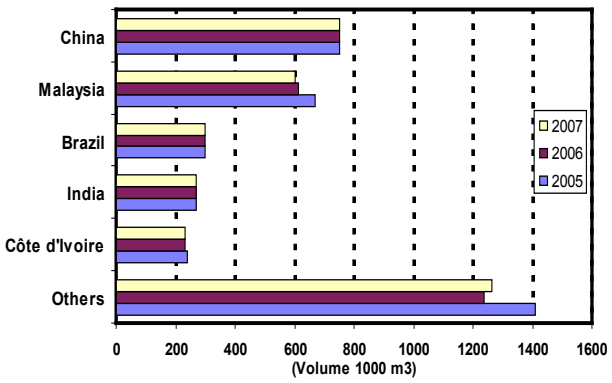


Fig. 18: Major Tropical Veneer Producers

Although an ITTO consumer country, China remains ITTO's largest tropical veneer producer with production totalling 750,000 m^3 in 2006 and estimated to be stable in 2007. Chinese production accounts for over 22% of total ITTO veneer production. Malaysia, for many years the largest tropical veneer producer, produced 612,000 m^3 in 2006. Malaysian production rose to 670,000 m^3 in 2005 before dropping by 8.7% in 2006. Production is estimated to decline further to 600,000 m^3 in 2007. Brazil was ITTO's third largest tropical veneer producer with 300,000 m^3 in 2006. Its production made up 81.7% of ITTO's Latin American total in 2006 and 8.8% of total ITTO veneer production. India was ITTO's fourth largest tropical veneer producer, with 270,000 m^3 in 2006. India's production rose 12.1% between 2004 and 2005, and has remained at that level to 2007.

Côte d'Ivoire is the only African country in the top five tropical veneer producers, displacing Ghana's position in 2006 following a 29% decrease in Ghana's production to 212,000 m^3. Côte d'Ivoire increased veneer production by 16.5% (to 240,000 m^3) in 2005 but decreased production in 2006 to 233,000 m^3 where it is expected to remain level in 2007. The top five tropical veneer producing countries comprised nearly two-thirds of ITTO veneer production in 2006. ITTO consuming countries produced 903,000 m^3 of tropical veneer in 2006, down 7.1% from 2005 levels. Consumer production is estimated to remain stable in 2007. In addition to China, which accounted for the bulk of ITTO consumer countries' production (83%), the only other significant producer was the Republic of Korea.

Consumption

Consumption of veneer in all ITTO member countries, in furniture and other secondary processing industries (but not destined for plywood), fell by 6.8% to just over 3.2 million m³ in 2006. Consumption in ITTO consumer countries is estimated to decline slightly to just under 3.2 million m³ in 2007. Figure 19 shows the major ITTO consumers of tropical veneer from 2005-2007.

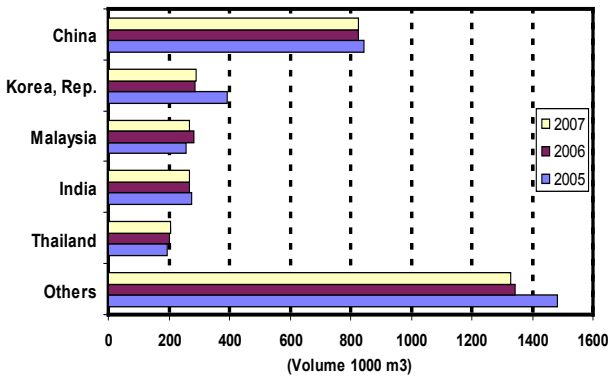


Fig. 19: Major Tropical Veneer Consumers

China maintained its position as ITTO's largest tropical veneer consumer in 2006, followed by the Republic of Korea, Malaysia, India and Thailand, among other countries. Chinese tropical veneer consumption decreased by 2.0% to 827,000 m³ in 2006 and remained stable in 2007. Despite the decline, China accounted for nearly half of ITTO consumer countries' tropical veneer consumption. Tropical wood veneers are used as a decorative face in furniture, solid composite flooring and wooden doors in China's domestic and export markets and tropical veneer consumption has followed China's growth in those industries.

The Republic of Korea's tropical veneer consumption declined significantly by 26.7% to 288,000 m³ in 2006. Malaysia became ITTO's third largest tropical veneer consumer with consumption of 281,000 m³ in 2006, up 9.3% on 2005. Consumption will dip slightly in 2007 to 269,000 m³. India and Thailand are the next highest consumers, with consumption totalling 269,000 m³ and 202,000 m³ respectively. The EU (mostly France and Italy and to a lesser extent, Denmark, Spain and Germany) is also a major tropical veneer consumer, with 317,000 m³ in 2006, down 14% from 2005. The top five tropical veneer consuming countries comprised just over 58% of total ITTO veneer consumption in 2006.

Imports

Many importing countries do not differentiate between the various types of veneer and plywood (e.g. softwood/ hardwood, temperate/tropical) in trade statistics. For plywood, different species of veneers (softwoods and hardwoods) are increasingly used in production. The lack of resolution in trade statistics is compounded by the fact that countries use a wide variety of scales to measure trade in panel products. Some countries use volume (as is reported here), some use surface area and still others use weight. All of these can be reported in metric or imperial units, depending on the country. Many countries report only aggregate trade, combining tropical and non-tropical veneers and panels. Some also aggregate veneer and plywood into a single category. The discrepancies in trade partner reports in Appendix 2 for veneer can also be partially due to the use of different conversion factors in different countries. The adoption of a standard measurement system for veneer and panel products is a priority if improvements in the accuracy of these statistics are to be achieved.

Figure 20 shows the major ITTO veneer importers for 2005-2007, ranked in order of 2006 import volume. Total ITTO tropical veneer imports decreased 13.5% to 925,000 m³ in 2006, followed by a marginal decrease of less than 1% in 2007.

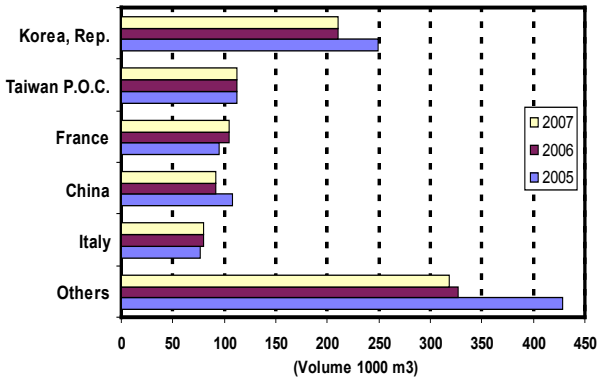


Fig. 20: Major Tropical Veneer Importers

The Republic of Korea, the largest ITTO tropical veneer importer, imported 210,000 m³ in 2006 and was estimated to remain stable in 2007. Taiwan P.O.C. is the second largest tropical veneer importer, at around 112,000 m³ in 2006 followed by France at 104,000 m³. Taiwan P.O.C.'s tropical veneer imports have been falling since 2003, having rebounded from a low in the early 2000's. Taiwan P.O.C.'s furniture and other secondary processing industries have become less competitive than other Asian locations, with significant production capacity being relocated to lower cost facilities in China, Vietnam, the Philippines and other countries over the last decade. Meanwhile, China's imports (previously ITTO's largest in the early 2000's) continued to decline, to 92,000 m³ in 2006 and expected to remain the same in 2007. China's consumption of tropical veneer is now predominantly supplied by veneer produced in China from imported tropical logs. EU imports of tropical veneer reached a peak of 424,000 m³ in 2005 but declined 13.4% in 2006 to 367,000 m³, and expected to remain level in 2007.

Nevertheless, the EU still accounted for nearly 40% of total ITTO imports in 2006. The majority of European imports are from African producers (mainly Cameroon, Côte d'Ivoire, Gabon and Ghana). Japan, formerly a major tropical veneer importer, is now less significant,

with imports continuing to decline to 30,000 m³ in 2006 and 24,000 m³ in 2007. ITTO's figures for Mexico were previously based on an incorrect classification and the figures have been adjusted based on COMTRADE data. Mexico was previously rated as the largest importer of tropical veneer, but based on new information is now an insignificant importer.

Exports

Figure 21 shows the top ITTO tropical veneer exporters in 2005-2007, ranked in order of 2006 export volume.

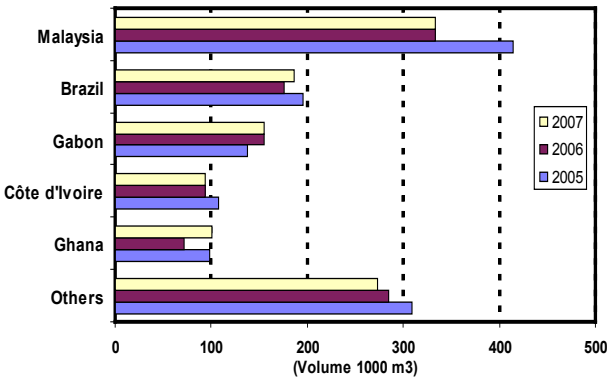


Fig. 21: Major Tropical Veneer Exporters

Total ITTO producer member exports decreased by 13%, from a peak in 2005, to just over 1 million m³ in 2006. They were expected to remain level in 2007. Malaysia continues to be ITTO's dominant veneer exporter, although there was a large year-on-year decline (nearly 20%) in exports in 2006. This decrease can be attributed to a declining availability of tropical log supplies to Malaysia's veneer industry and the growth in domestic consumption of tropical veneer to support Malaysia's expanding secondary processing industries, so that less is available for export. Malaysia's tropical veneer exports of 333,000 m³ in 2006 accounted for about one-third of the ITTO producer member total. Appendix 2 (Table 2-3) shows that Malaysian exports are mainly directed to the Republic of Korea, Taiwan P.O.C., Indonesia, Japan and China.

Brazil was the second largest tropical veneer exporter in 2006 with exports of 176,000 m³. Exports had declined 10.2% from 2005 levels, following a peak in that year of 196,000 m³. Exports are expected to rebound slightly in 2007 to 186,000 m³. Brazil's exports of veneer are predominantly to EU destinations, and have been less affected by the strengthening Brazilian currency than exports to the US.Tropical veneer exports from the African region were nearly a third of exports from all ITTO countries, with Gabon, Côte d'Ivoire and Ghana rated in the top 5 exporting countries. Most of the African tropical veneer exports went to EU destinations. Gabonese tropical veneer exports increased by 12% between 2005 and 2006 reaching 155,000 m³ and it is expected to remain stable in 2007. Côte d'Ivoire's exports have been declining since 2004 and reached 94,000 m³ in 2006, 45% less than the 2004 level. Ghana's exports have also been declining in recent years, reaching 71,000 m³ in 2006 but expected to rebound to 101,000 m³ in 2007.

The EU accounted for 61,000 m³ of total consumer country tropical veneer exports of 96,000 m³ in 2006, remaining stable in 2007. Germany and Spain were the largest EU tropical veneer exporters.

Prices

The international market for tropical veneers remains relatively small (around 7% of ITTO producers' total export value of primary tropical timber products in 2006) and is mainly for decorative sliced veneer. The market for sliced veneer is rather specialized and there are no clear benchmark species whose prices reflect overall market trends. Tropical veneer prices are therefore not regularly covered by the ITTO MIS and are also not regularly quoted by any other readily available source. Appendix 1 (Tables 1-2-b and 1-2-d) shows the average unit value of tropical veneer imports and exports, while Appendix 3 provides details of the species and (in some cases) grades of veneer traded by countries together with average prices. Appendices 1 and 3 show that consuming country exports of tropical veneer were usually of much higher value than those from producer countries, with the differences more pronounced than for other tropical products.

Plywood

Production

Production of tropical plywood in ITTO producing countries totalled 13.6 million m³ in 2006, down 6.5% from 2005 and is expected to remain relatively stable in 2007. The main ITTO plywood producers in 2005-2007 are shown in Figure 22.

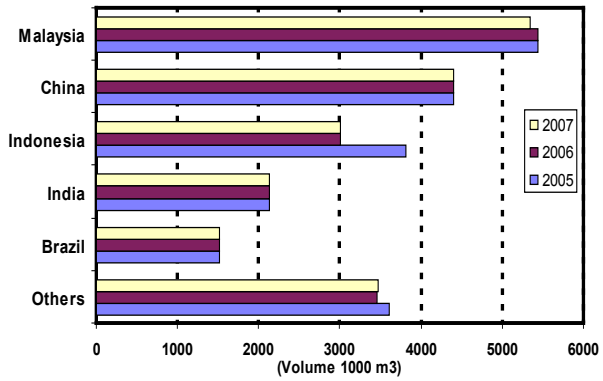


Fig. 22: Major Tropical Plywood Producers

Malaysia's plywood production remained stable in 2006 at 5.4 million m³ and is estimated to decline marginally to 5.3 million m³ in 2007. Malaysia's wood-based industries, including plywood, have been targeted to grow under the government's Third Industrial Master Plan 2006-2020, but issues of industrial overcapacity in Peninsular Malaysia and Sabah and restricted log availability may constrain these targets. China is now the second largest tropical plywood producer, overtaking Indonesia in 2005. Tropical plywood production has been stable at 4.4 million m³ since

2004 and is based on imported tropical hardwood logs (for face veneers) and other log supplies. It's rapid increase in plywood production in the last decade has supplied both the booming Chinese construction industry and a growing export industry.

Following steady reductions in production from 2001 to 2003 (when it was 6.1 million m^3), Indonesia plywood production fell sharply to 4.5 million m^3 in 2004, allowing Malaysia to take over as the top ITTO producer. Indonesian plywood production has continued to decline steadily since then, reaching 3.0 million m^3 in 2006, about half the level of 2003, mainly due to reductions in logging quotas and crackdowns on illegal log flows which have restricted the log availability for plywood production. India's tropical plywood production based largely on imported tropical logs, as in China, has also risen rapidly over the last decade. India's production reached 2.1 million m^3 in 2005 and has remained stable to 2007. Brazil's tropical plywood production in 2005 reached 1.5 million m^3 and has remained stable to 2007, production growth being restricted by the declining value of exports to the USA. The top five tropical plywood producing countries accounted for 83% of ITTO plywood production in 2006. Taiwan POC, Japan, Ecuador, the Philippines and France were also significant producers of tropical plywood in 2005-06, accounting for most of the remaining 17%.

Japan's plywood production has fallen significantly since the 1980s when it supported the major trade in Asian tropical logs. Japan plywood manufacture now uses predominantly softwood logs - Russian larch and more recently, Japanese sugi and larch - as improvements in veneer manufacturing have enabled a transition to the smaller diameter Russian and Japanese logs. The Japanese plywood industry is now using more domestic logs due to:

- the tightening log supply from Russia (due to a combination of a diversion of Russia's log exports to China and the enforcement of a log export tax which will restrict supplies further);
- the growing availability of Japanese sugi and larch resources; and
- technical developments in sugi, veneer and plywood processing, including efficient peeling of small logs, and pressing processes to enable pressing of "softer" veneer to produce plywood of sufficient strength for floor bases.

ITTO consuming countries produced almost 6.4 million m^3 of tropical plywood in 2006 (about 32% of total ITTO production), the same level as 2005, and expected to remain stable in 2007.

Consumption

Figure 23 shows the top ITTO consumers of tropical plywood for 2005-2007. Aggregate consumption in consumer countries decreased by 12% between 2004 and 2005 but remained relatively stable at 13.3 million m^3 in 2006. Consumption is expected to increase marginally in 2007 to 13.5 million m^3. Japan's consumption rose in 2004 as it was increasingly able to source imports that were compliant with a new formaldehyde emission standard introduced in 2003. Consumption fell sharply (21.9%) in 2005 as coniferous plywood and substitute panels continued to make inroads into the market. Consumption increased marginally in 2006 and 2007, although more recent official estimates for 2007 have been revised downward following a marked decline in housing starts in late 2007. China's consumption of tropical plywood reached 4.1 million m^3 in 2004 and declined in 2005 and 2006, to 3.6 million m^3. While Chinese consumption is predicted to remain strong, tropical plywood consumption in most traditional markets will at best remain stable and is more likely to fall in future as substitutes and more efficient uses are increasingly adopted.

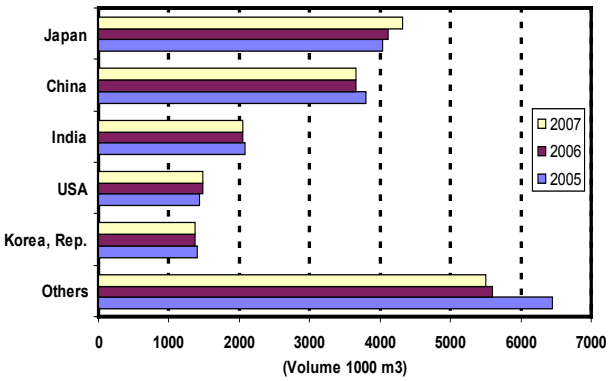


Fig. 23: Major Tropical Plywood Consumers

Aggregate consumption of plywood in producing countries decreased by 13.3% from 5.8 million m^3 in 2005 to 5.0 million m^3 in 2006, due largely to a large decrease in consumption in Indonesia. Aggregate consumption fell by a further 2.1% in 2007 to 4.9 million m^3 due to reduced consumption in Brazil as exports grew faster than production. India has rapidly increased its consumption of tropical plywood in recent years, growing by 20.0% between 2003 and 2006 to just around 2.1 million m^3 in 2006 and 2007. The top five tropical plywood consuming countries accounted for about two-thirds of total ITTO consumption in 2006.

Imports

Figure 8 (Section 2) shows the major trade flows for tropical plywood in 2006, highlighting the dominance of Japan and the USA as the major import markets and Malaysia and Indonesia as the major suppliers. Figure 24 shows the major ITTO plywood importers for 2005-2007, ranked by import volume in 2006. Total ITTO imports of tropical plywood remained stable at 8.8 million m^3 between 2005 and 2006, following a sharp 16% decline between 2004 and 2005. Imports are expected to increase slightly by 2.9% in 2007. The majority of all tropical plywood imports are sourced from Malaysia and Indonesia (53% and 37% respectively in 2006 for the top importer, Japan). As noted in the plywood production section, Japan continues to replace domestic hardwood plywood

production with softwoods, imported plywood (tropical and non tropical) and substitutes like OSB and MDF. Tropical plywood imports increased modestly between 2005 and 2006 to 3.5 million m^3, although this was down 23% from a peak in 2004. Japan's imports experienced a significant drop in 2003 largely due to the inability to source sufficient supplies of plywood from Indonesia that were compliant with a new standard restricting formaldehyde emissions from building materials, introduced by the Japanese government that year. Imports rebounded in 2004 after sufficient mills in Indonesia were certified to produce according to the new standard. In 2006 imports increased due to rising housing starts and construction activity, together with difficulty in obtaining tropical logs for domestic production in the face of competition from China.

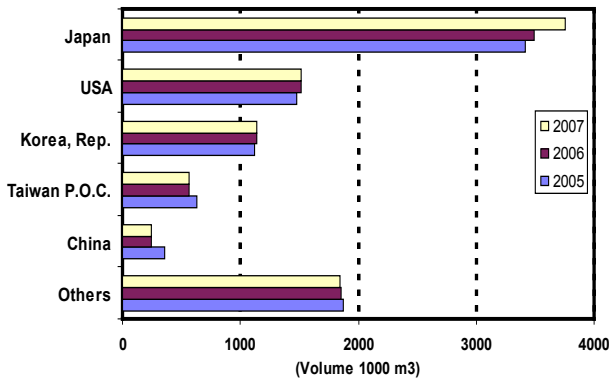


Fig. 24: Major Tropical Plywood Importers

Although the official ITTO estimate for 2007 shows a further increase in imports of tropical plywood in 2007, unofficial data show a decline in imports as housing starts eased in late 2007 (see Section 2). The outlook for Japan's plywood demand and imports is not favourable in the medium to long-term given the forecasts for slowing economic growth and the implications of Japan's demographic profile. Low prices (compared to the cost of domestic production) also continue to make imported plywood more attractive than domestic production. Japan has also converted much of its tropical plywood processing capacity to handle smaller imported Russian larch logs, resulting in higher imports to partially offset the resulting drop in domestic tropical plywood production.

The USA remained ITTO's second largest tropical plywood importer in 2006 at over 1.5 million m^3, a small increase from 2005 (2.3%) but 20.3% less than a peak attained in 2004. Malaysia was the major supplier to the USA (34.9%), followed by Indonesia (25.5%) and most of the rest from China (16.5%) and Brazil (11.6%).

China is a more important supplier to the USA than to Japan, with the USA importing 16.5% of its tropical plywood from China, compared to only 1.2% of Japan's imports being from China. The price competitiveness of tropical and non-tropical hardwood plywood (and other products) from China has been a major concern for the US hardwood plywood industry. The US International Trade Commission launched a formal investigation of the legality of wood product supplies from China and other countries that could be affecting the US hardwood industry. The report is due by June 2008. The Republic of Korea was ITTO's third largest tropical plywood importer in 2006, at over 1.1 million m^3. After many years being Korea's main plywood supplier, Indonesia has now been replaced by Malaysia and China. Malaysia accounted for almost 54% of Korean imports in 2006, compared to China's 25.6% and Indonesia's 16.5%. China's imports have been steadily declining, dropping 31.6% in 2006 to 244,000 m^3 before stabilising in 2007. This trend is expected to continue as the domestic plywood industry flourishes. Taiwan POC was also a substantial tropical plywood importer in 2006 (565,000 m^3), from Malaysia (62.1%), Indonesia (24.3%), and China (12.7%).

EU imports of tropical plywood totalled about 1.0 million m^3 in 2006, level with 2005 levels. EU imports are mostly accounted for by the UK, Belgium, the Netherlands and Germany. Most of the EU's tropical plywood came from Brazil, China, Indonesia and Malaysia, with inter-European trade also playing a fairly large role in many countries' imports. Malaysia has a trade advantage in EU plywood markets compared to Indonesia, the GSP tariff rate for Malaysian plywood being 3.5% compared with Indonesia's 7%.

China continued to export growing volume of tropical plywood to the EU, particularly to the UK where quality and pricing concerns regarding this product have been raised, particularly regarding core composition, formaldehyde levels and technical board properties. In 2007 there was considerable EU market uncertainty about Chinese tropical plywood imports due to an anti-dumping investigation. European importers had applied for an extension of existing anti-dumping duties on okoume plywood to include plywood with other red-faced tropical surface veneers - bintangor, red canarium, kedondong - coming from China. Although the EU decided in December 2007 that no duties would be applied, the one year delay in implementing a decision caused uncertainty and slackening of demand for Chinese plywood.

Exports

Figure 25 shows the major ITTO tropical plywood exporters in 2005-2007. In 2006, exports from ITTO producer countries declined by 1.9% to just under 9 million m^3. Tropical plywood exports by producers remained relatively stable in 2007. Malaysia remains the largest tropical plywood exporter at 5.2 million m^3 in 2006 and 2007. Malaysia's share of ITTO producer countries' exports has been growing, from 42% in 2003 to nearly 58% in 2006, reflecting Indonesia's declining importance in the plywood trade. Malaysia's exports are mainly to Japan, the USA, the Republic of Korea and Taiwan POC. The EU, particularly the UK, is also an important market, with Malaysia able to supply significant volumes of certified plywood to the EU at small price premiums. Indonesia was traditionally Malaysia's major competitor

in the tropical plywood trade, but its exports have declined significantly in recent years and Malaysia now dominates the tropical plywood export trade. Although Indonesia's plywood exports increased by 3.4% to 2.7 million m^3 in 2006 and remained at that level in 2007, they have declined 31.4% over the last 5 years and are considerably down from highs of around 10 million m^3 (or 85% of total ITTO producer exports) in the early 1990s.

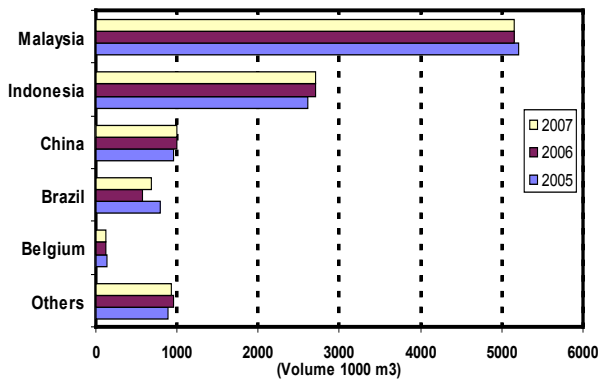


Fig. 25: Major Tropical Plywood Exporters

Latin American tropical plywood exports decreased by 26.9% in 2006 to 0.7 million m^3. Most of the decrease was attributed to a sharp decline in Brazil's exports. Brazil's tropical plywood exports decreased 28.1% to 572,000 m^3 in 2006 before rebounding to 684,000 m^3 in 2007. Brazil's exports are predominantly to the USA (37.5%) and the UK (24.7%) with exports being affected by movement of the Brazilian currency relative to the US dollar. Africa's plywood exports are relatively insignificant on a global scale but increased in 2006 by 31.1% to 173,000 m^3. Ghana is Africa's main tropical plywood exporter, accounting for over 60% of the region's total in 2006.

ITTO consumer country exports of tropical plywood have been growing progressively in recent years, reaching 1.6 million m^3 in 2006, a year-on-year increase of 5.6%. Almost all of this increase is due to large growth in China's exports of tropical plywood which reached 993,000 m^3, a 75% increase on 2003 levels. China's boom in tropical plywood exports to markets such as the EU, Taiwan POC and Japan is notable since it is largely based on logs sourced from ITTO producer countries, many of which have been steadily losing share in these plywood markets. Chinese exports initially comprised mainly okoume plywood (now subject to heavy tariffs in the EU) and later included other "combi" plywood products with a domestic poplar core and tropical bintangor or meranti face. Chinese plywood products are comparatively lighter and cheaper than Southeast Asian products while their quality has improved noticeably in recent years. In 2007, a number of factors have emerged that may undermine China's plywood export competitiveness, including the gradual removal of tax benefits for Chinese plywood exporters (although these were not fully implemented by the end of 2007), increased competition for wood raw materials in China, rising labour and fuel costs, and difficulties in supplying environmentally certified products from China due to the complexity of supply chains. Tropical plywood exports from the EU grew by 8.8% to 457,000 m^3 in 2006, when it accounted for slightly more than 29% of consumer exports. EU exports were mainly from Belgium and France in 2006. Total consumer country exports of tropical plywood increased by 3.5% to 473,000 m^3 in 2007.

Prices

Appendix 4-3 includes graphs showing recent trends in real FOB prices for various grades and thicknesses of Indonesian, Malaysian and Brazilian plywood. The main tropical species used in the manufacture of plywood for export in 2005-2007 are given in Appendix 3. For Southeast Asian plywood, the focus of this analysis is on Indonesian prices which are usually closely correlated with Malaysian prices. After reaching record lows in early 2002, real prices of Indonesian BB/CC moisture resistant (MR) plywood hovered around \$179/m^3 (\$240/m^3 nominal), \$153/m^3 (\$205/m^3 nominal) and \$117/m^3 (\$158/m^3 nominal) for 2.7 mm, 3 mm and 6-18 mm thicknesses, respectively for most of 2002 and early 2003. Prices were depressed due to a weak housing market in Japan. Prices rebounded from mid-2003 when supply tightened after Japanese authorities introduced new standards (Japan Agricultural Standards, JAS) for low formaldehyde emissions on plywood for structural use. Prices for 2.7 mm, 3 mm and 6 18 mm panels continued to rise steadily from 2004 to mid-2007 due to growing log supply problems (in Indonesia and Malaysia), strong demand in the USA and the UK and bottlenecks in shipments.

Prices for these plywood thicknesses reached ten-year highs (in nominal terms) of around \$500/m^3, \$460/m^3 and \$410/m^3 respectively by mid-2007, with prices for MR 6-18mm BB/CC grades surpassing a price peak in 1996. Price gains reflected declining log availability as a result of reduced logging quotas in Indonesia; increased control on illegal logging; and bottlenecks in shipping capacities. Further price rises were prevented by fierce competition from cheaper Chinese combi plywood and mounting concern over illegal logging that led some large importers to switch away from Indonesian plywood altogether. Indonesian plywood export prices continued a strong upward trend in the first half of 2007 but reached a plateau in the latter part of the year before moving downward in the first three months of 2008 as the construction sectors in most major markets weakened.

Chinese plywood products have continued to gain ground in Europe and other major markets due to highly competitive pricing and a dwindling availability of Southeast Asian plywood. However, the price advantage of China's plywood exports may be challenged in 2008 by rising labour, energy and raw materials costs, the progressive removal of export incentives available to plywood manufacturers, and the strengthening of the Chinese currency against the US dollar. These pressures, as well as the EU's concerns regarding quality of plywood supply and emerging demand for environmentally certified products,

are likely to result in some consolidation of China's plywood industry around the larger and more efficient manufacturing facilities.Brazilian tropical plywood prices continued to recover from a low period between 2000-2003 due to strong demand, particularly in the USA and the UK. Prices of white virola plywood (5.2 mm), the most popular Brazilian product, which reached record lows in early 2003 of $164/m^3 ($220/m^3 nominal), rose in steps from January 2007 to early 2008, reaching $460/m^3 (nominal) in March 2008. Brazilian exporters continued adjusting production to the new requirements under the compulsory "CE marking" standard for the manufacture of structural plywood introduced in the EU in early 2004 (norm EN 13986). The growing but still insufficient supply of "CE marked" product has also contributed to increased white virola plywood prices.

Prices for Brazilian elliotis pine plywood (15 mm), included here for comparison purposes, were less severely affected during the 1997-98 market turbulence than Brazil's tropical plywood exports but stabilised at around $123/m^3 ($162/m^3 nominal) between 2000 and mid-2003. Low prices were blamed on weak demand in Europe. By mid-2003 the strength of housing demand in the USA started to have an impact on demand. Brazilian exporters began to switch their focus from Europe to the USA and prices began to move up. In the first quarter of 2004, Brazilian elliotis pine plywood prices reached $215/m^3 ($295/m^3 nominal). Brazilian suppliers of softwood plywood increased their deliveries to the USA to become its major supplier, well ahead of the former main source country, Canada. However, prices for elliotis pine plywood declined sharply at the end of 2004 to $135/m^3 ($185/m^3 nominal) due to overstocking in the USA. In 2005, demand picked up again and prices firmed until mid-2005, when Brazilian softwood plywood lost its duty free status in the USA under the GSP system due to high import levels. In addition, the EU imposed a 7% duty on the product after the duty free annual quota was exceeded. Prices picked up again at the beginning of 2006, and then stabilised at $250/m^3 (nominal). After a small price rise in August 2007, elliotis pine plywood prices have remained relatively level since August 2007 at about $270/m^3 (nominal) due to subdued demand caused by buyer uncertainty regarding the downturn in the US economy, uncertainty regarding US exchange rate volatility and subsequent impacts on prices. Brazil has been facing strong price competition from Chinese plywood exporters, who have had the competitive advantage of more favourable exchange rates and lower production costs. US and EU demand for construction materials, including plywood, are expected to decline further in 2008 as domestic housing markets slow, putting downward pressure on plywood prices.

The graphs for C&F prices of Japanese plywood imports from Indonesia in Appendix 4-3-d show that after halving during the Asian economic crisis and mostly declining until early 2002 (due to the slow Japanese construction sector), real prices for concrete form board panels, floor base and thin panels recovered gradually until mid-2004. Contributing factors were the effects of tighter Indonesian log supplies on plywood exports and strong demand for Indonesian plywood that is compliant with new JAS regulations on formaldehyde emissions. Prices of Japanese plywood imports lost momentum in the second half of 2004 due to substitution by cheaper Chinese and softwood plywood products.

In 2006, as Indonesian plywood supplies were further restricted by lack of availability of raw material, and Japanese housing starts and construction activity surged, nominal and real prices rose continually, reaching a record peak in late 2006 of $595/m^3, $700/m^3 and $800/m^3 (nominal prices) for concrete form panels, floor bases and thin panels respectively. In 2007, Japanese plywood import prices plummeted due to a rapid decline in housing starts and construction activity, and a weakening yen which reduced import demand. Substitution by OSB, particleboard and MDF at the price peak also weakened demand. At the end of 2007 nominal prices had stabilised at $370/m^3, $460/m^3 and $615/m^3 respectively.

4. TRADE AND PRICES OF SECONDARY PROCESSED WOOD PRODUCTS

The importance of secondary processed wood products (SPWP) to ITTO members is reflected by their inclusion in both the ITTA's objective of promoting further processing of tropical timbers, and in Goal 1 of the ITTO Yokohama Action Plan providing for the Organization to undertake "regular assessments … on secondary products".

Secondary processed wood products (SPWP) trends in 2006 were similar to those in 2005. The USA continued to be the largest overall importer of SPWP, with Mexico maintaining its position as the biggest producer country importer of SPWP. China's growing trade importance continued in 2006 as its export levels leapt in 2006. Prices for some SPWPs had jumped, in particular those from Malaysia as further restrictions were placed on the use of rubberwood for certain products in 2006.

ITTO members from South and East Asia and Latin America were particularly active in trade of SPWP. Africa continued to show conspicuously lower activity, due to limited SPWP processing capabilities in the region. More attention to building processing skills, enhancing technology and collecting accurate data has to be given to the region in order for it to be a larger actor in SPWP trade.

The SPWP trade data presented here was extracted from the UN Commodity Trade Statistics (COMTRADE) database which contains time series of trade statistics up to 2006 for most developed and some developing countries. This chapter is based on these trade value data for the 2002-2006 period which are summarized as Tables 5-1 to 5-8 in Appendix 5.

SPWP Data Collection and Trade Classification

All trade data for China in Appendix 5 includes aggregate figures from mainland China, Hong Kong S.A.R. and Macao S.A.R. In order to maintain consistency in data reported for different years in Appendix 5, only EU-15 members are included in EU figures despite accession of 12 new members since 2004 (of which only Poland had joined ITTO as of early 2008). Producers' totals may be underestimates due to non-reporting or partial reporting to COMTRADE by some countries, especially for 2006. "Mirror" statistics from partner countries were used to supplement missing information and to generate aggregate totals in Tables 5-1 to 5-8 of Appendix 5.

This approach, while helping to fill in gaps for individual countries, also contributes to the narrowing of gaps between the aggregate statistics of importers and exporters. For example, the value of ITTO consumer imports from producer countries in Table 5-1 exceeded the value of producer exports to consumer countries in Table 5-7 by 10.3% in 2006, a difference that can be reasonably accounted for by insurance and freight charges, and differences between reporting periods, shipment departures and arrivals, etc..

Figures in Tables 5-1 to 5-8 in Appendix 5 have been ranked by 2006 trade figures, the reference year for this analysis although (as noted above) 2006 figures were still preliminary or missing in many cases (particularly for producer countries) at the time of downloading the data from COMTRADE in early 2008.

Table 5 shows the SPWP categories employed in the analysis together with their corresponding trade nomenclature in the Standard International Trade Classification, Revision 3 (SITC, Rev.3) and in the 1996 and 2002 versions of the Harmonized Commodity Description and Coding System of the Customs Cooperation Council (Harmonized System or HS 96/02). The primary categories of tropical SPWP in trade are wooden furniture and parts (the major category, accounting on average for almost two thirds of trade values); builder's woodwork (joinery and carpentry); other SPWP (packing, wooden boxes, etc.; casks, barrels, vats and other cooper's products; picture frames; table/ kitchenware and other articles for domestic/ decorative use; and tools, handles, brooms and other manufactured products); and mouldings (continuously shaped or profiled wood, including mouldings, unassembled strips and friezes for parquet flooring, beaded wood, dowels, etc). Since furniture and parts of cane and bamboo have become important non wood tropical forest products exports for many ITTO member countries, these products are also included in this analysis. It should be noted that other SPWP analyses sometimes cover product categories not included here (e.g. "other" furniture parts) which may or may not include wood. This analysis includes only those products explicitly specified as including wood or non-wood products such as bamboo and rattan.

SPWP Trade

Imports

Major importers of SPWP

Table 5-1 (Appendix 5) shows the top ten importers of SPWP from all sources together with the proportions accounted for by ITTO producers and consumers for 2002 to 2006. Imports of SPWP by ITTO consumers represented 89% of the world's imports of these products in 2006. ITTO producers accounted for 15% (nearly $11 billion) of total SPWP imports by consumers in 2006, approximately the same percentage as in 2003-2005 but down from 17% in 2002. Figure 26 shows that the value of SPWP imports from ITTO producers kept recording new highs in 2004-2006. For the first time in 2005, the value of SPWP imports from ITTO producers exceeded

Table 5. SPWP Categories and International Trade Nomenclature Classification

SPWP Category	Description	Classification	
		SITC Rev.3	HS 96/HS 02
Wooden furniture and parts	Seats, not elsewhere stated (n.e.s), with wooden frames, Furniture, n.e.s., of wood	821.16 821.5	9401.61, 9401.69 9403.30 60
Builders' woodwork	Builders' joinery and carpentry	635.3	4418
Other SPWP	Packaging, cable drums, pallets, etc.	635.1	4415
	Coopers' products and parts	635.2	4416
	Wood products for domestic/ decorative use, excluding furniture	635.4	4414, 4419, 4420
	Other manufactured wood products	635.9	4417, 4421
Mouldings	Continuously shaped or profiled wood (e.g. mouldings, unassembled strips and friezes for parquet flooring, beaded wood, dowels, etc.)	248.3 248.5	4409
Cane and bamboo furniture and parts	Seats of cane, bamboo, etc. Furniture of other material like bamboo	821.13 821.79	9401.50 9403.80

the total value of the primary tropical timber product imports by ITTO consumers, and this may prove to have been a historic turning point as the gap widened further in 2006.

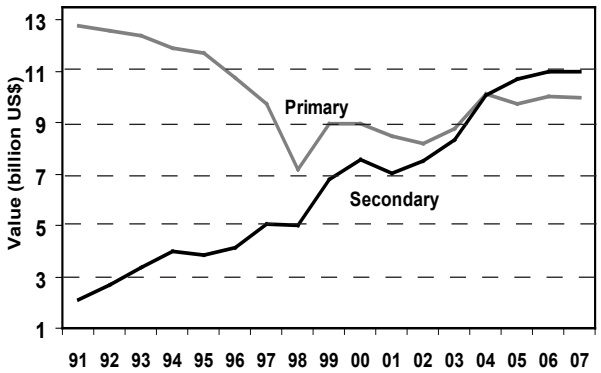


Fig.26: ITTO Consumer Imports of Primary and Secondary Tropical Timber Products, 1991-2007.

ITTO consumer imports of SPWPs from ITTO producer countries grew by about 34% between 2002 and 2006, slower than the 62% growth in imports of these products from all sources. ITTO consumer imports of SPWP from other ITTO consumer countries have grown rapidly (also by 62%) over the same period. Both consumers' and producers' market shares of total consumer imports have remained stable for the past several years, the former at around two-thirds of the total consumer SPWP market worth $71.4 billion in 2006, and the latter at about one-sixth of the total.

The proportion of SPWP imports from ITTO producers accounted for by the top ten ITTO importers reached 88% in 2006, maintaining similar levels over the past five years. The USA was by far the world's largest single-country importer of SPWPs with nearly $25 billion worth of imports in 2006 (31.2% of world SPWP imports), up about 5% from $23.8 billion in 2005. The USA was also the largest importer from ITTO producer countries with imports from these countries worth $5.2 billion. ITTO producers accounted for 21% of US SPWP imports in 2006, about the same as in 2005. US imports of SPWP have increased about four-fold in the last decade and by 51% in the last five years. The US market has been the main engine driving international SPWP (primarily furniture) trade during this period.

Continued growth in US SPWP imports has been propelled by a strong housing market and related demand for interior wood products. US imports come predominantly from other ITTO consumers (70% in 2006), whose share of the US market has been relatively steady over the last three years. US imports from ITTO consumer countries grew by 51% in value from 2002 to 2006, while imports from producer countries grew about 38%. In 2007 and 2008, it is expected that US imports of SPWP will fall slightly, as a result of a slowing US economy and lower housing starts. In particular, Brazil, which ties most of its contracts to the US dollar, saw demand from the USA weaken in late 2007. The financial problems affecting the US economy had a milder impact on Europe, with the UK's economy most affected. The UK economy, coupled with more stringent EU timber import regulation, cooled demand for both primary and secondary wood products, into early 2008.

The EU's aggregate imports of SPWP still exceeded those of the USA in 2006, with the fifteen member states importing $32.1 billion of these products, up from $29.6 billion in 2005. EU imports of SPWP, which grew moderately for several years until 2002, have since picked up speed, growing by nearly 66% over the five years to

2006. SPWP import growth over that period was due to higher imports by all of the top EU importers, contributing significantly to global trade expansion in these products.

Table 5-1 shows that EU countries continued to import a relatively small proportion of their total SPWP from ITTO producer countries (15% in 2006, up only 4% from 2002 levels). EU imports from ITTO producers have grown by almost 67% in the five years up to 2006, about the same as the growth in imports from ITTO consumers and the overall growth rate. The EU is gradually increasing imports of SPWP at the expense of primary wood products and shifting manufacturing facilities to lower cost countries, mainly in Eastern Europe.

Germany is the largest EU SPWP importer by value ($6.3 billion in 2006) but significantly smaller than the USA in global imports. Only 10% of Germany's imports in 2006 were provided by ITTO producers (the same levels as 2005) compared with 71% by ITTO consumers. The UK followed Germany closely as the EU's second largest importer of SPWP in 2006. The UK has seen rather steady growth of SPWP imports over the last several years, even though there was a slight retrenchment in the value of its imports from 2004 to 2005 with further declines expected in 2007-2008 as noted above. ITTO tropical producer countries, however, have a relatively large share of the UK market, accounting for 19% of its SPWP imports in 2006.

Table 5-1 shows that France remained the third largest EU SPWP importer for the second consecutive year and was the fifth largest at the global level. French SPWP imports rose 8.2% to $4.5 billion in 2006, 32% higher than in 2002. Japan was the fourth largest global importer, with its total SPWP import value rising 5.0% from 2005 to 2006. Japan's share of SPWP imports from ITTO producer countries has declined since 2002 (from 31% to 28%) while the share from ITTO consumers has risen from 59% to 63% over the same period.

While transportation costs, tariff levels and regional marketing relationships play a role in determining market share held by ITTO producers in the major import markets for SPWPs, there is clearly a substantial opportunity for all producing countries to increase their market share, particularly in the large and growing market for these products in Europe.

Major SPWP imports by Product Type

The breakdown of 2006 SPWP imports by major product categories for the most important global importers is presented in Table 5-2. Wooden furniture and parts are the most valuable SPWP traded between ITTO producer and consumer countries. About three-fifths of SPWP imports by ITTO consumers were wooden furniture and parts, compared with other SPWPs (15%) and builder's woodwork (15%). The USA was the world's largest importer of wooden furniture (and all other SPWP categories), with over $16.5 billion by value entering the country in 2006, representing 33% of the world's imports of wooden furniture and parts. Estimates from China indicate that over half of its wood furniture exports goes to the US market.

Table 5-3 in Appendix 5 shows the top tropical importers of SPWP ranked by 2006 values (tropical countries being defined by ITTO as those with more than 50% of their land area within the tropical latitudes). As expected, many ITTO producer countries imported comparatively small volumes of these products. This table also contains important non-ITTO tropical countries. While still small compared to the major importers shown in Table 5-1, SPWP imports by several ITTO producers were becoming relatively significant despite generally high tariff levels on these products. The proportion of ITTO producer imports coming from other producers has risen since 2002, while the share of imports from ITTO consumers has been declining.

Mexico was the largest tropical importer of SPWP, with imports valued at $568 million in 2006, mostly (80%) from ITTO consumers. Mexican SPWP imports accounted for 37% of the SPWP imports by ITTO producers. Singapore, Malaysia and India are other significant tropical importers of SPWPs. SPWP imports by ITTO producers nearly doubled between 2002 and 2006, with significant increases in Malaysia, India and Mexico.

Table 5-4 in Appendix 5 presents a breakdown of the categories of SPWP imported by major tropical importers. In 2006, ITTO producers imported $868 million worth of wooden furniture and parts, the main SPWP category. Around 68% of producers' wooden furniture imports were from ITTO consumer countries.

Mexico was the largest tropical importer of wooden furniture (nearly $297 million), other SPWP (almost $117 million), mouldings ($95 million) and builder's woodwork ($45 million). Singapore was the largest tropical importer of cane and bamboo furniture and parts (almost $50 million) followed by Mexico ($45 million) and India (about $36 million). Thailand was, after Mexico, the second largest ITTO producer importer of builder's woodwork (about $12 million). Malaysia was, after Mexico, the second largest ITTO producer importer for wooden furniture and parts ($138 million), other SPWP (nearly $41 million) and mouldings (about $40 million). Venezuela had the greatest proportion of wooden furniture in its SPWP imports at 52% in 2006, while Barbados was the only tropical importer country in Table 5-4 that imported a greater proportion of mouldings (46%) than of wooden furniture or other SPWP.

Exports

Major exporters of SPWP

Table 5-5 in Appendix 5 shows the top exporters of SPWP ranked by value in 2006. ITTO consumers exported $56.6 billion of SPWP in 2006, accounting for 74% of aggregate world exports, the same proportion as 2002. With SPWP exports of $14.1 billion in 2006, China was

again the world's largest exporter of SPWP. This figure accounted for almost one-quarter of ITTO consumer SPWP exports, up from 17% in 2002. The strong upward trend of growth in China (including Hong Kong and Macao S.A.R.s) has been evident since 1990 and it has steadily climbed in the rankings of top exporters, overtaking Germany as the world's third largest exporter in 1997 and Canada as the world's second largest exporter in 2001, before displacing Italy from the top position in 2003. China's SPWP exports climbed 24.7% in 2006 and have more than doubled over the 2002-2006 period. China's rapid growth has been helped by its booming exports of wooden furniture to the USA.

Table 6 shows the breakdown of Chinese imports and exports based on data available in COMTRADE. The table shows that 96% of China's exports of SPWP in 2006 originated from mainland China. China's imports flowing to or through Hong Kong also fell 16% between 2004 and 2006. While China was likely to keep its place as the world's largest SPWP exporter in 2007 and 2008, there are indications that limited access to raw materials may negatively impact on its export competitiveness in the medium term. In particular, the severe winter weather in 2007/08 was expected to limit raw material availability and affect import and export levels in 2008.

Italy's SPWP exports, which had remained relatively stable at just over $6 billion between 1995 and 2003, reached almost $7.4 billion in 2006, an increase of 19% since 2002. Its exports peaked at $7.6 billion in 2004 and fell to $7.3 billion in 2006, due to unfavourable euro/dollar exchange rates and competition from China and other low cost producers. Italy's exports comprised just under one-fourth of the $28.5 billion worth of EU SPWP exports in 2006. The EU-15 accounted for half of ITTO consumer country exports of SPWP in 2006. Italy has long been particularly successful in furniture markets because of its high quality, fashionable designs, skilful labour, state of the art technology, good service and access to high value markets. Upholstered furniture and chairs constitute the main types of wooden furniture exported by Italy. The Italian furniture sector had, nevertheless, come under increased pressure from low cost competitors (notably China and Eastern Europe), particularly due to a strong euro. Italian furniture manufacturers have been continuing to strive for market differentiation based on product quality and design, and product innovation to cope with increased competition from cheaper markets, gaining market share in some cases.

With the EU's greater reliance on raw materials from its newer members, it is likely that processing of primary tropical timber products into SPWPs may decrease. Trends in European SPWP production may also shift, due to weakening overall demand in the USA and some European economies, and slowing demand for tropical SPWPs in Europe, which has led some companies to cut back expansion and at times close existing processing facilities.

Table 6. China SPWP imports and exports, 2006 [million US$ (% share)]

Exporter	To	Imports		Exports	
China	**World**	**210**		**13 606**	
	ITTO Prod.	15	(3)	221	(1)
	ITTO Con.	167	(83)	12 352	(90)
Hong Kong S.A.R.	**World**	**763**		**516**	
	ITTO Prod.	22	(3)	16	(3)
	ITTO Con.	733	(92)	466	(90)
Macao S.A.R.	**World**	**42**		**2**	
	ITTO Prod.	0.7	(1)	0	(0)
	ITTO Con.	40	(95)	1	(95)
Total	**World**	**1 015**		**14 123**	
	ITTO Prod.	38	(0)	237	(0)
	ITTO Con.	940	(99)	12 819	(99)

Note: Exports from Hong Kong and Macao S.A.R.s include re-export as per COMTRADE definitions; reported Chinese exports to both were minor.
Source: COMTRADE.

Germany is the world's third largest SPWP exporter. In the furniture sector, German companies benefited from increased kitchen sales and strong demand for seating/upholstery in 2006, accounting for about 60% of total German furniture exports. Canada and Poland are also important exporters of SPWP. Italy's SPWP exports were impacted by Poland's SPWP exports, which have more than doubled during the same period, rapidly approaching Germany's export levels. Poland's wood processing sector has been substantially privatized and German investment has helped develop it into one of the largest in Europe. Polish furniture exports are largely produced in wholly or partially German-owned factories. The top three furniture exporters to Germany are Poland, Italy and China.

Indonesia and Malaysia remained the only ITTO producer countries among the world's top exporters. Indonesian SPWP exports have grown by 34% since 2002 to reach over $2.8 billion in 2006, encouraged by government incentives to establish downstream processing facilities and plantations to further boost the sector's output by 2009. Malaysia's SPWP exports have also been growing steadily and substantially, although they fell briefly in 2001 before

reaching just over $2.3 billion in 2006. Malaysia's SPWP exports grew by 53% between 2002 and 2006, outpacing Indonesia's 34% growth. Indonesian and Malaysian SPWP exports continue to face strong competition from China in the USA, EU and Japanese markets. As a result, Indonesia and Malaysia are looking to expand their exports to non-traditional markets such as the Gulf Cooperation Council member countries.

Major SPWP Exports by Product Type

A breakdown of the types of SPWP exported by major exporters in 2006 is illustrated in Table 5-6. Around 60% of the world's SPWP exports consisted of wooden furniture, mostly shipped to ITTO consumers. China was the world's largest exporter of wooden furniture at over $9 billion in 2006, growing 27% from 2005 levels, followed by Italy, Germany and Poland at $6.0 billion, $4.1 billion and $3.2 billion respectively.

China has seen an impressive upward trend in furniture production driven by strong growth in both furniture exports and domestic consumption. From 1995 to 2006, the total value of wooden furniture exports rose ten-fold from $932 million to $9 billion. The major destinations have been the USA, the EU and Japan although markets have been developed in a significant number of other countries.

Many US manufacturers have outsourced the production of semi-finished components or nearly finished furniture pieces to Chinese original equipment manufacturers (OEMs), with only final finishing to high US market standards carried out in their own plants. Most Chinese exports to the US are now from OEMs. Since 2002, China has replaced Canada as the leading supplier of furniture to the USA. However, USA and Canada were expected to have only marginal growth in their imports of furniture in 2007, limiting China's potential market growth in this area.

The rapid growth and low prices of Chinese exports have led to concerns by other participants in major markets. In mid-2005, the US Department of Commerce imposed anti-dumping duties ranging from 4.8% to 198% on Chinese wooden bedroom furniture imported into the USA following representation by the US furniture manufacturing industry. Although the growth of bedroom furniture imports from China slowed, the net effect of this ruling was limited, as even with the imposed tariffs, furniture manufactured in China was more price competitive than US manufactured products.

After China joined the WTO in 1999, experts noted that US wood products manufacturers could be adversely affected by the move. The US International Trade Commission indicated that in mid-2008 it would complete a report on conditions affecting the competitiveness of US hardwood plywood and wood flooring industries, in which China's role will be closely examined. The report is expected to lead to congressional action on the issue. The extent of China's growth may be limited by market factors in 2007 and 2008. In 2007, IKEA and B&Q implemented green procurement policies and other markets have demanded higher environmental standards for Chinese wood products. These increased demands will raise costs of Chinese products, thereby reducing China's price competitiveness.

Malaysia's exports of wooden furniture make up the bulk of its SPWP exports (84%). Malaysia was the world's eighth largest exporter of wooden furniture in 2006 and the second largest supplier among tropical producers (after Vietnam). A majority of Malaysian furniture is manufactured from rubberwood, which has been successfully marketed in the USA, the EU and Japan. Indonesian wooden furniture is made of timber species such as meranti, rubberwood, mahogany, bangkirai, agathis and nyatoh. Around half of this is produced in the greater Jakarta area and the other half in East Java. Rattan furniture and parts are exported from Sumatra and Kalimantan. However, most Indonesian rattan is exported unprocessed to the furniture industries of Hong Kong and Singapore.

Canada was the world's largest exporter of builder's woodwork, valued at $1.8 billion in 2006, followed by EU countries – Austria ($1.2 billion), Germany ($1.1 billion), and Denmark ($717 million). Builder's woodwork includes windows, doors and their frames and parquet panels, among other products. Indonesia and Malaysia were the most important ITTO producer country exporters of builder's woodwork, valued at $586 million and $280 million respectively in 2006.

China also leads world exports of other SPWP (packaging/pallets, casks, barrels, etc.), valued at $2.9 billion in 2006. China and EU countries account for over 56% of world exports of other SPWP, with Indonesia the only significant ITTO producer country exporting these products, valued at $309 million in 2006.

The total value of mouldings exports from all countries is small compared with other categories of SPWP, valued at $5.2 billion in 2006. China and the EU countries dominate exports, at $735 million and $1.3 billion respectively. Much of the EU trade is intra-regional, with EU countries and the USA (the largest single country importer) the major destinations for moulding exports.

Cane and bamboo furniture exports from ITTO consumers were about $1.4 billion in 2006, but China was the only consumer country with substantial production and exports of cane and bamboo furniture based on domestic raw materials. Removing China's exports from the ITTO consumer total still leaves almost $907 million of consumer country exports based largely on imported raw materials, illustrating a potential market opportunity for producer countries.

Tropical Exporters of SPWP

Table 5-7 in Appendix 5 shows other major tropical

exporters of SPWP (apart from Indonesia and Malaysia reported in Table 5-5) ranked by value of 2006 exports. Vietnam, Brazil, Thailand, Mexico and the Philippines all had exports valued at over $800 million in 2006. Eight of the countries in Table 5-7 were ITTO producers, which, together with Indonesia and Malaysia, accounted for nearly 98% of total ITTO producer exports of SPWP in 2006. ITTO producers accounted for about 15% of world SPWP exports in 2005. ITTO producers' exports of SPWP amounted to about $11.2 billion in 2006. Table 5-8 provides a breakdown of the categories of SPWP exports for major tropical exporters. Over half of ITTO producers' exports of SPWP consisted of wooden furniture in 2006. However, the main types of SPWP produced and exported vary significantly from country to country.

Vietnam's SPWP exports have expanded significantly, reaching $2.27 billion in 2006, up six-fold from 2002, a 79% increase from the 2005 level. Vietnam overtook Brazil in 2006 to become the third largest tropical exporter, rapidly approaching the sales levels of Indonesia and Malaysia. Vietnam is expected to continue its growth in 2007 when exports should reach nearly $2.4 million. This sharp upward trend has been aided by a bilateral trade agreement signed with the USA in 2001, but a substantial part of Vietnam's exports also went to the EU, China and Japan in 2006. Vietnam was the third largest exporter of SPWPs to Japan, after China and Thailand, and the fourth largest in Southeast Asia. However, Vietnam's SPWP production is heavily dependent on raw material imports, with over 80% of the wood processed coming in as either roundwood from neighbouring countries such as Laos, Cambodia, and Myanmar, or as round or sawnwood from regional trading partners like Malaysia and Indonesia, or as sawnwood from more distant countries including the USA, New Zealand, Finland and Sweden. Nevertheless, it is expected that Vietnam's wood processing industry will have more growth opportunities in 2007 as a result of the country's recent accession to the WTO.

Vietnam's SPWP export boom has largely been based on furniture, the major category of its SPWP exports (89% in 2006). Production costs in Vietnam were reportedly even lower than in China, attracting significant foreign investment including that of furniture manufacturers from China.

Brazil

Since 1998, Brazil's SPWP exports have grown almost four-fold to over $2 billion in 2006. Brazil overtook Mexico in 2001 and Thailand in 2003 to become the third largest tropical exporter but lost that position in 2006 to Vietnam. Brazil's SPWP exports, mainly to the USA, Europe and Latin America (notably Chile and Mexico), include significant amounts of pine and some eucalypts, as well as temperate-zone hardwood species from its non-tropical southern region. In 2007/08, Brazilian exporters have been impacted by the effects of the falling US dollar on the value of their exports. To compensate for this, many Brazilian SPWP manufacturers have focused on value-adding activities, which have helped boost the total value of exports in 2006. However, in anticipation of further weakening of the US economy, the Brazilian government is devising strategies to help manufacturers offset losses as of early 2008.

Brazil was the most important Latin American SPWP exporter of builder's woodwork and mouldings, and second largest "other SPWP" exporter. Most of Brazilian export furniture is made from solid pine and reconstituted panels. Brazil's southern states of Santa Catarina, Rio Grande do Sul and Parana are the country's leading furniture producers.

While most of Brazil's wooden furniture exports are non-tropical, tropical SPWP exports are also growing. Tropical exports of furniture and other SPWP mainly originate from the northern Brazilian state of Pará and have been growing since 1999. Brazil has gained a share in the supply of wooden furniture (particularly bedroom categories) to the USA and exports have been increasing, despite the appreciation of the Brazilian real relative to the US dollar. From 2005, all Brazilian furniture started bearing a seal of guarantee granted by the Brazilian Association of Furniture Industries (ABIMOVEL), an initiative aimed at stimulating exports. Although exports of furniture were expected to increase in value by over 6% in 2007, some Brazilian manufacturers were experiencing difficulty in maintaining export supply in the fourth quarter of 2007, with some manufacturers forced to lay off employees or close in early 2008. The market volatility experienced by Brazilian furniture exporters in late 2007 was expected to continue due to the uncertain US economy. The majority of Brazilian contracts were negotiated in US dollars, which often results in reduced profitability for Brazilian exporters. However, with many products being diverted to EU markets, Brazil managed to maintain its upswing in exports in 2006 although it is not clear whether this trend would continue. Furthermore, the lack of raw materials in Brazil is expected to impact on the extent of Brazil's outputs in late 2007 and early 2008.

Thailand

Thai exports of SPWP have risen in value over the last five years but fell modestly in 2006. Thailand was the second largest tropical exporter of "other SPWP" (after Indonesia) and the fourth largest tropical exporter of furniture, after Vietnam, Malaysia and Indonesia. Thai SPWP exports are mainly destined for the USA, Japan and Europe. In 2006, the Thai Furniture Association recognized that China and Vietnam were increasing their market shares in Japan and the USA and advised exporters to devise a strategy to find new markets, especially the Middle East. Like Malaysia, Thailand has linked the development of its furniture industry to its rubberwood resources. The ban on logging in Thailand's native forests imposed in 1991 increased its dependence on imports as well as on former rubber plantations for wood supplies. Policies favour further processing over exports of rubberwood logs and sawnwood.

Mexico
Mexico has been the sixth largest tropical country exporter of SPWPs since 2004, although a large proportion of its exports come from its temperate coniferous forests. Mexico's SPWP exports rebounded 24.8% from 2003 to 2006 to reach $1.23 billion. Other tropical Latin American SPWP exporters were minor compared to Brazil and Mexico. The main categories of Mexican SPWP exports were wooden furniture (65% of Mexico's total SPWP exports) and other SPWP (about 20%). Most of Mexico's furniture and other SPWP exports are shipped to the USA, its main trading partner.

The Philippines
The Philippines' SPWP exports also rebounded after 2003. SPWP exports had grown gradually from 2003 to 2005, after experiencing minor setbacks in 2001 to 2003. The Philippines' exports jumped 134% in 2006, rising from about $357.6 million in 2005 to nearly $838 million in 2006.

Regional Trends in SPWP Exports
Table 5-7 in Appendix 5 also shows that Asia Pacific was the dominant exporting region in the tropics (68% of all ITTO producers' SPWP exports in 2006), with Latin America (primarily Brazil and Mexico) a distant second (31%). Africa's exports of SPWP were negligible. In contrast to other regions, "other SPWP" exports are the major component (about 60%) of Africa's SPWP exports. Although value added processing in the African region is relatively insignificant, SPWP exports grew gradually until 2005, reaching a peak of $180 million in that year, but sliding to $141 million in 2006. African SPWP exports were mainly directed to EU and US markets. The relatively low level of SPWP exports from Africa has been due largely to a lack of sectoral investment and logistics infrastructure. Nevertheless, many African governments such as Côte d'Ivoire, Ghana, Nigeria and Cameroon are encouraging the development of secondary processing industries.

Despite African policies to increase SPWP exports, the relative share of SPWP exports between the three tropical regions is unlikely to change significantly in the medium-term as countries in all three regions continue to express their desire to focus on downstream processing capacity. Additionally, with various EU Voluntary Partnership Agreements being negotiated, for instance with Ghana, it is expected that access to EU markets may be somewhat restricted once the schemes come into effect.

From a global perspective, the combined value of SPWP exports from all ITTO producer countries was only 15% of total world trade. Although developing countries enjoy some degree of tariff relief under the Generalized System of Preferences (GSP) or other schemes for SPWP in many of the major markets, these benefits have been eroded (relative to the trade terms offered to non GSP countries) by general tariff reductions in many countries through successive rounds of multilateral and bilateral trade negotiations. Tariffs in many countries remain high, however, compared to those for primary products like logs and sawnwood. The development of new processing technologies (e.g. veneer lamination), utilization of lower-grade materials in less-visible components, and utilization of new raw material supplies (e.g. durian wood) allow the use of a wider range of tropical wood species in furniture and other SPWP production in ITTO producer countries and consequent increases in production and exports. The contribution of SPWP to the forest sectors of ITTO producers and other developing countries will continue to grow, with corresponding reductions in production and especially exports of primary tropical timber products.

SPWP Trade Discrepancies

The statistics reported by the major exporters of SPWP in Table 5-7 in Appendix 5 who reported to COMTRADE can differ substantially form the corresponding import values reported by the major importers of SPWP in Table 5-1. Discrepancies in trade figures can be due to a number of factors as identified in the previous chapter: partial or non-reporting of exports to COMTRADE; differences in reporting periods; exchange rate discrepancies; transfer pricing, etc.

Table 7 compares the different values reported by five major exporters of SPWP plus aggregate producer exports (in italics) with the import statistics recorded in COMTRADE for the EU, the USA, Japan and all ITTO consumers. Table 7 shows that China's export figures still have significant discrepancies with import figures for EU and the USA. The table shows an overall 57% discrepancy with ITTO consumers' import figures in 2006. Table 7 also identifies Indonesia and Malaysia's discrepancies with ITTO consumers' import figures (26% and 14% respectively). In contrast to previous years, however, these discrepancies have been reduced, largely due to crackdowns on the illegal trade, increased capacity building on statistics in these countries and improved data collection methods.

SPWP Prices

Appendix 4-4 contains real and nominal price graphs for Malaysian and Indonesian secondary processed sawnwood (mouldings) as well as for Malaysian furniture parts and selected rubberwood furniture items from mid 1997 through 2007, based on the nominal prices reported by the ITTO Market Information Service. Nominal prices (normal lines in the graphs) were deflated or converted into constant (or real) 1990 prices (bold lines) using the IMF Consumer Price Index (CPI) for industrial countries. Until 2007, prices for SPWP have generally been more stable than prices for primary products. However, real export prices of Malaysian mouldings plunged by 22% during the Asian financial crisis (compared to up to 37% for Asian tropical logs) and were then stable or declining until mid-2004. Prices have been on the rise in 2006 and 2007, reflecting price increases in meranti products as a

Table 7: Direction of SPWP Trade for Main Partners, 2006 (million US$)

Export / Import	EU	ITTO Consumers	China	Brazil	Indonesia	Thailand	Malaysia	ITTO Producers
EU		**23 290**	**4 493**	**630**	**1 567**	**305**	**547**	**3 548**
		25 139	*2 514*	*584*	*1 035*	*297*	*500*	*2 733*
Japan	**501**	**2 590**	**1 901**	**13**	**356**	**292**	**200**	**1 159**
	503	*2 214*	*1 538*	*11*	*296*	*293*	*234*	*1 443*
US	**1 693**	**17 488**	**10 659**	**1 225**	**905**	**552**	**1 013**	**5 208**
	1 848	*13 245*	*6 039*	*1 116*	*748*	*447*	*759*	*4 471*
ITTO Consumers	**20 180**		**20 177**	**1 967**	**3 188**	**1 275**	**2 137**	**10 973**
	24 103		*12 819*	*1 782*	*2 537*	*1 147*	*1 870*	*9 844*

Figures in bold denote imports recorded by importing country/region. figures in italics denote exports by exporting country/region.
Source: COMTRADE.

result of reduced log supplies. Red meranti mouldings Grades A and B rose to $733/m^3$-$753/m^3$ (nominal) at the end of 2007 and were falling slightly as of early 2008.

After the Asian financial crisis in 1997-98, prices for Indonesian SPWP were also relatively stable or declining until early 2004. Indonesian red meranti mouldings Grades A and B traded at real prices between $379/m^3$-$474/m^3$ and $317/m^3$-$372/m^3$ through that period. Prices for both grades of Indonesian red meranti mouldings were 14% and 10% lower than the corresponding Malaysian products in those years, respectively. Price declines for these secondary products were caused by strong price competition between manufacturers in China, Indonesia, Malaysia, Thailand and Vietnam in the face of decreased demand. However, prices for both grades of Indonesian mouldings continue to rise, competing with Malaysian prices for mouldings, and reaching $688/m^3$-$720/m^3$ and $608/m^3$-$652/m^3$ (nominal) by the end of 2007, a marginal 1.2% and 3.5% rise, respectively from end 2006 levels.

Real prices for Malaysian selangan batu decking declined from 2002 and reached a low of $394/m^3$ ($540/m^3$ nominal) in early 2004. Selangan batu decking prices have risen steadily since then, reaching $479/m^3$ ($705/m^3$ nominal) at the end of 2007. Appendix 4-4 also shows prices from late 1997 or later for Malaysian furniture (windsor chairs of rubberwood) and furniture parts (two grades of rubberwood table tops). Prices for Windsor chairs and lower grade (semi finished) rubberwood table tops are given per piece, while those for top grade rubberwood table tops are quoted on a volume (m^3) basis. Real prices for semi finished dining table tops (solid rubberwood laminated), rubberwood windsor chairs and top grade rubberwood table tops were, like most other Malaysian forest products, severely affected by the Asian financial crisis. By mid-1998, real prices for the first two products had plunged by 40% and 25%, respectively, to $25 ($30 nominal) and $7 ($8 nominal) per piece. Real prices of these products continued to decline for some years subsequently, reaching lows of under $15/piece and $6/piece respectively, in late 2001 or later. Prices for these two products improved slightly in 2003-2004 and were at $16/piece ($22/piece nominal) and over $6/piece ($9/piece nominal), respectively at the end of 2004.

For many years, furniture manufacturers had continued to absorb the increasing costs of rubberwood raw material, which was in increasingly short supply in 2005-2006, and maintained supplies of their semi-finished products to export markets at loss-making prices in many instances. Prices for windsor chairs were relatively stable, maintaining previous year price levels around $7-10 per piece. However, due to further restrictions on the export of sawn rubberwood in 2006, prices for Malaysian furniture have tripled or quadrupled in some cases by end 2006, as seen in Appendix 4-4. Prices for windsor chairs had risen to $31-44 per piece and rose more than $20 by the end of 2007.

Rubberwood products were not the only product experiencing gains. Indonesia sought higher prices for SPWP due to rising shipping costs and reduced raw material availability. Nominal prices for red meranti mouldings (Grade A) were $632-637 at the beginning of 2006 and rose to $581-711 by year end. Prices were also rising by another $20 during 2007. Continued pressure on raw material availability and shipping costs were expected to contribute to slight price rises in 2008.

5.COUNTRY NOTES

The following notes provide details of relevant recent developments in ITTO member countries, including information on trade barriers, new or increased processing capacity, trans national forestry investment, the role of forest plantations in wood supply, forest law enforcement activities and domestic economic trends, as solicited through the JFSQ. Where possible, they are supplemented by information from other sources; nevertheless, the quality and length of these notes are determined largely by the quality and length of the original submissions by members.

Due to the availability of relatively more accessible information in other sources, less effort was made to supplement the scant JFSQ information provided by consumer countries on these topics. Most of the information presented here for producer countries is as of mid-2007, although selected information considered relevant for some countries has been repeated from the 2006 Review when no new information or the same information given previously was provided. Countries for which the majority (or all) of the information was provided in last year's Review are denoted by "(2006)" after the country name.

Producer Countries

Africa

Cameroon (2006)

Harvesting and marketing of roundwood are subject to these quota measures: all logging companies may export 30% of harvested logs, but 70% is reserved for local processing. Granting of export permits to a number of companies is expected to have a positive impact on timber production and trade in Cameroon in the future. However, permission to export roundwood is for a limited period and intended to foster foundation of new forest-sector industrial firms. These terms were initially set out in Law 34/01 of 20 January 1994, which remains in force, according to which all logging companies are allowed to export the above-stated 30% of their logs only within the first five years following company establishment.

After expiry of that five-year initial grace period, 100% of the firm's harvested logs are to be processed locally. However these rules are not inflexible: for example, the continued export of any one of a number of designated lesser known species is allowable to promote them in international markets. Cameroon is in the early stages of an agreement to regulate timber exports as part of the EU Voluntary Partnership Agreements. In 2008, Cameroon suspended 27 logging firms for failing to justify the origin of the timber they were exporting.

Côte d'Ivoire (2006)

Measures such as the ban on exports of timber - logs, blockwares and cants - other than teak, in force since 1995, are aimed at promoting local processing. Furthermore, in order to prevent excessive and uncontrolled logging, the logging of community teak is subject to specific approval by the Ministry of Water and Forests. Also, a draft revision of the Forestry Code takes into account tree ownership which will now belong to the farmer, in order to encourage the establishment of forest plantations among the communities.

Under current policy, reforestation in proportion with logged volumes is mandatory for forest companies in order to ensure the sustainable supply of raw materials to local industries. Non-dried iroko sawnwood is also subject to an export quota. Following the evaluation of the forest sector in 1998, a Framework Programme for Sustainable Forest Management is under implementation. The programme, to be executed by a Technical Multidisciplinary Unit, comprises various projects, including those for the development of tropical timber processing capacities.

Out of 400 potential species, about 60 are currently utilized. The enhancement of utilizing lesser known species is the trend but their technical properties are unknown, and forestry research is unfortunately presently at a stand-still in Côte d'Ivoire. Other than the traditional use of timber in roof framing, timber is little used as a major construction material in Côte d'Ivoire. This is due to the fact that producers tend to apply export prices within the local market. In urban areas, the use of gas is becoming widespread to the detriment of charcoal and fuelwood.

More than 65% of the forest industries established in Côte d'Ivoire belong to foreigners, in particular French, Lebanese, Italian and Spanish companies. Out of 30 000 employees, 25% are foreigners, and 85% of the corporate capital amounting to FCFA 70 billion is owned by foreigners. The current military, social and political crisis in Côte d'Ivoire is having a negative impact on the timber economy. As a result, data on the forest and wood industries is not available. Pending reunification of the country which would permit conducting an evaluation of the timber sector, the control of forest products from areas occupied by the former rebellion is proving somewhat difficult.

From the colonial times to the present, Côte d'Ivoire has achieved reforestation of 200,000 ha with, in particular, teak, frake, framire and cedrela. The annual extent of forest plantation development is about 10,000 ha/year on average. The production of plantation industrial roundwood averages 130,000 m^3 per year against a total annual production estimated at 2 million m^3.

Congo, Republic of

In 2006, the Republic of Congo's forest authorities report adopting an objective to decrease the timber wastes

generated by forest logging and by mechanical processing of timber. They indicate that among the 300 species inventoried in Republic of Congo tropical forests, some 80 species are logged, among which over 40 species are exported. In Republic of Congo, the actual forest plantation area is reported in 2006 as approximately 60,000 ha. The corresponding annual rate of plantation establishment is 2,500 ha/year. Production of plantation roundwood is reported to be approximately 500,000 m^3. Republic of Congo is in the early stages of an agreement to regulate timber exports as part of the EU Voluntary Partnership Agreements.

Gabon (2006)

In 2005, a quota was established for each operator by the SNBG on the production of okoume; sawnwood qualifies for tax exemption; and a new forestry law authorizes the granting of increasingly larger areas for the implementation of management plans with cutting cycles exceeding 20 years. As a deterrent measure, tariff rates for non-processed timber (roundwood) have been increased by 15% to 20%. Also, monthly quotas on free log sales have been enacted to encourage companies which adopt integrated utilization systems including forest management, harvesting and processing. Consideration is also being given to decrease of forest fees for companies engaged in sustainable forest management and timber processing.

Planned infrastructure improvements include rehabilitation of the Owendo and Port Gentil harbors, as well as restructuring of the railways to enhance, among other things, the transport of forest products.

Current trends in utilization include in addition to the main species such as okoume, padouk and kevazingo, also emerging species such as white longhi, pao-rosa and beli. Non-timber products which are actually collected in significant volumes across the country include rattan, marantaceae leaves, *Gnetum africanum* leaves and *Garcina cola* bark, besides traditional charcoal making. Studies have been conducted on the non-timber products industries to evaluate their importance in terms of generated revenue, and specific regulations for them are being developed.

As for domestic consumption, strong competition from cement against timber in construction should be noted. Structural timber originates from local products but imported office furniture made of non-tropical timber is in high demand. On the national level, the excessive cost of processed timber is a source of dissatisfaction.

Granted land areas comprise 11,316,304 hectares distributed as follows: Temporary logging licenses 38.6%, industrial licenses 42.85%, plots located in Areas in the Vicinity of Railways 18.55%. The largest companies belong to major corporate groups with over 75% of their capital held by international firms. The land area tax is 600 CFA francs per hectare annually for concessions not managed on the basis of management plans, CFA 300/ha/year for licenses with management plans, and CFA 200/ha/year for felling areas excluded from logging. The net plantation land area is estimated at 25,000 ha due to illegal clearing done by village communities. A forest plantation program is being considered to reduce the pressure on the natural forests as well as to support the forestry-sector industrialization program.

A new log export quota system was introduced in 2007, stipulating that only those producers with operational processing facilities are allowed to export a specified percentage of the concessionaire's exports. The quota system was implemented at the end of 2007 with the goal of gradually reducing the share of logs in the total export mix to 25% by 2012. A first Africa national standard, the Pan African Forest Certification System PAFC Gabon, was submitted in early 2007 to the PEFC Council for endorsement.

Ghana (2006)

The Wood Industries Training Centre (WITC) at Ejisu near Kumasi in the Ashanti Region has been providing training and skills upgrading to the industry, notably machine operators and management staff, all aimed at enhancing production of quality wood products for export.

The policy of the Forestry Commission to refund 1% of the FOB value of tertiary wood products to exporting companies continued throughout the year under review. The policy is an incentive aimed at encouraging the timber industry to expand value addition, in the short to medium-term, through the downstream processing and export of wood products.

Promotional efforts by the Timber Industry Development Division (TIDD) of the Forestry Commission (FC) to bring Lesser Used Species (LUS) to international market acceptability are yielding fruitful results. There is a growing share of LUS in the overall composition of wood products exports. Another driving factor however is the fast dwindling availability of the well known traditional timber species and in line with current Forest Management Plans that are being adopted.

Minor tropical forest products, bamboo, rattan and cane are steadily gaining application in the growing furniture sector of the industry, thereby increasing their contribution to the country's economy and employment. Herbal medicine is another important forest product making significant contribution to the economy of the country.

Annual housing requirements are estimated at between 110,000 to 140,000 units annually but housing delivery is estimated at 30,000 units per annum. Vibrant domestic housing activity and housing starts therefore continued during the year 2005, especially in the urban and metropolitan towns and cities. There has been increasing substitution of wood with plastic, glasses, steel and PVC in several public and private housing projects. The use of non-wood office and household items such as plastic chairs and tables, steel cabinets and foam and leather-

combined furniture as well as glass tables has been on the ascendancy. Nevertheless, some LUS continue to enjoy appreciable utilization by real estate developers.

No new significant investments in the timber industry, particularly in the secondary and tertiary processing sectors, were reported during the year. On the other hand, a number of mostly small scale processing mills are reported to have been largely inactive due to tightening raw material situation and liquidity problems.

Government's efforts to curb illegal forest operations, especially illegal logging and trade in chain sawn lumber, continued throughout the year. Measures taken include monitoring with the assistance of the military, confiscation of seized parcels and the prosecution of offenders before the law courts. However, such illegal operators are reportedly becoming sophisticated in their operations due to improved communication technology. About 163 arrests were reportedly made in the course of the year under review. Concerns have however being expressed about the low and non deterrent fines imposed on such offenders.

Meanwhile, Ghana commenced the implementation of a Validation of Legal Timber Programme, VLTP during the year. The Programme reinforces the country's commitment and efforts at ensuring the sustainable management of her forest resources. It has the twin objective of reviewing existing timber flow and forest control systems to improve the timber and associated fiscal flow system and also maintaining Ghana's access to the changing international wood markets.

The development of plantations to restore Ghana's forest cover continued to attract the attention of the Forestry Commission, which planted more than 10,000 hectares through the Forest Services Division. About 81,000 hectares have been planted to date through out the country, with mainly teak (*Tectona grandis*) and indigenous timber species like mahogany (*Khaya* spp.) and ofram (*Terminalia superba*).

In 2005, wood products from plantation species, notably teak (*Tectona grandis*), gmelina (*Gmelina arborea*), cedrella (*Cedrela odorata*) and rubberwood constituted about 20% in terms of volume and at least 15% in value terms of total wood products exports. Encouraging private sector involvement in the Forest Plantation Development programme, which is a Presidential Special Initiative, is a major objective, especially in the development of commercial plantations in degraded forests.

On 13 December 2007, Ghana signed the interim Economic Partnership Agreement (EPA), or EPA-lite, with the European Union. The agreement would provisionally allow 80% of some European goods into the Ghanaian market duty-free and quota-free while Ghana will continue to have 100% access to the EU market, with the exception of sugar and rice. The EPA was established as a bilateral business partnership agreement between the European Union (EU) and the African Caribbean and Pacific (ACP) countries and designed to replace the Cotonou Agreement which expired on 31 December 2007. The signing of the agreement was intended to avoid disruptions of trade with the EU, since under the World Trade Organization (WTO) rules, the EU "would be required to place tariffs on Ghana's exports."

Formal negotiations on a voluntary partnership agreement (VPA) between Ghana and the EU were initiated in February 2007 and are continuing, with the hope that the new agreement will reduce illegal logging and deforestation in the country. Additionally, as the EU is a major trading partner of Ghana, the VPA could reverse the downturn in timber sales to Europe. Preparations towards the VPA are based on consensus over five points including the legal standard/definition; a system of verification of legality; a Chain of Custody (log tracking) system; an independent monitoring system in a wider institutional setting; and impacts assessment and mitigating measures.

Liberia

Prior to the imposition and lifting of sanctions, Liberia's Forestry Development Authority (FDA) had various fees such as severance, reforestation, conservation, research, etc for log production. These fees have been replaced by a single stumpage fee based on percentage of fob log prices. Similarly, log and wood products export fees will be based on the percentage of fob prices. Land rental and administrative fees have also been adjusted.

The new reform law provides for two types of contracts, Timber Sales Contract (TSC) and Forest Management Contract (FMC) to be awarded through competitive bidding. Timber Sales Contract (TSC) applies to areas less than 5,000ha and Forest Management Contract (FMC) for areas more than 50,000ha. Contract duration for TSC is 3 years while FMC is 25 years but subject to review every 5 years. The two types of contracts are subject to sustainable forest management practices. The country's Forest Management Policy centers on three areas - Commercial, Community and Conservation. Of the 9.5 million ha of forests, 4.0 million ha have been set aside for Commercial and Community, and 1.7 million ha (30%) for Conservation (protected areas). This means that the allowable annual cut for sustainable forest management is 750,000 to 800,000 m^3.

Additionally, each company is compelled to carry out EIA (Environmental Impact Assessment) of its concession areas and deposit US$150,000 to US$200,000 performance bond. Post annual inspections will be conducted by the FDA. Any damage done to the environment which has not been mitigated will be subject to fines.

During the 14 years of civil war in Liberia, all processing facilities were damaged or looted. Since then, no large-scale mills have been installed. This is because contracts have not been awarded to companies to commence commercial

logging for export of round logs and processed wood. Domestic production and consumption are mostly based on chain saw lumber. However, the new regulations drawn from the New National Forestry Reform Law give a grace period of two years to companies to establish processing plants.

Before the UN ban on exports of Liberia timber products in 2003, remarkable progress was made in 2000 to 2003. Prior to 2000, only 28 species were exploited and traded. In 2000 to 2003, 62 species of lesser-known and lesser-used species beside premium species were utilized.

The move changed the trend of species composition extracted in comparison to premium species. Thus with the commencement of logging activities in the country, there is an expectation of higher production and trade in lesser-known and used species. Again, these species have become prominent in the local market. Unfortunately, minor tropical forest products commercialization has not featured prominently in Liberia. They remain underexploited for production and utilization.

The domestic building activity is much vibrant than in previous years as this is postwar era in Liberia. Citizens are rebuilding their homes. Tropical wood is the only source of product used in housing especially roofing members, doors, face boards, and door frames. However, few houses use non-wood products (aluminum and plastic sheets) in combination with wood. Therefore, there is not a significant alternative impact on tropical wood consumption in Liberia.

Sanctions were placed on Liberia timber exports in June 2003. Although the sanctions have been lifted, reforms in the forest sector continue. Commercial logging and export of round logs and processed wood are expected to commence in October 2007. There are provisions in the New National Forestry Reform Law regarding foreign and domestic involvement in the sector. All previous concession agreements have been cancelled by the Government of Liberia. Composition of foreign and domestic involvement will be reported in the next review.

The New National Forestry Reform Law, section 5.3 (g and h) state:
g: In an effort to reestablish a vibrant domestic forestry sector, the Government shall set bids on Forest Management Contracts (FMC) covering a land area of between 50,000 ha and 99,999 ha only for qualified bidders that demonstrate at least 51% ownership by Liberian citizens. However, if no qualified Liberian bidders present tenders for the contracts or secure the contract during one bidding cycle, the Authority may re-bid the contract through a process only open to qualified bidders that demonstrate 51% ownership by Liberian citizens.

h: All Forest Management Contracts covering 100,000 ha to 400,000 ha shall be open to all Liberians as well as international investors.

The new forestry law gives more powers to the FDA in dealing with violators of the law. However, in the absence of commercial logging and export of timber and timber products, there were no arrests or penalty as production and consumption were limited to the domestic market.

Liberia has established 11,000 ha of plantations in eleven project sites with both exotic and indigenous species.

Togo (2006)
Steps taken to achieve SFM in Togo recently included: recruitment of 300 additional forest rangers and forest police, assigned to duties including manning of control and measurement checkpoints; extension programmes to increase awareness of people in the countryside concerning the benefits of reforestation, especially by the Taungya method and establishment of forest-tree nurseries and private plantations. The ODEF (state forestry administration) has acquired a portable sawmill.

A total of 19 tropical timber species out of approximately 80 in the forest are currently utilized in Togo, besides several non-timber forest products. There is no high-capacity sawmill for processing wood domestically. Carpentry for housing construction is the main end-use for wood products. Concrete slab construction competes with carpentry in housing construction, as do plastic and metal chairs against wooden ones in the domestic market for home furnishings.

The current area of forest plantations is 40,000 ha, with 600 to 1000 ha newly established annually. The share of industrial roundwood derived from plantations is only around 1%.

Asia-Pacific

Fiji (2006)
There is a 25% tariff on imported timber. So far, little has been done on capacity building for further processing of wood products.

Exports of Fiji mahogany and pine sawnwood are expected to increase from 2006-2007 onward. Export of other native species will remain stable. Lesser-used species and non-timber forest products are current subjects of research and development for both the domestic and export markets.

In the housing sector, the outlook is for an increase in domestic building activity. However, there is a strong competition from non-wood products, even reaching into the rural areas.

There is no foreign investment in the forestry sector of Fiji. The system and customs of land tenure comprise the main factor limiting forest resource development.

A comprehensive review of the National Forest Policy was being conducted in 2006. There are 45,000 ha of industrial pine plantations and 50,000 ha of industrial mahogany plantations.

Indonesia (2006)

In cooperation with its principal trading partners, Indonesia continues to develop and implement more effective measures to monitor, regulate and ensure the legality of both harvesting and trade in tropical forest products, especially in the recognized problem area of log exports. Indonesia has recently signed agreements for these purposes with some major trading partners (e.g. China, Japan and the UK). The Dutch private sector building industry announced that they would only purchase Indonesian wood products that were certified to be legally harvested and from sustainably managed forests.

The Indonesian Ecolabeling Agency (LEI) has established joint ventures to provide certified timber products and handicrafts to the international furniture market, teaming up with forest management groups in the Wonogiri district in Central Java and Gunungkidul district in Yogyakarta and the Indonesian Furniture and Handicraft Industry Association (Asmindo). The high cost of obtaining eco-labelling certification has been a hindrance to the progress of the eco-labelling programme.

State-owned forestry companies rehabilitated forest and land covering a total of 56,000 ha at a cost of Rp256 billion. State-owned companies have the responsibility to undertake the rehabilitation programme, known as Gerhan, which had a forest rehabilitation target in 2007 of 900,000 ha. Indonesia's harvest quota for natural timber (excluding community forests and plantations) in 2007 was increased to 9.1 million m^3/ annum, a year-on-year increase of 12%.

The harvest quota was reduced between 2001 and 2005 to achieve sustained yield and reduce overcapacity in the sawntimber and plywood industries, which the government considers has been achieved to a certain extent.

Current tax provisions account for about 30 percent of total production costs. These taxes are:
-Forest resources provision (about Rp. 65 000-70 000/m^3)
-Reforest fund (amount charges based on province)
-Land area tax (charges based on province)
-Export tax: 5% on wood that can be further processed, and another 15% for veneer exports
The log VAT was cancelled in January 2007.

A recent regulation by the Minister of Trade dated February 2007, governs the high value wood products that are allowed for export. This decree further prevents the exports of wood products with minimum value-added to avoid log and sawn timber taxes, but still can be processed as raw material in the countries of destination. This decree provides technical specifications for wood products to identify high value-added products that can be processed into as end products, such as decorative, profile for door and window frames, panels, flooring, and pallets. Since 2002, GOI banned log exports and since 2004 has banned sawn timber exports.Alternative woods commonly being used are durian, mango, and rubber.

Malaysia (2006)

Malaysia's major log customers are still all in Asia, especially China, Taiwan P.O.C., India and Japan. However Malaysia introduced legislation banning the import of logs and squared timber from Indonesia in 2005.

Current tariff rates are as follows (logs and sawnwood - tropical and non-tropical - have zero tariffs):
Veneer Tropical Face: 0% Core: 20%
Veneer Non Tropical Face: 0% Core: 20%
Plywood Tropical: 25-40%

No other duties are imposed on imported tropical timber products except for minimal administrative fees imposed on imported timber (irrespective of source).

With the full implementation of SFM, log production has been reduced significantly and is expected to decline further in 2007 and 2008. Under the recently launched Ninth Malaysia Plan (2006-2010), the GOM expects log output to decline progressively to 19.6 million m^3 by 2010. The exportable log surplus is likely to decline, as more logs are processed into value-added timber products such as lumber, plywood, mouldings and furniture. Exports will be dictated by the available log production volume in the future. Log export is subject to availability of log export quota set at 1,000,000 m^3.

Strategies incorporated in the short and medium term plan for expanding timber processing capacity are the provision of tax rebate or processing incentives to the millers and log producers, provision of land infrastructure, establishment of shipping facilities, and the setting up of special areas for timber based activities namely TPZ (Timber Processing Zone).

Basically there have been increasing numbers of species being utilized and traded and this is very much the function of market demand and related to the general condition of the global economy. With slight improvements in the global and local economic situation, there have been signs of an upward trend in construction activities notably in to housing and real estate development.

The Malaysian timber certification scheme, operated by the Malaysian Timber Certification Council (MTCC), continued to make some progress in 2006. Denmark, the United Kingdom, New Zealand, the Netherlands, France, Japan and Hamburg (Germany) have included the MTCC scheme as one of its accepted certification schemes in its Environmental Guidelines for Purchasing Tropical Timber. Malaysia is currently negotiating with the EU on its Forestry Law Enforcement, Governance and Trade (FLEGT) Voluntary Partnership Agreement, as well as taking steps to submit the MTCC timber certification scheme for endorsement within the PEFC's framework for mutual recognition.

Planted forests play an increasingly important role in ensuring that sustainable forest management is achieved.

To support the development of planted forest, the Sarawak state government has implemented two programmes. The first is the reforestation programme which is implemented by the Forest Department, Sarawak. The second programme is the establishment of planted forests under which licences are issued to the private sector to enable them to establish forest plantations.

Myanmar (2006)
Import/export licences, timber production and timber products trade permits from the Ministry of Commerce are required to export wood products. There are no quotas or incentives which affect production and trade. Suspension of GSP privilege by the US and the EU may be considered as a disincentive to forest development and management. No non tariff barriers exist, except for the timber certification requirement which was not until now compulsory.

Private entrepreneurs are being encouraged to undertake downstream processing and to make advance arrangements for sharing roundwood raw materials. Private enterprises are further encouraged to use lesser known species and to penetrate the world markets. There are no short-term plans for expanding sawmilling capacity.

In 2007, the EU implemented measures prohibiting European imports of logs and other wood products from Myanmar. The measures also forbid European companies from providing machinery to and investments in Myanmar timber companies.

As a developing country, Myanmar's domestic timber consumption has been increasing due to utilization in development of infrastructure. However, some buildings are being constructed with cement and iron (mild steel rod).

Current Extent of Forest Plantations (Up to 2005) = 854 ,303 ha
Annual Establishment of Forest Plantations = 30,350 ha
Proportion of industrial roundwood production from plantation = N.A.

Papua New Guinea (2006)
The government increased the royalty for log exports to enable landowners to receive more benefits from PNG's timber industry. From January 2008 timber companies will pay landowners K30 (USD10.17)/m^3 of log exports, compared with the previous rate of K10 (USD3.39)/m^3. The levy for sawn and premium timber has increased from K15 (USD5.01)/m^3 to K35 (USD11.87)/m^3 and from K5 (USD1.70)/m^3 to K10. The government announced in its 2008 national budget that in order to offset the cost to the industry, it will reduce the log export tax. There is limited promotion of lesser used species in PNG.

Philippines
The Philippines' current tariff rates are as follows:
Logs Tropical: Free
Logs Non Tropical: Free
Sawn Tropical: 7%
Sawn Non Tropical: 7%
Veneer Tropical: 7%
Veneer Non Tropical: 7%
Plywood Tropical: 15%
Plywood Non Tropical: 15%

Forest plantation establishments enjoy the following incentives:

a) Income tax holidays;
b) Tax and duty free importation of capital equipment;
c) Tax credit on domestic capital;
d) Deduction for labor expenses after the tax holiday;
e) Exemption from wharfage dues and export taxes and duties;
f) Exemption from constructor's tax.

The Philippine Government particularly the Department of Environment and Natural Resources (DENR), is in the process of rationalizing the wood-based processing plants in the country. All DENR Regional offices are instructed to prepare their respective Regional Wood Processing Plans (RWPPs).

In 2005, log production from natural forests was 96,276 m^3 and plantations were 744,704 m^3. *Paraserianthes falcataria*, *Gmelina arborea* and *Acacia mangium* rank 1, 2, and 3 respectively.

Forest rangers are regularly deployed in specified checkpoints to abate transportation of illegally cut timber. The East Asia Forest Law Enforcement and Governance (FLEG) initiative brings timber producing countries in the Asia Pacific region together with various timber consuming countries. It aims to combat illegal logging, associated trade of illegal timber and corruption through regional dialogues, information sharing and concerned actions. The total area planted in 2005 was 16,498 ha. The total area planted by the govt. was 7,187 ha., while 9,311 ha. were planted through the effort of the non-government sector, which is primarily composed of Industrial Forest Management Agreements.

Thailand (2006)
Thailand's tropical log production is based almost entirely on its rubberwood and other plantation resources. In the first half of 2007, new housing starts, including condominiums, fell sharply, although they were expected to recover at the end of 2007. The real estate sector is expected to recover in 2008 in anticipation of economic growth and relative political stability after the general election at the end of 2007.

Latin America

Brazil
The Congress has approved a Law for Forest Management in public areas (forests), which will permit contracts between Government and concessionaires for long term

forest management plans. The Law is important to tackle illegal logging within public forests, particularly in the Amazon region.

In order to strengthen forest law enforcement against illegal logging, some measures were taken as follows:

1) In 2005/2006 around 500 people were arrested in connection with illegal logging, of which more than 100 were public servants.
2) The Forestry Authority (IBAMA) launched a new computer-based system to control trade and transportation of timber and other forest products. The system is based on tracking all operations of trade and transportation, having as reference the credit of timber generated by the Forest Management Plan YPO or legal forest conversion grant.

The government is concentrating efforts against deforestation in 32 municipalities with the largest deforested areas in the last few years. A governmental decree in December 2007 included provisions that landowners must register their properties with precise measurements using new technologies and proper monitoring. Violators are now subject to penalties such as losing access to bank credit, losing property and additional fines. In addition, illegal deforestation will result in an embargo being placed on the land and its production capabilities, which means that the penalty will be applied to buyers of animals or products coming from the identified area.

The total area of forest plantation is 5,400,000 ha. The annual establishment rate is 550,000 ha/yr.

Bolivia
The Bolivian wood products sector was facing uncertainty in 2007 because of political turmoil. A referendum to vote the new constitution proposal is to take place in 2008 and may affect the sustainable management of forests and the legal wood supply to the wood products industry.

The Bolivian Forestry Commission abolished Resolution 30/2007 of 3 April 2007 which restricted and forbade sawnwood exports. The restriction had been adversely affecting the forest sector, particularly small and medium producers. About 40% of total Bolivian exports of wood products are sawnwood while 60% are processed products such as floors, furniture and doors.

The Bolivian Forestry Chamber carried out several forestry events in 2007, including the third version of the Wood Industry Round Table, the second business meeting for forest indigenous communities and the first National Forest Congress, which petitioned for a number of changes to the forestry sector.

Colombia
The Forest Incentive Certificate (Certificado de Incentivo Forestal-CIF) is an economic incentive mechanism to promote direct investment in the establishment of protection and production forest plantations on lands suitable for forestry.

Also relevant is the promulgation of the National Forest Regime Law No. 1021 of 2006, which is aimed at promoting sustainable development and encouraging modernisation of the Colombian forest sector to increase industry competitiveness. This will be achieved by providing forest investment guarantees and promoting the provision of preferential development credit facilities for the sector to establish clear standards for both national and foreign investors, as well as developing a Forest Investment Fund and other incentives within the tax regulatory framework.

The National Forest Development Plan (Plan Nacional de Desarrollo Forestal-PNDF) contains a strategic national forest management vision for the next 25 years. It is based on the participation of stakeholders concerned with forest resources and ecosystems and is geared to promoting strategies and programmes related to zoning, ecosystem conservation and restoration, forest ecosystem management and utilisation, and the adoption of a forest-chain based strategy for commercial reforestation, industrial development and forest product trade. In this context, the Government has been promoting the signing of Production Chain Competitiveness Agreements and the development of forest production clusters to contribute to the improvement of national forest sector production. The following competitiveness agreements have been signed to date at the national level-Pulp, Paper and Cardboard; Particleboard, Plywood and Timber Furniture; Rubberwood and related industries; and Guadua (bamboo) and related industries. At the regional level, seven competitiveness agreements have been signed so far with Antioquia, Cordoba, Magdalena Bajo Seco, Caldas, Santander – Sur Cesar, Valle – Cauca and Orinoquia.

The different varieties of traditionally harvested species such as cedar (*Cedrela odorata*) and oak (*Quercus humboltii*) are being replaced with other species such as Guayacan (*Lafoensia speciosa*, *Guaiacum officinali*) and Marfil (*Simarouba amara*).

The construction sector is the major driver of the Colombian economy, generating employment and boosting the consumption of raw materials. The construction sector reportedly experienced a 24.6% growth in 2006 according to the data provided by the Colombian Chamber of Construction (CAMACOL). This was the second-best growth rate achieved throughout the country's economic history. The construction sector has become the leading sector of the Colombian economy, as unlike other sectors of the economy, it responds more quickly to positive or negative conditions determined by both the political and economic performance at the national level.

According to the data provided by the Technical Department of the Bank of the Republic, direct foreign investment in Colombia in 2006 amounted to US$6,295 million, thus exceeding the country's goal which had

been set at US$6,000 million for that year. The sectors that experienced the greatest growth during 2006 were: Agriculture, Hunting, Forestry and Fisheries, which received US$33 million as compared to a total of US$6 million received in 2005, making it one of the most dynamic sectors of the economy. The USA, with a total of US$1,525 million was the main source of investment in 2006, followed by Spain (US$497 million) and the Virgin Islands (US$353 million). The main investing countries within the region were Panama (US$256 million) and Venezuela (US$60 million).

After the promulgation of Forestry Law No. 1021 of 2006, the National Government issued Decree No. 2300 related to the establishment of commercial plantations, production plantation establishment and forest management plans, and certification of reforestation investments. The issuing of other decrees related to forest management, forest harvesting, protection forest plantations and urban forestry is currently under way.

At present, there are 209,248 ha of forest plantations in the country. Preliminary data indicate an annual plantation establishment rate of 50,000 ha.

Guatemala

The US – Dominican Republic – Central America Free Trade Agreement (US-DRCAFTA) was signed a year ago but its impact so far has not been as expected. Similarly, the expected tariff relief has not yet been smoothly implemented but after a review it will undoubtedly be incorporated into the agreement in the short term. The entry into force of the FTA has attracted investors interested in forest projects because of the facilities provided in the sector. Existing weaknesses in the forest sector call for a technological upgrade of harvesting operations, particularly the upgrade of equipment.

The major incentive-providing initiatives are the Forest Incentives Programme (a government programme), and direct payment for environmental forest services for the implementation of reforestation and forest management projects on land suitable for forestry. Foreign investment is encouraged, particularly when implemented with strong partners at the local level. The insufficient capacity of the forest industry to process small diameter timber and lesser-known broadleaved species is a disincentive for future production. A major problem is the investors' lack of knowledge on adequate technologies at the local level, as well as the lack of specialised professionals, although in theory there are markets for the country's secondary broadleaved species. After the signing of the Free Trade Agreement with the US, the forest sector could be adversely affected by its limited competitiveness, which could in turn lead to an increase in forest product imports and thus have a negative impact on the balance of trade. Producers have limited capacity to meet market requirements, which is associated with the lack of access to information and limitations in the aggregation and management of supply.

There is a National Forestry Agenda up to 2012, which includes a number of actions, institutional arrangements, studies, programs and projects grouped by areas such as forest conservation and protection, sustainable management and production, trade and industry, environmental services and institutional strengthening. Within this framework, projects are being implemented in various areas such as genetic improvement of tropical species, market promotion of Guatemalan certified timber and timber products, and strengthening of the forest information system, among others. The Strategic Plan for 1998-2015 has also been established; it includes aspects related to the promotion of forest management, industrialisation and production, among others, and in particular the organised opening of timber markets.

Priority is currently being given to the development of markets for secondary species, as the shortage of traditional species (cedar and mahogany) becomes increasingly apparent. New alternatives are being sought in the international market for abundant lesser-known species. The national forest industry is now trying to specialise in the harvesting of new species that may be introduced into the market. Forest concessions can provide a substantial supply to meet the demand for tropical timber in the national market and penetrate the international market. The timber produced by these forest concessions has been certified.

There is an upward trend in the cost of construction materials. The demand for low-cost housing is high due to the country's population growth (with an annual rate of 3.5%). An increase of 10-15% is still reported in the demand for prefabricated houses made of impregnated wood, which is mostly met with timber imported from Canada and to a lesser extent with locally produced timber. Opportunities for local timber from existing plantations, especially from coniferous species, constitute a good production incentive so this timber could help meet the demand for raw material in that sector, which is currently imported. Forest sector financing is still expensive as compared to other neighbouring countries with an annual rate of 20-25%, which has been affected by the increased cost of fuel and speculation over working capital flows. The cost of labour may still be the only favourable factor.

Although reliable data is unavailable, unofficial sources report a foreign involvement rate of no more than 30%. In general, access to reliable sources is hampered by the fact that foreign involvement is usually in the form of public corporations or limited companies. Most foreign capital is from the USA (70%), although recently European (20%) and South American (10%) capitals have also been reported.

No major amendments have been made to the forestry legislation over the last 12 months. Technical and regulatory documents are being used to regulate and standardise criteria for the use, management and conservation of forest resources. These still include inter alia the forest products

transport regulations, the Forest Incentives Program Regulations and the Forest Stewardship Regulations, as well as other forest-related regulations and standards.
Area of forest plantations: 120 445 ha (to be verified)
Annual establishment rate: 12 000 ha/year

Guyana
A log export policy is expected to be put in place shortly to discourage the export of logs and encourage more value-added production.

Minimum royalties are being reviewed to ensure companies that have forest concessions beneficially utilize them. A number of private companies have expanded or are expanding their operations to increase the production of sawn and processed wood.

Lesser used species are becoming more important for the sector as a result of more international companies with experience in promotion and sale of lesser used species entering the Guyanese markets. Previously under-utilized species such as bulletwood, tonk bean, mora, etc are also being used more extensively.

A new Guyana Forestry Commission Act has recently been passed in parliament. The draft Forestry Act is expected to be tabled shortly. The Guyana Forestry Commission is stepping up its quality control activities to ensure quality products are being exported. In 2008 greater emphasis will be placed on retooling and capacity building to enable companies to successfully meet the demands of the international market in a competitive manner. Some of the issues that will be targeted under new regulations include: the need for more mechanization; the use of modern facilities and technologies; better consumer loyalty; improved safety and more processing activities.

Honduras
No tariff rates are applied to roundwood imports, except for phytosanitary requirements, but processed timber products are subject to various tariff rates, including a 15% rate on all types of species, plus a 12% value-added tax (VAT); the administrative rate of 0.5% has been eliminated.

The elimination of the 0.5% administrative rate has served as a tariff-related incentive for imports. For invoice values of US$3,000 or more, no tariff barriers are applied to imports or exports, except for phytosanitary restrictions.

Discussion of the new draft forestry legislation by the National Congress has just been completed. Agreement has been reached with all forest sector stakeholders and the bill is currently under review by the Supreme Court of Justice for ratification.

The results of intensive studies carried out on 27 non-traditional tropical timber species to be introduced into the domestic market were completed; one of these – Laurel (*Cordia alliodora*) – has had very good acceptance in the furniture industry for the manufacturing of both internal and external furniture parts. Pine sawnwood is still a major component of the construction industry; its price (by board foot of timber) has remained relatively stable over the last few years. The country's construction industry is currently booming, particularly in the construction of urban and suburban housing complexes.

Foreign involvement is through public corporations (Honduran/foreign capital), which makes it difficult to quantify the number of foreign interests and their nationality. However, foreign capital investment in the largest sawmills of Honduras or sawmills with the highest sawnwood production levels is mostly from Cuba, Nicaragua, Italy and USA. Nevertheless, about 80% of capital stakes in primary timber industry companies are held by Honduran nationals, including small and medium sawmills and agroforestry cooperatives (small organised rural groups), while the secondary processing industry has approximately 60% of national capital.

Over 550 forest-related complaints were filed in 2006 for forestry law infringement in the different forest regions of the country.

It is estimated that there are currently about 32,200 ha of reforested areas implemented by different stakeholders throughout the country. Pine plantations account for 80% of this total, but due to lack of management, most of these plantations have not yet been incorporated into the sawnwood production process. More than 1,400 hectares were reforested in 2006 with the planting of over 1.6 million seedlings. This has marked the beginning of the National Environmental Conservation and Reforestation Programme established by the Presidency of the Republic (through Executive Decree No. PCM-02-2006).

Mexico
Current tariffs rates are as follows:
Logs Tropical: 10%
Logs Non tropical: 10%
Sawn Tropical: 15%
Sawn Non tropical: 10% or 15%
Veneer Tropical: 15%
Veneer Non tropical: 15%
Plywood Tropical: 15% or 20%
Plywood Non tropical: 15% or 20%

Current restrictions include those imposed by the forest and environmental legislation to authorize the harvesting of tropical forests in Mexico.

There is an economic incentives programme to promote commercial forest plantations which is mainly geared to the use of (native and introduced) tropical species. Furthermore, there is a forest development programme, which provides economic incentives to forest producers wishing to embark on further timber processing (i.e. value-added processing of products). Expected trends show that the proportion of tropical timber species in the composition of trade will increase in the medium- and long-term (10 to

20 years). The share of tropical timber species is currently 5% as compared to non-tropical coniferous species which dominate the market with a 95% share. The proportion of tropical species should increase to 45% in 20 years because of the economic incentives program for plantations. With regard to lesser-used tropical species and secondary products, it is expected that their use should significantly increase by 20% through the forest development program currently under implementation.

The national demand for tropical timber has always been high as reflected in the prices attracted by these species in the domestic market; for example, the price of a cubic meter of red cedar or mahogany is six times higher than that of a cubic meter of pine. Furthermore, tropical timber species are much more sought after for decorative uses than coniferous timber species, and the demand for tropical timber in these applications is increasing. Annual growth rate in tropical timber consumption in Mexico is estimated at 4%.

Given Mexico's land tenure structure, foreign involvement is very limited but tends to be higher in forest plantations; foreign investments are currently estimated to account for 5% of total investments.

Over the last few years, tropical forest controls to prevent illegal logging have significantly increased through the Federal Bureau for Environmental Protection (PROFEPA -Procuraduría Federal de Protección del Ambiente), which is the agency in charge of enforcing the General Sustainable Forest Development Law promulgated in 2003. It is estimated that the imposition of penalties and fines has increased by 50% over the last three years.

The area of forest plantations is currently estimated at 140,000 ha, 70,000 ha of which include coniferous and non-coniferous tropical species. The annual plantation establishment rate in 2005 was 20,000 ha, and it is expected to increase to 24,000 ha in 2006. The proportion of plantation roundwood production (270,000 m^3) was 4% of Mexico's total roundwood production in 2005 and is expected to increase to increase to 5% (285,000 m^3) in 2006. The objective is to increase it to 300% (18 million m^3) of the roundwood volume harvested from natural forests (6 million m^3) by the year 2030.

Peru

Import tariffs for tropical timber products still remain at 15% of the FOB value.

There is an export quota of 23,239 m^3 for *Swietenia macrophylla* (mahogany). In addition, there are incentives in place, such as the Amazonian Law, which stipulates tax exemptions for fuel and payment of income tax and general sales tax (GST). In the case of exports, there is also a drawback facility involving tax rebates of up to 5% of the FOB value for including imported products. Tariff rates depend on target markets; for example, in the US market there is a flat rate of 0%. The forest legislation provides for the promotion and processing of forest products. In this context, the legislation promotes the harvesting of a larger number of species, optimal utilisation, higher value added and production chain integration, with a view to contributing to sustainable forest management.

The current trend in the domestic market is to focus on a larger number of species; in this context, over 300 species are being marketed at the domestic level and most of them are lesser-known species. The trade in these species is important for the forest sector because an increase in forest productivity is expected as a result of good tropical forest management practices. Harvesting rights are granted through concessions, permits, etc., particularly in the Departments of Madre de Dios, Ucayali, San Martin, Huanuco and Loreto.

Timber is used mainly in the building sector but limited to formwork and, to a lesser extent, fine carpentry applications (finishes). Current mortgage facilities and interests do not favour the construction of timber housing. However, a housing programme has been established promoting the use of forest species in fine carpentry applications (finishes). Furthermore, the existence of wood substitutes has limited the use of timber.

The interest of foreign investors is reflected in forest concession processes carried out in permanent production forests over the past years. The Peruvian Government has taken a number of law enforcement actions which led to the seizing of a total of 21,374 m^3 of roundwood and 6,203 m^3 of sawnwood of different species. In addition, a field monitoring program was established to monitor compliance with management plans, and a total of 52 forest concessions and permits have been monitored through this program. Peru is conducting a series of intervention and seizures through which it has been able to recover roundwood and sawnwood of different species. Besides field inspections, forest concessions and forest permits are controlled by verifying compliance of management plans.

Most registered plantations in Peru are part of reforestation programmes with species such as eucalypts, pines and native species from the highlands region. A total of 797,866 ha has so far been reforested. The reforestation rate is 21,068 ha/year. Furthermore, the National Reforestation Plan 2005-2024 was approved last year. The production of roundwood eucalypts and pines originating from forest plantations is 194,711 m^3.

Suriname

The Act on the timber export taxes of November 1946 has been revised in March 2005. With this revision logs and semi-processed timber can be exported within CARICOM, duty free. On logs exported outside CARICOM there is a tax that varies between 20% and 18% of the export price and on semi-processed timber a tax that varies between 15% and 5% of the export price. If Bruynzeel Suriname Houtmaatschappij, one of the largest logging and processing state-owned companies, has been privatised as

planned, the new owner expects both logging and timber processing to increase significantly. The foreign company, Tacoba Consultant Suriname NV, has been conducting tests on the production of veneers. If the test succeeds it is envisaged that veneer production and export will take place. If the veneer plant of Bruynzeel Suriname Houtmaatschappij and Tacoba Forestry Consultant Suriname NV becomes operational as planned, lesser known species which currently are not marketable as sawn wood, will be utilized for the production of veneer.

Ten companies out of the total 200 logging companies in Suriname are foreign owned. Of the foreign owned companies, 10 are from China, 1 from Malaysia, 1 from the Netherlands and 1 from the USA. Out of a total of 133 valid licenses and a total area of 1,475,000 ha of concessions in the country, foreign companies have 18 valid concessions licences with a total area of 600,000 ha under their management.

The computerized log tracking system (named LogPro) of which the development was initiated in 1998 with the assistance of FAO, has been fine-tuned significantly in the past years and is currently an effective tool to monitor timber harvesting to determine the source of timber brought to the market and thus combat illegal logging, as well as to ascertain adequate payment of the fees due to the government, amongst other things. In 2005 preparations have advanced successfully for the establishment of the Forest and Nature Management Authority of Suriname, which will enhance law enforcement significantly.

During the 1960s about 15,000 ha of experimental forest plantations of diverse species including pine were established. Since that time there have been no plantation establishment activities. In the last 5 years the proportion of industrial roundwood production from these plantations has been less than 1%.

Venezuela

Incentives for SFM and forest development include income tax exemption for all primary activities, the identification of new sites for forest management within areas designated for forest production throughout the country, and a public forest financing fund for forest plantations and agroforestry systems coordinated by the Fund for Agricultural, Forest and Related Development (FONDAFA) and in the area of forest industry, coordinated by the Development Bank (BANDES).

The operation and production of the private company Fibranova C.A. has strengthened the country's particleboard industry, which is reflected in the production data submitted in the JQ.

Based on the "Ecological-Social and Land-Use Management Review for the Caura Region" carried out by this Ministry and in accordance with policy guidelines for forest conservation, the Land Management Plan and Use Regulations for the El Caura Forest Reserve have been proposed for the utilisation of non-timber forest products. The harvesting of timber products is only allowed for traditional indigenous uses. This will require the development of forest management plans aimed at the harvesting of non-timber products and will therefore lead to the diversification of forest species in the country's trade.

Furthermore, a study was carried out within the framework of the Cuba-Venezuela cooperation agreement, on the current status and potential of non-timber forest products in the Protected Forest Area known as "Merejina", in the state of Delta Amacuro, with a view to guiding the development of integrated non-timber forest product (NTFP) management projects in native community areas. In this context, an inventory of NTFPs has found the presence of up to 66 plant taxa, including main uses and a map of major species range areas.

Mortgage interest rates in the country range from 5.68% to 11.36%. The housing deficit is estimated at 1,640,000 units. The Venezuelan Government, through PETROCASA, will produce between 15,000 and 18,000 PVC (Polyvinyl Chloride) housing units per year. In addition, the Corporación Venezolana de Guayana-Productos Forestales de Oriente (CVG-PROFORCA) will build 50,000 houses per year within the framework of the Timber Housing Project. Furthermore, the Villanueva Mission will promote the construction of housing, and plans to establish a housing development in the initial stages for the relocation of families currently settled in high-risk areas.

Foreign investment is regulated by the relevant legislation in the country, particularly the involvement of national manpower. There are no statistics available on foreign involvement in the forest sector, but major companies include Terranova C.A., Fibranova C.A. and Smurfit de Venezuela.

Environmental crimes are addressed through administrative sanctions and the imposition of fines, which currently are not significant. The legal instrument that is currently being developed for the forest sector will lead to the establishment of a new integrated forest management and sustainable forest development model that will take into consideration the new social structure in the country.

The area of forest plantations in 2006 was estimated at 812,959 ha. The average plantation establishment rate in 2005-2006 was approximately 19,000-22,000 ha/year. Industrial roundwood production was approximately 1,337,792 m^3, including coniferous and non-coniferous species.

The "Tree Mission" (Misión Árbol) program created in 2006 with a view to contributing to the rehabilitation and maintenance of forests in the country through reforestation for protection and production purposes has led to the planting of 4,092 ha at the national level in 2006.

Consumer Countries

Asia-Pacific

Australia

Current tariffs rates are as follows:
Logs Tropical: Free
Logs Non Tropical: Free
Sawn Tropical: Variable, Free - 4% or 5%
Sawn Non Tropical: Free - 4% or 5%
Veneer Tropical: Variable, Free - 4%
Veneer Non Tropical: 5%
Plywood Tropical: Variable, Free - 4% or 5%
Plywood Non Tropical: 5%

The current Government policy places a number of restrictions on the extraction of wood from native forests (hardwood), and there is no harvesting of logs from government native forests in tropical regions in Australia. In the short term there are no plans for expanding capacity for further processing of tropical timber products.Several private companies are in the process of establishing plantations in Northern Australia based on tropical timber species and sandalwood that should lead to the production of small volumes of tropical timber in the medium to longer term. Roundwood removals from Australia's forests declined by 0.9% in 2005-06 to 26.7 million m^3. The decline in removals was due to lower harvest levels from native forests, which have fallen steadily since 2002-03.

The volume of logs harvested from native forests declined by 13.0% in 2005. In contrast, the volume of removals from broadleaved plantations has increased steadily over the past decade.

After increasing by 61.4% in 2004-05, broadleaved plantation removals increased by a further 28.7% in 2005-06. Tropical timber imports are expected to remain around current levels, however, imports of tropical plywood are expected to increase in the short term due to a temporary fall in domestic production.

Housing starts declined by 4% in 2005 to 151,800 units and fell by 1% in 2006, but then are forecast to recover in 2007, increasing by 3% to 154,000 units (HIA). Prime interest rates are forecast to rise from 9.1% in 2006 from 9.8% 2007. Despite the decline in housing starts sawnwood production increased slightly in 2006 based on import replacement and a continuation of strong export growth to Asia. These factors are likely to lead to a decline in imports of both non-tropical and tropical sawnwood in 2006. In 2007 imports of tropical timber are expected to increase in line with the increase in housing activity. There has been and increase in the domestic use of and imports of hardwood laminated flooring.
Total plantation area 2006: 1,817,800 ha (broadleaved 807,400 ha; coniferous 1,001,100 ha).
Plantations established 2006: 78,900 ha (broadleaved 67,280 ha; coniferous 11,110 ha).
Proportion of industrial roundwood harvested from plantations 2005-06: 68%

Japan

In recent years, plywood industries of Japan have shifted their use of materials from tropical timber to coniferous timber. The rate of coniferous plywood production was increasing, and approached 70% of total domestic plywood production in 2006.

The volume of imported plywood with at least one outer ply of 14 major tropical species has been declining from 1995 to 2006. Annual housing starts for 2006 increased by 4.4% to 1,290,000 units.

The percentage of wooden housing starts for 2006 was 43.3% of total housing starts, a year-on-year decrease of 0.6%.

Rep. of Korea

Current tariffs rates are as follows:
Logs Tropical: Free
Logs Non Tropical: Free
Sawn Tropical: 5%
Sawn Non Tropical: 5%
Veneer Tropical: 5%
Veneer Non Tropical: 5%
Plywood Tropical: 8%
Plywood Non Tropical: 8%

Europe

France

The current tariffs are the same as the European Community tariffs.

As of mid-2006 there were no specific national regulations pertaining to the timber trade, except for those of the European Union. There were also no projects of significant importance for expanding capacity to process tropical timber.

According to a Circular of the Prime Minister dated 5 April 2005 relating to public markets, tropical wood should be certified as being from forests that are being sustainably managed. The French government has adopted the national forestry program over the period 2006-2015.

Over the period from 1992 to 2004, the area of France under forest cover increased by an annual average of 43,000 ha per year. However this was the net result of new forest growth of about 96,000ha/yr on land not previously forested recently, versus 53,000 ha per year of forest loss due to conversion of forested lands to other uses.

Of the 96,000 ha per year in gross forest gain, 90% was due to natural colonization by trees and other forest vegetation, 10% to plantation establishment.

Germany

In January 2007, a public procurement regulation entered into force at federal level, aimed at the acquisition of wood products exclusively originating from sustainable timber sources (evidence by credible certification schemes

like FSC/PEFC). The regulation is available in English (**www.bmelv.de/cln_044/nn_757138/SharedDocs/Gesetzestexte/H/HolzbeschaffungErlassEN.html__nnn=true**). It is hoped that this regulation may contribute to influence timber trade via market forces towards sustainability and legality.

The market share of timber houses in the building sector is slowly growing (currently about 14 %). Future trends in timber utilisation are increasingly towards renovation and reconstruction. Tropical timber is mainly processed for furniture (interior and exterior), flooring, fences, constructions (e.g. bridges, noise protection walls).

Norway

No specific factors are expected to have significant impacts on the very limited trade of tropical timber products in Norway in the near future. There are no plans for expending capacity for (further) processing of tropical timber products. Lesser-used tropical timber species have limited importance. Norway does not expect significant changes in tropical timber consumption caused by strong domestic factors.

Until 2006, a Finnish company was the majority owner in Norway's largest sawmill group. In December 2006 their holdings were sold to a Norwegian group, thus reducing the foreign involvement in the timber sector significantly. The new Norwegian forestry legislation went into force in January 2006. Forest plantations occupy approximately 300,000 ha. Establishment rate: approximately 110 ha were established in 2005. Proportion of industrial roundwood production from plantations: less than 2.5%.

Poland

Current import tariff rates correspond with the European Union Customs Duty Tariff. Poland is basically self-sufficient in terms of timber supply. Tropical wood imports are insignificant in the Polish wood market. Foreign trade of wood products derived from tropical wood is of relatively minor significance: imports of tropical sawnwood constitutes 5% of total imports, veneer sheets 4%, plywood around 6% (export: less than 1%, 5%, and 3%, respectively).

In Poland the problem of lack of production capacity for processing tropical timber and making products from this wood does not exist. A potential further increase in the consumption of tropical timber and tropical wood products will depend on the value of demand.

In the coming years, significant changes in the species composition of processed tropical timber and products made of this wood in Poland are not expected. The most common species of tropical wood in Poland are: merandi, bakau, palisander.

Due to the minor significance of the tropical wood market in Poland, the impact of other factors stimulating the wood market is also limited. In 2006 foreign investment in Poland accounted for 14.7 billion USD (in the years 1990-2006 it was 109 billion USD in total). The cumulative value of foreign direct investment in the timber sector amounted to about USD5,300 million in the years 1990-2006, amounting to 5% of the total value of inflow into Poland. Foreign capital has the strongest influence on the development of the furniture, wood-based panels and paper industries.

In the last five years the value of losses due to harmful activities in forests, was within the limits of: PLN 6.2-7.6 million in State Forests. In 2005 it was PLN 7.4 million which meant a year-on-year increase of 5.7%. There were over 14 thousand cases of harmful activities in forests. With regard to the value of losses-of most significance is theft of timber from forest-56% (in 2005-9455 cases, valued at PLN 4.1 million), theft or destruction of property in Forest Districts accounts for 26% and poaching-18%. Fighting against harmful activities in forests is one of the main duties of the workers of the Forest Service (there were over 14,000 of them in 2005, of which 994 were forest guards).

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Financial Times	Random Lengths International
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Hardwood Review Global	Timber Trade Journal
Inwood International	Tropical Forest Update
(US) International Wood Products Association	USDA Foreign Agricultural Service GAIN Reports
ITTO Market Information Service	Wood Based Panels International
Japan Forest Products Journal	Wood Furniture – International Market Review
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Japan Lumber Reports	

The following websites were also consulted:

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Euroconstruct, **www.euroconstruct.org**
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Forest Protection Portal, **http://forests.org**
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US International Trade Commission, **www.usitc.gov**

APPENDICES

Appendix 1	**Data on production, trade and consumption by country.** Unit values may differ for equivalent volumes/values due to rounding. Domestic Consumption = Production + Imports - Exports
Appendix 2	**Major trade flows by product.** Figures reported by importers are shown in **bold** typeface while those corresponding to export reports are in italics. Only major trading relationships (the top twelve importers and exporters for each category) are presented.
Appendix 3	**Major species traded.**
Appendix 4	**Prices of major tropical timber products.**
Appendix 5	**Trade in secondary processed wood products.**
Appendix 6	**2007-2008 ECE/FAO Timber Committee market statement.**

Export values/prices in Appendices 1, 3, 4 and 5 are FOB; import values are CIF, unless otherwise stated.

SOURCES:

The 2007 Joint Forest Sector Questionnaire is the main source of the appendices. Other sources are indicated by the superscripts after the figures.

ITTO SUPERSCRIPTS

C	COMTRADE database.
CB	COMTRADE MIRROR STATISTICS from COMTRADE database.
F	FAOSTAT database.
R	Figure rounded down to zero.
I	ITTO estimate.
*****	Other unofficial data including country statistical reports, trade journals, ITTO project reports, USDA Foreign Agricultural Service reports.
G	Global Trade Atlas.
W	Adjustment from weight (usually metric tons) to volume assuming the following factors (unless different conversion factors are reported): coniferous logs – 1.43m^3/ton; non-coniferous tropical logs – 1.37m^3/ton; non-coniferous non-tropical logs – 1.25m^3/ton; coniferous sawnwood – 1.82m^3/ton; non-coniferous sawnwood – 1.43m^3/ton; veneer – 1.33m^3/ton; plywood – 1.54m^3/ton.
--	Data not available or impossible to calculate (i.e. divide by zero).

UNECE SUPERSCRIPTS

E1	Validated (Supplied by official national correspondent and approved by secretariat analyst).
E2	Official (From country, supplied by official national correspondent. Can be modified due to obvious errors [wrong units]).
E3	Estimated-analyst (An educated estimate made by secretariat based upon knowledge and non-official sources).
E4	Calculated, exclusively generated by Microsoft Access program for aggregates (both regional and product) and special calculations (e.g. consumption).
E5	Repeated.
E6	Not Publish but counted in totals.
E7	Provisional (a very rough estimate by secretariat).
E8	Estimated-technical (An estimate based on technical validation rules to make the data fit).
E9	National estimate (Unofficial data provided by official source).
TCF	Timber Committee Forecasts held in Geneva in October 2007.
ITCF	ITTO Secretariat estimates based on TCF.