INTERNATIONAL TROPICAL TIMBER ORGANIZATION (ITTO)

ANNUAL REVIEW AND ASSESSMENT OF THE WORLD TROPICAL TIMBER SITUATION

1995

INTERNATIONAL TROPICAL TIMBER ORGANIZATION (ITTO)

ANNUAL REVIEW AND ASSESSMENT OF THE WORLD TROPICAL TIMBER SITUATION

1995

This document supersedes document ITTC(XIX)/3 "Elements for the Annual Review and Assessment of the World Tropical Timber Situation 1995". It presents updated and revised statistics of the world tropical timber situation received during and following consideration of document ITTC(XIX)/3 by the International Tropical Timber Council in November 1995.

The designations employed and the presentation of material in this document do not imply the expression of any opinion whatsoever on the part of the International Tropical Timber Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

Document GI-7/95. International Tropical Timber Organization. Yokohama, Japan.
Prepared by the Division of Economic Information and Market Intelligence, ITTO.

Printed in Japan

Table of Contents

Figures

Tables

Summary

This Review provides data on production and trade of tropical forest products and the status of tropical forests in ITTO member countries. Data are presented up to 1995 based on projections made in the third quarter of that year. However, 1993 is used as the base year for all global comparisons as this is the latest year for which global data were available at the time of preparation.

Production of tropical saw and veneer logs in ITTO producer countries totalled 135.6 million m^3 in 1993, a 3 percent decrease from 1992 levels. Log production decreased substantially through 1995, to just under 133 million m^3, due almost entirely to decreases in Asia, primarily Malaysia. The proportion of logs domestically processed in Africa fell from 70 percent in 1992 to 63 percent in the 1993-95 period (largely due to increased log exports to Asia). The Asian figure for domestic processing grew from 84 to 87 percent over the same period and is expected to continue growing to over 90 percent. This reflects increasing populations, growing economies and the emphasis on exporting value-added products in this region. Latin American countries processed domestically virtually all tropical logs produced in 1993-95. Sawnwood production by ITTO producers totalled over 39.9 million m^3 in 1993, down 3 percent from 1992 levels. This decrease was due to production falling throughout Asia and to a lesser extent Africa, which masked continuing production increases in Latin America. In 1994 sawnwood production increased to just under 40.3 million m^3, where it remained in 1995. Tropical hardwood veneer production totalled just under 3 million m^3 in 1993, a 45 percent increase from 1992 levels. This increase was due primarily to new capacity in Malaysia. Production remained close to 3 million m^3 in 1994, before falling to under 2.7 million m^3 in 1995 due to decreases in Malaysia. ITTO producer countries' plywood production rose by almost 8 percent in 1993, to 16.5 million m^3. This increase was primarily due to growth in Malaysian plywood production. While Indonesia's plywood production declined in 1994 and 1995 (to 9.5 million m^3) as limits on plant capacities and annual allowable cuts were reached, Malaysia's production rose rapidly to almost 4.5 million m^3 in 1995 (over three times 1991 production levels) due to new plants to add value to logs from Sabah and Sarawak. ITTO consumer countries also produced substantial quantities of tropical timber products in 1993. Tropical China and Australia produced over 900 000 m^3 of tropical logs, although Australia's output is declining. Consumer countries produced 2.9 million m^3 of sawnwood, 0.5 million m^3 of veneer and 7 million m^3 of plywood, nearly all from imported tropical logs. Production levels of tropical sawnwood and particularly of tropical plywood in consumer countries dropped in 1994-95 as the supply of tropical logs continued to shrink.

Total ITTO producer country exports were worth $11.7 billion in 1993, with Asia accounting for 84 percent of this total, Africa for 10 percent and Latin America for 6 percent. ITTO producer countries exported 16.8 million m^3 of logs in 1993 worth $2.6 billion, with Malaysia providing 56 percent of the total, down from over three-quarters in 1992. Log exports in 1993 were down 30 percent from 1992 levels as a result of a major drop in log exports from Sabah (due to an export ban) and Sarawak (due to a reduction in production brought about by implementation of the recommendations of the ITTO Mission). While Malaysian log exports continued declining in 1994-95, other suppliers in all three producing regions increased exports to result in a slight increase in total exports in 1994, before falling back to 16.1 million m^3 in 1995. Sawnwood exports were stable at 8.2 million m^3 valued at almost $3 billion in 1993, but declined sharply to 7.5 million m^3 in 1994, and to 6.9 million m^3 in 1995. Drops in Asian (primarily Malaysian) sawnwood exports account for these decreases. However, Malaysia remained the largest sawnwood exporter in 1993, accounting for 65 percent of the total volume of ITTO producer country exports. Malaysia's intention to stop all sawnwood exports from Peninsular Malaysia in favour of further processed products by 2000 will have profound impacts on the tropical timber trade. Veneer exports were stable in 1993 at 1.1 million m^3 (valued at $463 million), falling to 1 million m^3 in 1994-95. Plywood exports from ITTO producer countries increased by 6.6 percent over 1992 levels, to 13 million m^3 worth $5.7 billion. This increase was due to continuing expansion in Malaysian exports which together with Indonesia constituted over 93 percent of the ITTO total in 1993. Continuing increases in Malaysian

exports more than offset a decline in those from Indonesia, resulting in total producer exports of over 13.5 million m^3 in 1995. Malaysia's share of total plywood exports by producer countries has risen from 11 percent in 1991 to 29 percent in 1995. ITTO consumer countries also exported or re-exported substantial quantities of tropical timber in 1993, led by sawnwood and plywood exports of 0.27 and 0.35 million m^3 respectively. Log and veneer exports by consumer countries are smaller (88 000 and 47 000 m^3 respectively in 1993), but both increased by over 40 percent in 1994-95, reflecting regional increases in demand for these products in Europe, where the majority of the trade in tropical timber products between consumer countries occurs. These products are likely to undergo the same declining trend already in evidence for exports of tropical sawnwood and plywood by consumer countries. The total value of exports by consumer countries in 1993 was $365 million, bringing the ITTO total export value figure to over $12 billion.

Total consumer country imports of tropical timber products in 1993 were worth $12.4 billion, with Japan (41 percent), the European Union (EU - 24 percent), China - including Taiwan Province of China - (18 percent) and Korea (10 percent) the main importers by value. Producer country imports of tropical timber products exceeded $1 billion for the first time in 1993, giving a total ITTO import value of $13.4 billion. Thailand (70 percent) and the Philippines (12 percent) were the main producer country importers.

Tropical hardwood log imports by ITTO consumer countries fell by almost 27 percent to 16.7 million m^3, worth $4.1 billion, in 1993. If imports by producing members are taken into account, total 1993 tropical log imports by ITTO members were 19.3 million m^3 (valued at almost $4.5 billion), 26 percent less than in 1992. The 1993 total log import figure is almost 2.5 million m^3 greater than total ITTO exports, with the shortfall presumably made up by non-ITTO suppliers (including Indochina, the Solomon Islands and several relatively minor African log exporters), although under-reporting of log exports or misclassification of imports may also be a factor. This gap decreased to 1.2 million m^3 in 1994 and to 1 million m^3 in 1995. Japan maintained its position as the dominant importer of tropical logs in 1993, accounting for 50 percent of all consumer country log imports, despite a drop in imports of almost 25 percent in 1993 to 8.3 million m^3. Japanese tropical log imports dropped further to 7.6 million m^3 in 1994, and continued to slide to 6.5 million m^3 in 1995. Thailand and the Philippines are the major ITTO producing country log importers, at 1.6 million m^3 and 0.6 million m^3 respectively in 1993. Imports by both countries declined through 1995.

Japan's imports of 1.8 million m^3 of tropical sawnwood in 1993 rose by 45 percent from 1992 levels, partially offsetting lower log imports. Japan overtook Thailand (1.7 million m^3) as the main tropical sawnwood importer in 1993. Japan's imports declined to 1.5 million m^3 in 1995, however, while Thailand's grew to 2.5 million m^3. Thailand will continue to be a major market for tropical sawnwood in the next few years, but will have to restructure its industry as exports from Malaysia (its main supplier) are reduced. In contrast to Thailand, almost all other major importing countries had relatively stable or declining imports of tropical sawnwood through 1995. The increase in total ITTO tropical sawnwood imports of nearly 17 percent (to over 10 million m^3 valued at almost $3.6 billion) in 1993 is primarily attributable to the increases in Japanese and Thai imports, which more than offset the steady decline in European imports. Total ITTO imports remained relatively stable at just under 10 million m^3 in 1994 and 1995, more than 2 million m^3 over total ITTO exports of tropical sawnwood in these years, with the gap explained by the same factors given for logs.

Total ITTO veneer imports were up 15 percent in 1993, to 1.1 million m^3 valued at $367 million. Total imports dropped back to around 960 000 m^3 in 1994-95. The People's Republic of China (PRC - 287 000 m^3) with Taiwan Province of China (TPC - 204 000 m^3) remained the dominant importer of tropical veneer in 1993. Aggregate imports to PRC and TPC dropped to less than 400 000 m^3 in 1994, before increasing again to 440 000 m^3 in 1995. Japan (until 1992 ITTO's largest veneer

importer) absorbed 45 percent less tropical veneer in 1995 than in 1993, with substantial restructuring underway in its wood panels industry.

Tropical plywood importers continue to be led by Japan, which absorbed almost 3.9 million m^3 in 1993, up 34 percent from 1992. Japan's imports made up 41 percent of total ITTO imports of 9.5 million m^3 (valued at almost $4.8 billion) in 1993. Tropical plywood imports fell to 8.9 million m^3 in 1994 due to decreases in Japan, Europe and the USA. Most of these markets recovered in 1995 and total ITTO imports rebounded to 9.2 million m^3. In contrast to logs and sawnwood, total ITTO imports of veneer and plywood have been consistently lower than total ITTO exports of these products.

Real prices for most primary tropical hardwood products exhibited declining trends during 1993-95, although there were significant fluctuations in prices in many cases. Asian log and sawnwood prices increased significantly at the beginning of 1993 as wood shortages become apparent. Prices had returned to mid-1992 levels by the end of 1993 in most cases. Plywood prices declined steadily during 1994, but generally exhibited a positive trend in 1995. Prices for all products and regions in 1993-95 have fluctuated due to exchange rate variations, consumer stockpiles and general economic conditions.

Introduction

Overview

This report reviews developments in the global tropical timber sector through 1995. It contains data series on production and trade for 1991-95, with a focus on the past three years. 1993 is used as the base year for all global comparisons as this is the latest year for which global data were available at the time of preparation.

A major factor of relevance to the global tropical timber sector in the period under review was the conclusion of negotiations on a new International Tropical Timber Agreement (ITTA) in January 1994. Ratification procedures for the ITTA (1994) proceeded throughout 1994 and 1995, with the new agreement likely to enter into force in 1996. This will have implications for ITTO's statistical coverage and in particular the format of this report in subsequent years, with consideration of non-tropical timbers to be included in ITTO's Annual Review and Market Discussions under the terms of the new agreement.

In other related developments, a Timber Working Group was established to review the procedures, criteria and logistics for listing timber species in Appendix II of the Convention on International Trade in Endangered Species (CITES). An Inter-governmental Panel on Forests was established in 1995 to follow-up on the post-UNCED agenda for forests. Timber certification remained a contentious issue, with the Forest Stewardship Council accrediting its first certifiers in 1995 and ITTO following up its initial study on the topic with an investigation of the market niches for certified timber products. Economies in North America, Europe and many parts of the developing world grew in 1994-95, but Japan's growth was sluggish as the country neared its first post-war recession. A new World Trade Organization (WTO) came into being in January 1995, following the successful completion of the Uruguay Round, with major tariff reductions achieved in several markets for timber products.

This Review attempts to summarize some of these issues in relation to their impacts on production and trade of tropical timber by ITTO member countries.

Scope and Structure

This Review consists of four substantive chapters. Relevant resource and environmental issues are discussed first, with the following two chapters summarizing production and consumption statistics, and market developments, trade and prices, respectively. The final chapter of the Review provides brief notes of relevant trends and developments in ITTO producing countries not covered elsewhere.

Unless otherwise noted, all value units quoted are in nominal U.S. dollars, while volumes are reported in cubic meters. "Tropical timber," unless otherwise defined, refers only to those products specified in the ITTA (1983) - tropical hardwood saw and veneer logs, sawnwood, veneer and plywood. Trade figures for saw and veneer logs are becoming difficult to collect due to a revision to the Harmonized System of customs classification, which now fails to distinguish between different types of industrial roundwood. Some trade figures for this product may therefore incorporate other types of industrial roundwood.

Statistics have been derived from responses to the 1995 ITTO Forecasting and Statistical Enquiry wherever possible. The number of countries responding to the 1995 Enquiry showed a sharp increase from 1994, with 22 of 25 producers (up from 14 in 1994) and 24 of 27 consumers (up from 19 in 1994) providing at least partial responses by October 1995, in time for inclusion in the first draft of the Review to be considered at the Nineteenth Council Session. One consumer and one producer member submitted responses to the Enquiry by the end of December 1995, in time for inclusion in the final version of the Review. As in previous years, however, many of the responses contained

significant and obvious errors in one or more data categories. As the majority of responses were also received late, there was insufficient time to adequately analyze the figures and request clarification where necessary. A complete, unedited listing of member country responses to the Enquiry is contained in the document "Results of the 1994-95 Forecasting and Statistical Enquiry" [ITTC(XIX)/4], available from the ITTO Secretariat. Countries which did not respond to the 1995 Enquiry are identified in that document and in the notes preceding the Appendices.

A range of supplementary sources were consulted to verify members' responses to the Enquiry, to fill in incomplete or obviously incorrect responses and to provide data for non-responding countries. These supplementary sources are listed in the notes preceding the Appendices and in the references following the Country Notes. Estimates of production and trade were derived for partial and non-responding countries based on direction of trade statistics reported by trading partners, proposed capacity changes (if available) and the other sources listed in the references and the notes to the Appendices. Comparisons with global totals or totals for all developing countries in the production and trade chapters are based on statistics from the 1993 FAO Yearbook of Forest Products, the latest summary of global forest statistics available. All data used in the preparation of the Review are compiled in Appendices 1-7. Notes relevant to all data precede the Appendices.

Almost all members that responded to the 1995 Enquiry reported data for both 1993 and 1994, an improvement over previous years. Where sufficient data was provided, summary tables for both years are included in the Review. Many members failed, however, to report partial year data or forecasts for 1995; caution should therefore be used when interpreting the estimates for these countries and the ITTO totals for 1995 given here. Countries for which estimates were made 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 considerable 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. This analysis resulted in several modifications and amendments to statistics reported in previous editions of the Review, so the series presented here may differ from those in previous editions. Data for trade between members of the European Union became inaccessible with the dismantling of customs controls between members in January 1993. Countries have been able to capture some data using (for example) tax receipts, but it is acknowledged that some inter-EU trade is not included in official statistics. The trade figures presented here for the EU should be viewed with this proviso in mind.

The assistance of those countries which responded to the 1995 ITTO Forecasting and Statistical Enquiry is gratefully acknowledged, as is the support of the FAO Forestry Department, the ECE /FAO Timber Committee, the Japan Lumber Importers' Association, the Japan Plywood Manufacturer's Association and the International Trade Center in providing relevant primary and supplementary data for the Review.

Resources and the Environment

Appendix 4 summarizes statistics on forest area in 1993 and 1994 (the latest data available) for ITTO producer members. The tables in Appendix 4 are based on the "productive/unproductive" management categories used by FAO in the 1980 Forest Resource Assessment. Unfortunately, the 1990 Forest Resource Assessment results for tropical countries no longer incorporate the classifications "productive" and "unproductive". ITTO, however, continues to seek data on total productive forest areas from members as these figures are required for the vote calculation procedure laid out in both the original and the new ITTA. Forest area data for countries not responding to the ITTO Enquiry were taken from the 1990 Forest Resource Assessment, which provides the total area of natural forests and plantations in tropical countries.

Producers were requested to classify forest areas as sustainably managed only if they met the criteria and indicators of sustainability adopted by the ITTC. A copy of these criteria and indicators was attached to the Enquiry questionnaires. Only Cameroon, Ghana, Malaysia, Guyana and Venezuela reported significant areas of forest under sustainable management as per ITTO's criteria and indicators. A significant area of plantations has been established in many countries, with producing countries in all three regions reporting increasing rates of reforestation. Timber harvests from these plantations (mainly of fast growing species, but with growing areas of high-valued timbers such as teak) are still low as most are not yet of harvestable age. The full details of country responses are contained in document ITTC(XIX)/4.

At the 9th Conference of the Parties to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) held in Fort Lauderdale in November 1994, a temporary Timber Working Group was set up to look into specific aspects of CITES implementation for timber species and ITTO was invited to participate. At its 18th Session in May 1995, the International Tropical Timber Council decided to fully support ITTO representation in the working group and also requested the Executive Director to facilitate the effective participation of developing member countries in it. The first meeting of the working group occurred in November 1995 in the United Kingdom.

CITES also formally announced the listing by Costa Rica of Mahogany (*Swietenia macrophylla*) on CITES Appendix III, effective 16 November 1995. Specimens of species listed on Appendix III that are traded internationally must be accompanied by an export permit from the country listing the species (in this case, Costa Rica) or a certificate of origin from other range states.

The issue of timber certification and labelling continued to be a focus of attention in tropical timber producing and consuming countries in 1994-95. ITTO undertook a major survey of existing schemes, including the opinions of members, which served as the background document to a working party convened on this topic during the Sixteenth Council Session in May 1994 in Cartagena, Colombia. The prevailing opinion of ITTO members does not appear to favour the Organization playing any direct role in the certification of timbers. However, the Council decided that the Organization should continue to closely monitor developments in the market for certified timbers. In addition to up-dating members on market developments in this regard, this will probably entail some degree of information exchange with the Forest Stewardship Council, which was formally established in 1994 to accredit timber certification companies and programs. Meanwhile, several ITTO producing members were planning their own certification programs in 1994-95, led by Indonesia.

Further to keeping its members up-to-date with developments in the certification field, the Council decided at its 16th Session to request the Executive Director to engage consultants to undertake a detailed study on markets and market segments for certified timber and timber products. A draft of

this report was presented at the 19th Session of the Council in Yokohama in November 1995. The final report will be considered at the 20th Council Session in May 1996, together with an update of the survey of all certification schemes carried out by ITTO in 1994.

Complementing these studies, a recent World Bank paper estimated that the potential benefit of certification to the tropical timber trade could be $577 million per year (or 5.4 percent of the 1991 timber export revenues from tropical countries), based on the assumption that 20 percent of timber in the European tropical timber market and ten percent of the US tropical timber market would be affected by certification. This estimate, probably the current upper limit on the benefits of certification, includes the value of markets that would be lost if timber was not certified, the 'recapture' of previously lost markets due to environmental concern and a 'green premium', and does not account for the possible costs of certification and sustainable management.

The estimates of the markets that could be affected by certification (20 percent of the European and ten percent of the US tropical timber markets) equate to 2.81 million m^3 (roundwood equivalent) in volume (based on 1993 figures - the 1995 total is about 20 percent lower). Assuming that all the timber produced to meet this market originates from natural forest and that a sustainable harvest rate is one m^3 per hectare per year, the total amount of forest that would be required to meet the demands for certified tropical timber would be 2.81 million hectares, which is less than 0.2 percent of the total area of tropical forest. The question of what mechanisms are to be employed to assist the development of sustainable forestry practices in the vast majority of tropical forest areas therefore remains to be answered. The report of an expert panel convened in 1995 by ITTO to estimate the resources required to achieve its Year 2000 Objective gives some indication of the magnitude of the problem, estimating that an additional $2.2 billion per year over the next five years is required by producer countries.

Several private certification firms were accredited by the Forest Stewardship Council in 1995. These included the Soil Association (U.K.), SGS Forestry (U.K.), the Rainforest Alliance's Smartwood Certification Program (USA) and the Scientific Certification System's Forest Conservation Program (USA). Although some work has been undertaken by these companies in certifying tropical timbers, most certified wood currently being traded is from temperate or boreal forests.

A joint proposal from the Canadian Standards Association and the Australian Standards Association to develop an Environmental Management System standard was put forward at a meeting of the International Standards Organisation in Oslo in July 1995. After debate at the meeting, the proposal was withdrawn. NGOs at the meeting lobbied against the proposal, seeing it as competition to the Forest Stewardship Council's principles and criteria and arguing that it would be weaker than the FSC from an environmental standpoint and would establish no minimum environmental standards for forestry practices.

In April 1995, the Review of Forests by the United Nations Commission on Sustainable Development (CSD) led to the establishment of an open-ended ad hoc Inter-governmental Panel on Forests (IPF). This panel, which held its first meeting in September 1995, will consider, among other things, trade and environment relating to forest products and services (including the issue of timber certification). ITTO, through its Decision 7(XVIII), has pledged its cooperation with the IPF and has provided funds for staff in the IPF Secretariat.

Also during 1995, the World Commission on Forests and Sustainable Development held its first meeting. This body is composed of 19 political and scientific leaders (including ITTO's Executive Director) drawn from seven industrialized and ten developing countries around the world. The Commission, which is chaired jointly by eminent persons from Sweden and Indonesia, will have a

total budget over two years of about $6 million and is expected to complete its final report by mid-1997 in time for the planned CSD review of progress since UNCED.

ITTO also worked with FAO during 1995 to review the possibilities for harmonizing the various sets of criteria and indicators of sustainable forest management that are currently being developed within the framework of various international initiatives. Following a meeting held in February 1995, the Government of Finland has offered to facilitate continuing dialogue between the various initiatives and to organize a meeting to this end in mid-1996. ITTO and other international organizations have been requested to help in this undertaking.

These developments and others appear to be leading towards a decision by the international community to consider the advisability of a global forest treaty. Indeed, the last task that the IPF has set itself for its fourth session, planned for 1997, is to consider and advise on the need or otherwise for a legal mechanism covering all types of forests. ITTO will continue to play an important role in the IPF, and will no doubt play a key role in implementing its decisions and recommendations.

Finally, ITTO began a review of progress towards its Year 2000 Objective in 1995. The report of this review was presented to the 19th Council Session and will be made widely available following further discussions at the 20th Session in May 1996. As such, the country reports normally summarized here are not included in this edition of the Review. However, these reports were used in some cases to supplement missing or unclear data from the 1995 Forecasting and Statistical Enquiry.

Production and Consumption

This chapter provides statistics on production of primary tropical forest products in ITTO member countries, and the apparent domestic consumption of such products in these countries. Data on production has been derived from ITTO Forecasting and Statistical Enquiry returns supplemented by other available data sources (see Appendix 1). Production statistics in many ITTO member countries are weak or non-existent. The primary problem in many producer countries appears to be the lack of any kind of regular industrial survey to obtain production figures, while consumer countries usually are unable to distinguish the processing of tropical timber from all timber processing. In some cases, production figures have been estimated by working backward from available log supply. Apparent domestic consumption (production plus imports minus exports) statistics may include changes in stock levels which are not reported or reported incorrectly by countries responding to the ITTO Enquiry. Those countries which did report reasonable figures for stock changes in one or more products are listed in the notes preceding the Appendices; the consumption figures for these countries in Appendix 1 incorporate these stock changes.

Appendix 5 presents information for producer members on industrial structure, capacity of production, average recovery rates (units of product per unit of log) and employment levels in each country's forest sector in 1993 and 1994. Quality of responses varied as usual, with some countries providing detailed information and many others responding that such information was not collected or was otherwise unavailable. Consumer countries did not in general have information on mills processing tropical wood. Although many estimates of total employment have been made, Table 2 indicates that in ITTO's producing member countries almost 5 million people are directly employed in logging and primary processing of tropical forest products. Over 90 percent of these are employed in the forest industries of Asia, including an estimated 2.5 million in Indonesia. Indonesia expects its forestry sector to provide between 6 and 8 million jobs by 2000, over half of which will be attributable to direct employment in timber harvesting and processing. Apart from a revision of estimates for India and Indonesia, employment in producing country forest industries appears to have remained relatively stable in most countries in 1993 and 1994, although the many countries not providing timely statistics make generalizations and analysis of regional and product totals difficult. Logging employment in several countries (most notably Malaysia and the Philippines) is decreasing as log harvests decrease.

Appendix 5 also shows average conversion rates for primary processing industries in ITTO producer member countries. Particularly notable are the low average conversion rates given for sawnwood from Papua New Guinea and Togo (25 and 35 percent respectively) and for Côte d'Ivoire's veneer production (35 percent). Several countries also reported the existence of secondary processing mills of various types. Details of "other" wood processing industries are given in the Country Notes where available.

Logs

The production of tropical saw/veneer logs in ITTO producer member countries totalled 135.6 million m^3 in 1993, 75 percent of production of non-coniferous (52 percent of all species) saw/veneer logs in developing countries and 46 percent of global non-coniferous (15 percent of all species) saw/veneer log production. This total was down 3 percent on 1992 levels, with production continuing to decline to 132.8 million m^3 in 1995.

Decreases in Malaysian production are responsible for most of this decline, with most major African and Latin American producing countries increasing production in 1993-94 before stabilizing in 1995. Figure 1 shows ITTO's five major log producers through 1995, ranked by 1993 production, as well as aggregate production by all other members. A ranking of all producers is contained in Appendix 1

(Table 1-3). Of the top five, only Brazil increased log production through 1995, although this increase was more than offset by decreases in Malaysia and Indonesia. Malaysia alone reported a drop of over 1.6 million m^3 in log production between 1993 and 1994, from 37.3 million m^3 to 35.7 million m^3. Malaysian production, which peaked at 43.5 million m^3 in 1992, dropped to 35 million m^3 in 1995, a 20 percent reduction in just three years. This decrease reflects lower harvests in both Sabah and Sarawak, with the latter expecting further decreases in line with the ITTO Mission recommendations.

Figure 1 illustrates the dominance of the top four tropical log producing countries (Malaysia, Indonesia, Brazil and India) which together comprise over 83 percent of ITTO production. Indonesian figures are based on total estimated removals, including those from conversion operations. Papua New Guinea (PNG) was the fifth largest ITTO log producer in 1993, with production rising to 3.5 million m^3 in 1994. In 1994, Cameroon reported an increase in production of more than 1 million m^3 (to 3.9 million m^3), moving it ahead of PNG in that year. This large increase was driven by a jump in exports to Asia, discussed in the next chapter. Cameroon's 1995 production dropped back to 3 million m^3, so that PNG at 3.3 million m^3 regained its number five ranking.

Appendix 1 (Table 1-3) shows that ten other ITTO producer members had log production exceeding 1 million m^3 in 1993. Half of these (Cameroon, Ecuador, Côte d'Ivoire, Gabon and Peru) had increased log production over 1993 levels by 1995, while the other half (Myanmar, Ghana, Venezuela, Philippines and Colombia) dropped log production through 1995. Of the main producers, log production is increasing fastest (by more than 50 percent since 1991) in PNG, Cameroon, Gabon and Peru. Log production has fallen by 50 percent or more since 1991 in the Philippines and Myanmar, although official statistics in the latter may not include all production. The Philippines banned logging in virgin forests in 1993. Two ITTO consuming countries possess significant tropical timber resources: Australia and China. Production from these sources for 1993 was estimated at over 900 000 m^3, with the bulk of this coming from China's southern provinces. Australia's production was estimated based on reported 1993 production of tropical sawnwood and is probably largely plantation grown hoop-pine. China's production is from Hainan Island and Southern Yunnan Province and consists largely of tropical eucalyptus and pines. Log production from these areas is consumed almost entirely domestically.

The regional breakdown of tropical log production is given in Appendix 1 (Table 1-2); the Asia-Pacific region produced 71 percent of ITTO members' tropical hardwood logs in 1993 (96.3 million m^3), down 3 percent from 1992. Asia's share of ITTO log production fell to 67 percent in 1995, due to Malaysian production decreases. Africa's share of production remained at 7 percent over the period, with Latin American production growing from 22 to 25 percent. Growth in the Latin American and African share of total ITTO production will likely continue to the turn of the century and beyond, as few of ITTO's Asian members have the potential to substantially increase log production sustainably.

Figure 2 shows that tropical log consumption for 1993-95 was stable or decreasing in the main Asian producing countries of Indonesia, Malaysia India and Japan, with only Brazil showing a steady increase over the period (note that Japan maintains and consumes significant stockpiles of tropical logs, accounting for the differences between consumption and the import figures given in the next chapter). These five countries accounted for an average of 81 percent of total ITTO consumption of tropical logs in 1993-95. All three producing regions experienced growth in domestic log consumption in 1993, although the increase in Asia was small. The figures in Appendix 1 show that apparent domestic log consumption declined sharply in Asia through 1995 while continuing to increase in the African and Latin American regions. The drop in Asia was primarily due to estimated decreases in log production in Indonesia and India. The trend towards increasing domestic log

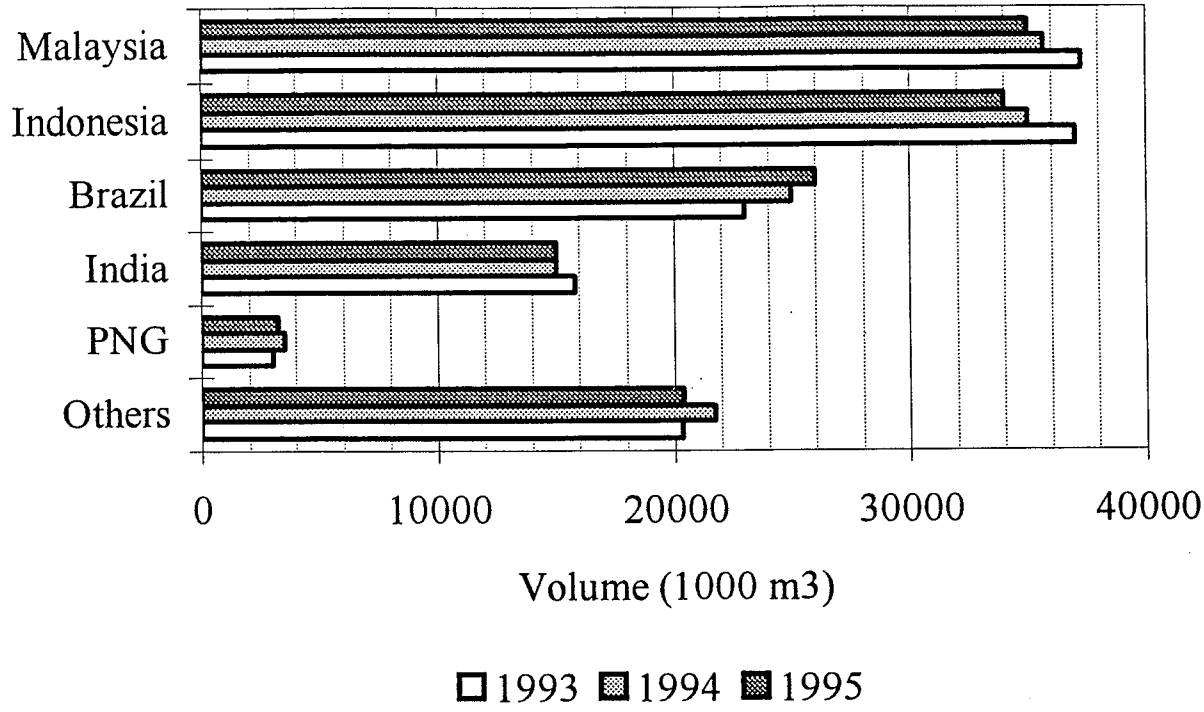


Figure 1. Major Tropical Log Producers

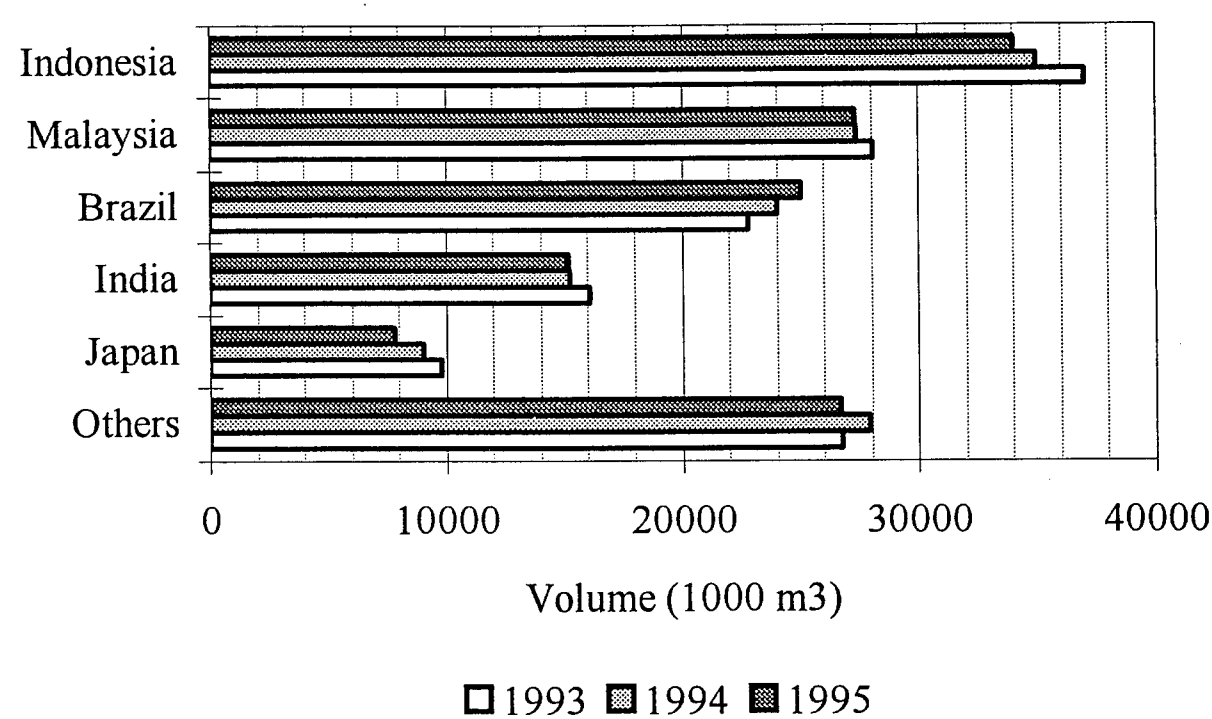


Figure 2. Major Tropical Log Consumers

consumption will accelerate and affect all regions in the next few years as tropical log supplies tighten and as increased processing capacity comes on line in producing countries. Rapid population growth in Africa (which will rise from 12 to almost 25 percent of the world total over the next 150 years according to the World Bank), and economic growth in Asia and Latin America, will continue to drive long-term domestic demand upwards in producing countries.

The aggregate figures for tropical log and sawnwood production and consumption presented here should be viewed with some caution. Indonesia's official statistics do not account for timber from conversion forests, and log production figures have been estimated based on other sources. In addition, the production figures for both India and Brazil are estimates based on unofficial sources. Finally, a few countries (e.g. Honduras, Venezuela) include tropical softwoods in the data reported to ITTO. Production and trade of tropical softwoods is small but growing, and the definition of tropical timber used in the ITTA should be revised to give proper recognition to this component of tropical wood supply.

Sawnwood

Production of tropical sawnwood in ITTO producing countries totalled over 39.9 million m^3 in 1993, 56 percent of non-coniferous (35 percent of all) sawnwood produced in developing countries and 32 percent of global non-coniferous (9 percent of all) sawnwood production. This figure represents a 3 percent decrease from 1992 production due to lower Asian and African production. African production rebounded in 1994-95, and together with Latin America contributed to the small increase (to just over 40 million m^3) in total production by producer countries during the period

Figure 3 shows the major ITTO producers of tropical sawnwood in the 1993-95 period, ranked by 1993 production. Malaysia remains a major producer of tropical sawnwood, although production fell by almost 3 percent from 1992 levels to 9.2 million m^3 in 1993. Malaysian production fell even more sharply to about 8.2 million m^3 in 1995 as logs were diverted to plywood mills. Peninsular Malaysia's decision to phase out sawnwood exports by 2000, discussed in the next chapter, will result in further significant production decreases (estimates range up to 50 percent) from this level by the turn of the century. In contrast to the other tropical sawnwood producers shown in Figure 3, Brazil's production is estimated to have grown significantly during the period under review, to over 10 million m^3 in 1994-95, making it the largest ITTO producer. Appendix 1 shows that ten other countries produced over 400 000 m^3 of tropical sawnwood in 1993. Production increased or remained stable through 1995 in six of these (Ecuador, Peru, Côte d'Ivoire, Ghana, Thailand and Cameroon), falling in the other four (Korea, Myanmar, Colombia and the Philippines). The Asian region accounted for 65 percent of sawnwood production in producer countries in 1993, falling to 60 percent in 1995. Africa's share of ITTO production grew from five to six percent, while Latin America's share rose from 30 to 34 percent during the same period.

Consuming countries produced approximately 2.9 million m^3 of tropical sawnwood in 1993, down 20 percent from 1992 levels. Substantial production decreases due to log shortages in Taiwan Province of China and the Republic of Korea in 1993 accounted for most of this drop. Production in consuming countries remained relatively stable through 1995, falling slightly to 2.8 million m^3. Japan's production has been stable at just over 1 million m^3 since 1993.

Figure 4 shows the main ITTO consumers of tropical sawnwood, ranked by 1993 consumption. Consumption of tropical sawnwood by ITTO consumers decreased by eight percent, from 10.2 million m^3 to 9.4 million m^3, between 1993 and 1995 due to decreases in production and imports. Consumption by producer countries rose by six percent (from 34.3 to 36.2 million m^3) however, giving rise to the three percent increase in aggregate consumption for all members shown in Appendix 1. This growth in consumption arose from increased production and/or demand in all

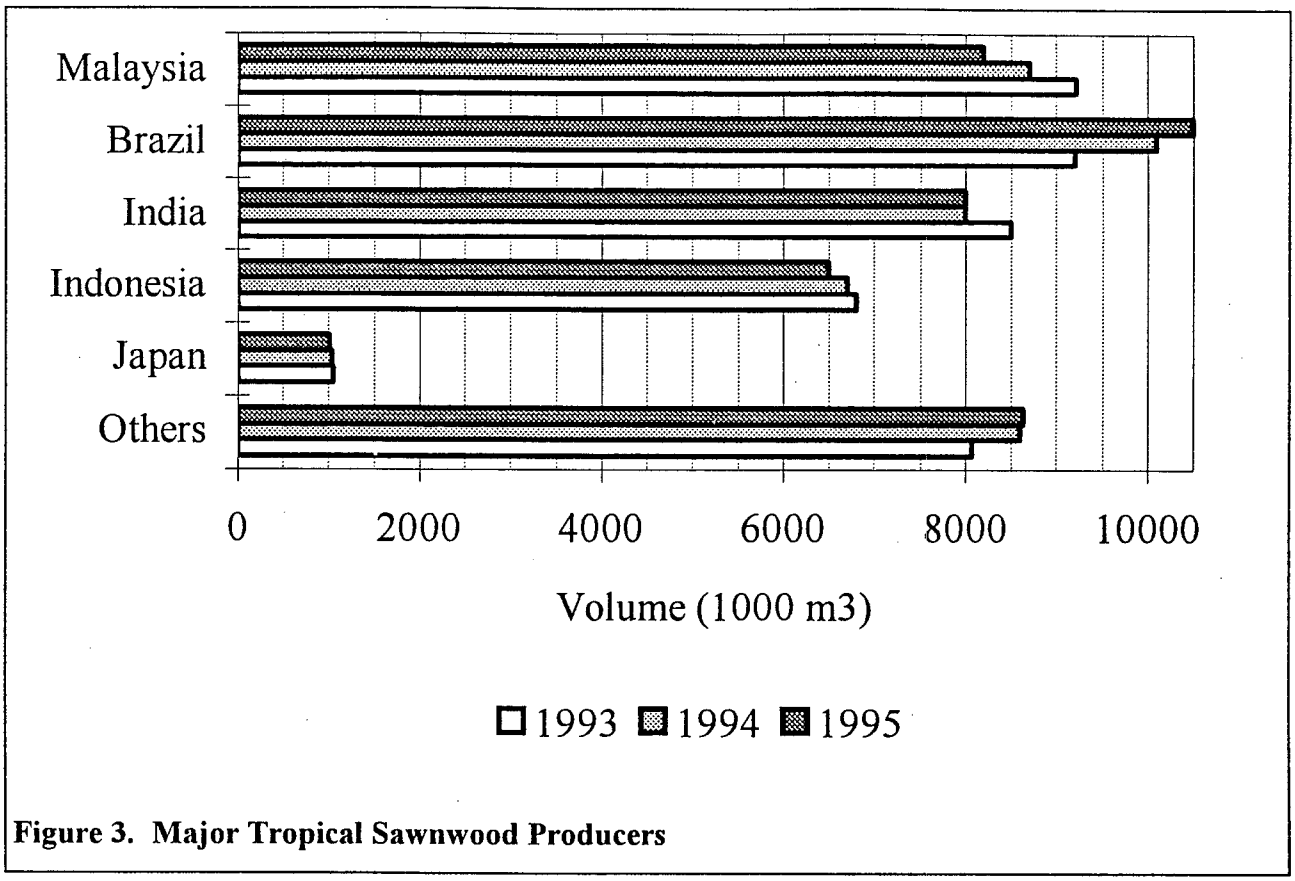


Figure 3. Major Tropical Sawnwood Producers

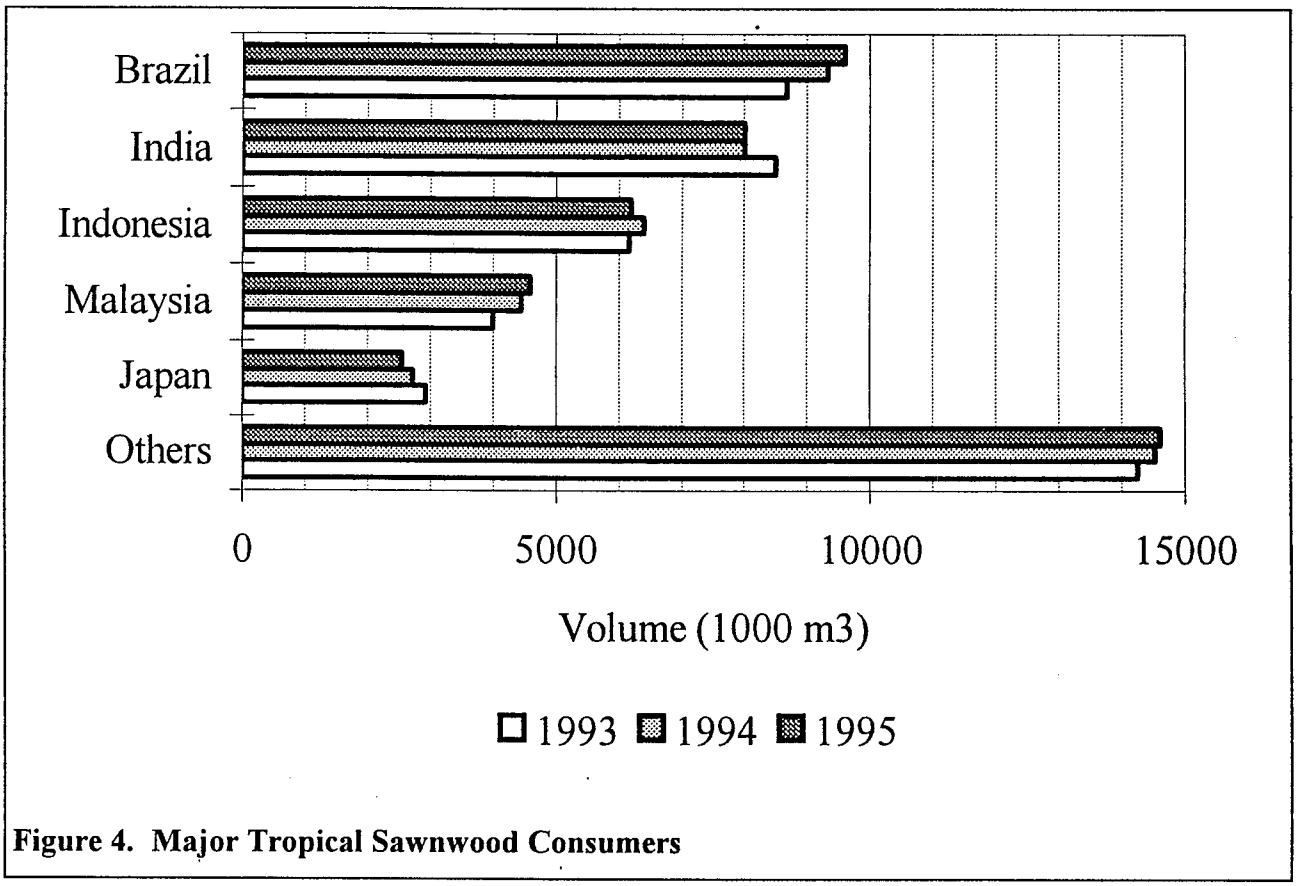


Figure 4. Major Tropical Sawnwood Consumers

three producing regions. Consumption of tropical sawnwood in producing countries will continue to increase, in contrast to the traditional "consuming" countries where consumption will continue to decline. Figure 4 shows that the top four "consumers" of tropical sawnwood are ITTO producer countries. These four countries (Brazil, India, Indonesia and Malaysia) accounted for over 60 percent of ITTO members' consumption of tropical sawnwood in 1993. Appendix 1 shows that Thailand's consumption of tropical sawnwood dipped in 1993 but recovered strongly in 1994-95 to overtake Japan as the fifth largest consumer. The Republic of Korea, Taiwan Province of China and China are the other major non-tropical consumers of tropical sawnwood, all consuming over 1 million m^3 per year.

Veneer

Production of veneer in ITTO producing countries totalled almost 3 million m^3 in 1993, over 90 percent of total veneer produced in developing countries globally, and 54 percent of global veneer production. The global comparisons in this case are estimates as FAO's figure for China's veneer production (almost 9 million m^3 in 1993, revised upward from 7000 m^3 in 1992) appears to be in error, with this error carried on to the global and developing country totals. Veneer production figures should not include veneer used in domestic plywood production and therefore represent only the production of veneer intended to be traded as such. Veneer production in producing countries increased by 45 percent from the 1992 level, with the increase due almost entirely to increased Malaysian production as shown in Appendix 1. Malaysia's veneer production fell from 2.1 to 1.8 million m^3 between 1993 and 1995 as plywood production was given priority.

The Asian region produced 2.3 million m^3 of veneer for trade in 1993, Latin America produced 238 000 m^3 and Africa produced 340 000 m^3. Aggregate production dropped in Asia, was stable in Latin America and expanded in Africa through 1995. The main ITTO veneer producers in 1993-95 are shown in Figure 5 - Malaysia's dominant role is clear from this chart. Equally clear is the falling production in Japan, where the tropical veneer and plywood industries are shrinking together with log availability. Five other ITTO members had veneer production of at least 50 000 m^3 in 1993, with four of these having relatively stable production through 1995 (Italy, Thailand, Ghana, Indonesia - see Table 1-3c, Appendix 1). The fifth is the Philippines, where veneer production fell from 65 000 to 23 000 m^3 between 1993 and 1995.

ITTO consuming countries produced about 529 000 m^3 of veneer in 1993. As for sawnwood, production in consumer countries was more or less stable in 1994-95. Production of veneer in consumer countries in 1993 was split between Japan (41 percent), Taiwan Province of China (19 percent) and the EU (38 percent). Japan and Taiwan Province of China consume virtually all of the veneer they produce, however, while about 15 percent of the total produced in Europe is re-exported to other European countries (see following chapter). European production remained stable through 1995, with the drop in Japanese production offset by an estimated increase in Taiwan Province of China.

Consumption of veneer in the furniture and other secondary processing industries of producing countries rose steadily from 68 000 m^3 in 1991 to over 2 million m^3 in 1994, before dropping back to 1.7 million m^3 in 1995. Aggregate consumption of tropical veneer in consumer countries fell by five percent in 1993 to 1.6 million m^3, with a further 11 percent decrease to 1.4 million m^3 through 1995. Figure 6 shows the major ITTO consumers of tropical veneer from 1993-95. Italy is the only other ITTO member with annual tropical veneer consumption in excess of 100 000 m^3.

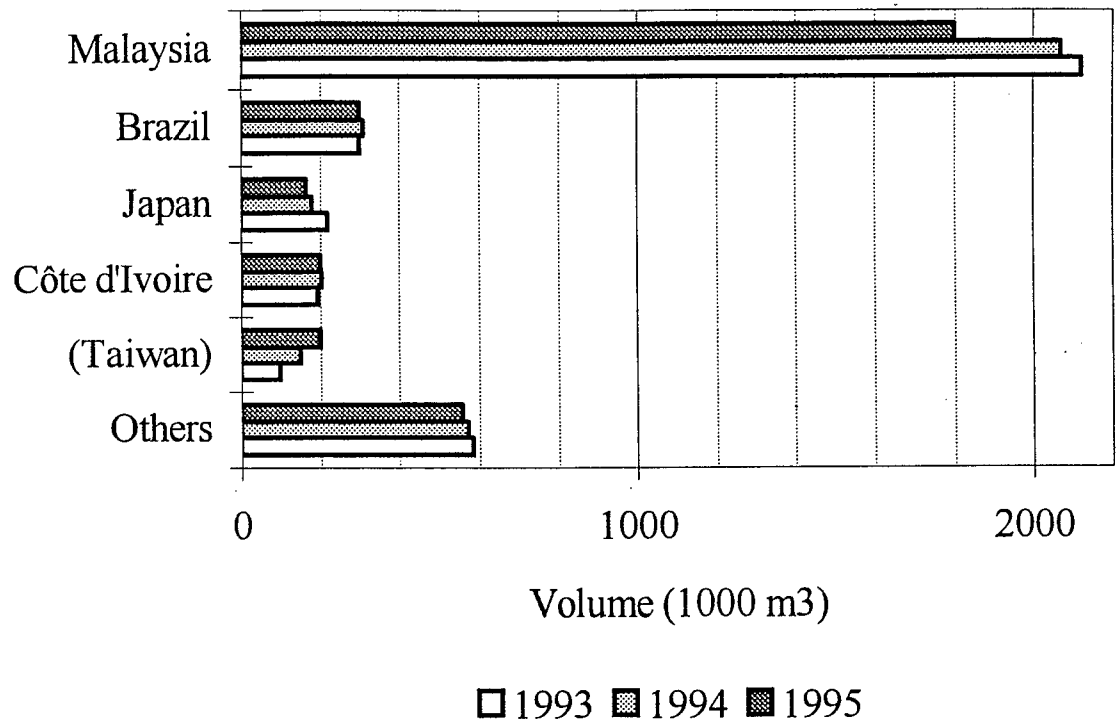


Figure 5. Major Tropical Veneer Producers

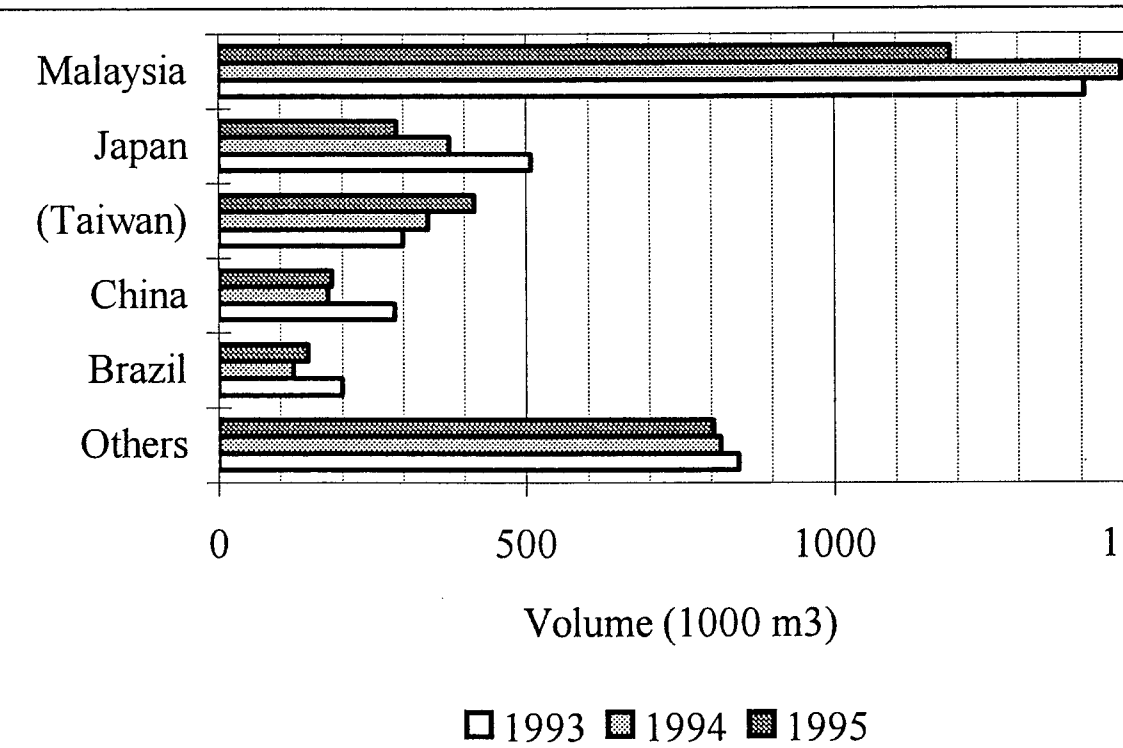


Figure 6. Major Tropical Veneer Consumers

Plywood

Production of plywood in ITTO producing countries totalled 16.5 million m^3 in 1993, 84 percent of plywood production in all developing countries and 34 percent of global plywood production. Plywood production in producing countries increased by 8 percent from the 1992 level, with the increase due to rising Malaysian and Brazilian production as shown in Appendix 1. Indonesian production is slowing after the spectacular increases (averaging almost 1 million m^3 per year) throughout the 1980s, with production decreasing 11 percent from 1993 levels to an estimated 9.5 million m^3 in 1995. Malaysia's plywood production, in contrast, continued to rise through 1995 to almost 4.5 million m^3, a 60 percent increase from 1993 levels. Malaysia's plywood production has more than tripled since 1991, as a substantial quantity of logs, sawnwood and veneer previously exported from Sabah and Sarawak are diverted to new and existing plywood mills.

The Asian region produced 14.4 million m^3 of plywood in 1993, Latin America produced 2 million m^3 and Africa produced 158 000 m^3. The three regions utilized 15, 65 and 72 percent respectively of their production domestically. Asia's low consumption/production ratio is due to the export led industries of Malaysia and Indonesia. The proportion of aggregate production utilized domestically for all other products and regions except African sawnwood (45 percent) and veneer (41 percent), exceeded 50 percent in 1993. Thus the low domestic utilization of plywood in Asia is an anomaly, with domestic markets consuming a majority or a near majority of all other tropical timber products in all three regions.

The main ITTO plywood producers in 1993-95 are shown in Figure 7 - Indonesia's dominant but declining role is clear from this chart. Plywood production in Malaysia and Brazil is growing, while production in major "consuming" countries is falling or stable. China (including TPC), India, Philippines and Thailand all produced over 200 000 m^3 of tropical plywood in 1993, although production in all these countries was stable or declining through 1995.

ITTO consuming countries produced 7.1 million m^3 of plywood in 1993, a 17 percent decrease from figures for 1992. Production dropped a further 14 percent to 6.1 million m^3 in 1995. This rapid decrease in production reflects the declining availability of tropical veneer logs. Most of the drop in consumer country production is accounted for by Japan. Japan's tropical plywood production has nearly halved since 1991, and its 1995 production of 3.7 million m^3 fell below that of Malaysia for the first time. Domestic plywood production fell below plywood imports in May 1995, the first time monthly production was less than imports in the history of Japanese plywood production. As mentioned in previous Reviews, Japanese plywood manufacturers are increasing the proportion of softwoods used in plywood production, as well as investigating lamination and other techniques to allow re-use of concrete form-ply. These factors, together with the declining supply of logs, mean that Japanese (and most other consuming countries') production of tropical plywood will continue to decline.

Figure 8 shows the main ITTO consumers of tropical plywood for 1993-95. Aggregate consumption of plywood in producing countries increased ten percent in 1993 to 3.6 million m^3 due to apparent consumption increases in Brazil and Thailand. Consumption increased by nearly another ten percent in 1994 before leveling off at 3.9 million m^3 in 1995. Aggregate consumption in consumer countries totalled 17.3 million m^3 in 1993, decreasing to 15.9 million m^3 in 1994-95. Tropical plywood consumption in traditional markets will continue to decrease in future as substitutes and more efficient uses are developed. Japan remains by far the largest consumer of tropical plywood, however, as shown in Figure 8. Indonesia, Brazil and Malaysia are major "producing" country plywood consumers. Appendix 1 shows that domestic consumption in each rose through 1995. The

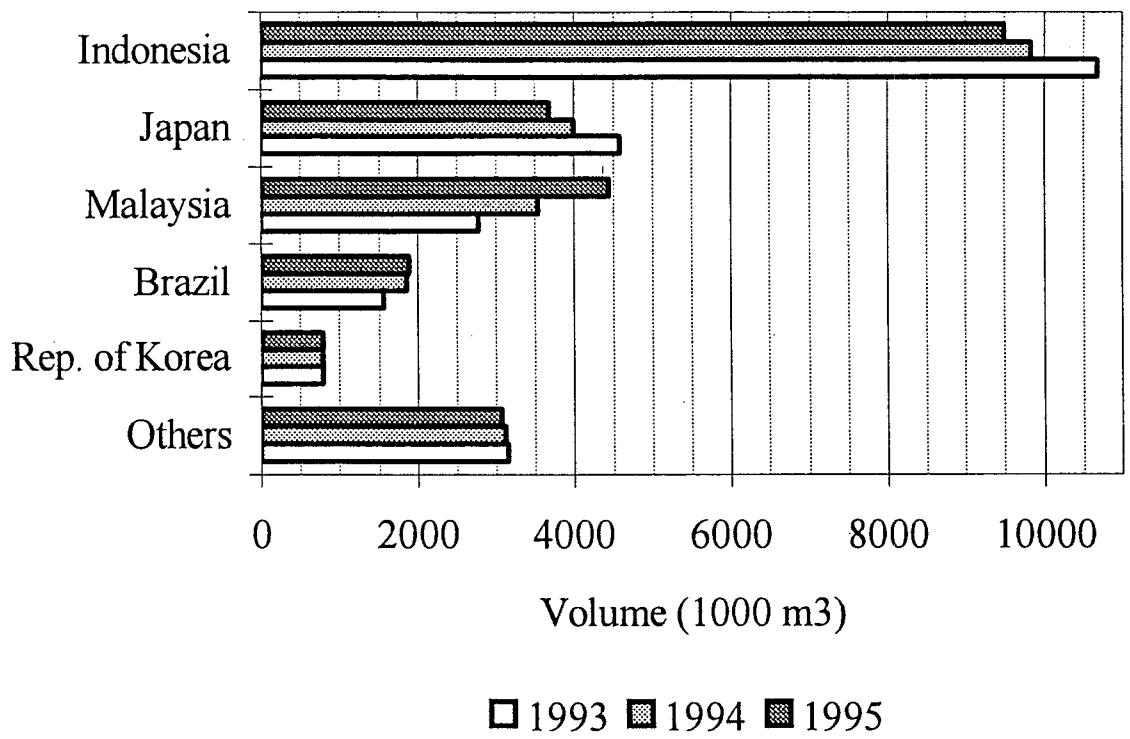


Figure 7. Major Tropical Plywood Producers

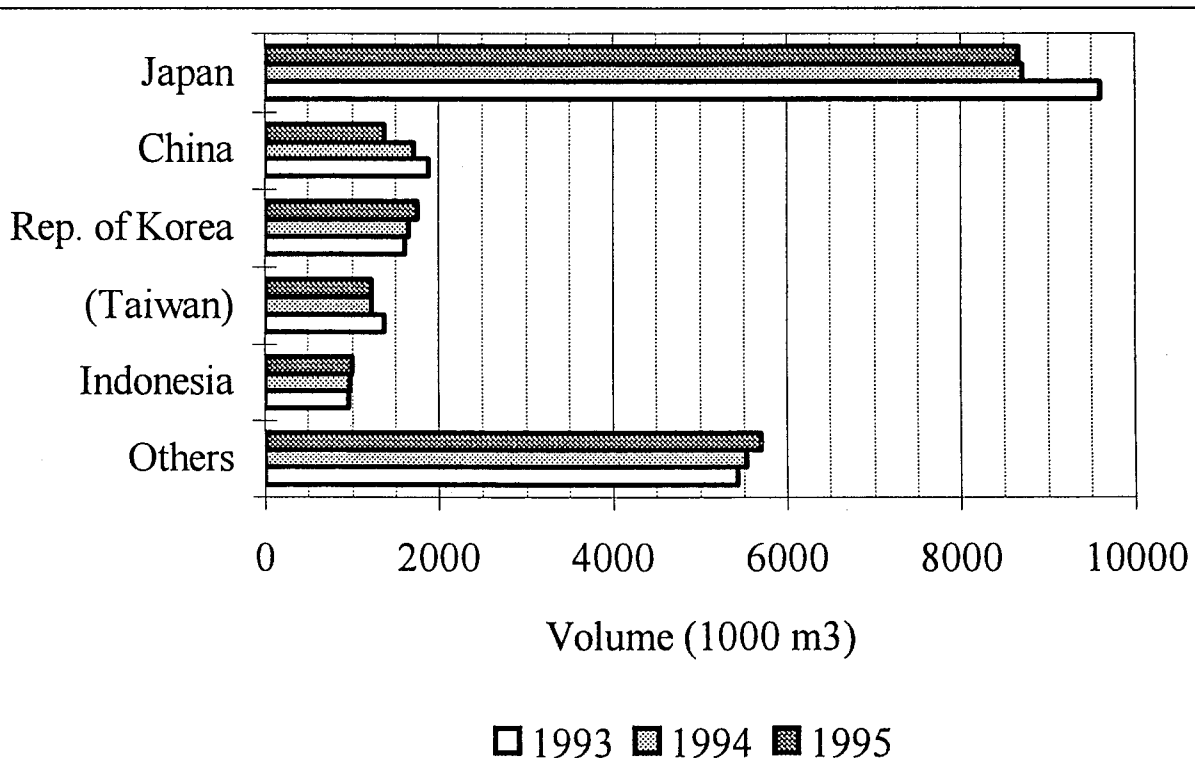


Figure 8. Major Tropical Plywood Consumers

USA, U.K., India and France all consumed over 300 000 m^3 of tropical plywood in 1993, with consumption stable or rising in all these countries through 1995.

It should be noted here that substantial quantities of reconstituted panel products, particularly MDF, are now being produced in several tropical countries, primarily in Asia. Many new plants are currently under construction to meet the expected surge in demand for such products in the Asian region. Reconstituted panel products will become increasingly important as limits on the growth of plywood production are reached and as more countries move further into downstream processing. Such products will substitute for plywood and sawnwood in many uses, resulting in decreasing or slower growth in production of these traditional tropical timber products in many countries.

Markets, Trade and Prices

This chapter focuses on developments in the markets for and trade of tropical timber as well as an analysis of general price trends. The first section presents a brief overview of relevant market developments in 1994-95, based on country market reports submitted by members, IMF forecasts and a review of other available literature. The following sections report on the export, import and prices of each of the four primary timber products covered by the ITTA. Detailed trade statistics are presented in Appendices 1, 2 and 3, with data sources given in the notes preceding the Appendices. Major species in trade in 1994, together with volumes and average prices when these were reliably reported, are summarized by country in Appendix 6. Price trends for logs, sawnwood and plywood were prepared from the ITTO/ITC Market News Service (MNS) database and are contained in Appendix 7. Average 1993-94 price levels are also presented for veneer (prices of which are not yet included in the MNS database) based on sources identified in the text.

Market Developments

Economic performance of major markets for tropical timber was mixed during the 1994-95 period. The IMF reported that global output (real GDP) grew by 3.7 percent in 1994, the highest global growth rate since 1988. The IMF predicted growth of 3.8 percent in the world economy in 1995, and 4 percent for 1996. World trade volume grew by 9.4 percent in 1994, the highest growth since 1976. World trade was projected to grow a further 8 percent in 1995, at least partially reflecting the successful ratification of GATT's Uruguay Round of trade talks and the creation of the new World Trade Organization to oversee the agreements reached under the Uruguay Round in January 1995.

Due to concerns regarding its deficit and political developments, Mexico suffered substantial reserve losses during 1994, leading to a devaluation of its peso in December and a plummet in confidence in the country's asset markets. This lack of confidence spread to other emerging markets (particularly Latin America) and industrial markets (particularly the U.S.). Capital flows to emerging markets slowed significantly in 1995 as investors became increasingly cautious.

In another key economic development, the U.S. dollar fell sharply against the yen, deutsche mark and aligned currencies in late 1994 and early 1995. Simultaneously, exchange market pressures in Europe prompted interest rate increases in several countries, increasing inflationary pressures. Japan and Germany cut interest rates in 1995 in a concerted attempt to bolster the dollar, and there was a sharp increase in the currency's value in the second half of the year. The IMF predicted that global growth would remain robust despite turbulent financial markets, so long as countries guarded against inflation.

Many EU economies recovered from recession in 1994, with an aggregate increase in real Gross Domestic Product (GDP) of 2.8 percent. Higher growth rates of 3.2 and 3.1 percent were forecast for 1995-96. The German economy grew 2.9 percent in 1994 after contracting 1.1 percent the previous year. Predicted German growth of 3.2 percent in 1995 was amongst the highest in the EU. The U.K. economy grew by 3.9 percent in 1994, highest of the major EU economies, with 2.8 percent growth projected for 1995-96. The drop in growth in 1995 partially contributed to a projected 20 percent drop in housing starts. In France, GDP grew 2.5 percent in 1994, following a contraction of 1 percent in 1993. Housing starts remained stagnant at around 300 000 units per year. Although European economies are growing again, unemployment remains high in most countries. Those countries that provided data on housing starts generally indicate slow growth or contraction in this index of timber consumption through 1996. In another development, the addition of new EU members Sweden, Finland and Austria doubled the area of forest land in the EU, moving it close to potential self-sufficiency in wood products.

In North America, the U.S. economy grew strongly by 4.1 percent in 1994. Growth moderated to a predicted 3.2 percent in 1995 and to under 2 percent in 1996 due to tighter monetary conditions. Expansion in the U.S. was passed on to its major trading partner, Canada, which had one of the highest growth rates among developed countries in 1994 (4.5 percent). Both countries experienced increased housing starts in 1994. U.S. housing starts, which slumped to a 50 year low of 1.05 million units in 1992, recovered to 1.3 million units in 1993 and reached 1.43 million units in 1994, the highest level since 1988. Housing starts were expected to have fallen by 7 percent in 1995, despite a decrease in mortgage rates.

The Japanese economy was stagnant in 1994, following contraction in 1993. Expansion of only 1.8 percent was expected in 1995. The unsustainable growth of around 5 percent a year in 1987-91, driven by rapid monetary growth, record low interest rates, and high stock and property prices, has given way to recession. Exports have been weakened by the strong appreciation of the yen. Wooden housing starts increased only 3 percent in 1994, and decreased substantially in 1995 (figures up to the third-quarter of 1995 showed starts about 10 percent below 1994 figures). Declining housing starts are at least partly due to collapsing property prices. The value of many Japanese homes has sunk below the amount borrowed to buy them, preventing their owners from trading up to new homes. High consumer debt and decreasing property prices will continue to depress growth in the world's second largest economy.

Real GDP growth in all developing/newly industrialized economies was 6.3 percent in 1994, mostly due to Asia which expanded by 8.6 percent, double the rate of any other developing region. Growth in Asia (and all other developing regions) slowed in 1995, although some economies in the region (China - 8.9 percent, Malaysia - 8.7 percent, Thailand - 8.4 percent) continued to expand rapidly. Inflation predictions remained relatively low for Asia (9.9 percent) compared to the rest of the developing world (17.5 percent average) in 1995, leading to continued prospects for sustained growth. Several Latin American countries, led by Brazil (5.7 percent growth in 1994), also experienced strong growth and decreased inflation in 1994-95. Following the introduction of the real, Brazilian inflation dropped from over 800 percent in 1994 to an estimated 30 percent in 1995. Domestic markets for timber products will grow and become increasingly sophisticated in many developing countries as their economies and populations expand.

Trade

One of the major developments affecting the trade in tropical timber during 1994-95 was the successful conclusion of the Uruguay Round of trade talks and establishment of the World Trade Organization (WTO). Tariffs on finished wood products are set to fall in accordance with the Uruguay Round accords in most major markets over the next several years. Table 1 provides a summary of current (mid-1995) trade barriers in place for tropical timber products and schedules for Uruguay Round reductions for those ITTO consumer member countries that responded to this portion of the 1994-95 Forecasting and Statistical Enquiry. The complicated European Union GSP (Generalized System of Preferences) quota scheme for tropical plywood was replaced in 1995 by a straight import tariff. Tropical imports of plywood and doors are charged 70 percent of the full tariff rate in each country, with other primary products duty free. Trade barriers in producer member countries that reported them are summarized in the Country Notes.

The direction of trade tables for 1993 and 1994 contained in Appendix 2 were derived from responses to the 1995 Forecasting and Statistical Enquiry and other sources listed in the notes accompanying the Appendices. Few supplementary data sources were available for 1994 so the tables are not as complete as those for 1993. Some minor trade flows are not included in Appendix 2. Countries that provided inconsistent or incomprehensible trade flow data, and for which there were no supplementary sources, were also not included in the Appendix 2. Total 1993

Table 1. Tropical Timber Trade Barriers in ITTO Consumer Countries, 1995

Country	Product	Description
Australia	Sawnwood	2-7 percent, depending on species and country of origin; some reductions apply as of 1 July 1995
Canada	Logs, sawn, ven.	None
	Plywood	8-9 percent import tariff, depending on species
China	Logs	3 percent import tax, 17 percent value-added tax
	Sawnwood	6 percent import tax, 17 percent value-added tax
	Veneer	20 percent import tax, 17 percent value-added tax
	Plywood	20 percent import tax, 17 percent value-added tax
Egypt	Sawnwood	5 percent customs tariff on lumber imports, plus a 5 percent sales tax and 3 percent customs service fee (tariff reduced in 1994 to promote domestic industry)
EU		
France	Logs and sawn	None
	Plywood	10 percent (except waivers under GSP, Lomé)
Netherlands	Logs	None
	Sawnwood	0-2.5 percent import tariff, depending on species
	Veneer	4-6 percent import tariff, depending on species
	Plywood	10 percent import tariff, depending on species
Portugal	All	None
U.K.	Logs, sawnwood	None
	Plywood	9.4-10 percent, depending on species
Japan	Veneer	Tariff base rate 15 percent (subject to GSP scheme), to be reduced to five percent by 1999
	Plywood	Tariff base rate 17-20 percent (subject to GSP scheme), to be reduced to 8.5-10 percent by 1999
New Zealand	All	None
Norway	All	None
Rep. of Korea	Logs	2 percent import tariff
	Sawnwood	5 percent import tariff
	Veneer	5 percent import tariff
	Plywood	8 percent import tariff
U.S.	All	None (GSP scheme)

import and export values by product are summarized in Appendix 3, together with unit values based on the volume of trade reported in Appendix 1. Value data is reported poorly or not at all by many countries, making the use of supplementary sources essential. As the most up-to-date source of forest product trade values is the 1993 FAO Forest Products Yearbook, values for that year only are summarized in Appendix 3. Data for the few countries that provided 1994-95 value figures are contained in document ITTC(XIX)/4.

Many countries made errors or omissions in providing these data, particularly importers who reported all wood imports (not just tropical) and re-exporters who failed to report exports of tropical timbers. If available, other data sources were used for these cases. Entries in the tables of Appendix 2 consist of exporters' reports (bold) and importers' reports (italicized). The discrepancies which are illustrated by many of these entries are due to a number of factors. 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 area 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, smuggling and transfer pricing to avoid tariffs, quotas and/or taxes have been documented for some tropical forest products and countries. It is clear that if ITTO is to fulfill its mandate to monitor the trade in tropical timbers, major improvements in the collection and reporting of statistics are still required, in both producing and consuming countries. The following discussion on exports uses exporters' reports unless stated otherwise; that on imports uses importers' reports.

Exports

Logs

The composition of exports for 1993-95 from the ITTO producing regions is shown in Table 2 and graphically for 1994 in Figure 9. The areas of the pie charts in Figure 9 are proportional to total log production in each region. The contribution of logs to total tropical timber exports of ITTO producers (in terms of both value and roundwood equivalent volume) dropped from over 60 percent in 1980 to around 25 percent in 1993. Only Africa continues to export a higher volume equivalent of logs than processed products, with log exports making up 37 percent of log production and 58 percent of total roundwood equivalent export volume in 1994. The Asia-Pacific region is rapidly replacing log exports with the export of processed products, spurred by Indonesian plywood exports and Malaysian exports of sawnwood, veneer and plywood. Asian log exports made up 25 percent of total export volume in 1993-94 (13 percent of log production), dropping to 23 percent of total exports in 1995. Latin American log exports increased in 1994-95 due to a reported increase from Brazil; this is probably pulpwood, although it was reported as tropical saw/veneer logs when clarification was sought. Total roundwood equivalent export volume as a percentage of log production increased from 14 to 18 percent in Latin America and from 62 to 64 percent in Africa over the period 1993-95, while the proportion of Asian log production which is ultimately exported fell to 55 percent due to increasing domestic demand and decreasing log exports. Total ITTO producer member exports (rwe) fell 3 percent from 63.8 million m^3 to 61.7 million m^3 in 1993-95. Figure 9 shows that the roundwood equivalent of 46 percent of total log production in ITTO producer countries was exported in 1994. This proportion remained constant in 1995.

Table 2. Composition of Exports by Region, 1993-95 (1000 m^3 rwe)

	Log Production			Log Exports			Processed Exports			Total Exports		
Region	1993	1994	1995	1993	1994	1995	1993	1994	1995	1993	1994	1995
Africa	9097	10836	9660	3250	4003	3476	2418	2849	2742	5668	6852	6218
Asia-Pacific	96259	91674	89640	13281	12266	11608	40771	37718	37794	54052	49984	49402
Latin America	30204	32567	33509	251	1052	1050	3828	4526	5068	4079	5578	6118
Total	135560	135077	132809	16782	17321	16134	47016	45092	45603	63798	62413	61737

Figure 10 shows the major ITTO tropical log exporters in 1993-95, ranked by 1993 export volume. Total ITTO producer member exports of 16.9 million m^3 valued at almost $2.6 billion (Appendices 1 and 3) comprised nearly 100 percent of global exports of non-coniferous tropical industrial roundwood, the only tropical timber product for which global trade estimates are provided by FAO. As industrial roundwood includes pulpwood and other categories apart from saw and veneer logs, it appears likely that ITTO's trade is overestimated, FAO's is underestimated, or a combination of the two. ITTO producer country log exports made up 91 percent of non-coniferous (61 percent of all) exports of industrial roundwood from developing countries and 55 percent of global exports of non-coniferous (16 percent of all) industrial roundwood in 1993. Malaysia continues to dominate the trade in tropical logs, with the 9.4 million m^3 exported in 1993 constituting 56 percent of ITTO

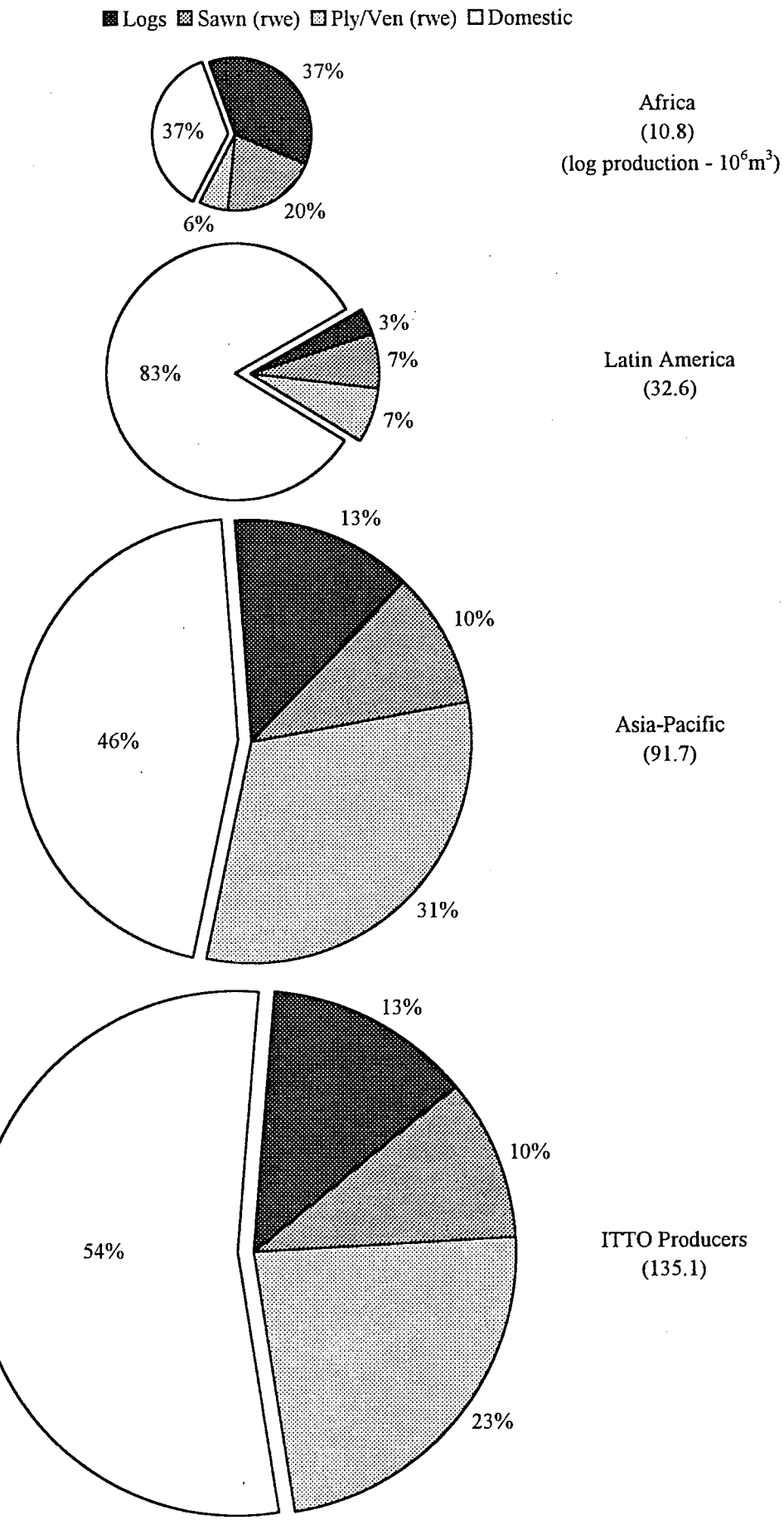


Figure 9. Domestic Log Consumption and Composition of Exports (percentage of log production, roundwood equivalent, 1994)

producer member exports. Malaysia's log trade in 1993 decreased in volume by 47 percent from 1992 levels and continued to decrease steadily (to 8 million m^3) in 1995. These reductions are due to sharply decreased exports from Sarawak and Sabah, which fell from 14.8 and 3.1 million m^3 respectively in 1992 to 8.4 and 0.1 million m^3 in 1994.

The phasing out of log exports in Sabah was due to a temporary ban on exports which remains in place in an attempt to ensure sufficient raw material for local industries. The reductions in Sarawak will bring the state in line with the recommendations of the ITTO Mission, which concluded that a sustainable level of production would be about 9.2 million m^3 per year from a permanent forest estate of 4.5 million ha, provided that the necessary silvicultural improvements were undertaken. Log production in Sarawak fell from 18.8 to 16.5 million m^3 between 1992 and 1994, including production from conversion forests. Production from Sarawak's permanent forest reserves fell from 12.5 million m^3 in 1992 to 9.5 million m^3 in 1994, with the ITTO target figure of 9.2 million m^3 scheduled to have been attained in 1995. Appendix 2 (Tables 2-1-a and -c) shows that Malaysia's major log customers are all in Asia, with Japan, China (including Taiwan Province of China) and the Republic of Korea accounting for 86 percent of Malaysia's reported log export volume in 1993-94. Malaysia's log exports were worth over $1.2 billion to the country in 1993 (Appendix 3), falling to $1.1 billion in 1994.

Papua New Guinea is the second largest tropical log exporter, with 1993 exports of nearly 2.9 million m^3 worth $483 million. This jump of nearly 1 million m^3 from 1992 levels was due to new export opportunities as Malaysia's exports shrank. Exports rose further to 3.1 million m^3 in 1994, before declining to 1993 levels in 1995. Appendix 2 shows that the bulk of PNG's log exports go to Japan and the Republic of Korea (82 percent in 1993, rising to 89 percent in 1994). PNG's log export controls appear to be working, as the discrepancies between export/import reports identified in previous Reviews are shrinking. PNG's reported exports to Japan actually exceeded Japan's import report by 60 000 m^3 in 1994, the first time this has happened since ITTO began collecting detailed direction of trade statistics. Statistics for Myanmar (the fourth largest log exporter in 1993 at just over 1 million m^3) showed a sharp decline in 1994-95, but all exports may not be accounted for by official figures. Myanmar's main trading partners are Thailand and India, although the trade figures reported by Myanmar are consistently and significantly below import reports.

The majority of the remainder of world tropical hardwood log exports comes from Africa. Gabon and Cameroon are the largest exporters (Figure 10), but Ghana, Côte d'Ivoire and Congo all exported substantial quantities of logs in 1993 (Appendix 1). All of these countries experienced large increases in exports in 1993-94, primarily to China, Korea and Japan, which sought new log supplies to offset decreases from Malaysia. Ghana's exports dropped sharply in 1995 due to a log export ban on several popular species. A similar ban announced in late 1995 by Côte d'Ivoire will reduce that country's exports in coming years. Liberia's civil war has led to drastic decreases in official production and exports, as reported in Appendix 1. It is likely that unofficial exports exist, but no reliable estimates for these could be obtained. Indonesia replaced log export bans with levies in 1993, but their magnitude ($500 to $4500/$m^3$) continues to ensure that few logs are legally exported. Nonetheless, some importing countries (e.g. China) reported substantial imports of Indonesian logs in 1993 and 1994 (see Appendix 2).

Re-exports of logs by consumer countries fell 11 percent to 88 000 m^3 in 1993, 70 percent of which was accounted for by inter-European trade. Germany, France, Belgium/Luxembourg and the Netherlands were the major log re-exporters in 1993, selling tropical logs to each other and other EU countries. Consumer countries did not in general provide detailed breakdowns of re-exports (value or destination). The magnitude of the European trade declined through 1995 together with tropical log supplies in Europe. Total consumer country exports rose through 1995, however, due to an increase in exports reported from China. This is probably material from Hainan Island, although no details on this trade were available.

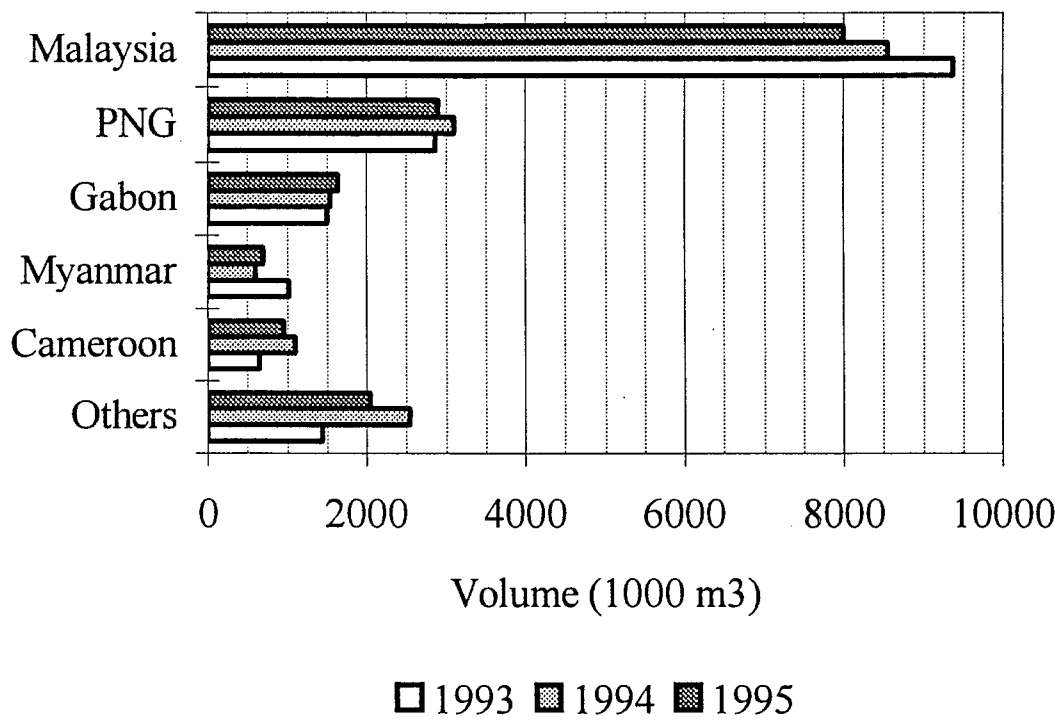


Figure 10. Major Tropical Log Exporters

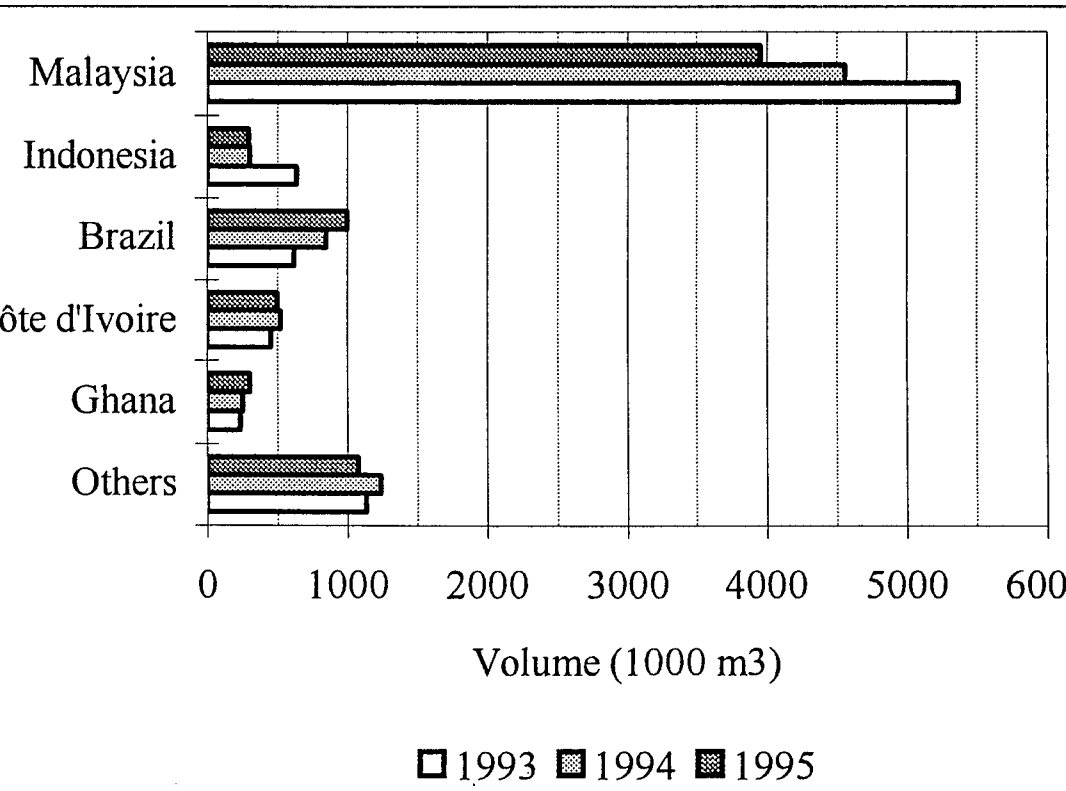


Figure 11. Major Tropical Sawnwood Exporters

Sawnwood

Figure 11 shows the major ITTO tropical sawnwood exporters in 1993-95, ranked by 1993 export volume. Total ITTO producer exports of 8.2 million m^3 (valued at almost $3 billion) comprised 80 percent of non-coniferous (63 percent of all) sawnwood exports by developing countries and 49 percent of global exports of non-coniferous (8 percent of all) sawnwood in 1993. Malaysia continues to dominate the trade in tropical sawnwood, with the 5.4 million m^3 exported in 1993 constituting 66 percent of total ITTO producing member exports. Malaysia's sawnwood trade remained at 1992 levels in 1993, but declined to 4.6 million m^3 in 1994 and to just under 4 million m^3 in 1995 as more raw materials were directed to plywood production and other secondary processing. Peninsular Malaysia and Sabah accounted for 33 and 39 percent of Malaysian sawnwood exports in 1994 respectively, with Sarawak making up 28 percent. Appendix 2 (Tables 2-2-a to -d) shows that Malaysia's major sawnwood customers in 1993-94 were Thailand, Japan, Korea, Taiwan Province of China, the EU (primarily the Netherlands and the U.K.) and the Philippines. The total value of Malaysia's 1993 sawnwood exports was $1.84 billion.

Malaysia announced in late 1995 that it would stop all sawnwood exports from Peninsular Malaysia by 2000, due to reductions in timber supplies brought about by stricter management standards and the country's commitment to further and more efficient processing of its forest resources. Substantial adjustments will be forced on the timber sectors of Malaysia's main sawnwood customers, many of which depend on Malaysia for the majority of their sawnwood consumption. It is expected that export reductions will be phased in (this is already in evidence in the 1992-95 figures), allowing importers time to seek other sources and/or substitutes.

Indonesian exports of sawnwood decreased ten percent to 639 000 m^3 in 1993, based on FAO figures. Unofficial figures show that Indonesian exports declined to 300 000 m^3 in 1995. This is a result of the Indonesian focus on value-added exports and the imposition of export levies ranging from $250 to $2400/$m^3$ on all sawnwood exports since 1993. Sawnwood exports from Brazil, Côte d'Ivoire and Ghana all increased through 1995, as shown in Figure 11. Appendix 1 shows that other major traders are Bolivia, Gabon, Cameroon, Honduras and the Netherlands, all with 1993 exports of over 100 000 m^3. Bolivian sawnwood exports, primarily of mahogany to the U.S. and U.K., have increased steadily, reaching 200 000 m^3 in 1994 and 1995. Exports from Honduras are at least partially tropical pine sawnwood.

ITTO consumer countries exported 267 000 m^3 of tropical sawnwood worth almost $133 million in 1993, primarily (70 percent) from the EU countries. EU exports of tropical sawnwood decreased from 188 000 m^3 in 1993 to 177 000 m^3 in 1994 and 167 000 m^3 in 1995, with the ITTO consumer country total dropping at the same rate. The Netherlands, a larger tropical sawnwood exporter than many producing countries, was the main EU sawnwood exporter, although its exports have almost halved since 1991 to 90 000 m^3 in 1995. The unit value of the Netherlands' sawnwood exports, $644/$m^3$ in 1993, was 30 percent over the average export unit value for consumers and 75 percent over the average unit value for all ITTO members, indicating that mostly high-value (or high value-added) species of sawnwood are being exported. Tropical sawnwood exports from the Netherlands and other EU countries are absorbed almost wholly within Europe.

Veneer

Figure 12 shows the top ITTO tropical veneer exporters in 1993-95, ranked in order of 1993 export volume. Total ITTO producing member exports of over 1.1 million m^3 (worth $463 million) were level with 1992 exports. ITTO producer countries accounted for 90 percent of exports of tropical veneer by developing countries and 44 percent of global exports in 1993. Total exports by producers fell to 1 million m^3 in 1994 and 1995. Malaysia continues to be ITTO's dominant veneer exporter, with fluctuations in its exports driving the ITTO total. Malaysia's exports of 720 000 m^3 in 1993 constituted 63 percent of total ITTO producer member exports. Malaysia's veneer trade is

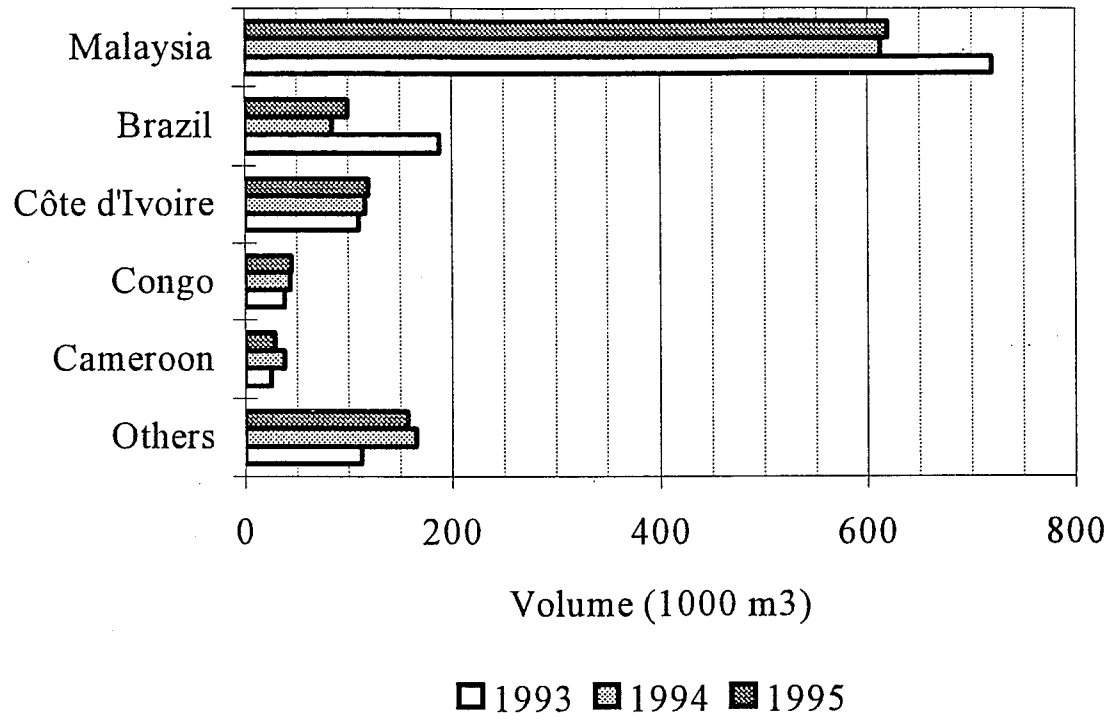


Figure 12. Major Tropical Veneer Exporters

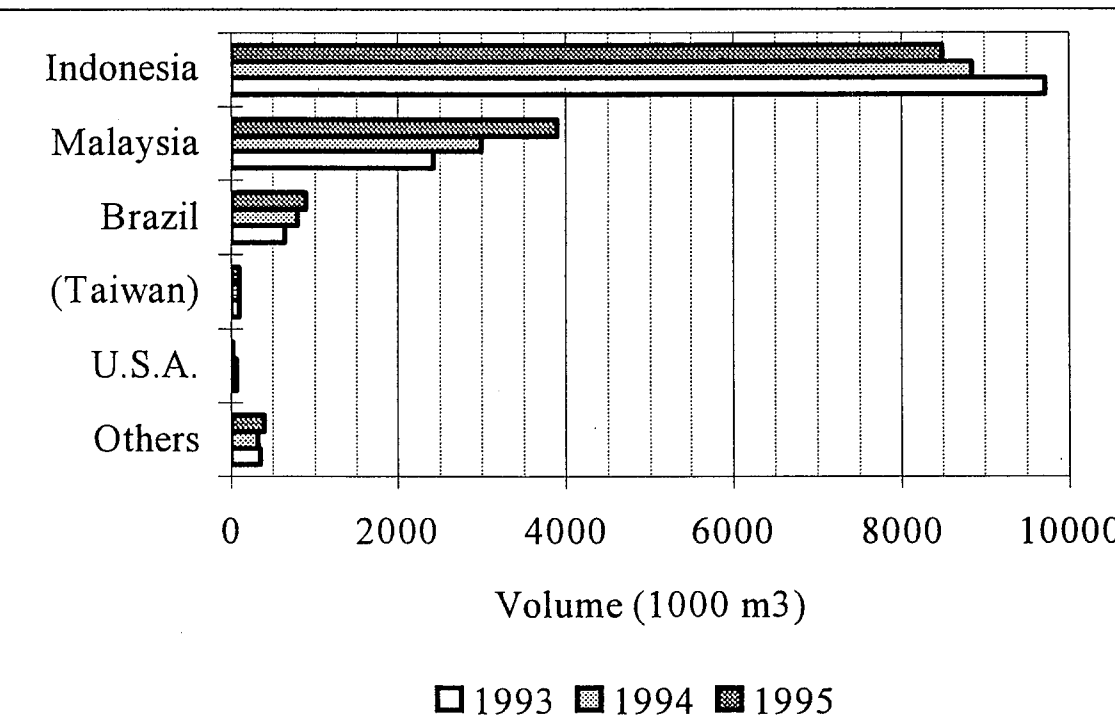


Figure 13. Major Tropical Plywood Exporters

declining after rising rapidly in the early 1990s, with exports down by almost 15 percent in 1994-95. This is due to production decreases due to tightening log supplies and the focus on plywood and further downstream production/exports. Veneer exports in 1994 were split between Sarawak and Sabah in a 2 to 1 ratio, with minimal exports from Peninsular Malaysia. Appendix 2 shows that Malaysian exports, worth $294 million in 1993, are mainly directed (over 87 percent) to China, Taiwan Province of China and Japan.

Brazil was the second largest tropical veneer exporter in 1993 at 188 000 m^3, but its exports were hurt by a strong currency and fell to less than half this level in 1994 before rebounding slightly in 1995. Brazil's exports went primarily to the U.S. and Germany (although Appendix 2 shows a rather large discrepancy between import/export reports for 1993-94). Côte d'Ivoire is the only other major tropical veneer exporter, with exports stable at around 120 000 m^3 per year since 1992. Its main markets are the EU (mainly Germany and Italy) and the USA.

The EU accounted for almost 73 percent of consumer country tropical veneer exports of 47 000 m^3 in 1993, with 1994-95 levels of EU exports predicted to remain stable. Germany and the Netherlands are the largest EU tropical veneer exporters. Japan also reported 8 000 m^3 of tropical veneer exports in 1993-95. Total exports by ITTO consumer countries rose in 1994-95 because of an increase in Chinese exports, to 15 000 m^3 in both years.

Plywood

Figure 13 shows the major ITTO tropical plywood exporters in 1993-95. In 1993, total ITTO producing member exports of 13 million m^3 (worth $5.7 billion) increased by almost 7 percent over 1992 levels and comprised almost 100 percent of all developing country plywood exports. ITTO producing members account for over 75 percent of global exports of all types of plywood, the only forest product for which tropical countries have captured a majority of the global market. Indonesia continues to dominate the trade in tropical plywood with the nearly 9.7 million m^3 exported in 1993 constituting 75 percent of total ITTO producer member exports, although this is down from 84 percent in 1991. Indonesia's share of ITTO exports fell further to 63 percent in 1995, when exports decreased to 8.5 million m^3. The government of Indonesia is reviewing plywood marketing and promotion, given falling exports and export earnings. Indonesia earned over $4.2 billion from plywood exports in 1993, second only to its exports of petroleum products, but this figure is falling with export levels. The proportion of Indonesian plywood exports to other Asian countries (primarily Japan, China and Korea) fell from 79 to 64 percent between 1991 and 1994, due to increased exports to the USA and Western Europe (see Appendix 2).

Malaysia is Indonesia's major competitor in the tropical plywood trade. Figure 14 shows the recent sustained growth of Malaysian exports, averaging 28 percent over the last six years, compared to the flat or declining growth of Indonesian exports. Actual 1993 export volumes are included in Figure 14 for each country. Exports from Malaysia grew by almost 45 percent in 1993 to 2.4 million m^3. Exports increased a more modest 24 and 30 percent in 1994 and 1995, respectively, resulting in total exports of 3.9 million m^3 in 1995. This rapid growth is due to the construction of new plywood mills in Sabah and Sarawak to process peeler logs formerly exported; the two eastern Malaysian states each accounted for 40 percent of Malaysian plywood exports in 1994. In 1993 Malaysia exported almost $1.1 billion worth of plywood, mainly to Japan, China (including Taiwan Province of China) and non-ITTO members Singapore and Hong Kong. Latin American plywood exports, led by Brazil, also increased rapidly through 1995 to one million m^3. Figure 14 shows that Brazil's export growth slowed in 1994-95, due primarily to the strength of the Brazilian real. The U.K. and the USA are the major markets for Brazil's plywood. Africa's plywood exports, mainly from Cameroon, are relatively minor but increased slightly through 1995 to 90 000 m^3.

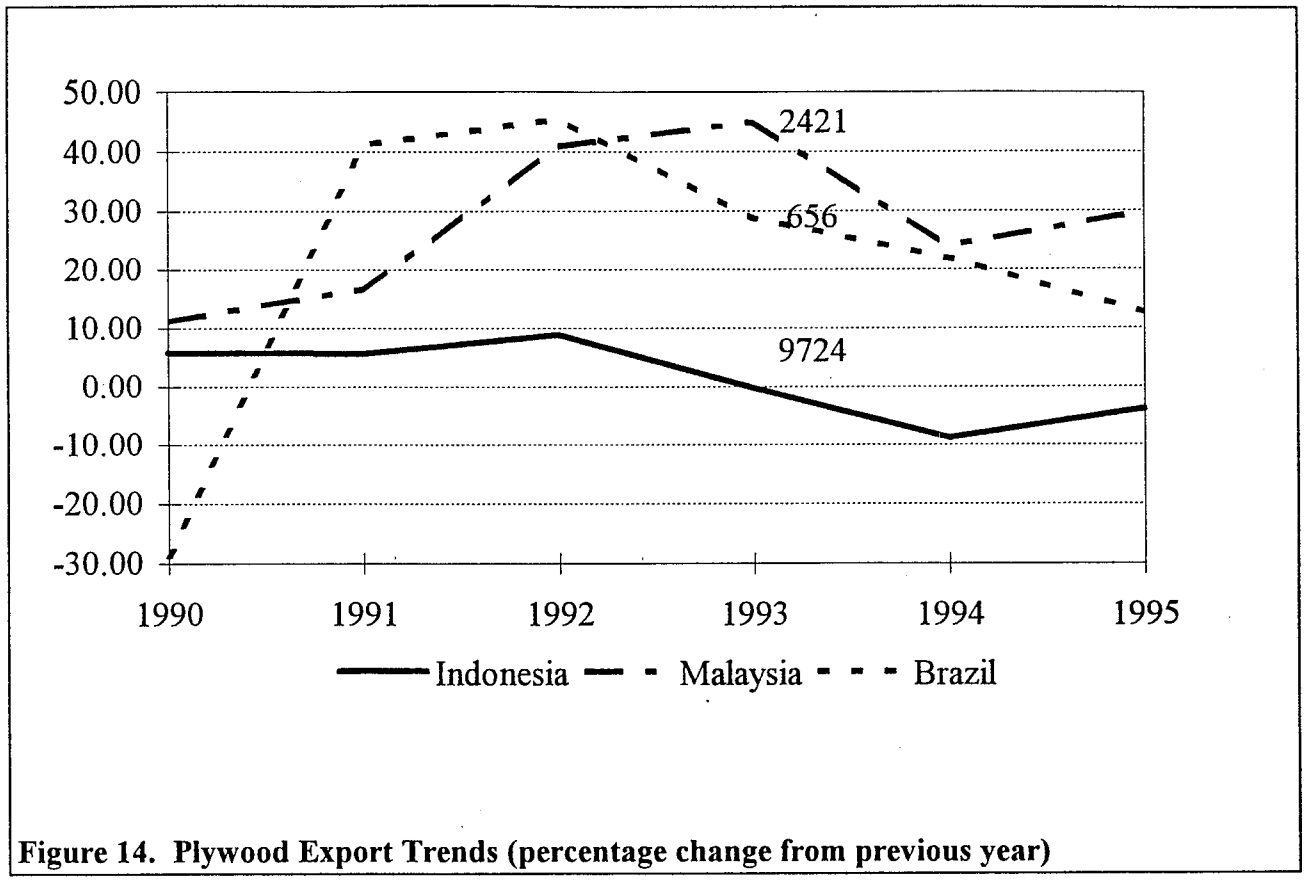


Figure 14. Plywood Export Trends (percentage change from previous year)

ITTO consumer countries exported 346 000 m^3 of plywood worth almost $169 million in 1993. Taiwan Province of China accounted for 110 000 m^3 (to Japan and other Asian countries), the EU (primarily France, Belgium and the Netherlands to other EU countries) for 138 000 m^3 and the USA for 80 000 m^3 (various destinations reported). Exports from all these sources dropped in 1994-95, leaving ITTO consumer country exports of tropical plywood at just over 300 000 m^3.

Imports

Table 3 provides an overview of the dependence of major ITTO importers on imports of tropical wood products. Major importers are defined here as those with imports of at least 100 000 m^3 of one or more products. Countries which reported tropical imports to ITTO in excess of all imports given in the FAO Yearbook of Forest Products are considered totally dependent on tropical timber.

Taiwan Province of China appears to be the non-tropical country most dependent on tropical wood product imports, with almost all of its substantial log, veneer and plywood imports of tropical origin. Unsurprisingly, given the dominance of tropical plywood in international plywood trade, most of the countries in Table 5 have a fairly high dependence on tropical plywood imports, with Japan almost totally dependent on tropical imports. Most major ITTO consumer countries are not so highly dependent on tropical veneer imports, with only Italy, the Netherlands and Korea (apart from China and Taiwan Province of China) importing more tropical than non-tropical veneer. Tropical sawnwood has an even lower market share in most countries, with only Taiwan Province of China dependent on it for more than half of its sawnwood imports. The percentage figures for dependence on imports of tropical saw and veneer logs may be underestimated as total imports of all industrial roundwood were used for comparison due to the revision of the Harmonized System of customs classification and the consequent lack of FAO statistics on total trade of saw/veneer logs in 1993. Nonetheless, only Taiwan Province of China and Portugal amongst major consumer countries appear to have imported a significantly greater proportion of tropical than non-tropical logs in 1993. In contrast to consumer countries, all of the major ITTO producer country importers in Table 3 depend

on tropical imports for the majority of their wood needs. The following sections break down import trends by each tropical wood product.

Table 3. Tropical Proportion of Total Imports by Major ITTO Importers 1993 (1000m^3)

Country	Import Tropical				Import All[1]				Tropical Percentage			
	Log	Sawn	Ven	Ply	Log[2]	Sawn	Ven	Ply	Log	Sawn	Ven	Ply
Australia	2	170	11	42	11	1243	28	67	18.2	13.7	39.3	62.7
Belgium-Lux.	40	155	12	170	2366	2025	38	436	1.7	7.7	31.6	39.0
Brazil	5	110	35	0	1	26	26	5	100.0	100.0	100.0	0.0
China	1595	703	287	1371	5920	2521	305	2510	26.9	27.9	94.1	54.6
(Taiwan)[3]	2180	1052	204	788	2619	1852	215	814	83.2	56.8	94.9	96.8
Egypt	35	16	8	125	37	1162	8	94	94.6	1.4	100.0	100.0
France	895	360	18	180	2064	1949	65	257	43.4	18.5	27.7	70.0
Germany	213	240	77	193	1649	6242	182	779	12.9	3.8	42.3	24.8
Greece	117	27	2	2	74	360	13	2	100.0	7.5	15.4	100.0
India	249	4	1	1	273	8	193	5	91.2	50.0	0.5	20.0
Italy	438	369	58	35	5383	5992	115	214	8.1	6.2	50.4	16.4
Japan	8324	1805	239	3864	44895	10626	918	4105	18.5	17.0	26.0	94.1
Malaysia	174	152	4	26	17	39	5	11	100.0	100.0	80.0	100.0
Netherlands	111	587	13	238	785	3572	24	523	14.1	16.4	54.2	45.5
Philippines	569	458	3	2	538	290	5	3	100.0	100.0	60.0	66.7
Portugal	329	33	1	1	394	165	5	8	83.5	20.0	20.0	12.5
Rep. of Korea	2103	970	26	822	8528	1198	51	1105	24.7	81.0	51.0	74.4
Spain	265	282	10	8	1229	1610	26	27	21.6	17.5	38.5	29.6
Thailand	1607	1743	12	12	1224	1907	12	24	100.0	91.4	100.0	50.0
UK	19	450	18	478	394	6810	52	946	4.8	6.6	34.6	50.5
USA	5	175	15	919	1809	36489	582	1662	0.3	0.5	2.6	55.3

1. 'Import All' figures from 1993 FAO Yearbook.
2. Industrial roundwood used; no import figures given for saw/veneer logs in 1993 FAO Yearbook.
3. Unofficial figures.

Logs

Total imports of tropical hardwood logs by ITTO members (consumers and producers) fell almost 26 percent to 19.3 million m^3 (worth $4.4 billion) in 1993. This exceeded total log exports by ITTO members by about 2.5 million m^3. This difference was probably made up by legitimate log exports from Indochina, the Solomon Islands and non-member tropical African countries, plus unrecorded or under-reported exports from both members and non-members. The gap between reported imports and exports in 1995 shrank to 1.1 million m^3.

Figure 15 shows the top ITTO log importers in 1993-95, ranked by order of import volume in 1993. Japan still dominates the global tropical log market, with 8.3 million m^3 (worth almost $2.3 billion) imported in 1993, 66 percent of which came from Sarawak. Japan's imports were valued substantially higher than Malaysia's exports, however, which totalled $1.1 billion for 9.4 million m^3 in 1993 (Appendix 3). The resulting discrepancy in unit prices is too large to be explained by freight and insurance charges; it could be due to variations in exchange rates used to report export values, the existence of other abnormally high/low value trade partners and/or one or both partners could have made errors in reporting log trade values. Japanese tropical log imports decreased by nearly 25 percent in 1993 due to contraction in Sarawak exports and the ban on exports from Sabah, as well as the economic slowdown in Japan mentioned previously. Japanese demand for tropical logs continued to be met primarily by output from Malaysia in 1994 (60 percent of tropical log imports of 7.6 million m^3), although the decreasing log exports from Sarawak and the export ban in Sabah have resulted in a greater diversity of suppliers to the Japanese market, including softwood and temperate hardwood suppliers. Japan has increased tropical log imports from Africa, with 1993-94 imports

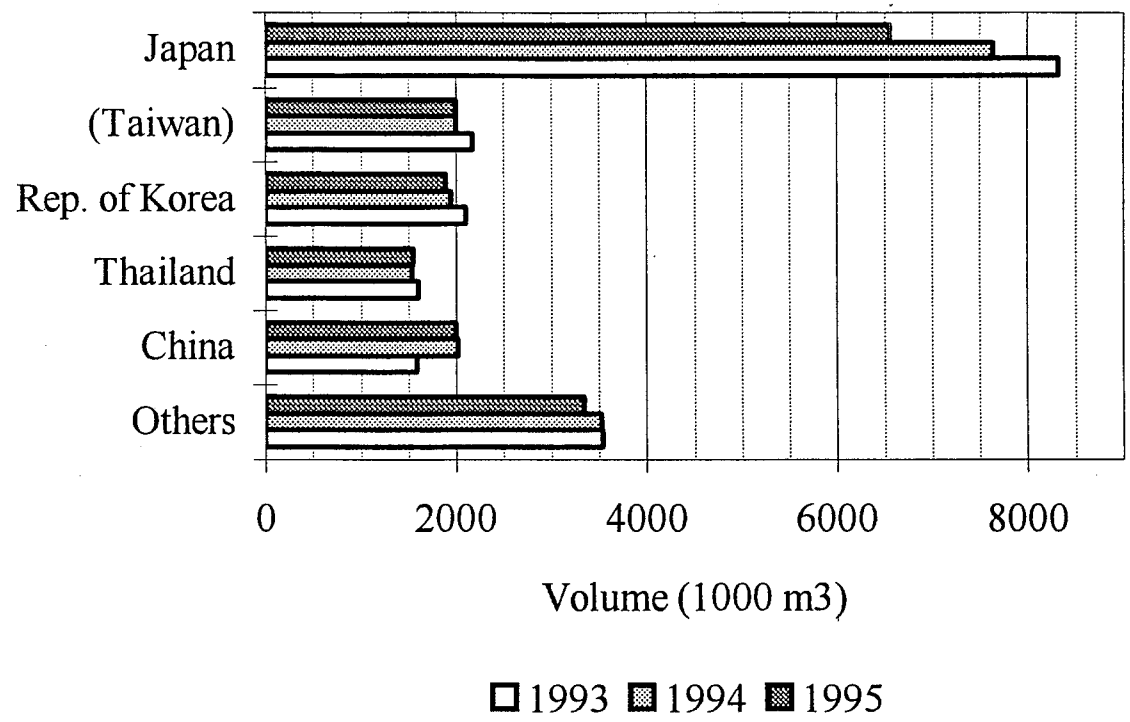


Figure 15. Major Tropical Log Importers

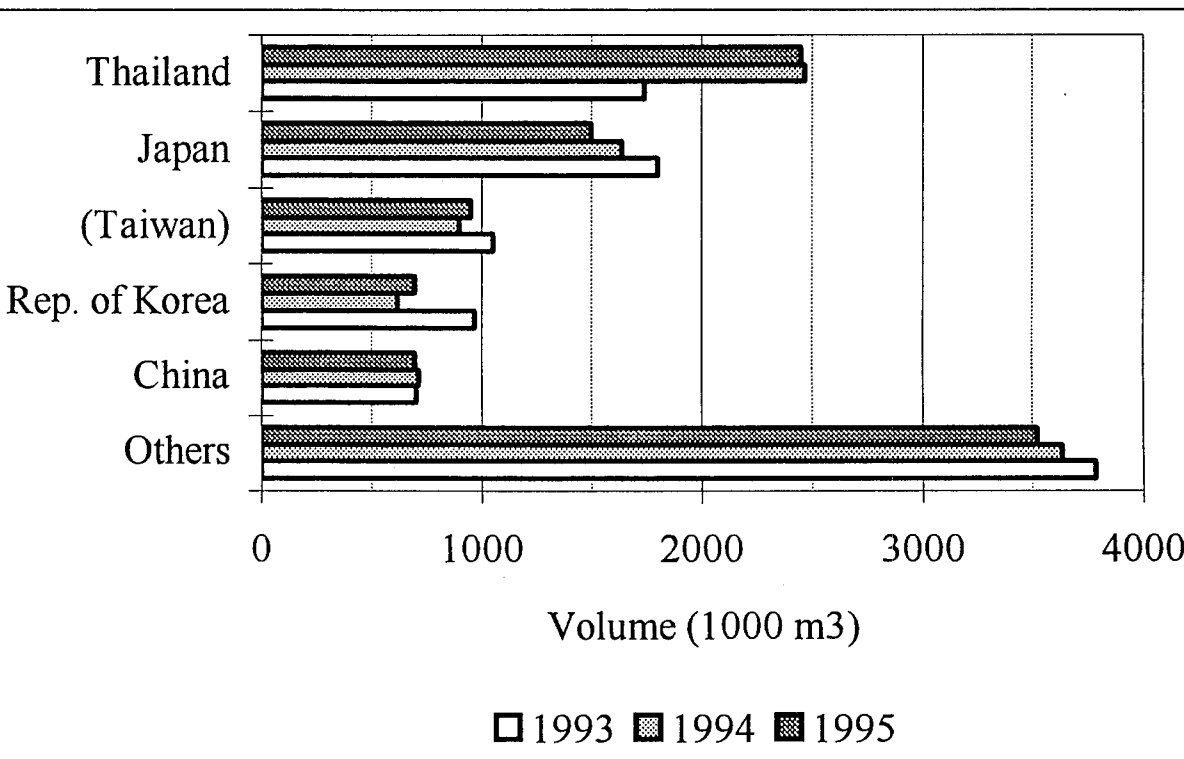


Figure 16. Major Tropical Sawnwood Importers

over five times the 100 000 m^3 imported in 1992, mostly from Gabon and Cameroon. Imports from PNG have also skyrocketed, increasing to 1.9 million m^3 in 1994 from 1.1 million m^3 in 1992. Nonetheless, Japan's total tropical log imports fell to 6.5 million m^3 in 1995, despite increases from Africa, the Solomon Islands (almost 350 000 m^3) and other non-traditional sources.

China is the second largest ITTO tropical log importer, led by Taiwan Province of China's imports of almost 2.2 million m^3 in 1993, down 45 percent from 1992 levels. Aggregate imports by China and Taiwan Province of China rose through 1995, due to increases in the former, mainly from Africa (Gabon and Cameroon) and PNG. Official Chinese statistics do not include Taiwan Province of China; prior to 1993 they did not include imports of logs to joint venture plants which export the products made from them. The figures given for China and Taiwan Province of China are estimates based on available sources and should be viewed with this in mind. These factors may underlie some of the inconsistencies between export and import reports shown in Appendix 2 for China and Taiwan Province of China.

The Republic of Korea is also a major ITTO log consumer, absorbing 2.1 million m^3 (worth $448 million) in 1993, from Malaysia (45 percent of total imports, down from 71 percent in 1992) and PNG (34 percent, up from 23 percent in 1992). Korea's imports were down one-third from 1992 levels, with a further decrease to 1.9 million m^3 in 1994-95. Korea, like Japan and some other Asian consumers, is undertaking to shift processing capacity to producing countries, closer to resources and cheaper labour. Korea is also importing increased quantities of logs from Africa (primarily Ghana) with 1994 levels of 205 000 m^3 compared to 21 000 m^3 in 1992. Ghana's log export ban on most species in 1995 has forced Korea to look to other suppliers in Africa and elsewhere.

The EU countries imported over 2.4 million m^3 of tropical logs worth $559 million in 1993, most of which came from African producers. France remains the largest of the EU log importers, with imports of around 900 000 m^3 per year over the past five years. The bulk of France's tropical log supplies come from Gabon, Cameroon and Congo (Appendix 2). The large discrepancy between the figures of Gabon and France in Appendix 2 should be noted. Italy, Portugal and Spain are also major European log importers, with over 250 000 m^3 of log imports each in 1993. European log imports rose slightly to 2.5 million m^3 in 1994, before returning to 1993 levels in 1995 due to depressed demand and increased competition from Asian log buyers in Africa.

Several ITTO producing countries have become net importers of logs, indicating the extent of wood shortages in their domestic forest sectors. Thailand (1.6 million m^3) and the Philippines (569 000 m^3) were the major ITTO producer country importers of tropical logs in 1993, reflecting resource scarcity and logging bans in these countries. Appendix 1 shows that Malaysia has also recently become a significant tropical log importer, with imports doubling from 174 000 m^3 in 1993 to 350 000 m^3 in 1995. Most of those imports are occurring under a Malaysian Timber Council scheme to assist processors in Peninsular Malaysia obtain logs for their own use. Shipments in 1994-95 were mainly from PNG and Africa. Total imports of tropical logs by ITTO producing members dropped sharply in 1993, to just over 2.6 million m^3 worth $359 million. Total imports dropped again to under 2.5 million m^3 in 1994, and to 2.4 million m^3 in 1995. This demand is still substantial, however, and will, in combination with demand from traditional log consumers, place considerable pressure on the forest resources of the remaining log exporters. Careful regulation of log exports is required in these countries to ensure that the tightening supply situation does not exacerbate problems in their forest sectors. The new "consumer" countries must also attempt to uphold ITTO's principles on sustainability when sourcing log supplies.

Sawnwood

Total ITTO imports of tropical sawnwood increased almost 17 percent to over 10 million m^3 in 1993. Appendix 1 shows that while total ITTO imports remained stable at just under 10 million m^3 in

1994-95, total exports declined to 7.1 million m^3 in 1995. This gap is probably beyond the capability of non-ITTO tropical countries to fill, indicating the requirement for revision of 1995 trade estimates and/or substitute materials. Figure 16 shows the major ITTO sawnwood importers in 1993-95, ranked by order of 1993 import volume. Japanese imports rose 45 percent to 1.8 million m^3 worth $766 million in 1993. The large increase reported in 1993 was due to a combination of increased wooden housing starts, the decline in log availability and increasing prices in both logs and substitute materials. Japan's tropical sawnwood imports fell through 1995 to 1.5 million m^3, due primarily to the slowing economy. Thailand regained its position as the top ITTO sawnwood importer in 1994-95, with imports growing to almost 2.5 million m^3 in 1993. The logging ban in Thailand, together with its growing economy and large furniture and secondary processing industries are responsible for growing timber (particularly sawnwood) imports, with the country's net imports of all timber worth close to $700 million in 1993. Thailand's imports of tropical sawnwood, worth over $481 million in 1993, are sourced primarily (65-75 percent in 1993-94) from Malaysia, as are those of Japan (40 percent). Japan also imported substantial quantities of sawnwood from Indonesia in 1993-94 (Appendix 2). China (including Taiwan Province of China) and Korea are also major Asian sawnwood importers, as shown by Figure 16 and Appendix 1. All had stable or declining imports through 1995, sourced primarily from Malaysia and (to a lesser extent) Indonesia.

Total tropical sawnwood imports by EU countries fell ten percent in 1993 to 2.6 million m^3 (worth almost $1.3 billion). More than half of this was supplied by Asian producers, principally Malaysia. Côte d'Ivoire, Ghana, Gabon, Cameroon and Brazil supplied virtually all of the remainder of European imports. Relatively slow growth in the economies of many Western European countries together with growing environmental concern and increasing trends toward substitute products contributed to European imports falling to less than 2.5 million m^3 in 1994-95. The Netherlands remains the largest importer of tropical sawnwood in the EU, with 1993 imports of 587 000 m^3 falling to around 500 000 m^3 in 1994-95. The Netherlands' policy to only import sustainably produced tropical timbers after 1995 has been abandoned, although bilateral discussions on sustainable sourcing with major suppliers continue.

The large jump in imports of tropical sawnwood by the Philippines in 1993 should also be noted. Imports rose more than ten-fold in 1993 to 458 000 m^3, falling back to 168 000 m^3 in 1995. This jump in imports of sawnwood, combined with the country's large log imports, are convincing evidence of wood scarcity in the Philippines. Once a major exporter of tropical timber, the Philippines was a net importer in 1993 to a value of almost $100 million.

Veneer

Many importing countries do not differentiate between different types of veneer and plywood (e.g. softwood/hardwood, temperate/tropical). This 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 used 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. Some countries report trade in all veneers and panels (tropical and non-tropical) while others aggregate veneer and plywood into a single category. The many discrepancies evident in the direction of trade tables for veneer are at least partially due to the use of different conversion factors in different countries. The adoption of a standard measurement system for panel products and veneer is a priority if improvements in the accuracy of these statistics are to be achieved.

Figure 17 shows the major ITTO veneer importers in 1993-95. Total ITTO imports of veneer rose to 1.1 million m^3 (worth $367 million) in 1993, up 15 percent from 1992. Japan accounted for 22 percent of these imports, with members of the EU (led by Italy and Germany) accounting for another 20 percent and China (including Taiwan Province of China) for 45 percent. Imports to all of these destinations were relatively stable or declining through 1995, dropping total ITTO imports to under 1 million m^3. Chinese and Japanese imports are primarily sourced from Malaysia, while the

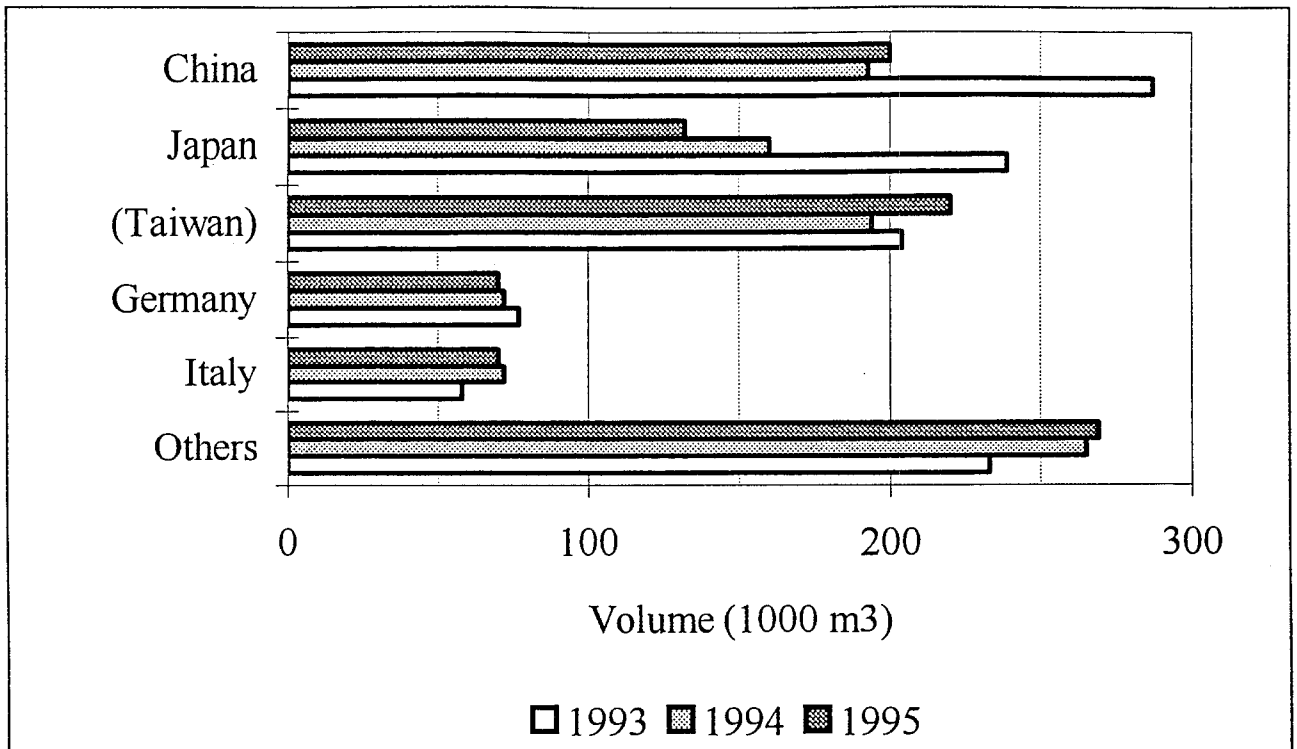


Figure 17. Major Tropical Veneer Importers

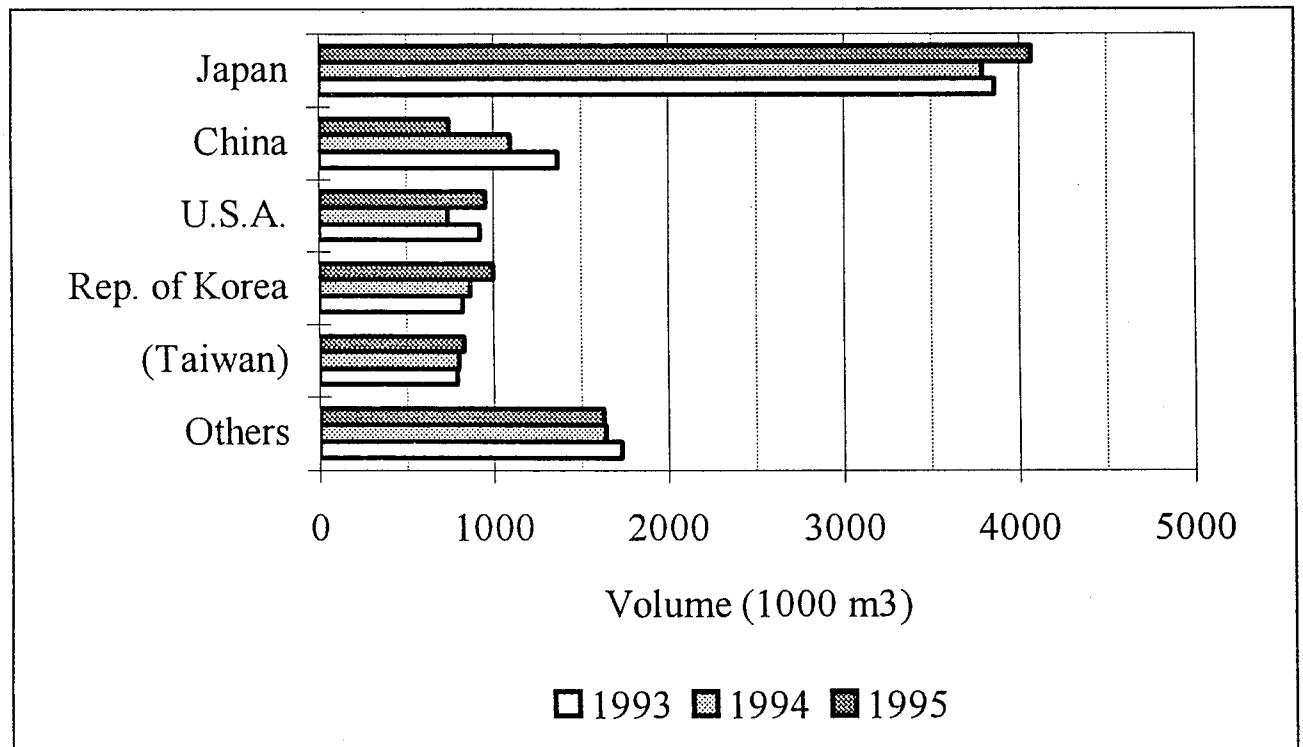


Figure 18. Major Tropical Plywood Importers

majority of European imports are from African producers (mainly Côte d'Ivoire). Chinese and Japanese veneer imports were valued at $69 million and $146 million respectively in 1993, giving unit prices of about $240/m^3 and $610/m^3. This gives some indication of the differences in quality requirements between these two important markets.

Plywood

Figure 18 shows the largest ITTO plywood importers in 1993-95, ranked by import volume in 1993. Total ITTO imports of tropical plywood rose 8 percent to almost 9.5 million m^3 (worth almost $4.8 billion) in 1993. Imports fell to 8.9 million m^3 in 1994, due to fluctuating demand in major markets, but rebounded to over 9.2 million m^3 in 1995. Exports of plywood by ITTO members continue to substantially exceed aggregate imports by members, indicating the dominant position of ITTO producers in world markets for this product. The majority of all tropical plywood imports came from Indonesia (85-90 percent in 1993-94 for the top importer, Japan). Several major importers reported an increase in the proportion of Malaysian plywood imported in 1993-94, in an apparent attempt to diversify supply sources. This trend is most pronounced in China, where almost half of 1994 imports of 1.1 million m^3 were reported as coming from Malaysia. The EU and the U.S. also import significant quantities of tropical plywood primarily from Indonesia, Malaysia and Brazil.

EU imports of tropical plywood totalled 1.4 million m^3 (worth almost $1 billion) in 1993, down 17 percent from 1992 due to decreased imports by the U.K. and the Netherlands. Most of this amount came from Indonesia and Malaysia, with Gabon, Brazil and inter-European trade providing the bulk of the remainder of European imports. European imports of tropical plywood declined to under 1.3 million m^3 in 1994-95 due to decreased demand from major importers.

Taiwan Province of China (788 000 m^3), the Republic of Korea (822 000 m^3), China (1.4 million m^3) and the U.S. (919 000 m^3) were all substantial tropical plywood importers in 1993. The bulk of China's imports, which dropped to an estimated 750 000 m^3 in 1995, are directed to the construction industry in the southern provinces. U.S. imports, 70 percent of which came from Indonesia in 1993-94, fell to 742 000 m^3 in 1994 before rebounding to close to one million m^3 in 1995. In Korea, imports also rose to one million m^3 in 1995. Indonesia supplied almost all of Korea's plywood imports until 1994 when Malaysia captured over 20 percent of the market.

Prices

Export price trends from mid-1990 through late 1995 for major log and sawnwood species and plywood from each exporting region are examined in this section. The price trend charts contained in Appendix 7 were developed based on the nominal prices reported biweekly by the ITTO/ITC Market News Service (MNS). These nominal prices were corrected to exclude inflationary factors affecting major consumer markets and converted to real prices (1990 = 100) using the G5 Manufacturing Unit Value inflation index as calculated and used by the World Bank for calculating real commodity prices. Both nominal and real trend lines are charted. As not all species are reported in each issue of the MNS, some charts only portray partial price series. An attempt was made to prepare price trend charts for species identified as important by importers/exporters. Some species charted in previous years have dropped out of regular trade due to export bans or restrictions imposed in 1994-95. Species are identified by internationally accepted pilot and scientific names; the local names of timber species used by producer countries, where they differ from pilot names, are given in Appendix 6.

For logs and sawnwood, the values employed reflect FOB (free on board, port of origin) prices and the price trends are aggregated by the most frequently traded grades for a given species across countries within a region (when more than one country exported a given species) and across size and quality categories, for each period reported. The MNS often quotes high and low prices within grades for major species. These were averaged to create a single price trend for all species charted. High and low prices result from differences in grade, quality, markets, etc.

For plywood, the values employed reflect CIF (cost, insurance, freight - Europe) prices of a specified plywood product for each of the major producing countries, as stipulated by the base price lists developed by the major plywood trade organizations. A standard grade and thickness (9 mm Moisture Resistant B/BB grade) of plywood was selected for consistency and ease of comparison between plywood from different regions. In addition, price charts (cost and freight) for two major categories of plywood imported to Japan from 1992 to 1995 are included.

The charts shown in Appendix 7 indicate recent trends in regional prices, and are included due to the importance of the price factor in tropical timber markets. The price figures are indicative only of trends during the period under review; actual prices paid by merchants or received by producers may vary considerably with quantity traded, specifications, port of shipment and quality within grade.

Average export prices for species/products traded in 1994 are also included in Appendix 6 for those countries that provided this data in the ITTO Enquiry. No attempt has been made to adjust or verify these nominal prices. Finally, Appendix 3 contains the average unit values of exports and imports for all products and countries in 1993. While these figures are highly aggregated, including all species, grades and markets for each product, the unit values for some countries/products (e.g. logs for Myanmar) appear out of line with regional price trends.

Logs

Appendix 7 shows indicative real and nominal FOB price trends for eight species and/or grades of African and eight species/grades of Asian log exports from mid-1990 to late 1995. Real FOB prices for most important species of African log exports were relatively stable or declining during the 1993-95 period, although real prices of several species rose temporarily in mid-late 1994. This was due to increased demand from Asian markets for these species. Species of the genus *Entandrophragma* (the most valuable African log species) were proposed for listing in Appendix II of CITES in 1994, but listing was not approved. Real prices of most African log exports were stable between \$100 and \$200/m^3 throughout the period, with only acajou, iroko, sapelli and sipo (the latter two being species of the genus *Entandrophragma*) achieving prices over \$200/m^3 for any sustained period. Sipo is one of the most valuable log species exported in large volumes from Africa, with real prices approaching \$400/m^3 in late 1994 before falling back below \$300/m^3 by the end of 1995.

The devaluation of the CFA franc may have had a dampening effect on real African export prices in 1994-1995. The increasing interest in some species of African logs by Asian consumers, coupled with plans by some countries to ban log exports, should have a positive effect on prices in the short-term, although real prices are unlikely to increase significantly.

In contrast to African logs, real export prices of most species of Asian logs increased sharply in 1993 and early 1994, due to the perception of log shortages in Asia. This was brought about by the ban on log exports from Sabah, together with tightening supplies from other tropical and non-tropical suppliers. Real prices more than tripled in dollar terms in some cases, causing substantial confusion in major markets. Prices underwent a generally steady decline throughout the last three quarters of 1994 as the Sabah export ban was relaxed (although few logs were subsequently exported) and importers adjusted to the new supply situation. However, real Asian log export prices in mid-1995 remained substantially (up to 100 percent) higher than before the 1993 price increase, when most prices had been relatively stable for at least two years. The graphs in Appendix 7 show that most species of Asian logs were trading at real prices of around \$100/m^3 or less in 1991-93. Real prices for meranti logs increased from an average of about \$110/m^3 in this period to a peak of almost \$350/m^3 in March 1993. The real price of this species in late 1995 had fallen back to \$150/m^3. This is indicative of the pattern followed by most of the Asian species/grades charted in Appendix 7.

Sawnwood

Real and nominal sawnwood price trends (FOB) for eight African species/grades, four Asian species/grades and eight Latin American species/grades are included in Appendix 7. Real African sawnwood prices firmed in 1994 for several important species (acajou, dibetoh, iroko, niangon, sapelli and sipo). The gradual firming in real prices of most of these species follows at least 2 years of declining real prices in 1991-93 so that real prices for many species were then approaching 1991 levels. Real prices dropped dramatically in 1995 for most species, due to decreased demand. Sipo is the most valuable African sawnwood export species, with real prices reaching $750/m^3$ in June 1994. As African sawnwood exports are directed almost entirely to Europe, and since European consumption will not rise significantly, African sawnwood price trends will probably at best remain level in coming years.

Asian sawnwood price trends have been generally increasing according to the charts in Appendix 7. The trends in real prices of both dark and light red meranti all show the follow-on effects from the increase in Asian log prices observed in 1993-94. The two types of meranti sawnwood showed a slightly lagged price spike following the log price increase, as would be expected. Real prices for both types peaked at around $800/m^3$ in mid-1994. dark red meranti continued to fluctuate around this level for much of 1994 before dropping back to a real price of around $600/m^3$ by late 1995. Real prices for light red meranti have dropped to the same level. With Asian sawnwood exports shrinking, price increases are possible.

Three of the Latin American sawnwood species reported in the MNS are well known and traded in substantial volumes (mahogany, cedro and virola). Appendix 7 shows real price trends for these species, as well as for several other species. Real price trends for Latin American species of sawnwood have been variable, with, for example, cedro and mahogany experiencing price increases in 1993 and the first half of 1994, followed by downward pressure in late 1994 and slight increases in 1995. Virola prices continued a general downward trend throughout the 1993-95 period. The increases in cedro and mahogany prices parallel the increases in prices of competing products. Continuing attempts to ensure that mahogany is sourced from sustainable supplies may lead to further price increases for this species. Prices of Latin American sawnwood exports in general should remain stable or increase in response to improved economic performance in the major markets for this product (the U.S. and the U.K.).

Veneer

Veneer prices are not included at this stage in the ITTO/ITC Market News Service price database. This is likely to be rectified in upcoming phases of the project, particularly as several producers are now exporting substantial quantities of veneer. Tropical veneer prices are not regularly quoted by any other available sources. Based on the export value data in Appendix 3, the nominal unit FOB price of Malaysian veneer exports was $408/m^3$ in 1993. African unit values for veneer exports are generally higher, but the export values and/or volumes reported by some of the African countries may not be reliable. Average values for veneer species traded are also given for several countries in Appendix 6, based on country responses to the ITTO Enquiry. Brazil's nominal unit value for veneer exports in 1993 was $257/m^3$. The regional price differences reflect species and market differences, as well as price differentials for sliced decorative and peeled core veneers. Although little data is available on veneer prices, it is reasonable to assume that prices will remain stable or increase as exports decline and major plywood manufacturers like Japan, Korea, China and the EU continue to seek substitutes for dwindling tropical log supplies. Appendix 6 (Table 6-2-c) shows that while African and Latin American countries exported a range of species as veneer in 1994, most of Malaysia's exports are of three species: meranti, kapur and keruing.

Plywood

Plywood export prices are generally regulated by price lists issued by trade associations [Indonesia (APKINDO) - INDO 93; Malaysia - M88; Brazil - K14 and BR94], with prices quoted as

per the list plus a given percentage (e.g. M88 plus 20). The ITTO database converts these quotes into nominal and real dollar figures. Note that the plywood price lists are based on CIF prices - in the case of the first three graphs in Appendix 7 Europe is the common destination for comparison purposes. Appendix 7 includes graphs showing trends in real prices for Indonesian, Malaysian and Brazilian plywood. The ITTO plywood price database has only been updated to the end of 1994; a more complete plywood price series will be included in the next version of the Review. Two graphs showing plywood price trends in Japan (the major import market for this product) through 1995 have been included.

Plywood prices from all three of the exporting countries shown in Appendix 7 have been quite volatile throughout the 1993-95 period. The inter-dependence and competition between the three countries is evident in the similar trends observed in the charts. Plywood prices increased quite markedly from all three suppliers following the increases in Asian log prices in 1993 discussed previously. Real prices peaked at $\$550/m^3$ from Indonesia and $\$580/m^3$ from Malaysia in mid-1993, with Brazilian exports hitting their peak of just over $\$450/m^3$ a couple of months later. Prices from all three exporters dropped sharply in 1994, however, due to competition with each other and with substitute products for market share. The price volatility shown by the charts in Appendix 7 has led to substantial confusion amongst both importers and suppliers of tropical plywood, making any prediction of future price trends difficult. Further significant decreases appear unlikely, however, as real production costs, especially labour, are increasing in most producing countries. Current trends, based on the Japanese price graphs in Appendix 7, show slightly increasing real (and nominal) prices in 1995. The primary species contained in export plywood in 1994 are given in Appendix 6 (Table 6-2-d) for those countries which reported this data.

Country Notes

The following notes provide details of relevant developments in ITTO producing countries during 1994 and 1995, including information on trade barriers, new or increased processing capacity and domestic economic trends solicited through the ITTO Enquiry. Information from other sources was included where relevant and available. The notes, grouped by producing region, are not meant to be comprehensive country reports. They provide a synopsis of some of the relevant forest sector and related developments in several ITTO producing nations during the period under review.

Cameroon

Cameroon imports only small volumes of timber. Import tariff rates depend on the product price and the country of origin, and are lowest for those timber products that originate from countries belonging to the Central African Customs Union. In July 1994 Cameroon approved a balanced 1995/1996 budget which included a 25 percent tax on the value of all logs exported.

Cameroon adopted a tropical timber trade law at the end of 1993 limiting the size of forest concessions to 200 000 ha and reducing the maximum duration of a concession to 15 years. In 1994, the government introduced a law by which concessionaires would be permitted to export a maximum of 30 percent of their annual cut as logs. After five years, this would be reduced to zero, so that the entire volume harvested would have to be processed in Cameroon. Tax-free zones have been established to encouraging the processing and export of finished products.

The export market for Cameroon timber experienced good growth in 1993-94, but stagnated in 1995 due to Asian competition and a consumer perception that prices were too high. Secondary species such as ekop and bete are in demand in the local markets, and the Government of Cameroon is seeking to increase the export of such species, which have doubled in the past 3 years, in both volume and value.

As a result of the devaluation of the CFA franc, more timber is being utilized domestically, replacing aluminum in doors and windows. The devaluation has also caused an increase in the cost of cooking gas, leading to an increase in the use of firewood.

Côte d'Ivoire

In April 1995, the Forestry Department of Côte d'Ivoire introduced a temporary ban on logging to allow the introduction of a new form of forest concession distribution. This is to be based on an assessment of the applicant company's performance since 1988 according to certain criteria including the degree to which the company has increased its value-added facilities and assisted rural development.

In September 1995, the Government of Côte d'Ivoire announced a ban on the export of raw timber in an attempt to boost its local wood processing industry and to protect its remaining forests.

Felling taxes on logs produced for export range from 200 to 600 CFA franc per m^3, based on the value of the species harvested. The rate on logs for local processing is one half of the export rate. Log export quotas have been distributed by SODEFOR via an auction system since 1992. All species of logs are now subject to these quotas. In addition, several species including acajou (mahogany), bosse and sipo have been banned from export in log form since 1993. Duties on logs that are allowed to be exported are in the range of 5-35 percent.

Housing starts and domestic timber consumption fell in 1994 as falling commodity prices depressed the economy. Little improvement is foreseen in 1995 as consumer confidence and purchasing power has been eroded by the CFA franc devaluation.

Gabon

Restructuring of the Société Nationale des Bois du Gabon (SNBG) was initiated in 1992 and will be completed by the end of 1995. The restructuring will partially privatize the SNBG with the state retaining a 51 percent stake. The restructured SNBG will have a monopoly on the trade in okoumé and ozigo, Gabon's most important timber species.

Following the 1994 devaluation of the CFA franc, the forest sector has experienced a significant increase in activity which has led to an increase in the number of forestry companies in operation. It has also led to increased demand for some secondary species for which previously there was little demand. Domestic demand has been strong for the construction of hardwood housing and schools.

Ghana

A draft Forest Industry Development Master Plan is currently before the Government of Ghana for its study. Programs drawn up in this plan are aimed at turning the timber industry into a major producer of value-added wood products.

Logs of obeche/wawa were banned from export in early 1994, bringing the number of timber species banned from export in log form to eighteen. The complete ban on exports of logs and green/air-dried timber, expected by the end of 1995, is still pending. Temporary harvest bans have been placed on ceiba and chenchen, which together accounted for about 54 percent of total log exports in 1994, primarily to new Asian markets. These species occur primarily in the non-forest reserve areas and are easily accessible for extraction. The government has instituted export levies which range from 8.5 to 50 percent of F.O.B. value on selected species in log and lumber forms. These levies, used to support afforestation and reforestation programs, were extended to unprocessed timber of scarce species (10-30 percent levy) and air-dried lumber of several species (5-25 percent levy) by the new Trees and Timber (Amendment) Bill which was passed by parliament in late 1995. The government hopes to curb the rapid increase in the volume of logs harvested for export observed in 1993-94 (see Markets, Trade and Prices).

Domestic building activity and housing starts are still increasing due to a government policy to provide housing for all by 2000. Interest rates have been reduced and several other forms of support have been implemented to encourage construction. Substitution of plastic for wood has been observed in the manufacture of crates, tables and chairs for the domestic market. The exploitation of lesser used species is increasing in line with increased log exports and bans/levies on better known species. The government is promoting the development of a rattan/cane processing industry. The use of plantation teak for domestic power poles and lumber is increasing.

The Forestry Department has assumed responsibility for the management of the nation's timber resources outside the Forest Reserves and has begun a survey of the timber in these areas. This measure is intended to bring to sustainable levels the harvesting of timber outside the reserves. A National Timber Task Force has been formed to eradicate illegal chainsaw operators operating outside the reserves.

Liberia

Liberia's recent civil war has resulted in the 'creaming' of the natural forests by the warring factions, neglect of plantations and damage to infrastructure, as well as overall damage to the country's economy. With the war apparently at an end, renewed efforts may soon be made to revitalize the timber industry.

India

India's forest cover continues to decrease while demand for timber increases. The government has proposed a plan to lease large tracts of degraded forest and wasteland to wood-based industries for

commercial planting. The government will ask industry to grow forest species on 15–20 per cent of the degraded land on lease.

India imposes a 15 percent duty on log imports (5 percent from Myanmar), with a 50 percent tariff on other forest products. Previously, most products other than logs were banned from import unless they were offset by exports of a finished product.

Indonesia

By presidential decree, the clearing of forests by fire in Indonesia is now banned. This follows large fires in 1994 which are reported to have destroyed some 5 million hectares of forest.

In the face of falling plywood exports, Indonesia's Association of Wood Panel Producers (APKINDO) and the Indonesian Government are currently discussing reform of the country's plywood marketing system.

Due to increased domestic demand for pulp and paper, a policy to expand the capacity of this processing industry is being promoted. Plantations of fast-growing hardwood species are being established by the Government of Indonesia through its Ministry of Forestry to meet the anticipated increase in wood demand by the pulp and paper industry.

Indonesia's Panin group was awarded a 50-year concession covering 1.43 million hectares of forest in the northeast of Cambodia in 1995.

Malaysia

Log and sawnwood imports to Malaysia are duty free, as are imports of face veneer. Core veneer and mouldings have an import tariff of 25 percent, while the tariff on plywood imports is 45 percent. Peninsular Malaysia and Sabah both prohibit the export of logs, the latter since January 1994. While there are no plans to further expand the forest industry of Sabah, several projects are planned in Sarawak. The state's first MDF mill will be built by a Japanese joint venture with the Sarawak Timber Development Corporation and other local investors.

Domestic building is expected to continue buoyant over the next 2–3 years, boosted by large projects such as the new airport at Sepang, the Kuala Lumpur City Complex and infrastructure development projects in preparation for the Commonwealth Games in 1998 in Kuala Lumpur. Building of low to medium cost houses will continue to be the government's priority in Malaysia's five year plan. Timber consumption in the form of finished products such as wooden doors, windows, panels and cabinets will also increase in the housing and building sectors.

The Malaysian state of Sabah has changed its rules on the allocation of timber concessions. A committee on the implementation of forestry policy has been established which will oversee the allocation of timber concessions through a tendering system. In Sarawak, the construction of the Bakun dam will result in the clearing of 69 000 hectares of forest, producing timber reported to be worth $200 million.

The European Union announced funding for a project to map and monitor Malaysia's forests. The project aims to produce detailed maps of woodland areas in Peninsular Malaysia and will provide training in the use of the maps and databases for Malaysian State Forestry Department personnel.

Malaysia is actively promoting further processing industries, such as value-added furniture and joinery, for export. Chipboard, medium density fibreboard and laminated board production capacities are also expected to increase.

Papua New Guinea
PNG reported 1995 import tariff levels of 30 percent on logs and sawnwood, and 175 percent on plywood and veneer. Current government policy is to reduce log exports by 10 percent each year from 1995-2000, following which a log export ban is to be imposed.

Papua New Guinea is setting up a domestic logging code in line with a structural adjustment program laid down by the World Bank and the International Monetary Fund in granting a $340 million concessional loan to the nation.

Philippines
In its response to the 1995 Enquiry, the Government of the Philippines noted that no expansion of tropical timber processing capacity is expected in the next few years, citing a lack of raw material supply and excess mill capacity. The major concern of government now is the infusion of new machinery and equipment to increase the efficiency and competitiveness of local processors in the world market.

The Philippines imposes import tariffs of 3 percent on logs, 30 percent on sawnwood and 50 percent on veneer and plywood. Log and sawnwood exports are restricted to those arising from plantation forests or (for sawnwood) from imported logs.

Thailand
Since 1988, a tariff of one percent has been imposed on imported logs and two percent for sawnwood (except for planed, sanded or finger-jointed products). As of 1 January 1995, tariffs on many wood products have been reduced. For those products bearing certificates of origin from ASEAN countries, further reductions apply.

In its response to the 1995 Enquiry, the Government of the Thailand noted that no licenses for new sawmills will be issued, except for those that utilize rubberwood as their raw material. Increased capacity in existing wood processing mills is not expected because the industry has to rely heavily on imported raw material. However, there has been an increase in the number of sawmills intended specifically for the processing of *Hevea brasiliensis* (rubberwood) and *Eucalyptus* species which are readily available from plantations. A 1989 government policy banned logging in and restricted the export of roundwood from Thailand's natural forests. A 1993 government policy restricts the re-export of imported logs. Thailand's major import species are various *Dipterocarpus* species and *Tectona grandis* (teak). Exports primarily consist of rubberwood and teak finished products. Demand for housing is growing due to increasing population. However, the scarcity of wood necessitates non-wood substitutes in construction. The trend is toward using wood in only minor housing components. The Thai timber processing industry has been supplementing its timber supplies from neighbouring Cambodia, a practice which has been the focus of recent controversy between the two countries.

The state-owned Thai Plywood Company plans to build a Bt1.4 billion MDF factory in Saraburi and has also acquired a plot on which to build another plywood plant in the same town, presumably to process rubberwood and/or imported logs. This is despite recent erosion of Thai Plywood's profits by rising timber costs.

Brazil
Brazil has no import tariffs on logs, sawnwood or veneer. A 10 percent tariff is imposed on plywood. Export quotas are imposed on products of several species, including mahogany and virola. No significant changes are foreseen in the species composition of Brazilian trade. Domestic wood consumption was stagnant in 1994 due to declines in domestic construction.

In recent years, Brazil's softwood resource has started to enter the market, accounting for large increases in the export of plywood and sawnwood products. One source estimated that 5.3 million m^3 of pine would be available to the industry in southern Brazil in 1995.

As part of a ¥100 million package, Japan's Forestry and Forest Products Research Institute will supply remote sensing technology to allow researchers to map and study diversity and growth factors in damaged forest near Manaus in the Brazilian Amazon via satellite. The project is funded by the Japan International Cooperation Agency.

Another surveillance system, on a far larger scale, is also planned for the Amazon. The Brazilian government plans to spend a reported $1.4 billion to establish a monitoring system involving the use of satellites, radar, other high-tech sensors and computerized information processing centers. The system will have a number of security and environmental functions. For example, it will be used to detect sites of deforestation and to identify boundaries and monitor the use of Indian reserves, national parks and other reserved areas. It will also help map soil, terrain, minerals and vegetation to facilitate effective ecological and economic zoning of the Amazon.

Meanwhile, a new map of Brazil produced using radar measurements and aerial photographs has shown that about 100 000 square kilometers in the Amazon is prone to flooding, considerably less than previously thought.

It has been reported that burning of the forest by farmers to clear land is apparently on the rise again in the Amazon after years of decline. Based on satellite photographs, researchers reported a five-fold increase in fires in July 1995 compared to the same month in 1994, although it was not possible to determine whether primary forest was being destroyed.

Colombia

Colombia imposes tariffs on forest products imports from all countries outside the Andean Pact as follows: logs and sawnwood - 20 percent; veneer and plywood - 50 percent. The government has also approved Forest Incentive Certificates (CIF) to encourage timber production, and Tax Reimbursement Certificates (CERT) to encourage timber exports. Currently only 17 of 150 commercial timber species in Colombia make up over 70 percent of production, showing the potential of lesser used species. Minor forest products do not contribute significantly to Colombia's forest economy.

Guyana

The growing interest in certification has affected at least one timber export contract from Guyana. The Borough Council in southern England placed a contract for 12 000 m^3 of Guyanese greenheart (*Chlorocardium rodiei*) to be used in the renewal of groynes at Eastbourne on the south coast. The contract was placed on the understanding that the timber would carry a 'meaningful' certificate demonstrating that it was obtained from a sustainable source. The contract was withdrawn when it was determined that the certificate had been issued by the company responsible for supplying the timber, although the company had commissioned a report from an independent certification agency. The Borough Council has demanded that the timber be accompanied by a Forest Stewardship Council-approved certificate, and the re-certification process is apparently underway.

Peru

Tariffs on the import of timber to Peru stand at 15 percent of FOB value. With mortgage/interest rates declining in the country, a corresponding increase in construction is expected, leading to an increase in demand for construction timber.

Venezuela

Import tariffs into Venezuela are 5 percent for logs and between 10 and 15 percent for further processed forest products. However, imports from other Andean Pact countries are duty-free.

Venezuela sees the main obstacles to further development of its forest products industry as a lack of quality standards, the small range of species currently being utilized and obsolete or inadequate technology. The high price of concrete relative to timber means that timber could become more widely used in the construction industry. However, the low production capacity of the timber processing industry and the lack of kiln-drying facilities is restricting development of this domestic market.

References

The following reference texts, periodicals, etc. were consulted in the preparation of the Review:

ATIBT. 1982. *Tropical Timber General Nomenclature*. Paris.

ECE/FAO Timber Bulletin. 1994(a). *Forest Products Prices 1992-1994*. Volume XLVII, No. 1. Geneva.

Ibid. 1994(b). *Forest Products Annual Market Review 1993-1994*. Volume XLVII, No. 3. Geneva.

Ibid. 1994(c). *Forest Products Trade Flow Data 1992-1993*. Volume XLVII, No. 5. Geneva.

Ibid. 1994(d). *Forest Products Markets in 1994 and Prospects for 1995*. Volume XLVII, No. 6. Geneva.

FAO. 1993. *Forest Resources Assessment 1990 - Tropical Countries*. Rome.

Ibid. 1994. *Monthly Bulletin: Tropical Forest Products in World Timber Trade. 1993 Annual Totals*. Rome.

Ibid. 1995. *Forest Products Yearbook-1993*. Rome.

ITTO 1994. *Report of the Working Party on Certification of All Timber and Timber Products.* Document PCM,PCF,PCI (XIV)/3 Rev. 1. Yokohama.

Ibid. 1995. *Responses to the 1995 Forecasting and Statistical Enquiry.* Doc. ITTC (XIX)/4. Yokohama.

IMF 1995. *World Economic Outlook*. Washington, D.C.

Varangis, P., R.Crossley and C. Primo Braga, 1995. *Is there a Commercial Case for Tropical Timber Certification?* World Bank Policy Research Working Paper 1479. Washington, D.C.

World Bank. 1994. *Market Outlook for Major Primary Commodities*. Washington D.C.

Various 1994-95 issues of the following publications were also consulted:

Asian Timber	Maskayu
Asia Pacific Forest Industries	ITTO/ITC Market News Service
Brazil Environment	Tropical Timbers
The Economist	Unofficial Reports, USDA Foreign Ag. Service
E-Sheet	World Rainforest Report
Far East Economic Review	World Wood
Financial Times	World Bank Quarterly Rev. of Commodity Markets
Japan Times	Japan Forest Products Journal
Malaysian Timber Bulletin	Japan Lumber Journal

Appendices

The following Appendices contain data on production, trade and consumption by country (Appendix 1), major trade flows by product (Appendix 2), value of trade by producers and consumers (Appendix 3), tropical forest areas (Appendix 4), industrial structure (Appendix 5), major species traded by country (Appendix 6), and prices for major tropical timber products (Appendix 7).

In Appendix 2, figures reported by exporters are shown in bold typeface in shaded rows while those corresponding to import reports are in italics in non-shaded rows. Only major trading relationships are singled out in Appendix 2. Totals may not sum due to rounding, incomplete data or (in Appendix 1) the existence of stock changes.

The sources indicated below are applicable to all tables. The notes are of relevance to one or more tables.

Sources: 1995 ITTO Forecasting and Statistical Enquiry. Other sources are indicated by the superscripts after the figures (I: ITTO estimate; F: ECE/FAO Timber Bulletin; M: FAO Monthly Bulletin; Y: FAO Yearbook; * : Other unofficial data including statistical reports, Year 2000 progress reports, ITTO project reports, USDA Foreign Agricultural Service reports, etc.).

Notes: Apparent Domestic Consumption = Production + Imports - Exports +/- Stock Change (if reported).
The following countries reported realistic levels of stock changes for one or more products which are reflected in Apparent Domestic Consumption figures: The Netherlands, Japan, Republic of Korea, USA, Gabon, Ghana, Myanmar.
The superscript "A" indicates adjustment from veneer area to volume assuming an average veneer sheet thickness of 1 mm.
The superscript "D" indicates adjustment to calendar year figures from figures provided for portions of a calendar year or for a non-calendar fiscal year.
The superscript "R" indicates a figure rounded down to 0.
The superscript "W" indicates adjustment from weight to volume assuming the following factors: logs - 1.37 m^3/ton; sawnwood - 1.43 m^3/ton; veneer - 1.33 m^3/ton; plywood - 1.54 m^3/ton.
Blanks in tables imply no data available and impossible to reliably estimate.
Export values in Appendices 3 and 6 are FOB; import values are CIF.

The following ITTO members did not respond to the 1995 ITTO Forecasting and Statistical Enquiry: Russian Federation, European Union, India, and Trinidad & Tobago.

Appendix 1

Production, Trade and Consumption of Tropical Timber, 1991-95

Appendix 1.

Table 1-1. Production, Trade and Consumption of Tropical Timber by ITTO Consumers (1000 m3)

		Production					Imports					Exports					Domestic Consumption				
Country	Product	1991	1992	1993	1994	1995	1991	1992	1993	1994	1995	1991	1992	1993	1994	1995	1991	1992	1993	1994	1995
Australia	Logs	415 I	395 I	365 I	285 I	285 I	0	0	2	5	2	4	1	0	0	0	411	394	367	290	287
	Sawn	205 I	190 I	180 I	140 I	140 I	154	145	170	139	140	0	1	0	0	0	359	334	350	279	280
	Ven	0 I	0 I	0 I	0 I	0 I	2	2	11	16	12	0	1	0	0	0	2	1	11	16	12
	Ply	0 I	0 I	29	26	15	20	28	42	43	45	0	2	0	0	0	20	26	71	69	60
Canada	Logs	0	0	0	0	0 I	1	2	1	1	1 I	0	0	0 R	0	0 I	1	2	1	1	1
	Sawn	0	0	0	0	0 I	15	19	14	20	20 I	1	1	1	2	2 I	14	18	13	18	18
	Ven	0	0	0	0	0 I	2	1	2	3	3 I	0	0	0 R	1	1 I	2	1	2	2	2
	Ply	0	0	0	0	0 I	53	58	74	69	70 I	3	6	3	2	2 I	50	52	71	67	68
China	Logs	100 I	300 I	550 I	550 I	550 I	1395	1776	1595	2030	2000 I	17	1	9	74	75 I	1478	2075	2136	2506	2475
	Sawn	350 I	350 I	350 I	450 I	450 I	88	559	703	717	700 I	0	5	22	18 *	15 *	438	904	1031	1149	1135
	Ven	0 I	0 I	0 I	0 I	0 I	27	217	287	193	200 I	0	1	0 R	15	15 I	27	216	287	178	185
	Ply	350 I	500 I	525 I	650 I	650 I	1417	1424	1371	1094	750 I	0	0	6 *	22 *	30 *	1767	1924	1890	1722	1370
(Taiwan	Logs	24 *	15 *	6 *	5 *	5 I	4218 *	3961 *	2180 *	2000 *	2000 I	3 *	5 *	13 *	6 *	6 I	4239	3971	2173	1999	1999
Province)	Sawn	450 I	400 I	250 I	275 I	300 I	529 *	709 *	1052 *	900 *	950 I	14 *	12 *	15 *	18 *	17 I	965	1097	1287	1157	1233
	Ven	300 I	250 I	100 I	150 I	200 I	146 *	226 *	204 *	194 *	220 I	0 *	0 *	4 *	4 *	4 I	446	476	300	340	416
	Ply	1250 I	1200 *	700 I	550 I	500 I	432 *	741 *	788 *	800 *	830 I	204 *	159 *	110 *	110 *	100 I	1478	1782	1378	1240	1230
Egypt	Logs	0	0	0	0	0 I	20 I	20 I	35 I	42 I	45 I	0	0	0	0	0 I	20	20	35	42	45
	Sawn	3 I	3 I	3	4	5 I	30	18	16	6	5 I	0	0	0	0	0 I	33	21	19	10	10
	Ven	5 I	5 I	8 I	8 I	8 I	0	0	8 F	5 I	5 I	0	0	0	0	0 I	5	5	16	13	13
	Ply	0	0	5	7	8 I	119 *	90 *	125 *	140 *	150 I	0	0	0	0	0 I	119	90	130	147	158
EU	**Logs**	**0**	**0**	**0**	**0**	**0**	**3178**	**2768**	**2435**	**2527**	**2416**	**78**	**83**	**62**	**47**	**45**	**3106**	**2685**	**2375**	**2483**	**2371**
(15 Coun-	**Sawn**	**782**	**695**	**570**	**594**	**621**	**2955**	**2913**	**2599**	**2486**	**2479**	**311**	**282**	**188**	**177**	**167**	**3450**	**3348**	**2969**	**2945**	**2933**
tries)	**Ven**	**275**	**221**	**202**	**209**	**204**	**297**	**239**	**216**	**234**	**226**	**55**	**44**	**34**	**37**	**34**	**517**	**412**	**394**	**406**	**396**
	Ply	**514**	**455**	**430**	**441**	**415**	**1505**	**1657**	**1370**	**1287**	**1271**	**222**	**186**	**138**	**100**	**97**	**1797**	**1908**	**1671**	**1628**	**1589**
Austria	Logs	0	0	0	0	0	3	2	3	1	1	0	2	0	0	0	3	0	3	1	1
	Sawn	2	0	2	0	0	19	17	13	15	13	0	1	1	1	1	21	16	14	14	12
	Ven	0	0	0	0	0 I	1	1	1	1	1	0	0	0	0	0	1	1	1	1	1
	Ply	0	0	0	0	0 I	1	2	1	1	1	0	0	0	0	0	1	2	1	1	1
Belgium	Logs	0	0	0	0	0	32	80	40 I	44	40	18	17	0	0	0	14	63	40	44	40
Luxem-	Sawn	6	20	15	12 *	12	250	210	155	155	150	53	62	0	0	0	203	168	170	167	162
bourg	Ven	1	5	5 *	5 *	5 I	18	16	12	11	10	7	5	0	0	0	12	16	17	16	15
	Ply	4	10	5 I	16	15	139	148	170	136	135	54	48	0	0	0	89	110	175	152	150

Table 1-1. Production, Trade and Consumption of Tropical Timber by ITTO Consumers (1000 m3)

		Production					Imports					Exports					Domestic Consumption				
Country	Product	1991	1992	1993	1994	1995	1991	1992	1993	1994	1995	1991	1992	1993	1994	1995	1991	1992	1993	1994	1995
Denmark	Logs	0	0	0 I	0 I	0 I	2	2	2	2	3 D	0	0	0 R	1	0	2	2	2	1	3
	Sawn	0	1	1 I	1 I	1 I	16	21	19 W	24 W	27 D	4	4	3 W	5 W	5 D	12	18	17	20	23
	Ven	0	0	0 I	0 I	0 I	8	5	3 W	5 W	7 D	2	1	1 W	1 W	2 D	6	4	2	4	5
	Ply	1	0	0 I	0 I	0 I	40	50	40 W	26 W	33 D	7	6	3 I	1 I	2 I	34	44	37	25	31
Finland	Logs	0	0	0	0	0	0	0	0	0	0 I	0	0	0	0	0 I	0	0	0	0	0
	Sawn	0	0	0	0	0	8	6	7	8	8 I	1	0	0	0	0 I	7	6	7	8	8
	Ven	0	0	0	0	0	1	1	1	1	1 I	0	0	0	0	0 I	1	1	1	1	1
	Ply	0	0	0	0	0	1	0	1	1	1 I	0	0	0	0	0 I	1	0	1	1	1
France	Logs	0	0	0	0	0	878	880 *	895 *	881 *	900 I	14	18 W	30 W	30 I	30 I	864	862	865	851	870
	Sawn	240	296	231	250	280	464	354 *	360 *	324 *	325 I	21	12 W	10 W	14 W	10 W	683	638	581	560	595
	Ven	5	0	0	0	0	20	19	18 M	20 I	20 I	3	3	5 *	3 I	3 I	22	16	13	17	17
	Ply	190 I	150 I	190 I	180 I	160 I	213	189 W	180 M	195 *	200 I	88	54 *	44 *	25 *	25 I	315	285	326	350	335
Germany	Logs	0	0	0	0	0	317	281	213	192	150 F	24	16	14 *	5 F	5 F	293	265	199	187	145
	Sawn	65	50	40 F	35 F	30 F	416	353	240	259	250 I	40	40	32 *	33 *	30 F	441	363	248	261	250
	Ven	25	20	20 I	20 I	20 I	85	85	77	72	70 I	22	19	10 *	16 *	15 I	88	86	87	76	75
	Ply	60	60	45 I	40 I	30 I	202	218	193	195	200 I	0	3	4 *	4 I	4 I	262	275	234	231	226
Greece	Logs	0	0	0 I	0 I	0 I	170	150 I	117 *	110 I	110 I	0	0	1 *	0 I	0 I	170	150	116	110	110
	Sawn	35	25	10 *	10 I	10 I	24	51	27 *	30 I	30 I	4	6	4 *	4 I	4 I	55	70	33	36	36
	Ven	7	0	4 I	4 I	4 I	4	4	2 *	2 I	2 I	0	0	2 *	0 I	0 I	11	4	4	6	6
	Ply	40	45 I	40 I	35 I	35 I	5	4	2 *	2 I	2 I	10	10 I	17 *	10 I	10 I	35	39	25	27	27
Ireland	Logs	0	0	0	0 I	0 I	0	2 W	2 W	7 W	2 I	0	1 W	0 R	0 R	0 I	0	1	2	7	2
	Sawn	0	1 I	1 I	3 I	1 I	55	11 W	51 W	79 W	55 I	4	3 W	10 W	2 W	2 I	51	9	42	80	54
	Ven	0	0	0	0 I	0 I	1	1 W	1 W	1 W	1 I	0	0 RW	0 R	0 R	0 I	1	1	1	1	1
	Ply	0	0	0	0 I	0 I	12	13	13	14 W	15 I	0	0 RW	0 R	0 R	0 I	12	13	13	14	15
Italy	Logs	0	0	0	0	0 I	674	439	438	476	440 F	0	0	3 *	0 *	0 I	674	439	435	476	440
	Sawn	175	100	100 *	100 I	120 I	363	360	369	420	400 I	0	0	9 *	8 *	5 I	538	460	460	512	515
	Ven	150	115	80 *	85 I	90 I	130	69	58	72	70 I	2	2	2 *	2 I	2 I	278	182	136	155	158
	Ply	10	8	20 *	20 I	20 I	47	53	35	49	50 I	9	9	8 *	10 I	10 I	48	52	47	59	60
Netherlands	Logs	0	0	0	0	0 I	117	123	111	120	111 F	16	18	11	10	8 I	108	105	102	113	103
	Sawn	52	40	46	51	50 I	525	578	587	461	500 F	167	141	106	92	90 F	433	499	515	462	460
	Ven	11	21	18	20	20 I	10	13	13	12	10 I	7	6	7	9	7 I	14	24	34	23	23
	Ply	0	11	10	10	10 I	287	322	238	162	150 I	36	37	36	28	25 I	251	278	221	144	135
Portugal	Logs	0	0	0	0	0	419	455	329	343	320 I	4	10	2	0	1 I	415	445	327	343	319
	Sawn	120	105	100 F	100 I	85 I	19	41	33	31	23 F	6	4	4	7	10 F	133	142	129	124	98
	Ven	25	40	45 I	45 I	35 I	1	2	1	2	2 I	2	2	2	2	2 I	24	40	44	45	35
	Ply	65	65	25 Y	35 I	40 I	0	1	1	4	5 I	0	3	1	2	2 I	65	63	25	37	43

Table 1-1. Production, Trade and Consumption of Tropical Timber by ITTO Consumers (1000 m3)

		Production					Imports					Exports					Domestic Consumption				
Country	Product	1991	1992	1993	1994	1995	1991	1992	1993	1994	1995	1991	1992	1993	1994	1995	1991	1992	1993	1994	1995
Spain	Logs	0	0	0	0	0	540	334	265	326	320 I	1	0	0 R	0 R	0 I	539	334	265	326	320
	Sawn	80	50	17 F	25 F	25 F	352	358	282	222	250 I	0	0	1	3	2 I	432	408	298	244	273
	Ven	50	20	30 *	30 I	30 I	5	5	10 *	10 I	10 I	2	1	1 I	1 I	1 I	53	24	39	39	39
	Ply	140	100	90 I	100 I	100 I	9	10	8 *	10 I	10 I	15	0	12 *	10 I	10 I	134	110	86	100	100
Sweden	Logs	0	0	0	0	0	2	1	1	2	2 I	0	0	0	0	0 I	2	1	1	2	2
	Sawn	1	1	1	1 I	1 I	9	6	6	8	10 F	1	0	0	0	0 I	9	7	7	9	11
	Ven	0	0	0	0 I	0 I	2	1	1	2	2 I	0	0	0	0	0 I	2	1	1	2	2
	Ply	0	0	0	0 I	0 I	13	13	10	7	5 I	0	0	0	0	0 I	13	13	10	7	5
United	Logs	0	0	0	0	0	24	19	19	23	17	1	1	1	1	1	22	18	18	22	16
Kingdom	Sawn	6	6 I	6 I	6 I	6 I	435	547	450	450	438	10	9	8	8	8	432	544	448	448	436
	Ven	1	0	0	0	0	11	17	18	23	20	8	5	4	3	2	4	12	14	20	18
	Ply	4	6 I	5	5	5	536	634	478	485	464	3	16	13	10	9	537	624	470	480	460
Japan	Logs	0	0	0	0	0	10402	10990	8324	7632	6550	0	0	0	0	0	10402	13010	9811	9071	7816
	Sawn	1000	1364	1050	1030	1009	1013	1248	1805	1642	1500	0	0	0	0	0	2013	2674	2917	2721	2557
	Ven	303	274	218	181	166	250 I	192	239	160	132	1	12	8	8	8	552	495	508	375	290
	Ply	6062	5477	4576	3988	3688	2941	2882	3864	3791	4074	6	1	8	1	1	8997	9176	9609	8703	8669
Nepal	Logs	0	0	0	0	0	0	0	5	4	5 I	0	0	0	0	0 I	0	0	6	5	5
	Sawn	0	0	2 I	2 I	2 I	10	10	10 I	10 I	10 I	0	0	0 I	0 I	0 I	10	10	12	12	12
	Ven	0	0	0 I	0 I	0 I	0	0	2 I	2 I	2 I	0	0	0 I	0 I	0 I	0	0	2	2	2
	Ply	0	0	0 I	0 I	0 I	0	0	0 Y	0 I	0 I	0	0	0 I	0 I	0 I	0	0	0	0	0
New	Logs	0	0	0	0	0 I	0	0	0	0	0 I	0	0	0	0	0 I	0	0	0	0	0
Zealand	Sawn	0	0	0	0	0 I	9	3	3	2	2 I	0	0	0	0	0 I	9	3	3	2	2
	Ven	0	0	0	0	0 I	0	1	0	0	0 I	0	0	0	0	0 I	0	1	0	0	0
	Ply	0	0	0	0	0 I	1	1	1	1	1 I	0	0	0	0	0 I	1	1	1	1	1
Norway	Logs	0	0	0	0	0 I	0	0	0	0	0 I	0	0	0	0	0 I	0	0	0	0	0
	Sawn	0	0	0	0	0	4	4	4	5	5 I	0	0	0	0	0	4	4	4	5	5
	Ven	0	0	0	0	0 I	1	1	1	1	1 I	0	0	0	0	0	1	1	1	1	1
	Ply	0	0	0	0	0 I	11	15	12	7	10 I	0	1	0	0	0 I	11	14	12	7	10
Republic	Logs	0	0	0	0	0	3690	3173	2103	1944	1900 *	0	0	0	0	0 *	3424	2973	2103	1944	1900
of	Sawn	841	655	503	365 *	300 *	747	716	970	617	700 *	2	1	0	0	0 *	1454	1242	1473	982	1000
Korea	Ven	0	0	0	0	0 *	8	17	26	54	60 *	0	0	0	0	0 *	8	17	26	54	60
	Ply	1134	942	795 *	799 *	800 *	673	648	822	868	1000 *	2	4	1	1	40 *	1464	1295	1616	1666	1760
Russian	Logs	0	0	0	0	0	31	10	10 I	10 I	10 I	0	0	0 I	0 I	0 I	31	10	10	10	10
Federation	Sawn	15	5	5 I	5 I	5 I	10	8	8 I	8 I	8 I	0	0	0 I	0 I	0 I	25	13	13	13	13
	Ven	0	0	0 I	0 I	0 I	8	3	3 I	3 I	3 I	0	0	0 I	0 I	0 I	8	3	3	3	3
	Ply	0	0	0 I	0 I	0 I	10	2	3 I	3 I	3 I	0	0	0 I	0 I	0 I	10	2	3	3	3

Table 1-1. Production, Trade and Consumption of Tropical Timber by ITTO Consumers (1000 m3)

		Production					Imports					Exports					Domestic Consumption				
Country	Product	1991	1992	1993	1994	1995	1991	1992	1993	1994	1995	1991	1992	1993	1994	1995	1991	1992	1993	1994	1995
Switzerland	Logs	0	0	0	0	0	12	10	6	13	10 I	1	0	0 R	0 R	0 I	11	10	6	13	10
	Sawn	4	6	4 *	5	5 I	17	14	11	13	10 F	1	0	1	1	0 I	20	20	14	17	15
	Ven	2 I	1 I	1 *	1 I	1 I	4	1	1	0 R	0 I	1	0	0 R	0 R	0 I	5	2	2	1	1
	Ply	0	0	0	0	0 I	9	7	9	8	10 I	0	0	0 R	0 R	0 I	9	7	9	8	10
U.S.A.	Logs	0	0	0	0	0	6	4	5	4	1	6	11	4	2	2	0	0	1	2	1
	Sawn	0	0	0	1 I	1 I	196	193	175	222	188	27	39	40	37	34	169	154	135	186	155
	Ven	0	0	0	0	0	20	20	15 A	13 A	11 A	1	1	1 A	1 A	1 A	19	19	14	12	10
	Ply	0	0	0	0	0	934	1053	919	742	957	54	82	80	71	35	880	971	839	671	922
Consu-	**Logs**	**539**	**710**	**921**	**840**	**840**	**22953**	**22714**	**16701**	**16212**	**14940**	**109**	**101**	**88**	**129**	**128**	**23123**	**25150**	**19024**	**18366**	**16920**
mers	**Sawn**	**3650**	**3668**	**2917**	**2871**	**2838**	**5777**	**6559**	**7540**	**6787**	**6717**	**356**	**341**	**267**	**253**	**235**	**8963**	**9842**	**10240**	**9496**	**9368**
Total	**Ven**	**885**	**751**	**529**	**549**	**579**	**765**	**920**	**1015**	**878**	**875**	**58**	**59**	**47**	**66**	**63**	**1592**	**1649**	**1566**	**1403**	**1391**
	Ply	**9310**	**8574**	**7060**	**6461**	**6076**	**8125**	**8606**	**9400**	**8853**	**9171**	**491**	**441**	**346**	**307**	**305**	**16603**	**17248**	**17300**	**15932**	**15850**

Table 1-2. Production, Trade and Consumption of Tropical Timber by ITTO Producers (1000 m3)

		Production					Imports					Exports					Domestic Consumption				
Country	Product	1991	1992	1993	1994	1995	1991	1992	1993	1994	1995	1991	1992	1993	1994	1995	1991	1992	1993	1994	1995
Africa	**Logs**	**8842**	**8051**	**9097**	**10836**	**9660**	**2**	**1**	**0**	**0**	**0**	**3460**	**2719**	**3250**	**4003**	**3476**	**5384**	**5333**	**5873**	**6833**	**6274**
Total	**Sawn**	**1781**	**1912**	**1849**	**2256**	**2330**	**33**	**15**	**7**	**13**	**12**	**1020**	**1081**	**1028**	**1211**	**1135**	**794**	**846**	**833**	**1058**	**1207**
	Ven	**302**	**316**	**340**	**360**	**365**	**1**	**0**	**4**	**4**	**4**	**171**	**216**	**203**	**240**	**246**	**132**	**100**	**141**	**124**	**123**
	Ply	**162**	**144**	**158**	**162**	**167**	**20**	**21**	**21**	**15**	**15**	**53**	**66**	**70**	**82**	**91**	**129**	**99**	**113**	**95**	**91**
Cameroon	Logs	2290	2096	2815	3916	2995	0	0	0	0	0	971	652	647	1095	960	1319	1444	2168	2821	2035
	Sawn	277	400	420	725	715	0	0	0	0	0	179	150	142	215	120	98	250	278	510	595
	Ven	20	23	28	38	30	0	0	0	0	0	20	21	26	38	29	0	2	2	0	1
	Ply	85	55	63	78	80	0	0	0	0	0	30	30	40	60	70	55	25	23	18	10
Congo	Logs	572	635	511	600 I	600 I	0	0	0	0	0	319	308	240	278 *	300 I	253	327	271	322	300
	Sawn	54	53	40	40	40 I	3	4	4	4	4 I	27	28	18 *	25 *	25 I	30	29	26	19	19
	Ven	37	45	40	50	50 I	0	0	0	0	0 I	32	37	38	44	45 I	5	8	2	6	5
	Ply	0	2	2	2	2 I	16	15	15	15	15 I	0	0	0	0	0 I	16	17	17	17	17
Côte	Logs	2447	1994	1961	2416	2200 I	0	0	0	0	0 I	355	248	320	376	380 I	2092	1746	1641	2040	1820
d'Ivoire	Sawn	753	641	577	680	650 I	0	0	0	0	0 I	528	500	460	524	500 I	225	141	117	156	150
	Ven	185	195	195	205	200 I	0	0	0	0	0 I	84	120	110	116	120 I	101	75	85	89	80
	Ply	37	39	41	41	40 I	0	0	0	0	0 I	14	17	15	11	10 I	23	22	26	30	30
Gabon	Logs	1300	1395	1815	1909	1990 D	0	0	0	0 R	0	1100 I	1050 I	1500 I	1550 I	1650 I	200	345	341	359	340
	Sawn	85	155	153	173	170 I	10	4	0 R	1	1 I	65	136	147	130	130 I	30	23	11	44	41
	Ven	12	9	2	0 R	0 I	1	0	0	0	0 I	7	8	1	0 R	0 I	6	1	1	0	0
	Ply	10	16	13	11	10 I	2	4	6	0 R	0 I	6	16	13	10	10 I	6	4	10	1	0
Ghana	Logs	1229	1318	1682	1682	1500	0	0	0	0	0	215	182	496	572	100	1014	1136	1186	1110	1490
	Sawn	420	538	546 I	550 I	640	0	0	0	0	0	183	232	239	258	310	237	306	307	292	330
	Ven	30	28	61	57	75	0	0	0	0	0	19	24	26	35	46	11	4	35	22	29
	Ply	15	20	26	20	25	0	0	0	0	0	1	2	2	1	1	14	18	24	19	24
Liberia	Logs	593	197	10 I	25 I	60 I	0	0	0	0	0	411	183	5 I	20 I	40 I	182	14	5	5	20
	Sawn	75	7	2 I	3 I	10 I	0	0	0	0	0	15	2	0 I	0 I	0 I	60	5	2	3	10
	Ven	4	2	0 I	0 I	0 I	0	0	0	0	0	4	0	0	0 I	0 I	0	2	0	0	0
	Ply	2	0	0 I	0 I	0 I	0	0	0	0	0	1	0	0	0 I	0 I	1	0	0	0	0
Togo	Logs	20	36	15	16	15 I	2	1	0	0	0 I	0	0	0	1	1 I	22	37	15	15	14
	Sawn	12	13	6	5	5 I	20	7	3	8	7 I	0	0	0	0	0 I	32	20	9	13	12
	Ven	0	0	0	0	0 I	0	0	0	0	0 I	0	0	0	0	0 I	0	0	0	0	0
	Ply	0	0	0	0	0 I	1	1	0	0 R	0 I	0	0	0	0	0	1	1	0	0	0
Zaire	Logs	391	380	288	272	300 I	0	0	0	0 I	0 I	89	96	42	111	45 D	302	284	246	161	255
	Sawn	105	105	105 Y	80 I	100 I	0	0	0	0 I	0 I	23	33	22	59	50 I	82	72	83	21	50
	Ven	14	14	14 Y	10 I	10 I	0	0	4 Y	4 I	4 I	5	6	2	7	6 I	9	8	16	7	8
	Ply	13	12	13 Y	10 I	10 I	1	1	0 Y	0 I	0 I	1	1	0 Y	0 I	0 I	13	12	13	10	10

Table 1-2. Production, Trade and Consumption of Tropical Timber by ITTO Producers (1000 m3)

		Production					Imports					Exports					Domestic Consumption				
Country	Product	1991	1992	1993	1994	1995	1991	1992	1993	1994	1995	1991	1992	1993	1994	1995	1991	1992	1993	1994	1995
Asia	**Logs**	**99785**	**103395**	**96259**	**91674**	**89640**	**3495**	**3364**	**2609**	**2427**	**2361**	**22328**	**21229**	**13281**	**12266**	**11608**	**80952**	**85530**	**85587**	**81835**	**80393**
Pacific	**Sawn**	**27655**	**27370**	**26007**	**24936**	**24183**	**1536**	**1875**	**2357**	**3080**	**2975**	**6187**	**6434**	**6181**	**4999**	**4369**	**23004**	**22811**	**22213**	**22997**	**22789**
Total	**Ven**	**952**	**1512**	**2323**	**2242**	**1952**	**6**	**15**	**38**	**33**	**38**	**543**	**821**	**745**	**659**	**651**	**415**	**706**	**1616**	**1616**	**1339**
	Ply	**12340**	**13489**	**14372**	**14298**	**14838**	**33**	**55**	**41**	**32**	**33**	**10295**	**11544**	**12220**	**11899**	**12437**	**2078**	**2000**	**2193**	**2431**	**2434**
India	Logs	15812 Y	15812 Y	15812 Y	15000 I	15000 I	730 Y	694 Y	249	250 I	200 I	6	3	0	0 I	0 I	16536	16503	16061	15250	15200
	Sawn	8500 I	8500 I	8500 I	8000 I	8000 I	5 I	5 I	4	4 I	4 I	0	1 I	1	1 I	1 I	8505	8504	8503	8003	8003
	Ven	4 Y	4 Y	4 Y	4 I	4 I	0	4	1 Y	1 I	1 I	1	1	2	2 I	2 I	3	7	3	3	3
	Ply	360 Y	360 Y	360 Y	360 I	360 I	5	5 I	1	2 I	2 I	20 I	25 I	30	30 I	30 I	345	340	331	332	332
Indonesia	Logs	37000 I	37500 I	37000 I	35000 I	34000 I	0	0 I	10	10 I	10 I	0	0	0	0	0	37000	37500	37010	35010	34010
	Sawn	7500 I	7200 I	6800 I	6700 I	6500 I	0	0	0	0	0	936	711	639 Y	308 *	300 *	6564	6489	6161	6392	6200
	Ven	50	55	55 Y	50 I	50 I	0	0	18	10 I	10 I	31	30	13	10 I	10 I	19	25	60	50	50
	Ply	9958 *	10550 *	10689 *	9836 *	9500 *	0	0	0 I	0 I	0 I	8970	9761	9724	8852	8500 I	988	789	965	984	1000
Malaysia	Logs	39840	43510	37260	35672	35000	8	138	174	248	350	19320	17797	9382	8561	8000	20528	25851	28052	27359	27350
	Sawn	8970	9458	9223	8703	8200	20	85	152	322	350	4932	5417	5371	4560	3950	4058	4126	4004	4465	4600
	Ven	694	1302	2122	2072	1800	3	2	4	8	10	477	765	720	613	620	220	539	1406	1467	1190
	Ply	1429	2062	2774	3550	4450	20	8	26	17	15	1186	1670	2421	3004	3900	263	400	379	563	565
Myanmar	Logs	2783	2791	2050 Y	1500 I	1500 I	0	0	0	0	0	1500 I	1500 I	1029	600 I	700 I	1283	1291	1021	900	800
	Sawn	650 I	625 I	470 I	450 I	430 I	0	0	0	0	0	200 I	200 I	38	36	44	450	425	462	394	386
	Ven	0	0	0 R	0 R	0 R	0	0	0	0	0	0	0	0	0 R	0 R	0	0	0	0	0
	Ply	7	7	6	5	9	0	0	0	0	0	0	0	1	1	1	7	7	5	4	8
Papua	Logs	2200	2225	3050	3500	3250 I	0	0	0	0	0	1500	1929	2867	3100	2900 I	700	296	183	400	350
New	Sawn	320	140	74 Y	175 I	175 I	1	3	0 Y	0 I	0 I	3	5	3	3	4 D	318	138	71	172	171
Guinea	Ven	0	0	5 I	5 I	5 I	0	0	0 Y	0 I	0 I	0	0	0	0	0 I	0	0	5	5	5
	Ply	15	13	10 I	10 I	10 I	4	0	0 Y	0 I	0 I	0	0	0	0	0 I	19	13	10	10	10
Philippines	Logs	1919	1438	1022	940	865	357	500	569	380	251	2	0	1	4	7	2274	1938	1590	1316	1109
	Sawn	726	647	440	408	378	10	43	458	287	168	58	56	78	30	12	678	634	820	665	534
	Ven	54	80	65	39	23	0	0	3	0 R	0 R	30	22	7	30	15 *	24	58	61	9	8
	Ply	321	331	273	258	244	2	1	2	7	10	118	85	40	10	2	205	247	235	255	252
Thailand	Logs	231	119	65	62	25	2400	2032	1607 *	1539	1550 I	0	0	2	1	1	2631	2151	1670	1600	1574
	Sawn	989	800 I	500 I	500 I	500 I	1500	1739	1743	2467	2453	58	44	51	61	58	2431	2495	2192	2906	2895
	Ven	150	71	72	72	70	3	9	12	14	17	4	3	3	4	4	149	77	81	82	83
	Ply	250	166	260	279	265	2	41	12	6	6	1	3	4	2	4	251	204	268	283	267

Table 1-2. Production, Trade and Consumption of Tropical Timber by ITTO Producers (1000 m3)

		Production					Imports					Exports					Domestic Consumption				
Country	Product	1991	1992	1993	1994	1995	1991	1992	1993	1994	1995	1991	1992	1993	1994	1995	1991	1992	1993	1994	1995
Latin	**Logs**	**24948**	**27648**	**30204**	**32567**	**33509**	**12**	**32**	**34**	**32**	**43**	**110**	**85**	**251**	**1052**	**1050**	**24850**	**27595**	**29987**	**31547**	**32502**
America/	**Sawn**	**10196**	**11776**	**12074**	**13064**	**13498**	**286**	**160**	**157**	**98**	**120**	**440**	**703**	**992**	**1273**	**1405**	**10042**	**11233**	**11239**	**11889**	**12213**
Caribbean	**Ven**	**232**	**240**	**328**	**340**	**329**	**35**	**18**	**41**	**41**	**44**	**46**	**116**	**200**	**96**	**111**	**221**	**142**	**169**	**285**	**262**
Total	**Ply**	**1502**	**1646**	**1967**	**2240**	**2330**	**86**	**68**	**33**	**35**	**20**	**381**	**550**	**714**	**881**	**1000**	**1207**	**1164**	**1286**	**1394**	**1350**
Bolivia	Logs	471	394	480	487	500 I	0	0	0	0	0 I	0	0	15	20 I	20 I	471	394	465	467	480
	Sawn	200 I	185 I	225 I	230 I	235 I	0	0	0	0	0 I	118	122	157	204	200 I	82	63	68	26	35
	Ven	5 I	5 I	5 I	5 I	5 I	0	0	0	0	0 I	4	4	4	3	3 I	1	1	1	2	2
	Ply	15	10	10 *	10 I	10 I	0	0	0	0	0 I	0	5	5	7	5 I	15	5	5	3	5
Brazil	Logs	18500	21000	23000 I	25000 I	26000 I	8	20	5 W	6 W	10 I	100	71	200 W	1000 *	1000 I	18408	20949	22805	24006	25010
	Sawn	7500	9000	9200 *	10100 *	10500 I	250	150	110 *	80 *	100 I	230	484	627 W	850 *	1000 I	7520	8666	8683	9330	9600
	Ven	210	220	300 *	310 *	300 I	30	11	35 W	27 W	30 I	40	109	188 W	85 W	100 I	200	122	147	252	230
	Ply	1150	1300	1575 *	1870 *	1900 I	4	1	0 R	0 R	0 I	350	509	656 W	800 *	900 I	804	792	919	1070	1000
Colombia	Logs	1250	1115 I	1000 I	900	900 I	0	6	1	5	10 I	0	0	0 R	0 R	0 I	1250	1121	1001	905	910
	Sawn	521	514	450	400 I	400 I	13	0	0 R	0 R	2 I	9	5	3	0 R	0 I	525	509	447	400	402
	Ven	6	5	5	5	5 I	0	1	1	0	1 I	0	0	0	0	0 I	6	6	6	5	6
	Ply	83	49	55	60	65	2	1	1	2	3 I	6	5	5	1	1 I	79	45	51	61	67
Ecuador	Logs	2001	2138	2300 I	2400 I	2400 I	0	0	0 I	0 I	0 I	0	0	0 I	0 I	0 I	2001	2138	2300	2400	2400
	Sawn	865	913	950 I	1000 I	1000 I	0	0	0 I	0 I	0 I	18	20	25 I	25 I	25 I	847	893	925	975	975
	Ven	8	9	10 I	10 I	10 I	0	0	0 I	0 I	0 I	2	3	3 I	3 I	3 I	6	6	7	7	7
	Ply	87	91	95 I	100 I	100 I	0	0	0 I	0 I	0 I	23	25	25 I	30 I	30 I	64	66	70	70	70
Guyana	Logs	129	151	224	403	417	0	0	0	0	0	4	1	5	22	19	125	150	219	381	398
	Sawn	37	14	20	29	30	0	0	0	0	0	12	10	14	18	19	25	4	6	11	11
	Ven	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Ply	1	9	17	57	105	0	0	0	0	0	0	1	7	31	51	1	8	10	26	54
Honduras	Logs	640	600	590	697	700 I	0	0	0 R	0 I	0 I	5	8	9	10	10 I	635	592	581	687	690
	Sawn	323 I	320 I	310 I	350 I	360 I	0	0	0 R	0 I	0 I	46	53	119	123	120 I	277	267	191	227	240
	Ven	0	0	0	0	0	0	0	1	12	10 I	0	0	0 I	0 I	0 I	0	0	1	12	10
	Ply	10	14	15	17	20 I	2	2	0 R	1	1 I	0	5	9	4	5 I	12	11	6	14	16
Panama	Logs	130	100	147	168	170 I	1	3	11	11	10 I	0	1	0	0	0 I	131	102	158	179	180
	Sawn	57	36	45 I	50 I	50 I	5	7	2	2	2 I	1	3	4	2	2 I	61	40	43	50	50
	Ven	0	0	1	2	1 I	0	3	0 R	0 R	1 I	0	0	0 R	0 R	0 I	0	3	1	2	2
	Ply	12	18	35 I	40 I	40 I	5	2	0 R	2	1 I	1	0	0 R	0 R	0 I	16	20	35	42	41
Peru	Logs	945	952	1265	1392	1392	0	1	1	2	2	0	0	0	0	0	945	953	1266	1394	1394
	Sawn	423	496	589	648	648	0	0	1	1	1	1	5	16	18	18	422	491	574	631	631
	Ven	3	1	7	8	8	2	0	0 R	0 R	0 R	0	0	5	5	5	5	1	2	3	3
	Ply	24	30	36	40	40	0	0	0 R	0 R	0 R	0	0	6	7	7	24	30	30	33	33

Table 1-2. Production, Trade and Consumption of Tropical Timber by ITTO Producers (1000 m3)

		Production					Imports					Exports					Domestic Consumption				
Country	Product	1991	1992	1993	1994	1995	1991	1992	1993	1994	1995	1991	1992	1993	1994	1995	1991	1992	1993	1994	1995
Trinidad	Logs	40	59	36	33	30 I	1	0	4	8	10 I	0	3	0 I	0 I	0 I	41	56	40	41	40
and	Sawn	20	27	27	26	25 I	15	0	26	6	5 I	5	1	8	28	20 I	30	26	45	4	10
Tobago	Ven	0	0	0 I	0 I	0 I	0	0	0	0 I	0 I	0	0	0 I	0 I	0 I	0	0	0	0	0
	Ply	0	0	0 I	0 I	0 I	20	9	10 I	10 I	10 I	1	0	1 I	1 I	1 I	19	9	9	9	9
Venezuela	Logs	842	1139	1162	1087	1000 I	2	2	12	0 R	1 I	1	1	22	0 R	1 I	843	1140	1152	1087	1000
	Sawn	250	271	258	231	250 I	3	3	18	9	10 I	0	0	19	5	1 I	253	274	257	235	259
	Ven	0	0	0	0	0 I	3	3	4	2	2 I	0	0	0 R	0 R	0 I	3	3	4	2	2
	Ply	120	125	129	46	50 I	53	53	22	20	5 I	0	0	0 R	0 R	0	173	178	151	66	55
Producers	**Logs**	**133575**	**139094**	**135560**	**135077**	**132809**	**3509**	**3397**	**2643**	**2459**	**2404**	**25898**	**24033**	**16782**	**17321**	**16134**	**111186**	**118458**	**121447**	**120215**	**119169**
Total	**Sawn**	**39632**	**41058**	**39930**	**40256**	**40011**	**1855**	**2050**	**2521**	**3191**	**3107**	**7647**	**8218**	**8201**	**7483**	**6909**	**33840**	**34890**	**34285**	**35944**	**36209**
	Ven	**1486**	**2068**	**2991**	**2942**	**2646**	**42**	**33**	**83**	**78**	**86**	**760**	**1153**	**1148**	**995**	**1008**	**768**	**948**	**1926**	**2025**	**1724**
	Ply	**14004**	**15279**	**16497**	**16700**	**17335**	**139**	**144**	**95**	**82**	**68**	**10729**	**12160**	**13004**	**12862**	**13528**	**3414**	**3263**	**3592**	**3920**	**3875**
ITTO	**Logs**	**134114**	**139804**	**136481**	**135917**	**133649**	**26462**	**26111**	**19344**	**18671**	**17344**	**26007**	**24134**	**16870**	**17450**	**16262**	**134309**	**143608**	**140471**	**138581**	**136089**
Total	**Sawn**	**43282**	**44726**	**42847**	**43127**	**42849**	**7632**	**8609**	**10061**	**9978**	**9824**	**8003**	**8559**	**8468**	**7736**	**7144**	**42803**	**44732**	**44525**	**45440**	**45577**
	Ven	**2371**	**2819**	**3520**	**3491**	**3225**	**807**	**953**	**1098**	**956**	**961**	**818**	**1212**	**1195**	**1061**	**1071**	**2360**	**2597**	**3492**	**3428**	**3115**
	Ply	**23314**	**23853**	**23557**	**23161**	**23411**	**8264**	**8750**	**9495**	**8935**	**9239**	**11220**	**12601**	**13350**	**13169**	**13833**	**20017**	**20511**	**20892**	**19852**	**19725**

Table 1-3-a. Production, Trade and Consumption of Tropical Logs by ITTO Members (1000 m3 - 1993 ranking)

	Production						Imports						Exports						Domestic Consumption					
Rank	Country	1991	1992	1993	1994	1995	Country	1991	1992	1993	1994	1995	Country	1991	1992	1993	1994	1995	Country	1991	1992	1993	1994	1995
1	Malaysia	39840	43510	37260	35672	35000	Japan	10402	10990	8324	7632	6550	Malaysia	19320	17797	9382	8561	8000	Indonesia	37000	37500	37010	35010	34010
2	Indonesia	37000	37500	37000	35000	34000	(Taiwan)	4218	3961	2180	2000	2000	PNG	1500	1929	2867	3100	2900	Malaysia	20528	25851	28052	27359	27350
3	Brazil	18500	21000	23000	25000	26000	Rep. of Korea	3690	3173	2103	1944	1900	Gabon	1100	1050	1500	1550	1650	Brazil	18408	20949	22805	24006	25010
4	India	15812	15812	15812	15000	15000	Thailand	2400	2032	1607	1539	1550	Myanmar	1500	1500	1029	600	700	India	16536	16503	16061	15250	15200
5	PNG	2200	2225	3050	3500	3250	China	1395	1776	1595	2030	2000	Cameroon	971	652	647	1095	960	Japan	10402	13010	9811	9071	7816
	Others	20762	19757	20359	21745	20399	Others	4357	4179	3535	3526	3344	Others	1616	1206	1445	2544	2052	Others	31435	29795	26732	27885	26703
6	Cameroon	2290	2096	2815	3916	2995	France	878	880	895	881	900	Ghana	215	182	496	572	100	Ecuador	2001	2138	2300	2400	2400
7	Ecuador	2001	2138	2300	2400	2400	Philippines	357	500	569	380	251	Côte d'Ivoire	355	248	320	376	380	(Taiwan)	4239	3971	2173	1999	1999
8	Myanmar	2783	2791	2050	1500	1500	Italy	674	439	438	476	440	Congo	319	308	240	278	300	Cameroon	1319	1444	2168	2821	2035
9	Côte d'Ivoire	2447	1994	1961	2416	2200	Portugal	419	455	329	343	320	Brazil	100	71	200	1000	1000	China	1478	2075	2136	2506	2475
10	Gabon	1300	1395	1815	1909	1990	Spain	540	334	265	326	320	Zaire	89	96	42	111	45	Rep. of Korea	3424	2973	2103	1944	1900
11	Ghana	1229	1318	1682	1682	1500	India	730	694	249	250	200	France	14	18	30	30	30	Thailand	2631	2151	1670	1600	1574
12	Peru	945	952	1265	1392	1392	Germany	317	281	213	192	150	Venezuela	1	1	22	0	1	Côte d'Ivoire	2092	1746	1641	2040	1820
13	Venezuela	842	1139	1162	1087	1000	Malaysia	8	138	174	248	350	Bolivia	0	0	15	20	20	Philippines	2274	1938	1590	1316	1109
14	Philippines	1919	1438	1022	940	865	Greece	170	150	117	110	110	Germany	24	16	14	5	5	Peru	945	953	1266	1394	1394
15	Colombia	1250	1115	1000	900	900	Netherlands	117	123	111	120	111	(Taiwan)	3	5	13	6	6	Ghana	1014	1136	1186	1110	1490
16	Honduras	640	600	590	697	700	Belgium-Lux.	32	80	40	44	40	Netherlands	16	18	11	10	8	Venezuela	843	1140	1152	1087	1000
17	China	100	300	550	550	550	Egypt	20	20	35	42	45	China	17	1	9	74	75	Myanmar	1283	1291	1021	900	800
18	Congo	572	635	511	600	600	U.K.	24	19	19	23	17	Honduras	5	8	9	10	10	Colombia	1250	1121	1001	905	910
19	Bolivia	471	394	480	487	500	Venezuela	2	2	12	0	1	Liberia	411	183	5	20	40	France	864	862	865	851	870
20	Australia	415	395	365	285	285	Panama	1	3	11	11	10	Guyana	4	1	5	22	19	Honduras	635	592	581	687	690
21	Zaire	391	380	288	272	300	Russian Fed.	31	10	10	10	10	U.S.A.	6	11	4	2	2	Bolivia	471	394	465	467	480
22	Guyana	129	151	224	403	417	Indonesia	0	0	10	10	10	Italy	0	0	3	0	0	Italy	674	439	435	476	440
23	Panama	130	100	147	168	170	Switzerland	12	10	6	13	10	Portugal	4	10	2	0	1	Australia	411	394	367	290	287
24	Thailand	231	119	65	62	25	Nepal	0	0	5	4	5	Thailand	0	0	2	1	1	Gabon	200	345	341	359	340
25	Trinidad	40	59	36	33	30	U.S.A.	6	4	5	4	1	Greece	0	0	1	0	0	Portugal	415	445	327	343	319
26	Togo	20	36	15	16	15	Brazil	8	20	5	6	10	U.K.	1	1	1	1	1	Congo	253	327	271	322	300
27	Liberia	593	197	10	25	60	Trinidad	1	0	4	8	10	Philippines	2	0	1	4	7	Spain	539	334	265	326	320
28	(Taiwan)	24	15	6	5	5	Austria	3	2	3	1	1	Australia	4	1	0	0	0	Zaire	302	284	246	161	255
29							Australia	0	0	2	5	2	Canada	0	0	0	0	0	Guyana	125	150	219	381	398
30							Denmark	2	2	2	2	3	Egypt	0	0	0	0	0	Germany	293	265	199	187	145
31							Ireland	0	2	2	7	2	Austria	0	2	0	0	0	PNG	700	296	183	400	350
32							Canada	1	2	1	1	1	Belgium-Lux.	18	17	0	0	0	Panama	131	102	158	179	180
33							Sweden	2	1	1	2	2	Denmark	0	0	0	1	0	Greece	170	150	116	110	110
34							Colombia	0	6	1	5	10	Finland	0	0	0	0	0	Netherlands	108	105	102	113	103
35							Peru	0	1	1	2	2	Ireland	0	1	0	0	0	Belgium-Lux.	14	63	40	44	40
36							Togo	2	1	0	0	0	Spain	1	0	0	0	0	Trinidad	41	56	40	41	40
37													Switzerland	1	0	0	0	0	Egypt	20	20	35	42	45
38													Togo	0	0	0	1	1	U.K.	22	18	18	22	16
39													India	6	3	0	0	0	Togo	22	37	15	15	14
40													Panama	0	1	0	0	0	Russian Fed.	31	10	10	10	10

Table 1-3-b. Production, Trade and Consumption of Tropical Sawnwood by ITTO Members (1000 m3 - 1993 ranking)

	Production						Imports						Exports						Domestic Consumption					
Rank	Country	1991	1992	1993	1994	1995	Country	1991	1992	1993	1994	1995	Country	1991	1992	1993	1994	1995	Country	1991	1992	1993	1994	1995
1	Malaysia	8970	9458	9223	8703	8200	Japan	1013	1248	1805	1642	1500	Malaysia	4932	5417	5371	4560	3950	Brazil	7520	8666	8683	9330	9600
2	Brazil	7500	9000	9200	10100	10500	Thailand	1500	1739	1743	2467	2453	Indonesia	936	711	639	308	300	India	8505	8504	8503	8003	8003
3	India	8500	8500	8500	8000	8000	(Taiwan)	529	709	1052	900	950	Brazil	230	484	627	850	1000	Indonesia	6564	6489	6161	6392	6200
4	Indonesia	7500	7200	6800	6700	6500	Rep. of Korea	747	716	970	617	700	Côte d'Ivoire	528	500	460	524	500	Malaysia	4058	4126	4004	4465	4600
5	Japan	1000	1364	1050	1030	1009	China	88	559	703	717	700	Ghana	183	232	239	258	310	Japan	2013	2674	2917	2721	2557
	Others	9812	9204	8074	8594	8640	Others	3755	3638	3788	3635	3521	Others	1194	1215	1132	1236	1084	Others	14143	14273	14257	14529	14617
6	Ecuador	865	913	950	1000	1000	Netherlands	525	578	587	461	500	Bolivia	118	122	157	204	200	Thailand	2431	2495	2192	2906	2895
7	Peru	423	496	589	648	648	Philippines	10	43	458	287	168	Gabon	65	136	147	130	130	Rep. of Korea	1454	1242	1473	982	1000
8	Côte d'Ivoire	753	641	577	680	650	U.K.	435	547	450	450	438	Cameroon	179	150	142	215	120	(Taiwan)	965	1097	1287	1157	1233
9	Ghana	420	538	546	550	640	Italy	363	360	369	420	400	Honduras	46	53	119	123	120	China	438	904	1031	1149	1135
10	Rep. of Korea	841	655	503	365	300	France	464	354	360	324	325	Netherlands	167	141	106	92	90	Ecuador	847	893	925	975	975
11	Thailand	989	800	500	500	500	Spain	352	358	282	222	250	Philippines	58	56	78	30	12	Philippines	678	634	820	665	534
12	Myanmar	650	625	470	450	430	Germany	416	353	240	259	250	Thailand	58	44	51	61	58	France	683	638	581	560	595
13	Colombia	521	514	450	400	400	U.S.A.	196	193	175	222	188	U.S.A.	27	39	40	37	34	Peru	422	491	574	631	631
14	Philippines	726	647	440	408	378	Australia	154	145	170	139	140	Myanmar	200	200	38	36	44	Netherlands	433	499	515	462	460
15	Cameroon	277	400	420	725	715	Belgium-Lux.	250	210	155	155	150	Germany	40	40	32	33	30	Myanmar	450	425	462	394	386
16	China	350	350	350	450	450	Malaysia	20	85	152	322	350	Ecuador	18	20	25	25	25	Italy	538	460	460	512	515
17	Honduras	323	320	310	350	360	Brazil	250	150	110	80	100	China	0	5	22	18	15	U.K.	432	544	448	448	436
18	Venezuela	250	271	258	231	250	Ireland	55	11	51	79	55	Zaire	23	33	22	59	50	Colombia	525	509	447	400	402
19	(Taiwan)	450	400	250	275	300	Portugal	19	41	33	31	23	Venezuela	0	0	19	5	1	Australia	359	334	350	279	280
20	France	240	296	231	250	280	Greece	24	51	27	30	30	Congo	27	28	18	25	25	Ghana	237	306	307	292	330
21	Bolivia	200	185	225	230	235	Trinidad	15	0	26	6	5	Peru	1	5	16	18	18	Spain	432	408	298	244	273
22	Australia	205	190	180	140	140	Denmark	16	21	19	24	27	(Taiwan)	14	12	15	18	17	Cameroon	98	250	278	510	595
23	Gabon	85	155	153	173	170	Venezuela	3	3	18	9	10	Guyana	12	10	14	18	19	Venezuela	253	274	257	235	259
24	Zaire	105	105	105	80	100	Egypt	30	18	16	6	5	France	21	12	10	14	10	Germany	441	363	248	261	250
25	Italy	175	100	100	100	120	Canada	15	19	14	20	20	Ireland	4	3	10	2	2	Honduras	277	267	191	227	240
26	Portugal	120	105	100	100	85	Austria	19	17	13	15	13	Italy	0	0	9	8	5	Belgium-Lux.	203	168	170	167	162
27	PNG	320	140	74	175	175	Switzerland	17	14	11	13	10	U.K.	10	9	8	8	8	U.S.A.	169	154	135	186	155
28	Netherlands	52	40	46	51	50	Nepal	10	10	10	10	10	Trinidad	5	1	8	28	20	Portugal	133	142	129	124	98
29	Panama	57	36	45	50	50	Russian Fed.	10	8	8	8	8	Greece	4	6	4	4	4	Côte d'Ivoire	225	141	117	156	150
30	Germany	65	50	40	35	30	Finland	8	6	7	8	8	Portugal	6	4	4	7	10	Zaire	82	72	83	21	50
31	Congo	54	53	40	40	40	Sweden	9	6	6	8	10	Panama	1	3	4	2	2	PNG	318	138	71	172	171
32	Trinidad	20	27	27	26	25	Norway	4	4	4	5	5	Denmark	4	4	3	5	5	Bolivia	82	63	68	26	35
33	Guyana	37	14	20	29	30	Congo	3	4	4	4	4	PNG	3	5	3	3	4	Trinidad	30	26	45	4	10
34	Spain	80	50	17	25	25	India	5	5	4	4	4	Colombia	9	5	3	0	0	Panama	61	40	43	50	50
35	Belgium-Lux.	6	20	15	12	12	New Zealand	9	3	3	2	2	Canada	1	1	1	2	2	Ireland	51	9	42	80	54
36	Greece	35	25	10	10	10	Togo	20	7	3	8	7	Austria	0	1	1	1	1	Greece	55	70	33	36	36
37	U.K.	6	6	6	6	6	Panama	5	7	2	2	2	Spain	0	0	1	3	2	Congo	30	29	26	19	19
38	Togo	12	13	6	5	5	Peru	0	0	1	1	1	Switzerland	1	0	1	1	0	Egypt	33	21	19	10	10
39	Russian Fed.	15	5	5	5	5	Gabon	10	4	0	1	1	India	0	1	1	1	1	Denmark	12	18	17	20	23
40	Switzerland	4	6	4	5	5	PNG	1	3	0	0	0	Australia	0	1	0	0	0	Austria	21	16	14	14	12

Table 1-3-c. Production, Trade and Consumption of Tropical Veneer by ITTO Members (1000 m3 - 1993 ranking)

	Production						Imports						Exports						Domestic Consumption					
Rank	Country	1991	1992	1993	1994	1995	Country	1991	1992	1993	1994	1995	Country	1991	1992	1993	1994	1995	Country	1991	1992	1993	1994	1995
1	Malaysia	694	1302	2122	2072	1800	China	27	217	287	193	200	Malaysia	477	765	720	613	620	Malaysia	220	539	1406	1467	1190
2	Brazil	210	220	300	310	300	Japan	250	192	239	160	132	Brazil	40	109	188	85	100	Japan	552	495	508	375	290
3	Japan	303	274	218	181	166	(Taiwan)	146	226	204	194	220	Côte d'Ivoire	84	120	110	116	120	(Taiwan)	446	476	300	340	416
4	Côte d'Ivoire	185	195	195	205	200	Germany	85	85	77	72	70	Congo	32	37	38	44	45	China	27	216	287	178	185
5	(Taiwan)	300	250	100	150	200	Italy	130	69	58	72	70	Cameroon	20	21	26	38	29	Brazil	200	122	147	252	230
	Others	679	578	585	573	559	Others	169	164	233	265	269	Others	165	160	113	165	157	Others	915	749	844	816	804
6	Italy	150	115	80	85	90	Brazil	30	11	35	27	30	Ghana	19	24	26	35	46	Italy	278	182	136	155	158
7	Thailand	150	71	72	72	70	Rep. of Korea	8	17	26	54	60	Indonesia	31	30	13	10	10	Germany	88	86	87	76	75
8	Philippines	54	80	65	39	23	France	20	19	18	20	20	Germany	22	19	10	16	15	Côte d'Ivoire	101	75	85	89	80
9	Ghana	30	28	61	57	75	U.K.	11	17	18	23	20	Japan	1	12	8	8	8	Thailand	149	77	81	82	83
10	Indonesia	50	55	55	50	50	Indonesia	0	0	18	10	10	Netherlands	7	6	7	9	7	Philippines	24	58	61	9	8
11	Portugal	25	40	45	45	35	U.S.A.	20	20	15	13	11	Philippines	30	22	7	30	15	Indonesia	19	25	60	50	50
12	Congo	37	45	40	50	50	Netherlands	10	13	13	12	10	France	3	3	5	3	3	Portugal	24	40	44	45	35
13	Spain	50	20	30	30	30	Belgium-Lux.	18	16	12	11	10	Peru	0	0	5	5	5	Spain	53	24	39	39	39
14	Cameroon	20	23	28	38	30	Thailand	3	9	12	14	17	(Taiwan)	0	0	4	4	4	Ghana	11	4	35	22	29
15	Germany	25	20	20	20	20	Australia	2	2	11	16	12	U.K.	8	5	4	3	2	Netherlands	14	24	34	23	23
16	Netherlands	11	21	18	20	20	Spain	5	5	10	10	10	Bolivia	4	4	4	3	3	Rep. of Korea	8	17	26	54	60
17	Zaire	14	14	14	10	10	Egypt	0	0	8	5	5	Thailand	4	3	3	4	4	Belgium-Lux.	12	16	17	16	15
18	Ecuador	8	9	10	10	10	Zaire	0	0	4	4	4	Ecuador	2	3	3	3	3	Egypt	5	5	16	13	13
19	Egypt	5	5	8	8	8	Malaysia	3	2	4	8	10	Greece	0	0	2	0	0	Zaire	9	8	16	7	8
20	Peru	3	1	7	8	8	Venezuela	3	3	4	2	2	Italy	2	2	2	2	2	U.K.	4	12	14	20	18
21	Belgium-Lux.	1	5	5	5	5	Denmark	8	5	3	5	7	Portugal	2	2	2	2	2	U.S.A.	19	19	14	12	10
22	PNG	0	0	5	5	5	Russian Fed.	8	3	3	3	3	Zaire	5	6	2	7	6	France	22	16	13	17	17
23	Bolivia	5	5	5	5	5	Philippines	0	0	3	0	0	India	1	1	2	2	2	Australia	2	1	11	16	12
24	Colombia	6	5	5	5	5	Canada	2	1	2	3	3	Denmark	2	1	1	1	2	Ecuador	6	6	7	7	7
25	Greece	7	0	4	4	4	Greece	4	4	2	2	2	Spain	2	1	1	1	1	Colombia	6	6	6	5	6
26	India	4	4	4	4	4	Nepal	0	0	2	2	2	U.S.A.	1	1	1	1	1	PNG	0	0	5	5	5
27	Gabon	12	9	2	0	0	Austria	1	1	1	1	1	Gabon	7	8	1	0	0	Greece	11	4	4	6	6
28	Switzerland	2	1	1	1	1	Finland	1	1	1	1	1	Australia	0	1	0	0	0	Venezuela	3	3	4	2	2
29	Panama	0	0	1	2	1	Ireland	1	1	1	1	1	Canada	0	0	0	1	1	Russian Fed.	8	3	3	3	3
30	France	5	0	0	0	0	Portugal	1	2	1	2	2	China	0	1	0	15	15	India	3	7	3	3	3
31	U.K.	1	0	0	0	0	Sweden	2	1	1	2	2	Belgium-Lux.	7	5	0	0	0	Canada	2	1	2	2	2
32	Liberia	4	2	0	0	0	Norway	1	1	1	1	1	Switzerland	1	0	0	0	0	Denmark	6	4	2	4	5
33							Switzerland	4	1	1	0	0	Liberia	4	0	0	0	0	Nepal	0	0	2	2	2
34							India	0	4	1	1	1							Switzerland	5	2	2	1	1
35							Colombia	0	1	1	0	1							Cameroon	0	2	2	0	1
36							Honduras	0	0	1	12	10							Congo	5	8	2	6	5
37							New Zealand	0	1	0	0	0							Peru	5	1	2	3	3
38							Gabon	1	0	0	0	0							Austria	1	1	1	1	1
39							Panama	0	3	0	0	1							Finland	1	1	1	1	1
40							Peru	2	0	0	0	0							Ireland	1	1	1	1	1

Table 1-3-d. Production, Trade and Consumption of Tropical Plywood by ITTO Members (1000 m3 - 1993 ranking)

	Production					Imports					Exports					Domestic Consumption					
Rank	Country	1991	1992	1993	1994	1995	Country	1991	1992	1993	1994	1995	Country	1991	1992	1993	1994	1995	Country	1991	1992	1993	1994	1995
1	Indonesia	9958	10550	10689	9836	9500	Japan	2941	2882	3864	3791	4074	Indonesia	8970	9761	9724	8852	8500	Japan	8997	9176	9609	8703	8669
2	Japan	6062	5477	4576	3988	3688	China	1417	1424	1371	1094	750	Malaysia	1186	1670	2421	3004	3900	China	1767	1924	1890	1722	1370
3	Malaysia	1429	2062	2774	3550	4450	U.S.A.	934	1053	919	742	957	Brazil	350	509	656	800	900	Rep. of Korea	1464	1295	1616	1666	1760
4	Brazil	1150	1300	1575	1870	1900	Rep. of Korea	673	648	822	868	1000	(Taiwan)	204	159	110	110	100	(Taiwan)	1478	1782	1378	1240	1230
5	Rep. of Korea	1134	942	795	799	800	(Taiwan)	432	741	788	800	830	U.S.A.	54	82	80	71	35	Indonesia	988	789	965	984	1000
	Others	3581	3522	3148	3118	3073	Others	1867	2002	1731	1640	1628	Others	456	420	359	332	398	Others	5323	5545	5434	5537	5696
6	(Taiwan)	1250	1200	700	550	500	U.K.	536	634	478	485	464	France	88	54	44	25	25	Brazil	804	792	919	1070	1000
7	China	350	500	525	650	650	Netherlands	287	322	238	162	150	Cameroon	30	30	40	60	70	U.S.A.	880	971	839	671	922
8	India	360	360	360	360	360	Germany	202	218	193	195	200	Philippines	118	85	40	10	2	U.K.	537	624	470	480	460
9	Philippines	321	331	273	258	244	France	213	189	180	195	200	Netherlands	36	37	36	28	25	Malaysia	263	400	379	563	565
10	Thailand	250	166	260	279	265	Belgium-Lux.	139	148	170	136	135	India	20	25	30	30	30	India	345	340	331	332	332
11	France	190	150	190	180	160	Egypt	119	90	125	140	150	Ecuador	23	25	25	30	30	France	315	285	326	350	335
12	Venezuela	120	125	129	46	50	Canada	53	58	74	69	70	Greece	10	10	17	10	10	Thailand	251	204	268	283	267
13	Ecuador	87	91	95	100	100	Australia	20	28	42	43	45	Côte d'Ivoire	14	17	15	11	10	Philippines	205	247	235	255	252
14	Spain	140	100	90	100	100	Denmark	40	50	40	26	33	U.K.	3	16	13	10	9	Germany	262	275	234	231	226
15	Cameroon	85	55	63	78	80	Italy	47	53	35	49	50	Gabon	6	16	13	10	10	Netherlands	251	278	221	144	135
16	Colombia	83	49	55	60	65	Malaysia	20	8	26	17	15	Spain	15	0	12	10	10	Belgium-Lux.	89	110	175	152	150
17	Germany	60	60	45	40	30	Venezuela	53	53	22	20	5	Honduras	0	5	9	4	5	Venezuela	173	178	151	66	55
18	Côte d'Ivoire	37	39	41	41	40	Congo	16	15	15	15	15	Italy	9	9	8	10	10	Egypt	119	90	130	147	158
19	Greece	40	45	40	35	35	Ireland	12	13	13	14	15	Japan	6	1	8	1	1	Spain	134	110	86	100	100
20	Peru	24	30	36	40	40	Norway	11	15	12	7	10	Guyana	0	1	7	31	51	Australia	20	26	71	69	60
21	Panama	12	18	35	40	40	Thailand	2	41	12	6	6	China	0	0	6	22	30	Canada	50	52	71	67	68
22	Australia	0	0	29	26	15	Sweden	13	13	10	7	5	Peru	0	0	6	7	7	Ecuador	64	66	70	70	70
23	Ghana	15	20	26	20	25	Trinidad	20	9	10	10	10	Bolivia	0	5	5	7	5	Colombia	79	45	51	61	67
24	Portugal	65	65	25	35	40	Switzerland	9	7	9	8	10	Colombia	6	5	5	1	1	Italy	48	52	47	59	60
25	Italy	10	8	20	20	20	Spain	9	10	8	10	10	Germany	0	3	4	4	4	Denmark	34	44	37	25	31
26	Guyana	1	9	17	57	105	Gabon	2	4	6	0	0	Thailand	1	3	4	2	4	Panama	16	20	35	42	41
27	Honduras	10	14	15	17	20	Russian Fed.	10	2	3	3	3	Canada	3	6	3	2	2	Peru	24	30	30	33	33
28	Gabon	10	16	13	11	10	Greece	5	4	2	2	2	Denmark	7	6	3	1	2	Côte d'Ivoire	23	22	26	30	30
29	Zaire	13	12	13	10	10	Philippines	2	1	2	7	10	Ghana	1	2	2	1	1	Greece	35	39	25	27	27
30	Netherlands	0	11	10	10	10	Austria	1	2	1	1	1	Portugal	0	3	1	2	2	Portugal	65	63	25	37	43
31	PNG	15	13	10	10	10	Finland	1	0	1	1	1	Rep. of Korea	2	4	1	1	40	Ghana	14	18	24	19	24
32	Bolivia	15	10	10	10	10	Portugal	0	1	1	4	5	Myanmar	0	0	1	1	1	Cameroon	55	25	23	18	10
33	Myanmar	7	7	6	5	9	New Zealand	1	1	1	1	1	Trinidad	1	0	1	1	1	Congo	16	17	17	17	17
34	Egypt	0	0	5	7	8	India	5	5	1	2	2	Australia	0	2	0	0	0	Ireland	12	13	13	14	15
35	Belgium-Lux.	4	10	5	16	15	Colombia	2	1	1	2	3	Belgium-Lux.	54	48	0	0	0	Zaire	13	12	13	10	10
36	U.K.	4	6	5	5	5	Togo	1	1	0	0	0	Norway	0	1	0	0	0	Norway	11	14	12	7	10
37	Congo	0	2	2	2	2	Zaire	1	1	0	0	0	Liberia	1	0	0	0	0	Sweden	13	13	10	7	5
38	Denmark	1	0	0	0	0	PNG	4	0	0	0	0	Zaire	1	1	0	0	0	Gabon	6	4	10	1	0
39	Liberia	2	0	0	0	0	Brazil	4	1	0	0	0	Panama	1	0	0	0	0	PNG	19	13	10	10	10
40							Honduras	2	2	0	1	1							Guyana	1	8	10	26	54

Appendix 2

Direction of Trade in 1993-94

Appendix 2.

Table 2-1-a. Trade of Tropical Logs, 1993 (m3)

Importers Exporters	*China*	*(Taiwan)*	*India*	*Japan*	*Malaysia*	*Philippines*	*Republic of Korea*	*Thailand*	TOTAL
Cameroon									**647000**
				103000			*2000*		
Congo	**3358**	**1167**		**20694**			**4726**	**18**	**240000**
				14000			*5000*		
Côte d'Ivoire	**7370**	**2105**	**6371**	**16600**		**8184**	**35946** [1]		**320000**
				22200 [M]		*0* [1]	*14000*		
Gabon	**16150**	**22274**		**75891**		**16977**	**4122**	**11043**	**1500000** [1]
	110909	*31983* [1]		*320000*	*1400*	*42962*	*15000*	*16000*	
Ghana	**66540**		**5940**	**38560**	**70**	**201120**	**57970**		**496000**
	38929			*14200* [M]		*97373*	*35000*		
Liberia									**5000** [1]
Zaire									**42000**
				400 [M]					
Indonesia									**639000** [Y]
	38314	*2384* [1]		*1000* [F]	*26000* [1]				
Malaysia	**362400**	**1350300**	**222000**	**5317200**		**139400**	**988600**	**231500**	**9382000**
	839654	*1371864* [1]	*222000* [F]	*5456000*		*176015*	*952000*	*223000*	
Myanmar	**11050**		**98150**	**3120**			**1270**	**8420**	**1029000**
	403014	*41283* [1]		*85000*	*300*		*32000*	*688000*	
Papua New Guinea	**75000**	**56000**	**23000**	**1585000**	**7000**	**75000**	**759000**	**15000**	**2867000**
	109475	*45885* [1]		*1662000*	*7000* [1]	*78987*	*816000*	*14000*	
Brazil				**2152** [W]			**25757** [W]		**200000** [W]
				1000		*2566*			
Honduras				**2400**					**119000**
				1000					
Venezuela									**22000**
							22000		
Total	*1595000*	*2180000* [1]	*249000*	*8324000*	*174000*	*569000*	*2103000*	*1607000* [1]	

Table 2-1-b. Trade of Tropical Logs, 1993 (m3)

Importers Exporters	*Belgium-Lux.*	*France*	*Italy*	*Netherlands*	*Spain*	TOTAL
Cameroon						**647000**
	20100	*129152* *	*217400*	*74000* F	*23342* W	
Congo		**39027**	**32669**		**4001**	**240000**
	1100	*290440* W	*106600*	*100* M	*9535* W	
Côte d'Ivoire	**55**	**57193**	**31337**	**5294**	**77795**	**320000**
	600	*2192* W	*29900*	*5400* M	*72557* W	
Gabon	**949**	**94235**	**38043**	**608**	**8526**	**1500000** I
	6400	*362000* F	*45000*	*9000* F	*12198* W	
Ghana		**6290**	**20240**	**7800**	**9470**	**496000**
		10960 W	*21000*	*4100* M	*12831* W	
Liberia						**5000** I
		10160 *	*300*			
Zaire						**42000**
	1500	*26441*	*7000*	*100* M	*3235* W	
Indonesia						**639000** Y
		100 M				
Malaysia						**9382000**
	100 M	*137*	*100*	*1000* M	*59* W	
Myanmar						**1029000**
	300	*411*	*1500*		*185* W	
Papua New Guinea						**2867000**
Brazil					**34250** W	**200000** W
	1500	*200* M			*31032* W	
Honduras	**3000**	**6800**	**1500**	**25500**	**5500**	**119000**
Venezuela						**22000**
			200		*1507* W	
Total	*40000* I	*895000* *	*438000*	*111000*	*265000*	

Table 2-1-c. Trade of Tropical Logs, 1994 (m3)

Importers / Exporters	*China*	*(Taiwan)*	*India*	*Japan*	*Philippines*	*Rep of Korea*	*Thailand*	*U.S.*	TOTAL
Cameroon									**1095000**
	12059			*111000*		*3000*	*18000*		
Congo	**7231**	**199**		**22592**		**21**	**58**		**278000** *
	10193			*29000*		*4200* [W]			
Côte d'Ivoire	**13071**	**191**	**33328**	**10753**			**34209**		**376000**
	5168				*5622*	*9000*	*30000*	*1000*	
Gabon	**244392**	**36694**	**25830**	**353196**	**44478**	**4273**	**24600**		**1550000** !
				403000	*8124* *	*4000*			
Ghana	**202520**	**27550**	**5340**	**10010**	**36790**	**240570**			**572000**
	138043			*3000*	*30605*	*185000*		*1000*	
Zaire									**111000**
Indonesia									**0**
	35589			*0* [R]					
Malaysia	**514900**	**1574500**	**255300**	**4652400**	**158600**	**632400**	**360300**		**8561000**
	659884			*4511000*	*166170*	*622000*	*444000*	*1000*	
Myanmar	**7300**		**70110**	**9930**		**170**	**121400**		**600000** !
	22653 *			*31000*	*541*	*3000*	*486000*		
Papua New Guinea	**55000**	**48000**	**14000**	**1972000**	**45000**	**781000**	**14000**		**3100000**
	140364			*1916000*	*66365*	*855000*	*26000*		
Thailand				**1000**					**1000**
	20178			*1000*	*272*				
Brazil									**1000000** *
	6824			*0* [R]	*25098*				
Guyana						**12852**			**22000**
				6000		*21000*			
Total	*2030000*	*2000000* *	*250000* !	*7632000*	*380000*	*1944000*	*1539000*	*4000*	

Table 2-1-d. Trade of Tropical Logs, 1994 (m3)

Importers / Exporters	France	Germany	Italy	Netherlands	Portugal	Spain	U.K.	Switzerland	TOTAL
Cameroon									**1095000**
	150015 M	*84000*	*321000*	*71000*	*86225*	*161080 M*	*11361*	*3600*	
Congo	**57072**	**24129**	**30611**		**74678**	**2984**			**278000 ***
	45347 M	*33000*	*37400*		*87317*		*133*		
Côte d'Ivoire	**70653**	**4667**	**33183**	**2428**	**25454**	**104236**	**1308**		**376000**
	7398 M	*6000*	*34500*	*6000*	*25120*	*90738 M*	*1223*		
Gabon	**477716**	**16696**	**52514**	**13350**	**58143**	**23226**	**2925**	**16**	**1550000 !**
	293317 M	*18000*	*43100*	*12000*	*49170*	*21079 M*	*3858*	*700*	
Ghana	**4940**	**15870**	**9130**	**5990**	**6830**	**3120**	**1720**		**572000**
	1507 M	*19000*	*10800*	*2000*	*4045*	*771 M*	*2194*	*700*	
Zaire									**111000**
	16440 M	*13000*	*14100*		*60930*	*858 M*	*3402*	*5700*	
Indonesia									**0**
				1000					
Malaysia									**8561000**
	0 R		*200*						
Myanmar			**70**						**600000 !**
	959 M	*3000*	*1000*			*152 M*	*776*	*30*	
Papua New Guinea									**3100000**
Thailand									**1000**
Brazil									**1000000 ***
						32664 M			
Guyana				**18**			**55**		**22000**
Total	*881000 ****	*195000*	*476000*	*120000*	*343000*	*326000*	*23000*	*13000*	

Table 2-2-a. Trade of Tropical Sawnwood, 1993 (m3)

Importers / Exporters	*Australia*	*China*	*(Taiwan)*	*Japan*	*Philippines*	*Rep.of Korea*	*Thailand*	*Canada*	*U.S.*	TOTAL
Cameroon										**142000**
				4000					*2000 F*	
Congo										**18000 ***
Côte d'Ivoire				**501**					**913**	**460000**
				400 *M*					*1000 F*	
Gabon										**147000**
		14967								
Ghana	**280**	**110**		**1020**		**60**			**3980**	**239000**
	300 M			*1000 F*					*1000*	
Zaire										**22000**
Indonesia	**910**	**2000 F**	**450**	**3450**		**29000 F**	**10**	**3000 F**	**59000 F**	**639000 V**
	12000	*181163*	*135145*	*499000*	*0 **	*23000*	*2000*	*0 R*	*8000*	
Malaysia	**44500**	**192800**	**593400**	**541900**	**250400**	**798000**	**1040100**		**19800**	**5371000**
	129000	*323581*	*743494*	*728000*	*202212*	*922000*	*1113000*	*1000*	*29000*	
Myanmar		**2870**		**10**			**9720**	**120**		**38000**
	1000 F	*43438*	*1235*	*1000*			*68000*	*0 R*	*1000*	
Papua New Guinea										**3000**
	2000			*0 R*	*6814*					
Philippines	**127**		**46351**	**11542**		**879**		**420**		**78000**
	2000		*56604*	*43000*		*1000*		*1000*	*8000*	
Thailand			**1000**	**25000**		**1000 F**			**1000**	**51000**
		*2647 **	*317*	26000	98				*1000*	
Brazil	**1000 F**		**2000**	**518 W**	**81094 W**	**4000 F**		**53 W**	**131045 W**	**627000 W**
	2000			*10000*	*237059*	*9000*		*7000*	*68000*	
Ecuador										**25000 I**
		0 R		2000					*8000*	
Honduras	**400**			**1900**					**10500**	**119000**
				1000				*0 R*	*5000*	
U.S.	**1000**		**2000**	**2000**				**8000**		**40000**
		7093	*3340*		*6575*	*1000*	*21000*	*4000*		
Total	*170000*	*703000*	*1052000*	*1805000*	*458000*	*970000*	*1743000*	*14000*	*175000*	

Table 2-2-b. Trade of Tropical Sawnwood, 1993 (m3)

Importers / Exporters	*Denmark*	*Finland*	*France*	*Germany*	*Ireland*	*Italy*	*Netherlands*	*Portugal*	*Spain*	*U.K.*	*Switzerland*	TOTAL
Cameroon												**142000**
		100	*11297* [W]	*4000*	*578* [W]	*23200*	*22200* [M]	*4460*	*76514* [W]	*9018*		
Congo												**18000** [*]
	286 [W]		*572* [W]	*2000*		*1400*	*1400* [M]	*103*	*19644* [W]	*596*		
Côte d'Ivoire	**1888**	**1344**	**68280**	**5588**	**14229**	**165553**	**19642**	**15485**	**68258**	**23747**	**129**	**460000**
	1859 [W]	*3600*	*43329* [W]	*6000*	*17077* [W]	*156200*	*22200* [M]	*14386*	*74457* [W]	*14960*	*30*	
Gabon			**59206**						**22600**			**147000**
			286 [W]			*300*	*300* [M]		*33* [W]	*584*		
Ghana	**30**	**120**	**11510**	**51440**	**26950**	**15880**	**34030**	**1800**	**9280**	**28420**		**239000**
	1287 [W]	*200*	*3575* [W]	*69000*	*782* [W]	*17100*	*23359* [*]	*680*	*9122* [W]	*37258*	*8000*	
Zaire												**22000**
			572 [W]	*4000*		*9500*	*300* [M]	*1892*	*5704* [W]	*7207*	*40*	
Indonesia			**1000** [F]	**3000**		**69000** [F]	**12000**		**1000** [F]	**12000** [F]		**639000** [Y]
	1001 [W]	*600*	*2860* [W]	*8000*	*347* [W]	*51900*	*25381* [*]	*612*	*1333* [W]	*21344*	*50*	
Malaysia	**500**		**46900**	**43500**		**34000**	**431900**	**300**	**3700**	**120700**		**5371000**
	2288 [W]	*200*	*48477* [W]	*125000*	*699* [W]	*40800*	*382000* [F]	*208*	*6198* [W]	*141593*	*800*	
Myanmar				**4570**		**470**				**70**		**38000**
	7293 [W]	*200*	*0* [RW]	*1000* [F]		*1800*	*1000* [F]		*4* [W]	*1584*		
Papua New Guinea												**3000**
				100 [M]						*480*		
Philippines			**85**	**39**		**8** [*]	**165**		**0** [*]	**1841**		**78000**
			143 [W]	*200* [M]	*339* [W]		*600* [M]		*3338* [W]	*12333*		
Thailand		**1000**		**7000**		**1000**	**2000**					**51000**
		0 [R]		*1000* [F]		*1000* [F]		*19*		*37*		
Brazil			**80503** [W]	**265** [W]		**1407** [W]	**8391** [W]	**36375** [W]	**48018** [W]	**71391** [W]		**627000** [W]
	143 [W]	*300*	*3003* [W]	*4000*	*25578* [W]	*22800*	*16800* [M]	*5892*	*56864* [W]	*95837*	*200*	
Ecuador												**25000** [I]
		700	*143* [W]	*1000*		*100*			*239* [W]	*371*		
Honduras			**100**			**200**	**200**		**37600**	**100**		**119000**
						100			*235* [W]	*1552*		
U.S.			**1000**						**1000**	**1000**		**40000**
		100	*286* [W]	*644* [*]	*452* [W]	*800*		*62*	*6120* [W]			
Total	*19000* [W]	*7000*	*360000* [*]	*240000*	*51000* [W]	*369000*	*587000*	*33000*	*282000*	*450000*	*11000*	

Table 2-2-c. Trade of Tropical Sawnwood, 1994 (m3)

Importers / Exporters	*Australia*	*China*	*(Taiwan)*	*Japan*	*Philippines*	*Rep. of Korea*	*Thailand*	*Canada*	*U.S.*	*TOTAL*
Cameroon										**215000**
				1000						
Congo										**25000** '
Côte d'Ivoire		**30**	**40**	**179**	**94**				**2198**	**524000**
								0 R		
Gabon										**130000**
Ghana	**320**	**1460**	**7060**	**410**		**160**			**4710**	**258000**
		32				*1390* W		*0* R	*1000*	
Zaire										**59000**
		19								
Indonesia			**45000** '	**67000** '		**18000** '			**78000** '	**308000** '
	16000	*273605*		*541000*	*1674*	*25000*	*2000*	*0* R	*15000*	
Malaysia	**48900**	**173200**	**484000**	**461400**	**175100**	**449300**	**1341100**		**27000**	**8561000**
	94000	*244034*		*622000*	*171165*	*572000*	*1948000*	*1000*	*43000*	
Myanmar		**2690**		**110**			**6190**	**30**	**170**	**36000**
		4299 '		*1000*			*53000*	*0* R	*1000*	
Thailand			**1000**	**41000**					**4000**	**61000**
		9376		*34000*	*0* '				*2000*	
Brazil										**850000** '
	2000	*2211*		*14000*	*99471*	*9000*	*2000*	*11000*	*64000*	
Ecuador										**25000** '
		140		2000					*8000*	
Honduras				**600**					**6600**	**123000**
				1000					*2000*	
Venezuela				**49**				**38**	**1815**	**5000**
						1000				
Total	*139000*	*717000*	*900000* '	*1642000*	*287000*	*617000*	*2467000*	*20000*	*222000*	

Table 2-2-d. Trade of Tropical Sawnwood, 1994 (m3)

Importers / Exporters	*Belgium-Lux.*	*Denmark*	*Finland*	*France*	*Germany*	*Ireland*	*Italy*	*Netherlands*	*Portugal*	*Sweden*	*U.K.*	*Switzerland*	*TOTAL*
Cameroon													**215000**
	26800	*429 W*		*28028 W*	*7000*		*27500*	*37000*	*502*	*85*	*24199*	*10*	
Congo													**25000 ***
	400	*143 W*	*0 R*	*858 W*	*1000*		*1300*		*207*	*94*	*547*		
Côte d'Ivoire	**1813**	**2801**	**2050**	**68463**	**9996**	**26748**	**183749**	**30757**	**17964**	**375**	**28156**	**304**	**524000**
	4800	*3289 W*	*4100*	*52481 W*	*15000*	*16385 W*	*176300*	*27000*	*14330*	*1969*	*29318*	*700*	
Gabon													**130000**
	300			*143 W*							*146*		
Ghana	**8570**	**270**	**220**	**14760**	**60710**	**33870**	**17350**	**39440**	**1790**	**50**	**33390**		**258000**
	5500	*1716 W*		*7007 W*	*95000*	*41552 W*	*23000*	*28000*	*488*	*268*	*42146*	*600*	
Zaire													**59000**
	4400			*1287 W*	*4000*		*6200*		*3441*		*10351*	*200*	
Indonesia							**25000 ***	**2000 ***					**308000 ***
	100	*1144 W*	*300*	*1430 W*	*5000*	*1022 W*	*46700*	*59000*	*543*		*23773*	*30*	
Malaysia	**86100**	**900**		**35100**	**32000**	**400**	**33500**	**279900**			**86300**	**400**	**8561000**
	78000	*3289 W*	*400*	*37609 W*	*107000*	*1161 W*	*35400*	*219000*	*51*	*1575*	*102017*	*1000*	
Myanmar		**270**					**620**				**60**		**36000**
	200	*2717 W*	*200*	*143 W*			*900*			*408*	*1895*		
Thailand			**1000**		**2000**		**1000**	**2000**					**61000**
			400	*0 R*			*300*		*76*		*261*		
Brazil													**850000 ***
	26700	*3718 W*	*200*	*8008 W*	*6000*	*5212 W*	*48300*	*32000*	*4854*	*636*	*97791*	*200*	
Ecuador													**25000 ***
			700	*143 W*			*100*				*735*		
Honduras	**1900**	**300**		**200**	**1600**	**700**	**500**	**5200**			**1500**		**123000**
	100		*0 R*				*100*				*1225*		
Venezuela				**31**			**189**						**5000**
									12				
Total	*155000*	*24000 W*	*8000*	*324000 **	*259000*	*79000 W*	*420000*	*461000*	*31000*	*8000*	*450000*	*13000*	

Table 2-3-a. Trade of Tropical Veneer, 1993 (m3)

Importers / Exporters	*China*	*(Taiwan)*	*Japan*	*Rep. of Korea*	*Thailand*	*Canada*	*U.S.*	TOTAL
Cameroon								**26000**
							212 A	
Congo								**38000**
							349 A	
Côte d'Ivoire		**17**					**10196**	**110000**
						0 R	*23* A	
Ghana							**1100**	**26000**
							170 A	
Indonesia								**13000**
	25293	*470* *	*5000*		*2000*	*0* R	*104* A	
Malaysia	**228600**	**185300**	**214200**	**28500**	**7200**	**200**	**16200**	**720000**
	256548	*200087* *	*216000*	*24000*	*8000*	*0* R	*4677* A	
Philippines		**12**	**4055**		**62**	**27**	**1365** *	**7000**
		174 *	*2000*			*0* R	*787* A	
Brazil			**1** W	**386** W			**156949** W	**188000** W
			1000			*1000*	*4772* A	
Germany			**1000** F				**1000** F	**10000** *
			1000 F			*0* R	*387* A	
Italy								**2000** *
						0 R	*1393* A	
Netherlands								**7000**
						0 R		
Total	*287000*	*204000*	*239000*	*26000*	*12000*	*2000*	*15000* A	

Table 2-3-b. Trade of Tropical Veneer, 1993 (m3)

Importers / Exporters	*Belgium-Lux.*	*Denmark*	*France*	*Germany*	*Italy*	*Netherlands*	*Spain*	*U.K.*	*Switzerland*	TOTAL
Cameroon										**26000**
	300	*266 W*	*2300 M*	*400 M*	*23800*	*100 M*	*121 W*	*253*	*20*	
Congo										**38000**
	1200	*532 W*	*7100 M*	*10000*	*2100*	*6300 M*		*42*	*20*	
Côte d'Ivoire	**5697**	**270**	**6135**	**29157**	**22187**	**2376**	**475**	**1002**	**30**	**110000**
	7100	*133 W*	*4600 M*	*37000*	*20500*	*700 M*	*250 W*	*139*	*10*	
Ghana	**1100**	**80**	**3950**	**6780**	**5420**	**1100**	**930**	**3710**		**26000**
	100		*1600 M*	*10000*	*5200*		*242 W*	*1488*		
Indonesia										**13000**
			700 M	*200 M*	*1500*	*100 M*	*56 W*	*130*		
Malaysia						**7200**		**500**		**720000**
	100 M					*1300 M*		*88*		
Philippines										**7000**
					100			*274*		
Brazil			**145 W**	**5711 W**	**1000 F**	**525 W**	**60 W**			**188000 W**
	200	*399 W*		*19000*	*1100*	*500 M*	*114 W*	*90*		
Germany					**772 ***		**2000 F**	**4000 F**	**365 ***	**10000 ***
	*213 **				*300*		*2728 W*	*4000 F*	*200*	
Italy										**2000 ***
	*58 **			*524 **			*1548 W*		*6*	
Netherlands										**7000**
	2600 M				*100*		*36 W*			
	12000	*3000 W*	*18000 M*	*77000*	*58000*	*13000*	*10000 **	*18000*	*1000*	

Table 2-3-c. Trade of Tropical Veneer, 1994 (m3)

Importers / Exporters	*Australia*	*China*	*(Taiwan)*	*Japan*	*Rep. of Korea*	*Thailand*	*Canada*	*U.S.*	TOTAL
Cameroon									**38000**
								177 [A]	
Congo									**44000**
								223 [A]	
Côte d'Ivoire		**33**	**51**					**10426**	**116000**
		23						*113* [A]	
Ghana	**590**	**440**						**3870**	**35000**
	2000	*438*					*0* [R]	*420* [A]	
Zaire									**7000**
								53 [A]	
China			**7856**	**3527**	**589**			**264**	**15000**
Indonesia									**10000** [1]
		9792		*5000*	*1000*	*3000*		*71* [A]	
Malaysia	**1400**	**173300**	**194200**	**155500**	**29400**	**13000**		**6800**	**613000**
	3000	*166563*		*134000*	*40000*	*9000*		*2059* [A]	
Philippines	**2427**		**300**	**15584**			**0** [*]	**1552**	**30000**
	3000	*5*		*10000*				*99* [A]	
Thailand					**1000**				**4000**
		632					*0* [R]		
Brazil									**85000** [W]
				7000	*2000*		*1000*	*4902* [A]	
France									**3000** [1]
		55					*0* [R]	*174* [A]	
Germany								**558**	**16000** [*]
		80					*0* [R]	*301* [A]	
U.S.			**3** [A]	**6** [A]			**880** [A]		**1000** [A]
		8766				*1000*	*1000*		
Total	*16000*	*193000*	*194000* [*]	*160000*	*54000*	*14000*	*3000*	*13000* [A]	

Table 2-3-d. Trade of Tropical Veneer, 1994 (m3)

Importers Exporters	*Belgium-Lux.*	*Denmark*	*Finland*	*Germany*	*Italy*	*Netherlands*	*Portugal*	*Sweden*	*U.K.*	TOTAL
Cameroon										**38000**
	1000	*133 W*		*2000*	*29800*	*6000*	*187*		*652*	
Congo										**44000**
	500	*1064 W*		*9000*	*1800*		*15*	*186 W*	*78*	
Côte d'Ivoire	**9672**	**430**	**156**	**25814**	**29901**	**5147**	**6**	**380**	**828**	**116000**
	6600	*266 W*	*200*	*30000*	*25100*		*8*	*238 W*	*700*	
Ghana	**930**	**120**	**320**	**8630**	**7990**	**1590**		**20**	**4180**	**35000**
	1400		*400*	*10000*	*7200*			*141 W*	*3625*	
Zaire				**0 ***						**7000**
	1200			*2000*	*300*		*538*	*137 W*	*1937*	
China	**19**	**10**		**25**	**7**	**9**			**12**	**15000**
					100				*73*	
Indonesia										**10000 1**
					800				*225*	
Malaysia						**1300**			**300**	**613000**
									93	
Philippines										**30000**
									123	
Thailand		**2000**							**1000**	**4000**
		1330 W	*100*		*300*				*1822*	
Brazil										**85000 W**
	300	*798 W*	*0 R*	*18000*	*800*		*6*	*20 W*	*71*	
France										**3000 1**
		266 W	*100*	*781 **	*300*		*272*			
Germany	**399 ***	**799**			**989 ***	**427 ***		**827 ***	**1441 ***	**16000 ***
		1064 W	*0 R*		*500*	*1000*	*90*	*521 W*	*200*	
U.S.		**6**		**3 ^**	**1 ^**					**1000 ^**
				*180 **	*100*					
Total	*11000*	*5000 W*	*1000*	*72000*	*72000*	*12000*	*2000*	*2000*	*23000*	

Table 2-4-a. Trade of Tropical Plywood, 1993 (m3)

Importers / Exporters	*Egypt*	*Australia*	*China*	*(Taiwan)*	*Japan*	*Rep. of Korea*	*Canada*	*U.S.*	TOTAL
Côte d'Ivoire									**15000**
	2000								
(Taiwan P. of China)					**8684** *		**2205** *	**23091**	**110000** *
	3000				*12000*		*0* R	*9000*	
Indonesia	**87000** F	**28000** F	**935000** F	**569000** F	**3648000**	**1069000** F	**872870**		**9724000**
	6000	*31000*	*1006285*	*543047* *	*3450000*	*777000*	*59000*	*658000*	
Malaysia	**2600**	**2900**	**700700**	**172700**	**389700**	**64000**		**182000**	**2421000**
		6000	*361788*	*138516* *	*379000*	*35*	*1000*	*156000*	
Philippines		**241**		**2938**	**4931**		**0** *	**960**	**40000**
	9000	*100* M			*1000*		*0* R	*2000*	
Brazil	**4000** F				**9000** F	**2000** F	**1000** F	**170498**	**656000** W
					11000	*1000*	*1000*	*66000*	
Belgium-Lux									**0**
France									**44000** *
Germany								**1000** F	**4000** *
	2000		*1000* F					*1000* F	
U.S.			**2000** F	**6000** F		**11000** F	**17000**		**80000**
	8000		*888* *	*47* *		*2000*	*12000*		
Total	*125000* *	*42000*	*1371000*	*788000* *	*3864000*	*822000*	*74000*	*919000*	

Table 2-4-b. Trade of Tropical Plywood, 1993 (m3)

Importers / Exporters	*Belgium-Lux*	*Denmark*	*France*	*Germany*	*Italy*	*Netherlands*	*U.K.*	*Switzerland*	TOTAL
Côte d'Ivoire	**803**		**8614**	**704**	**610**	**42**	**70**	**50**	**15000**
			10800 M	*1000*	*1800*				
(Taiwan P. of China)							**1476 '**		**110000 '**
					100		*1758*		
Indonesia	**187000 F**	**17000 F**	**52000 F**	**70000 F**	**10000 F**	**87000 F**	**165960**		**9724000**
	98200		*86000 F*	*148000*	*8900*	*104000 F*	*190701*	*400*	
Malaysia	**13400**	**1700**	**100**	**3200**	**1500**	**15600**	**88100**	**2800**	**2421000**
	9000		*2000 F*	*5000*	*1100*	*15100 M*	*85744*	*600*	
Philippines	**7090**			**66**		**4735**	**12973**		**40000**
	5900			*2000*		*4000 M*	*15451*	*10*	
Brazil	**58743 W**	**10000 F**	**4000 F**	**13481 W**	**10000 F**	**9000 F**	**140774 W**	**1000 F**	**656000 W**
	35600			*19000*	*10400*	*10000 F*	*136428*	*1000 F*	
Belgium-Lux									**0**
			16000 F						
France	**10000 F**				**17000 F**		**5000 F**		**44000 '**
	10600 M				*8800*		*10000 F*	*5900*	
Germany							**3000**		**4000 '**
	800 M		*18000 F*		*600*	*10000 F*	*4000*	*300*	
U.S.			**14000 F**						**80000**
			16000 F						
Total	*170000*	*40000 W*	*180000 W*	*193000*	*35000*	*238000*	*478000*	*9000*	

Table 2-4-c. Trade of Tropical Plywood, 1994 (m3)

Importers / Exporters	*Egypt*	*Australia*	*China*	*(Taiwan)*	*Japan*	*Philippines*	*Rep. of Korea*	*Canada*	*U.S.*	TOTAL
Côte d'Ivoire			**42**	**103**						**11000**
	4000									
Gabon										**10000**
Ghana		**50**								**1000**
								0 R		
China				**792**	**1488**	**192**	**2713**		**279**	**22000 ***
			2367			*668*	*6000*	*0 R*		
(Taiwan)										**110000 ***
	8000		*18695*		*17000*	*401*			*3000*	
Indonesia			**573000 ***	**756000 ***	**2921000 ***		**640000 ***		**688000 ***	**8852000**
	6000	*34000*	*483748*		*3240000*	*30*	*676000*	*56000*	*513000*	
Malaysia		**2900**	**1071400**	**221100**	**523200**	**500**	**161800**		**146900**	**3004000**
		6000	*481556*		*510000*	*2734*	*155000*	*1000*	*121000*	
Philippines		**57**		**1212**	**5315**			**24**	**3**	**10000**
			8403		*0 R*			*0 R*		
Brazil										**800000 ***
	6000		*10*		*16000*		*6000*	*1000*	*82000*	
Ecuador										**30000 F**
					1000				*4000*	
Guyana							**5214**	**108**	**10414**	**31000**
							4000		*8000*	
France										**25000 ***
	2000		*52*							
Germany										**4000 F**
	1000		*371*			*74*			*1000*	
U.S.					**1000**			**15000**		**71000**
	4000		*9779*			*1203*		*11000*		
Total	*140000 **	*43000*	*1094000*	*800000 **	*3791000*	*7000*	*868000*	*69000*	*742000*	

Table 2-4-d. Trade of Tropical Plywood, 1994 (m3)

Importers / Exporters	*Belgium-Lux.*	*Germany*	*Ireland*	*Italy*	*Netherlands*	*Portugal*	*Sweden*	*U.K.*	*Switzerland*	TOTAL
Côte d'Ivoire	**370**	**705**		**2702**	**45**			**77**		**11000**
	500	*1000*		*2700*						
Gabon				**485**	**1423**					**10000**
	300			*1000*				*352*		
Ghana		**230**		**90**	**1**			**220**		**1000**
								579	*100*	
China								**3869**		**22000 '**
								8943		
(Taiwan)										**110000 '**
	100		*20 F*				*69*	*412*		
Indonesia	**123000 '**				**96000 '**			**97000 '**		**8852000**
	67500	*127000*		*10900*	*44000*		*2362*	*128752*	*100*	
Malaysia	**4100**	**2200**		**2900**	**9700**		**600**	**76100**	**300**	**3004000**
	7700	*3000*		*2000*	*5000*		*73*	*79521*		
Philippines	**37**	**0 '**			**0 '**			**2809**		**10000**
	1300				*1000*			*4899*		
Brazil										**800000 '**
	46700	*50000*	*12169 F*	*13300*	*4000*	*120*	*1736*	*217009*	*500*	
Ecuador										**30000 '**
							317	*293*		
Guyana					**358**			**833**		**31000**
France										**25000 '**
				14000	*51000*	*33*	*301*		*6100*	
Germany										**4000 '**
				200	*2000*	*61*	*75*		*300*	
U.S.										**71000**
			980 F							
	136000	*195000*	*14000 F*	*49000*	*162000*	*4000*	*7000*	*485000*	*8000*	

Appendix 3

Value of Trade in Tropical Timber Products in 1993

Appendix 3.

Table 3-1. Value, Volume and Unit Value of Exports in Tropical Timber by ITTO Consumers in 1993

Country	Reported Currency	Rate	Logs			Sawnwood			Veneer			Plywood			Total
			Value (1000 US$)	Volume (1000 m3)	Unit Value (US$/m3)	Value (1000 US$)	Volume (1000 m3)	Unit Value (US$/m3)	Value (1000 US$)	Volume (1000 m3)	Unit Value (US$/m3)	Value (1000 US$)	Volume (1000 m3)	Unit Value (US$/m3)	Value (1000US$)
Australia	A$	0.703	0	0	-	0	0	-	0	0	-	0	0	-	0
Canada	US$		4	0	-	474	1	473.60	428	0	-	1339	3	446.30	2244
China	US$		2202	9	244.67	8712	22	396.00	158	0	-	2220	6	370.00	13292
(Taiwan)	US$		3250 I	13	250.00	5250 I	15	350.00	2200 I	4	550.00	49500 I	110	450.00	60200
Egypt	US$		0	0	-	0	0	-	0	0	-	0	0	-	0
EU			**16182**	**62**	**261.00**	**102773**	**188**	**546.67**	**25924**	**34**	**762.48**	**76830**	**138**	**556.74**	**221709**
Austria	US$		0	0	-	400 I	1	400.00	0	0	-	0	0	-	400
Belgium-Lux.	US$		0	0	-	0	0	-	0	0	-	0	0	-	0
Denmark	DKK	0.154	66	0	-	2525	3	841.72	577	1	577.27	2000 I	3	666.67	5168
Finland	US$		0	0	-	85	0	-	3	0	-	49	0	-	137
France	US$		7500 I	30	250.00	3500 I	10	350.00	2750 I	5	550.00	19800 I	44	450.00	33550
Germany	US$		3500 I	14	250.00	11200 I	32	350.00	5500 I	10	550.00	1800 I	4	450.00	22000
Greece	US$		250 I	1	250.00	1400 I	4	350.00	1100 I	2	550.00	7650 I	17	450.00	10400
Ireland	US$		10	0	-	7233	10	723.30	359	0	-	227	0	-	7829
Italy	1000 Lira	0.637	750 I	3	250.00	3150 I	9	350.00	1100 I	2	550.00	3600 I	8	450.00	8600
Netherlands	Guilder	0.539	3226	11	293.27	68280	106	644.15	7527	7	1075.29	26882	36	746.72	105915
Portugal	US$		630	2	315.00	1900	4	475.00	2808	2	1404.00	972	1	972.00	6310
Spain	US$		0	0	-	300 I	1	300.00	2000 I	1	2000.00	8000 I	12	666.67	10300
Sweden	US$		0	0	-	0	0	-	0	0	-	0	0	-	0
U.K.	US$		250 I	1	250.00	2800 I	8	350.00	2200 I	4	550.00	5850 I	13	450.00	11100
Japan	US$		0	0	-	0	0	-	9710	8	1213.75	15093	8	1886.63	24803
Nepal	US$		0	0	-	0	0	-	0	0	-	0	0	-	0
New Zealand	NZ$	0.532	0	0	-	0	0	-	0	0	-	0	0	-	0
Norway	US$		0	0	-	17	0	-	9	0	-	361	0	-	387
Rep.of Korea	US$		0	0	-	154	0	-	62	0	-	1161	1	1161.00	1377
Russian Fed.	US$		0 I	0	-	0 I	0	-	0 I	0	-	0 I	0	-	0
Switzerland	US$		8	0	-	761	1	761.00	120	0	-	66	0	-	955
U.S.A.	US$		776	4	194.00	14438	40	360.95	2703	1	2703.00	22091	80	276.14	40008
Consumers Total			**22422**	**88**	**254.80**	**132579**	**267**	**496.55**	**41314**	**47**	**879.02**	**168661**	**346**	**487.46**	**364976**
ITTO Total			**2588737**	**16870**	**153.45**	**3106397**	**8468**	**366.84**	**504793**	**1195**	**422.42**	**5863819**	**13350**	**439.24**	**12063747**

Table 3-2. Value, Volume and Unit Value of Imports in Tropical Timber by ITTO Consumers in 1993

Country	Reported Currency	Rate	Logs			Sawnwood			Veneer			Plywood			Total
			Value (1000 US$)	Volume (1000 m3)	Unit Value (US$/m3)	Value (1000 US$)	Volume (1000 m3)	Unit Value (US$/m3)	Value (1000 US$)	Volume (1000 m3)	Unit Value (US$/m3)	Value (1000 US$)	Volume (1000 m3)	Unit Value (US$/m3)	Value (1000US$)
Australia	A$	0.703	344	2	172.24	75671	170	445.12	6974	11	634.04	19074	42	454.15	102064
Canada	US$		333	1	333.10	5950	14	424.96	2299	2	1149.70	26242	74	354.62	34824
China	US$		227592	1595	142.69	107243	703	152.55	68641	287	239.17	505068	1371	368.39	908544
(Taiwan)	US$		545000 I	2180	250.00	368200 I	1052	350.00	112200 I	204	550.00	354600 I	788	450.00	1380000
Egypt	US$		8750 I	35	250.00	6400 I	16	400.00	4800 I	8	600.00	62500 I	125	500.00	82450
EU			**559385**	**2435**	**229.73**	**1260450**	**2599**	**484.97**	**224782**	**216**	**1040.66**	**996275**	**1370**	**727.21**	**3040891**
Austria	US$		1000	3	333.33	8000	13	615.38	I000	1	1000.00	1000	1	1000.00	11000
Belgium-Lux.	US$		15400 M	40	385.00	107750 M	155	695.16	30140 M	12	2511.67	121440 M	170	714.35	274730
Denmark	DKK	0.154	699	2	349.57	13424	19	706.54	6310	3	2103.30	32700 I	40	817.50	53133
Finland	US$		0	0	-	5069	7	724.14	709	1	709.00	417	1	417.00	6195
France	US$		169400 M	895	189.27	129100 M	360	358.61	51650 M	18	2869.44	153500 M	180	852.78	503650
Germany	US$		65313	213	306.63	143491	240	597.88	40895	77	531.10	106439	193	551.50	356138
Greece	US$		29250 I	117	250.00	9450 I	27	350.00	1100 I	2	550.00	900 I	2	450.00	40700
Ireland	US$		847	2	423.50	21057	51	412.89	2743	1	2743.00	6000 I	13	461.54	30647
Italy	1000 Lira	0.637	102554	438	234.14	176047	369	477.09	40361	58	695.88	19283	35	550.93	338244
Netherlands	Guilder	0.539	25800	111	232.43	333620	587	568.35	8000	13	615.38	127000	238	533.61	494420
Portugal	US$		86112	329	261.74	21491	33	651.24	1654	1	1654.00	736	1	736.00	109993
Spain	US$		57000	265	215.09	104000	282	368.79	5000 I	10	500.00	5000 I	8	625.00	171000
Sweden	US$		250 I	1	250.00	2100 I	6	350.00	550 I	1	550.00	4500 I	10	450.00	7400
U.K.	US$		5760 M	19	303.16	185850 M	450	413.00	34670 M	18	1926.11	417360 M	478	873.14	643640
Japan	US$		2286362	8324	274.67	766054	1805	424.41	145664	239	609.47	1914751	3864	495.54	5112831
Nepal	US$		1250 I	5	250.00	700 I	10	70.00	0 I	2	0.00	4500 I	0	-	6450
New Zealand	NZ$	0.532	169	0	-	1719	3	573.14	146	0	-	400 I	1	400.00	2434
Norway	US$		0	0	-	2308	4	577.00	761	1	761.00	5974	12	497.83	9043
Rep.of Korea	US$		448113	2103	213.08	329194	970	339.38	8863	26	340.88	399706	822	486.26	1185876
Russian Fed.	US$		2500 I	10	250.00	2800 I	8	350.00	1650 I	3	550.00	1350 I	3	450.00	8300
Switzerland	US$		1811	6	301.83	6343	11	576.64	745	1	745.00	8918	9	990.89	17817
U.S.A.	US$		2233	5	446.60	50000 I	175	285.71	20269	15	1351.27	434930	919	473.26	507432
Consumers Total			**4083842**	**16701**	**244.53**	**2983032**	**7540**	**395.63**	**597795**	**1015**	**588.96**	**4734288**	**9400**	**503.65**	**12398957**
ITTO Total			**4442943**	**19344**	**229.68**	**3587176**	**10061**	**356.54**	**636724**	**1098**	**579.89**	**4779179**	**9495**	**503.34**	**13446022**

Table 3-3. Value, Volume and Unit Value of Exports in Tropical Timber by ITTO Producers in 1993

Country	Reported Currency	Rate	Logs			Sawnwood			Veneer			Plywood			Total
			Value (1000 US$)	Volume (1000 m3)	Unit Value (US$/m3)	Value (1000 US$)	Volume (1000 m3)	Unit Value (US$/m3)	Value (1000 US$)	Volume (1000 m3)	Unit Value (US$/m3)	Value (1000 US$)	Volume (1000 m3)	Unit Value (US$/m3)	Value (1000US$)
Africa			**744458**	**3250**	**229.06**	**378199**	**1028**	**367.90**	**94211**	**203**	**464.10**	**33257**	**70**	**475.10**	**1250125**
Cameroon	US$		223927 I	647	346.10	77235 Y	142	543.91	16068 Y	26	618.00	14000 I	40	350.00	331230
Congo	US$		75024 I	240	312.60	16973 Y	18	942.94	20512 Y	38	539.79	0	0	-	112509
Côte d'Ivoire	CFA	0.004	43960	320	137.37	165867	460	360.58	38595	110	350.87	7942	15	529.46	256364
Gabon	US$		330482 Y	1500	220.32	36750 I	147	250.00	1574 Y	1	1574.00	10459 Y	13	804.54	379265
Ghana	US$		54730	496	110.34	71307	239	298.36	15449	26	594.19	856	2	428.00	142342
Liberia	US$		3335 Y	5	667.00	67 Y	0	-	13 Y	0	-	0	0	-	3415
Togo	US$		0	0	-	0	0	-	0	0	-	0	0	-	0
Zaire	US$		13000 I	42	309.52	10000 I	22	454.55	2000 I	2	1000.00	0	0	-	25000
Asia-Pacific			**1806105**	**13281**	**135.99**	**2289943**	**6181**	**370.48**	**314827**	**745**	**422.59**	**5365617**	**12220**	**439.08**	**9776492**
India	US$		0	0	-	300 I	1	300.00	1894 Y	2	947.00	10000 I	30	333.33	12194
Indonesia	US$		0	0	-	349343 Y	639	546.70	13000 I	13	1000.00	4227191 Y	9724	434.72	4589534
Malaysia	US$		1214200	9382	129.42	1842600	5371	343.06	293900	720	408.19	1108300	2421	457.79	4459000
Myanmar	US$		108521	1029	105.46	22678	38	596.79	30	0	-	343	1	343.00	131572
PNG	US$		483193	2867	168.54	2313 Y	3	771.00	0	0	-	0	0	-	485506
Philippines	US$		91	1	91.00	17754	78	227.62	3003 Y	7	429.00	17283	40	432.08	38131
Thailand	US$		100	2	50.00	54955	51	1077.55	3000 I	3	1000.00	2500 I	4	625.00	60555
Latin America			**15752**	**251**	**62.76**	**305677**	**992**	**308.14**	**54441**	**200**	**272.21**	**296285**	**714**	**414.96**	**672155**
Bolivia	US$		2889	15	192.59	44478	157	283.30	294	4	73.48	2920	5	584.07	50581
Brazil	US$		9899	200	49.50	227850	627	363.40	48407	188	257.48	274122	656	417.87	560278
Colombia	US$		49	0	-	567	3	188.92	0	0	-	4215	5	843.01	4830
Ecuador	US$		0 I	0	-	8504 Y	25	340.16	2148 Y	3	716.00	6944 Y	25	277.76	17596
Guyana	US$		537	5	107.37	3963	14	283.07	0	0	-	2786	7	397.97	7286
Honduras	US$		900 I	9	100.00	8760	119	73.61	964	0	-	2500 I	9	277.78	13124
Panama	US$		0	0	-	237	4	59.15	122 Y	0	-	341	0	-	699
Peru	US$		0	0	-	8123	16	507.70	2451	5	490.28	2000 I	6	333.33	12575
Trinidad	US$		0 I	0	-	2000 I	8	250.00	0 I	0	-	350 I	1	350.00	2350
Venezuela	US$		1479	22	67.21	1195	19	62.92	55	0	-	107	0	-	2836
Producers Total			**2566314**	**16782**	**152.92**	**2973819**	**8201**	**362.62**	**463480**	**1148**	**403.73**	**5695158**	**13004**	**437.95**	**11698771**
ITTO Total			**2588737**	**16870**	**153.45**	**3106397**	**8468**	**366.84**	**504793**	**1195**	**422.42**	**5863819**	**13350**	**439.24**	**12063747**

Table 3-4. Value, Volume and Unit Value of Imports in Tropical Timber by ITTO Producers in 1993

Country	Reported Currency	Rate	Logs			Sawnwood			Veneer			Plywood			Total
			Value (1000 US$)	Volume (1000 m3)	Unit Value (US$/m3)	Value (1000 US$)	Volume (1000 m3)	Unit Value (US$/m3)	Value (1000 US$)	Volume (1000 m3)	Unit Value (US$/m3)	Value (1000 US$)	Volume (1000 m3)	Unit Value (US$/m3)	Value (1000US$)
Africa			**0**	**0**	**-**	**806**	**7**	**115.14**	**0**	**4**	**0.00**	**6000**	**21**	**285.71**	**6806**
Cameroon	US$		0	0	-	0	0	-	0	0	-	0	0	-	0
Congo	US$		0	0	-	500 I	4	125.00	0	0	-	4000 I	15	266.67	4500
Côte d'Ivoire	CFA	0.004	0	0	-	0	0	-	0	0	-	0	0	-	0
Gabon	US$		0	0	-	210 Y	0	-	0	0	-	2000 I	6	333.33	2210
Ghana	US$		0	0	-	0	0	-	0	0	-	0	0	-	0
Liberia	US$		0	0	-	0	0	-	0	0	-	0	0	-	0
Togo	US$		0	0	-	96	3	32.00	0	0	-	0	0	-	96
Zaire	US$		0	0	-	0	0	-	0	4	0.00	0	0	-	0
Asia-Pacific			**355620**	**2609**	**136.30**	**568695**	**2357**	**241.28**	**29898**	**38**	**786.79**	**26859**	**41**	**655.09**	**981072**
India	US$		26704 Y	249	107.24	1000 I	4	250.00	800 I	1	800.00	500 I	1	500.00	29004
Indonesia	US$		1500 I	10	150.00	0	0	-	8000 I	18	444.44	0	0	-	9500
Malaysia	US$		12331	174	70.87	41200 I	152	271.05	9488	4	2372.03	16992	26	653.53	80011
Myanmar	US$		0	0	-	0	0	-	0	0	-	0	0	-	0
PNG	US$		0	0	-	0	0	-	0	0	-	0	0	-	0
Philippines	US$		82451	569	144.91	45237	458	98.77	1329	3	443.00	815	2	407.50	129832
Thailand	US$		232634	1607	144.76	481258	1743	276.11	10281	12	856.75	8552	12	712.67	732725
Latin America			**3481**	**34**	**102.39**	**34644**	**157**	**220.66**	**9031**	**41**	**220.26**	**12032**	**33**	**364.61**	**59188**
Bolivia	US$		0	0	-	0	0	-	0	0	-	0	0	-	0
Brazil	US$		205	5	41.00	26588	110	241.71	6215	35	177.57	262	0	-	33270
Colombia	US$		100 I	1	100.00	50 I	0	-	400 I	1	400.00	300 I	1	300.00	850
Ecuador	US$		0 I	0	-	0 I	0	-	0 I	0	-	0 I	0	-	0
Guyana	US$		0	0	-	0	0	-	0	0	-	0	0	-	0
Honduras	US$		5	0	-	36	0	-	29	1	29.00	78	0	-	147
Panama	US$		1279	11	116.25	324	2	161.87	649	0	-	53	0	-	2305
Peru	US$		575	1	574.95	270	1	269.54	552	0	-	76	0	-	1473
Trinidad	US$		500 I	4	125.00	5000 I	26	192.31	0 I	0	-	4000 I	10	400.00	9500
Venezuela	US$		818	12	68.17	2377	18	132.05	1185	4	296.33	7262	22	330.09	11642
Producers Total			**359101**	**2643**	**135.87**	**604145**	**2521**	**239.64**	**38929**	**83**	**469.02**	**44891**	**95**	**472.54**	**1047066**
ITTO Total			**4442943**	**19344**	**229.68**	**3587176**	**10061**	**356.54**	**636724**	**1098**	**579.89**	**4779179**	**9495**	**503.34**	**13446022**

Appendix 4

Tropical Forest Areas for ITTO Producers in 1993-94

Appendix 4.

Table 4-1. Tropical Forest Areas for ITTO Producers as of 1993 (1000 ha)

Country	Total Land Area	Natural Forest								Plantations			Total Tropical Forest Area
		Productive					Unproductive	*Legally Reserved*	Total				
		Total	Managed	*Sust. managed*	Unmanaged	*Unexploited*				Hardwood	*rapid growth*	Softwood	
Africa	**403133**	**54197**	**5834**	***1912***	**41229**	***9031***	**130497**	***6800***	**215463**	**286**	***35***	**1**	**215749**
Cameroon	46540	17173	565	*233*	16940	*9000*	5647	*3000*	22820	37	*14*		22857
Congo [F]	34150								19865	37			19902
Côte d'Ivoire [F]	31800								10904	63			10967
Gabon	25767	7466					12534		20000	30		1	20030
Ghana	23002	2053	1679	*1679*	374		6173	*3800*	8226	78			8304
Liberia	9675	3900	1700		2200		1000		4900	10	*5*		4910
Togo	5439	215	0	*0*	215	*31*	533		748	31	*16*		779
Zaire	226760	23390	1890		21500		104610		128000	0			128000
Asia-Pacific	**703320**	**182784**	**93555**	***11575***	**82777**	***3178***	**58818**	***14682***	**293331**	**14566**	***180***	**261**	**308158**
India [F]	297319								51729	13230			64959
Indonesia	181157	110528	61726	*325*	48802				110528	106			110634
Malaysia	32855	14500	11250	*11250*	3250		5480	*5150*	19980	140	*140*		20120
Myanmar	65797	34424	20579		13845		15439	*723*	49863	430	*40*	10	50303
PNG	45286	3410					29090		32500	35		18	32553
Philippines	29817	3042					2009	*2009*	5051	19		233	5303
Thailand	51089	16880	0	*0*	16880	*3178*	6800	*6800*	23680	606			24286
Latin America	**1340834**	**217564**	**34900**	***6420***	**177010**	***44684***	**48585**	***24454***	**832315**	**5128**	***25***	**13**	**837456**
Bolivia	108438	56534	26418		30116		21434	*15000*	77968				77968
Brazil [F]	845651								561107	4900			566007
Colombia	103870	45854	154		45700			*9362*	46302	135		6	46443
Ecuador [F]	27684								11962	45			12007
Guyana	19685	9000	6539	*4847*	2461	*2461*			9000				9000
Honduras	11189	5653						*89*	5653				5653
Panama	7599	851	16		835		1686	*3*	2537	7		7	2551
Peru	128000	55139	200		54938	*14800*	16802		71941	28	*25*		71969
Trinidad [F]	513								155	13			168
Venezuela	88205	44533	1573	*1573*	42960	*27423*	8663		45690				45690
Total	**2447287**								**1341109**	**19980**		**275**	**1361363**

F: FAO 1990 Forest Resource Assessment.

Table 4-2. Tropical Forest Areas for ITTO Producers as of 1994 (1000 ha)

Country	Total Land Area	Natural Forest							Plantations			Total Tropical Forest Area
		Productive					Unproductive	*Legally Reserved*	Total			
		Total	Managed	*Sust. managed*	Unmanaged	*Unexploited*				Hardwood	*rapid growth*	Softwood	
Africa	**403133**	**54094**	**5894**	***1979***	**41229**	***9031***	**130430**	***6800***	**215293**	**288**	***51***	**21**	**215602**
Cameroon	46540	17240	625	*300*	16940	*9000*	5580	*3000*	22820	37	*14*		22857
Congo F	34150								19865	37			19902
Côte d'Ivoire F	31800								10904	63			10967
Gabon	25767	7296					12534		19830	30		1	19861
Ghana	23002	2053	1679	*1679*	374		6173	*3800*	8226	79			8305
Liberia	9675	3900	1700		2200		1000		4900	10	*5*		4910
Togo	5439	215	0	*0*	215	*31*	533		748	32	*32*	20	800
Zaire	226760	23390	1890		21500		104610		128000	0			128000
Asia-Pacific	**703320**	**182419**	**92975**	***10995***	**82675**	***3096***	**59654**	***15018***	**293802**	**14927**	***215***	**256**	**308985**
India F	297319								51729	13230			64959
Indonesia	181157	110528	61726	*325*	48802				110528	386			110914
Malaysia	32855	13900	10670	*10670*	3230		5480	*5150*	19380	170	*170*		19550
Myanmar	65797	34424	20579		13845		15439	*723*	49863	450	*45*	12	50325
PNG	45286	3410					29590		33000	35		18	33053
Philippines	29817	3359					2263	*2263*	5622	50		226	5898
Thailand	51089	16798	0	*0*	16798	*3096*	6882	*6882*	23680	606			24286
Latin America	**1340834**	**216893**	**37952**	***7703***	**173436**	***44306***	**58072**	***30920***	**848189**	**5673**	***30***	**11**	**853873**
Bolivia	108438	56534	28341		28193		21434	*21434*	77968				77968
Brazil F	845651								561107	4900			566007
Colombia	103870	45554	154		45400			*9407*	45554	150		8	45712
Ecuador F	27684								11962	45			12007
Guyana	19685	9000	6592	*4900*	2408	*2408*			9000	8			9008
Honduras	11189	5505						*76*	5505	9			5514
Panama	7599	850	65	*65*	785	*785*	1686	*3*	2536	7		3	2546
Peru	128000	55000	200	*138*	54800	*14800*	26502		81502	30	*30*		81532
Trinidad F	513								155	13			168
Venezuela	88205	44450	2600	*2600*	41850	*26313*	8450		52900	511			53411
Total	**2447287**								**1357284**	**20888**		**288**	**1378460**

F: FAO 1990 Forest Resource Assessment.

Appendix 5

Forest Industry Structure in ITTO Producers Countries in 1993-94

Appendix 5.

Table 5-1. Forest Industry Structure in ITTO Producer in 1993

Industry	Logging		Sawmills				Veneer mills				Plywood mills				Others		Total	
Country	Enter-prises	Employees	Enter-prises	Employees	Installed Capacity (1000m3)	Avg. Conv. Rate	Enter-prises	Employees	Installed Capacity (1000m3)	Avg. Conv. Rate	Enter-prises	Employees	Installed Capacity (1000m3)	Avg. Conv. Rate	Enter-prises	Employees	Enter-prises	Employees
Africa	**1092**	**41422**	**446**	**79291**	**2497**		**39**	**597**	**725**		**19**	**10520**	**121**		**67**	**0**	**1663**	**172706**
Cameroon	230	6560	203	11000			2	452			2	496					437	18508
Congo	35	4832	18	266			2	65			1	24					56	5187
Côte d'Ivoire	571		80		1831	0.47	18		600	0.35	3			0.60			672	11876
Gabon	25	15000	22	3000	84	0.40	1	80	15	0.50	3	10000	115	0.55			51	28080
Ghana1)	200	15000	120	65000	570	0.43	16		110	0.55	10		6	0.50	67		413	80000
Liberia	2																2	4000 I
Togo	1	30	3	25	12	0.35											4	55
Zaire	28																28	25000 I
Asia-Pacific	**1863**	**115889**	**2098**	**84131**	**32638**		**143**	**60255**	**7830**		**75**	**2708**	**416**		**792**	**15949**	**4971**	**4803932**
India																		2000000 I
Indonesia																		2500000 *
Malaysia2)	1813	62889	1152	63591	23927	0.50	116	51055	7197	0.65				0.70	252	12633	3333	190168
Myanmar			95	10470	874	0.53			56		3	2008	31			1666	98	14144
PNG3)		13000			225	0.25					1	700	16	0.40	501	1650	502	15350
Philippines4)	50	40000	129	10070	1512	0.60	13	9200	480	0.50	45			0.43	30		267	59270
Thailand			722		6100		14		97		26		369		9		771	25000 I
Latin America	**584**	**397580**	**4894**	**256608**	**685**		**149**	**11620**	**104**		**367**	**33741**	**255**		**454**	**3083**	**6448**	**733632**
Bolívia	145	50000	140	30000	240		7	5000	50		5	5000	30				297	90000
Brazil		240000	4230	98000			137	5620			342	25140					4709	368760
Colombia																		6000 I
Ecuador																		12000 I
Guyana	439	7580	85	5000	175						2	938	89				526	13518
Honduras			148	8448							2	460					150	8908
Panama			41	160	160						4	203	31		354	1833	399	2196
Peru		100000	250	115000	110		5	1000	54		12	2000	105		100	1250	367	219250
Trinidad																		3000 I
Venezuela																		10000 I
Total	**3539**	**554891**	**7438**	**420030**	**35820**		**331**	**72472**	**8659**		**461**	**46969**	**792**		**1313**	**19032**	**13082**	**5710270**

1) Number of employees of sawmills includes those of all processing mills. 2) Number of enterprises, installed capacity and employees of veneer mills include those of plywood mills.
3) Number of employees of logging includes those of sawmills. 4) Installed capacity and number of enployees of veneer mills include those of plywood mills and others.

Table 5-2. Forest Industry Structure in ITTO Producer in 1994

Industry	Logging		Sawmills				Veneer mills				Plywood mills				Others		Total	
Country	Enter-prises	Employees	Enter-prises	Employees	Installed Capacity (1000m3)	Avg. Conv. Rate	Enter-prises	Employees	Installed Capacity (1000m3)	Avg. Conv. Rate	Enter-prises	Employees	Installed Capacity (1000m3)	Avg. Conv. Rate	Enter-prises	Employees	Enter-prises	Employees
Africa	**1061**	**39895**	**463**	**79858**	**2507**		**43**	**595**	**715**		**24**	**10492**	**175**		**85**	**0**	**1676**	**171840**
Cameroon	205	5450	196	10650			2	435			2	472					405	17007
Congo	30	3915	17	210			2	60			1	20					50	4205
Côte d'Ivoire	571		80		1831	0.47	18		600	0.35	8			0.60	15		692	12000
Gabon	25	15500	25	3978	96	0.40	1	100	15	0.50	3	10000	115	0.55			54	29578
Ghana1)	200	15000	120	65000	570	0.43	16		100	0.55	10		60	0.50	70		416	80000
Liberia	2																2	4000 I
Togo	1	30	2	20	10	0.35											3	50
Zaire	27		23				4										54	25000 I
Asia-Pacific	**2423**	**115732**	**3757**	**84615**	**47304**		**152**	**71466**	**10382**		**169**	**2708**	**11160**		**1136**	**20485**	**7637**	**4820006**
India																		2000000 I
Indonesia	575		2354		18975	0.50				0.70	120		11113	0.50	151		3200	2500000 *
Malaysia2)	1815	62232	1186	64087	25693	0.50	139	62266	9840	0.65				0.70	304	16969	3444	205554
Myanmar			96	10458	878	0.53			56		3	2008	31			1666	99	14132
PNG3)		13500			250	0.25					1	700	16	0.40	651	1850	652	16050
Philippines4)	33	40000	121	10070	1508	0.60	13	9200	486	0.50	45			0.43	30		242	59270
Thailand																		25000 I
Latin America	**502**	**402000**	**5133**	**267160**	**700**		**156**	**12310**	**104**		**370**	**33577**	**237**		**454**	**3083**	**6830**	**775800**
Bolivia	152	55000	145	35000	250		9	5000	50		7	5000	30				313	100000
Brazil		240000	4454	103000			142	6310			344	25280					4940	374590
Colombia																		6000 I
Ecuador																		12000 I
Guyana	350	7000	85	5000	180						2	715	78				437	12715
Honduras			158	9000							2	430					160	9430
Panama			41	160	160						3	152	24		354	1833	398	2145
Peru		100000	250	115000	110		5	1000	54		12	2000	105		100	1250	367	219250
Trinidad																		3000 I
Venezuela	19	574	173	34897	785						15	656	150		8	543	215	36670
Total	**3986**	**557627**	**9353**	**431633**	**50511.3**		**351**	**84371**	**11201**		**563**	**46777**	**11572**		**1675**	**23568**	**16143**	**5767646**

1) Number of employees of sawmills includes those of all processing mills. 2) Number of enterprises, installed capacity and employees of veneer mills include those of plywood mills.
3) Number of employees of logging includes those of sawmills. 4) Installed capacity and number of enployees of veneer mills include those of plywood mills and others.

Appendix 6

Major Species Traded in 1994

Appendix 6.

Table 6-1-a. Major Tropical Log Species Imported by ITTO Consumers, 1994

Country	Latin Name	Pilot Name	Local Name	Volume 1000 m3	Avg. Price $/m3
Austria	*Dipterocarpus spp.*	Keruing			1149.00
Austria	*Gonystylus bancanus*	Ramin			1149.00
Austria	*Tectona grandis*	Teak			1149.00
Austria	*Aucoumea klaineana*	Okoume			381.00
Austria	*Dumoria spp*	Makore			381.00
Austria	*Entandrophragma congoense*	Tiama			464.00
Austria	*Mansonia altissima*	Mansonia			464.00
France	*Acoumea klaineana*	Okoume		210.404	289.42
Netherlands	*Terminalia superba*	Limba		1.000	
Netherlands	*Dumoria spp*	Makore		.000	
Netherlands	*Shorea spp.*	Meranti		5.000	
Netherlands	*Triplochiton scleroxylon*	Obeche		2.000	
Netherlands	*Aucoumea klaineana*	Okoume		19.000	
Netherlands	*Entandrophragma utile*	Sipo		3.000	
Portugal	*Aucoumea klaineana pierre*	Okoume		24.309	224.00
Portugal	*Triplochiton scleroxylon*	Obeche		.408	184.00
Portugal	*Entandrophragma utile*	Sipo		10.784	291.00
Portugal	*Tieghemella heckelli*	Macore		.227	215.00
Portugal	*Khaya spp.*	Acajou d'Afrique		1.079	298.00
Portugal	*Entandrophragma cylindricum*	Sapelli		151.875	292.00
Portugal	*Chlorophora spp.*	Iroko		25.785	261.00
Portugal	*Entandrophragma congoense*	Tiama			
Portugal	*Mansonia altissima*	Mansonia			
Portugal	*Pycnanthus angolensis*	Ilomba			
Portugal	*Lovoa trichilioides*	Dibetou			
Portugal	*Lophira alata*	Azobe			
Portugal		**Subtotal**		14.806	229.00
Japan	*Shorea spp.*	Red Meranti		1599.000	260.00
Japan	*Shorea spp.*	White Meranti		797.000	269.00
Japan		Keruing & Kapur		1021.000	267.00
Nepal	*Shorea robusta*		Sal	2.500	200.00
Nepal	*Dipterocarpus spp.*	Keruing	Malaysian Diperocarpus	1.500	200.00
Rep. of Korea	*Dipterocarpus spp.*	Keruing		66.000	260.00
Rep. of Korea	*Dryobalanops spp.*	Kapur		2.000	274.00
Rep. of Korea	*Dyera spp.*	Jerutong		16.000	252.00
Switzerland	*Pericopsis elata*	Afromosia	Afromosia	.200	
Switzerland			Jaboty	2.200	
Switzerland	*Terminalia ivorensis*	Framire		.800	
Switzerland	*Chlorophora spp.*	Iroko		.600	
Switzerland	*Terminalia superba*	Limba		.500	
Switzerland	*Shorea spp.*	Meranti		.700	
Switzerland	*Intsia bijuga*	Merbau		.700	
Switzerland	*Triplochiton scleroxylon*	Obeche		3.000	
Switzerland	*Gonystylus bancanus*	Ramin		1.300	
Switzerland	*Entandrophragma utile*	Sipo		3.000	

Table 6-1-a. Major Tropical Log Species Imported by ITTO Consumers, 1994

Country	Latin Name	Pilot Name	Local Name	Volume 1000 m3	Avg. Price $/m3
U.S.A.	*Shorea spp.*	Dark Red Meranti			
U.S.A.	*Shorea spp.*	Light Red Meranti			
U.S.A.	*Shorea spp.*	Meranti Bakau			
U.S.A.		Subtotal			658.00
U.S.A.	*Parashorea spp.*	White Lauan			
U.S.A.	*Shorea spp.*	White Meranti			
U.S.A.	*Parashorea spp.*	White Seraya			
U.S.A.	*Shorea spp.*	Yellow Meranti			
U.S.A.	*Shorea spp.*	Alan			
U.S.A.		**Subtotal**		3.000	511.73
U.S.A.	*Dipterocarpus spp.*	Keruing			
U.S.A.	*Gonystylus bancanus*	Ramin			
U.S.A.	*Dryobalanops spp.*	Kapur			
U.S.A.	*Tectona grandis*	Teak			
U.S.A.	*Dactylocladus stenostachys*	Jongkong			
U.S.A.	*Intsia bijuga*	Merbau			
U.S.A.	*Dyera spp.*	Jerutong			
U.S.A.	*Koompassia malaccensis*	Kempas			
U.S.A.		**Subtotal**		1.600	276.85
U.S.A.	*Aucoumea klaineana*	Okoume			
U.S.A.	*Triplochiton scleroxylon*	Obeche			
U.S.A.	*Entandrophragma cylindricum*	Sapelli			
U.S.A.	*Entandrophragma utile*	Sipo			
U.S.A.	*Khaya spp.*	Acajou d'Afrique			
U.S.A.	*Tieghemella heckelli*	Macore			
U.S.A.	*Chlorophora spp.*	Iroko			
U.S.A.		**Subtotal**			866.67
U.S.A.	*Entandrophragma congoense*	Tiama			
U.S.A.	*Mansonia altissima*	Mansonia			
U.S.A.	*Pycnanthus angolensis*	Ilomba			
U.S.A.	*Lovoa trichilioides*	Dibetou			
U.S.A.	*Terminalia superba*	Limba			
U.S.A.	*Lophira alata*	Azobe			
U.S.A.		**Subtotal**		1.000	337.28

Table 6-1-b. Major Tropical Sawnwood Species Imported by ITTO Consumers, 1994

Country	Latin Name	Pilot Name	Local Name	Volume 1000 m3	Avg. Price $/m3
Australia	*Shorea spp.*	Meranti		57.000	688.24
Australia	*Palaquium spp.*	Nyatoh		1.000	771.89
Australia	*Gonystylus bancanus*	Ramin		2.000	627.78
Austria	*Tectona grandis*	Teak		7.000	934.00
Austria	*Aucoumea klaineana*	Okoume		8.000	537.00
Austria	*Virola spp.*	Virola	Baboen		1066.00
Austria	*Ochroma pyramidale*	Balsa			1066.00
Italy	*Aucoumea klaineana*	Okoume		.435	
Italy	*Terminalia superba*	Limba		16.243	
Italy	*Triplochiton scleroxylon*	Obeche		46.144	
Italy	*Entandrophragma utile*	Sipo		2.336	
Italy	*Tieghemella heckelli*	Macore		.035	
Italy	*Gonystylus bancanus*	Ramin		2.236	
Netherlands	*Lophira spp*	Azobe		45.000	
Netherlands	*Shorea spp.*	Meranti		141.000	
Portugal	*Shorea spp.*	Dark Red Meranti			
Portugal	*Shorea spp.*	Light Red Meranti			
Portugal	*Shorea spp.*	Meranti Bakau			
Portugal	*Parashorea spp.*	White Lauan			
Portugal	*Shorea spp.*	White Meranti			
Portugal	*Parashorea spp.*	White Seraya			
Portugal	*Shorea spp.*	Yellow Meranti			
Portugal	*Shorea spp.*	Alan			
Portugal	*Dipterocarpus spp.*	Keruing			
Portugal	*Gonystylus bancanus*	Ramin			
Portugal	*Dryobalanops spp.*	Kapur			
Portugal	*Tectona grandis*	Teak			
Portugal	*Dactylocladus stenostachys*	Jongkong			
Portugal	*Instia spp.*	Merbau			
Portugal	*Dyera costulata*	Jelutong			
Portugal	*Koompassia malaccensis*	Kempas			
Portugal		**Subtotal**		.851	592.00
Portugal	*Aucoumea klaineana*	Okoume			
Portugal	*Triplochiton scleroxylon*	Obeche			
Portugal	*Entandrophragma cylindricum*	Sapelli			
Portugal	*Entandrophragma utile*	Sipo			
Portugal	*Khaya spp.*	Acajou d'Afrique			
Portugal	*Tieghemella heckelli*	Makore			
Portugal	*Chlorophora spp.*	Iroko			
Portugal	*Entandrophragma congoense*	Tiama			
Portugal	*Mansonia altissima*	Mansonia			
Portugal	*Pycnanthus angolensis*	Ilomba			
Portugal	*Lovoa trichilioides*	Dibetou			
Portugal	*Terminalia superba*	Limba			
Portugal	*Lophira alata*	Azobe			
Portugal		**Subtotal**		20.904	445.00

Table 6-1-b. Major Tropical Sawnwood Species Imported by ITTO Consumers, 1994

Country	Latin Name	Pilot Name	Local Name	Volume 1000 m3	Avg. Price $/m3
Portugal	*Virola spp.*	Virola	Baboen		
Portugal	*Swietenia spp.*	Mahogany			
Portugal	*Phoebe porosa, Mez*	Imbuia			
Portugal	*Ochroma spp.*	Balsa			
Portugal		**Subtotal**		1.288	498.00
Sweden	*Shorea spp.*	Dark Red Meranti			
Sweden	*Shorea spp.*	Meranti Bakau			
Sweden	*Parashorea spp.*	White Lauan			
Sweden	*Shorea spp.*	White Meranti			
Sweden	*Parashorea spp.*	White Seraya			
Sweden	*Shorea spp.*	Yellow Meranti			
Sweden	*Shorea spp.*	Alan			
Sweden	*Dipterocarpus spp.*	Keruing			
Sweden	*Gonystylus bancanus*	Ramin			
Sweden	*Dryobalanops spp.*	Kapur			
Sweden	*Tectona grandis*	Teak			
Sweden	*Dactylocladus stenostachys*	Jongkong			
Sweden	*Intsia bijuga*	Merbau			
Sweden	*Dyera spp.*	Jerutong			
Sweden	*Koompassia malaccensis*	Kempas			
Sweden		**Subtotal**		3.142	
Sweden	*Aucoumea klaineana*	Okoume			
Sweden	*Triplochiton scleroxylon*	Obeche			
Sweden	*Entandrophragma cylindricum*	Sapelli			
Sweden	*Entandrophragma utile*	Sipo			
Sweden	*Khaya spp.*	Acajou d'Afrique			
Sweden	*Tieghemella heckelli*	Macore			
Sweden	*Chlorophora spp.*	Iroko			
Sweden	*Entandrophragma congoense*	Tiama			
Sweden	*Mansonia altissima*	Mansonia			
Sweden	*Pycnanthus angolensis*	Ilomba			
Sweden	*Lovoa trichilioides*	Dibetou			
Sweden	*Terminalia superba*	Limba			
Sweden	*Lophira alata*	Azobe			
Sweden		**Subtotal**		3.763	
Sweden	*Virola spp.*	Virola	Baboen		
Sweden	*Swietenia spp.*	Mahogany			
Sweden	*Phoebe porosa, Mez*	Imbuia			
Sweden	*Ochroma spp.*	Balsa			
Sweden		**Subtotal**		.706	
Japan	*Shorea spp.*	Red Meranti			
Japan	*Shorea spp.*	White Meranti			
Switzerland	*Khaya spp.*	Acajou d'Afrique		.600	
Switzerland	*Chlorophora spp.*	Iroko		.100	
Switzerland	*Triplochiton scleroxylon*	Obeche		1.900	
Switzerland	*Aucoumea klaineana*	Okoume		1.500	
Switzerland	*Entandrophragma cylindricum*	Sapelli		.100	
Switzerland	*Entandrophragma utile*	Sipo		2.600	

Table 6-1-b. Major Tropical Sawnwood Species Imported by ITTO Consumers, 1994

Country	Latin Name	Pilot Name	Local Name	Volume 1000 m3	Avg. Price $/m3
U.S.A.	*Tectona grandis*	Teak		9.000	960.40
U.S.A.	*Dipterocarpus spp.*	Keruing		37.400	549.63
U.S.A.	*Shorea spp.*	Dark Red Meranti			
U.S.A.	*Shorea spp.*	Light Red Meranti			
U.S.A.	*Shorea spp.*	Meranti Bakau			
U.S.A.	*Parashorea spp.*	White Lauan			
U.S.A.	*Shorea spp.*	White Meranti			
U.S.A.	*Parashorea spp.*	White Seraya			
U.S.A.	*Shorea spp.*	Yellow Meranti			
U.S.A.	*Shorea spp.*	Alan			
U.S.A.	*Gonystylus bancanus*	Ramin			
U.S.A.	*Dryobalanops spp.*	Kapur			
U.S.A.	*Dactylocladus stenostachys*	Jongkong			
U.S.A.	*Intsia bijuga*	Merbau			
U.S.A.	*Dyera spp.*	Jerutong			
U.S.A.	*Koompassia malaccensis*	Kempas			
U.S.A.		**Subtotal**		29.304	548.59
U.S.A.	*Aucoumea klaineana*	Okoume			
U.S.A.	*Triplochiton scleroxylon*	Obeche			
U.S.A.	*Entandrophragma cylindricum*	Sapelli			
U.S.A.	*Entandrophragma utile*	Sipo			
U.S.A.	*Khaya spp.*	Acajou d'Afrique			
U.S.A.	*Tieghemella heckelli*	Macore			
U.S.A.	*Chlorophora spp.*	Iroko			
U.S.A.	*Entandrophragma congoense*	Tiama			
U.S.A.	*Mansonia altissima*	Mansonia			
U.S.A.	*Pycnanthus angolensis*	Ilomba			
U.S.A.	*Lovoa trichilioides*	Dibetou			
U.S.A.	*Terminalia superba*	Limba			
U.S.A.	*Lophira alata*	Azobe			
U.S.A.		**Subtotal**		5.000	284.17
U.S.A.	*Ochroma spp.*	Balsa		9.017	295.44
U.S.A.	*Swietenia spp.*	Mahogany		119.745	618.86
U.S.A.	*Virola spp.*	Virola	Baboen		
U.S.A.	*Phoebe porosa, Mez*	Imbuia			
U.S.A.		**Subtotal**		17.347	368.25

Table 6-1-c. Major Tropical Veneer Species Imported by ITTO Consumers, 1994

Country	Latin Name	Pilot Name	Local Name	Volume 1000 m3	Avg. Price $/m3
Portugal	*Shorea spp.*	Dark Red Meranti			
Portugal	*Shorea spp.*	Light Red Meranti			
Portugal	*Parashorea spp.*	White Lauan			
Portugal	*Entandrophragma utile*	Sipo			
Portugal	*Terminalia superba*	Limba			
Portugal	*Aucoumea klaineana*	Okoume			
Portugal	*Triplochiton scleroxylon*	Obeche			
Portugal	*Khaya spp.*	Acajou d'Afrique			
Portugal	*Entandrophragma cylindricum*	Sapelli			
Portugal	*Virola spp.*	Baboen			
Portugal	*Swietenia spp.*	Mahogany (Swietenia spp.)			
Portugal	*Dalbergia spp.*	Palissandre du Bresil			
Portugal	*Aniba spp.*	Bois de Rose femelle			
Japan	*Shorea spp.*	Red Meranti			
Japan	*Shorea spp.*	White Meranti			
U.S.A.	*Shorea spp.*	Dark Red Meranti			
U.S.A.	*Shorea spp.*	Light Red Meranti			
U.S.A.	*Parashorea spp.*	White Lauan			
U.S.A.	*Aucoumea klaineana*	Okoume			
U.S.A.	*Triplochiton scleroxylon*	Obeche			
U.S.A.	*Entandrophragma cylindricum*	Sapelli			
U.S.A.	*Entandrophragma utile*	Sipo			
U.S.A.	*Khaya spp.*	Acajou d'Afrique			
U.S.A.	*Terminalia superba*	Limba			
U.S.A.	*Swietenia spp.*	Mahogany			
U.S.A.	*Virola spp.*	Virola	Baboen		
U.S.A.		**Subtotal**		12.789	1540.00

Table 6-1-d. Major Tropical Plywood Species Imported by ITTO Consumers, 1994

Country	Latin Name	Pilot Name	Local Name	Volume 1000 m3	Avg. Price $/m3
Netherlands	*Aucoumea klaineana*	Okoume		83.000	
Portugal	*Shorea spp.*	Dark Red Meranti			
Portugal	*Shorea spp.*	Light Red Meranti			
Portugal	*Parashorea spp.*	White Lauan			
Portugal	*Entandrophragma utile*	Sipo			
Portugal	*Terminalia superba*	Limba			
Portugal	*Aucoumea klaineana*	Okoume			
Portugal	*Triplochiton scleroxylon*	Obeche			
Portugal	*Khaya spp.*	Acajou d'Afrique			
Portugal	*Entandrophragma cylindricum*	Sapelli			
Portugal	*Virola spp.*	Baboen			
Portugal	*Swietenia spp.*	Mahogany			
Portugal	*Dalbergia spp.*	Palissandre du Bresil			
Portugal	*Aniba spp.*	Bois de Rose femelle			
Japan	*Shorea spp.*	Red Meranti			
Japan	*Shorea spp.*	White Meranti			
U.S.A.	*Shorea spp.*	Dark Red Meranti			
U.S.A.	*Shorea spp.*	Light Red Meranti			
U.S.A.	*Parashorea spp.*	White Lauan			
U.S.A.	*Aucoumea klaineana*	Okoume			
U.S.A.	*Triplochiton scleroxylon*	Obeche			
U.S.A.	*Entandrophragma cylindricum*	Sapelli			
U.S.A.	*Entandrophragma utile*	Sipo			
U.S.A.	*Khaya spp.*	Acajou d'Afrique			
U.S.A.	*Terminalia superba*	Limba			
U.S.A.	*Swietenia spp.*	Mahogany			
U.S.A.	*Virola spp.*	Virola	Baboen		
U.S.A.	*Dalbergia spp.*	Palissandre du Bresil			
U.S.A.	*Aniba spp.*	Bois de Rose femelle			
U.S.A.		**Subtotal**		21.750	696.32
U.S.A.*	*Cedrela spp.*	Face ply of Cedro		1.000	459.92
U.S.A.	*Juglans spp.*	Nogal, tropical	Face ply of Walnut		754.39
U.S.A.*	*Kalopanaxpictus*	Face ply of Sen		1.000	563.54
U.S.A.*	*Swietenia spp.*	Face ply of Mahogany		6.000	522.29
U.S.A.	*Cedrela spp.*	Face ply Cedro		22.000	441.27
U.S.A.	*Juglans spp.*	Face ply of Sen		4.000	676.78
U.S.A.	*Kalopanaxpictus*	Face ply of Mahogany		2.000	694.41

*: Consisting solely of sheets of this wood

Table 6-2-a. Major Tropical Log Species Exported by ITTO Producers, 1994

Country	Latin Name	Pilot Name	Local Name	Volume 1000 m3	Avg. Price $/m3
Cameroon	*Lophira alata*	Azobe		49.000	200.00
Cameroon	*Lovoa trichilioides*	Dibetou		15.000	390.00
Cameroon	*Chlorophora excelsa*	Iroko		65.000	245.00
Cameroon	*Terminalia superba*	Limba		78.000	245.00
Cameroon	*Baillonella toxisperma*	Moabi		25.000	385.00
Cameroon	*Triplochiton scleroxylon*	Obeche	Ayous	310.000	220.00
Cameroon	*Entandrophragma cylindriace*	Sapelli		32.000	318.00
Cameroon	*Entandrophragma candellei*	Sipo		48.000	437.00
Congo	*Hallea ciliata*	Abura	Bahia	22.133	
Congo	*Chlorophora excelsa*	Iroko		10.206	
Congo	*Terminalia superba*	Limba		10.391	
Congo	*Aucoumea klaineana*	Okoume		53.188	
Congo	*Entandrophragma cylindriace*	Sapelli		73.034	
Congo	*Entandrophragma candellei*	Sipo		10.948	
Côte d'Ivoire	*Hallea ciliata*	Abura	Bahia	9.109	450.57
Côte d'Ivoire	*Canarium schweinfurthii*	Aiele		10.352	185.24
Côte d'Ivoire	*Antiaris africana*	Ako		13.375	128.30
Côte d'Ivoire	*Lophira alata*	Azobe		8.351	219.43
Côte d'Ivoire	*Nauclea spp.*	Bilinga	Badi	13.723	232.18
Côte d'Ivoire	*Piptadeniastrum afri.*	Dabema		17.747	182.78
Côte d'Ivoire	*Terminalia ivorensis*	Framire		31.429	376.98
Côte d'Ivoire	*Ceiba pentandra*	Fuma	Fromager	71.871	140.54
Côte d'Ivoire	*Albizia ferruginea*	Iatanza	Yatanza	13.060	226.39
Côte d'Ivoire	*Pycnanthus angolensis*	Ilomba		25.206	187.37
Côte d'Ivoire	*Nesogordonia pap.*	Kotibé		9.869	333.23
Côte d'Ivoire	*Terminalia superba*	Limba	Frake	15.545	158.46
Côte d'Ivoire	*Brachystegia cynamet*	Naga		14.673	264.06
Côte d'Ivoire	*Tarrietia utilis*	Niangon		30.945	505.68
Côte d'Ivoire	*Tectona grandis*	Teak		33.698	123.54
Gabon	*Mitragyana cialiata*	Abura	Bahia		27.27
Gabon	*Khaya ivorensis*	Acajou d'Afrique			68.16
Gabon	*Canarium schweinfurthii*	Aiele			29.78
Gabon	*Lophira alata*	Azobe			11.46
Gabon	*Guibourtia tessmannii*	Bubinga			39.36
Gabon	*Dacryodes igaganga*	Igaganga			28.57
Gabon	*Pycnanthus angolensis*	Ilomba			31.98
Gabon	*Milicia excelsa (chlorophora)*	Iroko			39.75
Gabon	*Testulea gabonensis*	Izombe	Isombe		33.50
Gabon	*Tieghemelia africana*	Makore	Douka		38.56
Gabon	*Baillonella toxisperma*	Moabi			70.40
Gabon	*Distemonanthus benthamianus*	Movingui			40.02
Gabon	*Guibourtia densiflora*	Niangon			63.18
Gabon	*Aucoumea klaineana pierre*	Okoume			239.58
Gabon	*Fagara heitzii*	Olon			37.82
Gabon	*Dacryodes buettneri*	Ozigo			582.00
Gabon	*Entandrophragma cylindricum*	Sapelli			40.00
Gabon	*Entandrophragma angolense*	Tiama			37.80
Ghana	*Canarium schweinfurthii*	Aiele	African Canarium	15.130	117.00
Ghana	*Antiaris africana*	Ako	Antiaris/Chenchen	224.280	111.00
Ghana	*Cynometra ananta*	Apome	Ananta	.830	111.00
Ghana	*Lophira alata*	Azobe	Ekki/Rakll	1.970	131.00
Ghana	*Nauclea diderrichii*	Bilinga	Opepe/Kussia	4.960	135.00

Table 6-2-a. Major Tropical Log Species Exported by ITTO Producers, 1994

Country	Latin Name	Pilot Name	Local Name	Volume 1000 m3	Avg. Price $/m3
Ghana	*Guarea cedrata*	Bosse Clair	Guarea	2.450	221.00
Ghana	*Piptadeniastrum africanum*	Dabema	Dahoma	10.370	123.00
Ghana	*Combretodendron Africanum*	Essia		2.240	109.00
Ghana	*Daniellia ogea*	Faro	Ogea/Shedua	15.750	112.00
Ghana	*Ceiba pentandra*	Fuma	Celba/Fronager	79.400	109.00
Ghana	*Pycnanthus angolensis*	Ilomba	Ilomba	35.730	117.00
Ghana	*Rhodognaphalon brevicuspe*	Kondroti	Bombax	2.400	136.00
Ghana	*Pterygota macrocarpa*	Koto	Kyere	4.620	324.00
Ghana	*Amphimas pterocarpoides*	Lati	Yaya	23.010	109.00
Ghana	*Terminalia superba*	Limba	Afara/Ofram	119.320	113.00
Ghana	*Triplochiton scleroxylon*	Obeche	Wawa		
Ghana	*Celtis mildbraedii*	Ohia	Celtis/Esa	15.100	115.00
Liberia*	*Terminalia ivorensis*	Framire		.060	160.00
Liberia*	*Nauclea diderrichii*	Bilinga	Kusia	.008	80.00
Liberia*	*Harietia utilis*	Niangon		1.900	180.00
Liberia*	*Entandro, utile*	Sipo		.040	220.00
Liberia**	*Terminalia ivorensis*	Framire		.200	62.50
Liberia**	*Nauclea diderrichii*	Bilinga	Kusia	.022	50.00
Liberia**	*Horietia utilis*	Niangon		1.600	62.50
Liberia**	*Entandro, utile*	Sipo		.025	50.00
Togo	*Tectona grandis*	Teak		1.200	130.00
Malaysia	*Shorea albida*	Alan		146.570	84.22
Malaysia	*Shores spp.*	Balau	Selangan Batu	444.430	120.01
Malaysia	*Dyera costulata*	Jelutong		86.000	120.38
Malaysia	*Dactylocladus spp.*	Jongkong		210.970	87.30
Malaysia	*Dryobalanops spp.*	Kapur		935.910	135.89
Malaysia	*Dipterocarpus spp.*	Keruing		596.430	135.34
Malaysia	*Shorea spp.*	Meranti		3970.000	139.95
Malaysia	*Anisoptera spp.*	Mersawa		30.030	117.09
Malaysia	*Palaquium spp.*	Nyatoh		32.320	91.28
Malaysia	*Sindora coriacea*	Sepetir		67.310	96.97
Myanmar	*Dipterocarpus spp.*	Keruing	Guljan	9.140	310.00
Myanmar	*Pterocarpus macrocarpus*	Padauk		5.080	364.00
Myanmar	*Xylia dolabriformis*	Pyinkado		6.090	365.00
Myanmar	*Terminalia tomentosa*	Laurel, Indian	Taukkyan	.300	530.00
Myanmar	*Tectona grandis*	Teak		38.550	1823.00
Myanmar	*Gmelina arborea*	Yemane		.200	340.00
PNG	*Pterocymbium beccarii*	Amberoi		27.000	124.00
PNG	*Octomeles sumatrana*	Benuang	Erima	37.000	139.00
PNG	*Colophyllum spp.*	Bintangor	Calophyllum	149.000	180.00
PNG	*Dysoxylum spp.*	Dysox	Dysox	12.000	124.00
PNG	*Antocephalus chinensis*	Kadam	Labula	8.000	138.00
PNG	*Pometia pinnata glabra*	Kasai	Taun	163.000	184.00
PNG	*Syzygium spp.*	Kelat	Water Gum	21.000	123.00
PNG	*Albizia spp.*	Kokko	Albizia	6.000	123.00
PNG	*Homalium foetidum*	Malas		197.000	129.00
PNG	*Litsea spp.*	Medang	Litsea	8.000	138.00
PNG	*Instia bilinga/palembanica*	Merbau	Kwila	60.000	222.00
PNG	*Anisoptera spp.*	Mersawa		55.000	237.00
PNG	*Palaquium spp.*	Nyatoh	Cedar Pencils	50.000	195.00

*: January to May, 1994.

**: June to December, 1994

Table 6-2-a. Major Tropical Log Species Exported by ITTO Producers, 1994

Country	Latin Name	Pilot Name	Local Name	Volume 1000 m3	Avg. Price $/m3
PNG	*Planchonella torricellensis*	Planchonella Red		6.000	191.00
PNG	*Planchonella kaernbachiana*	Planchonella White		6.000	194.00
PNG	*Dracontomelon dao*	Salimuli	Walnut	14.000	154.00
PNG	*Endospermum spp.*	Sesendok	Basswood	33.000	132.00
PNG	*Dillenia spp.*	Simpoh	Dillenia	37.000	128.00
PNG	*Campnosperma spp.*	Terentang	Campnosperma	10.000	118.00
PNG	*Terminalia spp.*	Terminalia		82.000	149.00
PNG	*Findersia spp.*		Ash Silver (Silkwood)	6.000	124.00
PNG	*Burkella spp.*		Burkella	33.000	145.00
PNG	*Canarium indicum*		Canarium Red	39.000	154.00
PNG	*Celtis spp.*		Celtis	29.000	127.00
PNG	*Cryptocarya spp.*		Cryptocarya	9.000	122.00
PNG	*Mastixiodendron spp.*		Garo Garo	12.000	124.00
PNG	*Garcicia spp.*		Kandis	18.000	118.00
PNG	*Pterygota horsfieldia*		Oakwhite Tulip	10.000	126.00
PNG	*Buchanania spp.*		Pink Satinwood	26.000	138.00
Philippines	*Paraserianthes falcataria*		Falcata	1.000	88.61
Thailand	*Anisoptera costata korth*	Mersawa	Kra-bak	.030	351.00
Thailand	*Shorea spp.*	Dark Red Meranti			
Thailand	*Shorea spp.*	Light Red Meranti			
Thailand	*Shorea spp.*	Meranti Bakau			
Thailand	*Parashorea spp.*	White Lauan			
Thailand	*Shorea spp.*	White Meranti			
Thailand	*Parashorea spp.*	White Seraya			
Thailand	*Shorea spp.*	Yellow Meranti			
Thailand	*Shorea spp.*	Alan			
Thailand	*Dipterocarpus spp.*	Keruing			
Thailand	*Gonystylus bancanus*	Ramin			
Thailand	*Dryobalanops spp.*	Kapur			
Thailand	*Dactylocladus stenostachys*	Jongkong			
Thailand	*Intsia bijuga*	Merbau			
Thailand	*Dyera spp.*	Jerutong			
Thailand	*Koompassia malaccensis*	Kempas			
Thailand		**Subtotal**		1.000	118.00
Colombia	*Aucoumea klaineana*	Okoume			
Colombia	*Daniellia ogea*	Faro			
Honduras	*Pinus caribaea*		Pino Caribe	261.900	57.00
Honduras	*Pinus maximinol*		Pino Lloron		
Honduras	*Pinus oocaroa*		Pino Ocote		
Honduras	*Pinus tecumumanll*		Pino Rojo		
Honduras	*Swietenia humills*	Mahogany	Caoba del Paclfico	3.100	57.00
Honduras	*Swietenia macrophylla*	Mahogany	Caoba del Atlantico		
Honduras	*Cedrela odorata*	Cedro			

Table 6-2-b. Major Tropical Sawnwood Species Exported by ITTO Producers, 1994

Country	Latin Name	Pilot Name	Local Name	Volume 1000 m3	Avg. Price $/m3
Cameroon	*Khaya ivorensis*	Acajou d'Afrique		12.000	640.00
Cameroon	*Afzelia bipindensis*	Doussie		5.000	1000.00
Cameroon	*Chlorophora excelsa*	Iroko		15.000	500.00
Cameroon	*Terminalia superba*	Limba		18.000	290.00
Cameroon	*Baillonella toxisperma*	Moabi		10.000	700.00
Cameroon	*Entandrophragma cylindriace*	Sapelli		18.000	700.00
Cameroon	*Entandrophragma candellei*	Sipo		10.000	915.00
Congo	*Hallea ciliata*	Abura	Bahia	.945	
Congo	*Afzelia bipindensis*	Doussie		.033	
Congo	*Chlorophora excelsa*	Iroko		.036	
Congo	*Guibourtia arnoldiana*	Mutenye	Benzi	.041	
Congo	*Staudtia stipitata*	Niove		2.509	
Congo	*Gossweilerodendron balsamiferum*	Tola	Agba	.022	
Gabon	*Khaya ivorensis*	Acajou d'Afrique		.007	20.11
Gabon	*Guibourtia tesmannii*	Bubinga		.031	274.45
Gabon	*Lovoa trichilioides*	Dibetou		.001	108.00
Gabon	*Afzelia bipindensis*	Doussie		.223	76.30
Gabon	*Diosperos crassiflora*	Ebene		.035	352.88
Gabon	*Tieghemella africana*	Makore	Douka	.201	92.71
Gabon	*Baillonella toxisperma*	Moabi		.082	63.13
Gabon	*Distemonanthus benthamianus*	Movinqui		.051	33.77
Gabon	*Aucoumea klaineana pierre*	Okoume		.371	287.77
Gabon	*Dacryodes buettneri*	Ozigo		.006	169.49
Ghana*	*Khaya ivorensis*	Acajou d'Afrique	African Mahogany	11.130	496.00
Ghana*	*Nauclea diderrichii*	Bilinga	Opepe/Kussia	1.430	337.00
Ghana*	*Guarea cedrata*	Bosse Clair	Guarea	3.710	424.00
Ghana*	*Piptadeniastrum africanum*	Dabema	Dahoma	2.190	300.00
Ghana*	*Lovoa trichilioides*	Dibetou	African Walnut	.800	467.00
Ghana*	*Afzelia africana*	Doussie	Afzelia/Papao	2.550	572.00
Ghana*	*Terminalia ivorensis*	Framire	Idigbo/Emeri	11.800	450.00
Ghana*	*Chlorophora excelsa*	Iroko	Odum	47.340	520.00
Ghana*	*Pterygota macrocarpa*	Koto	Kyere	5.580	420.00
Ghana*	*Terminalia superba*	Limba	Afara/Ofram	7.010	255.00
Ghana*	*Tieghemelia heckelli*	Makore	Baku	2.090	510.00
Ghana*	*Herietia utilis*	Niangon	Nyankom	4.210	588.00
Ghana*	*Triplochiton scleroxylon*	Obeche	Wawa	131.360	274.00
Ghana*	*Entandrophragma cylindricum*	Sapelli		4.060	561.00
Ghana*	*Entandrophragma utile*	Sipo	Nyankom/Niangon	6.970	690.00
Ghana*	*Entandrophragma angolense*	Tiama	Edinam	5.190	426.00
Ghana**	*Khaya ivorensis*	Acajou d'Afrique	African Mahogany		510.00
Ghana**	*Nauclea diderrichii*	Bilinga	Opepe/Kussia		
Ghana**	*Guarea cedrata*	Bosse Clair	Guarea		563.00
Ghana**	*Piptadeniastrum africanum*	Dabema	Dahoma		310.00
Ghana**	*Lovoa trichilioides*	Dibetou	African Walnut		567.00
Ghana**	*Afzelia africana*	Doussie	Afzelia/Papao		630.00
Ghana**	*Terminalia ivorensis*	Framire	Idigbo/Emeri		520.00
Ghana**	*Chlorophora excelsa*	Iroko	Odum		653.00
Ghana**	*Pterygota macrocarpa*	Koto	Kyere		569.00
Ghana**	*Terminalia superba*	Limba	Afara/Ofram		320.00
Ghana**	*Tieghemelia heckelli*	Makore	Baku		659.00
Ghana**	*Herietia utilis*	Niangon	Nyankom		
Ghana**	*Triplochiton scleroxylon*	Obeche	Wawa		330.00
Ghana**	*Entandrophragma cylindricum*	Sapelli			640.00
Ghana**	*Entandrophragma utile*	Sipo	Nyankom/Niangon		950.00
Ghana**	*Entandrophragma angolense*	Tiama	Edinam		490.00

*: Air dried.

**: Kiln dried.

Table 6-2-b. Major Tropical Sawnwood Species Exported by ITTO Producers, 1994

Country	Latin Name	Pilot Name	Local Name	Volume 1000 m3	Avg. Price $/m3
Togo	*Khaya spp.*	Acajou d'Afrique			
Togo	*Antiaris africana*	Ako	Antiaris		
Togo	*Ceiba pentendra*	Fuma	Fromager		
Togo	*Chlorophora excelsa*	Iroko			
Togo	*Terminalia superba*	Limba	Frake		
Togo	*Triplochyton spp.*	Obeche	Samba		
Malaysia (Penins.)	*Agathis spp.*	Agathis	Damar Minyak	1.160	755.18
Malaysia (Penins.)	*Shorea spp.*	Balau		3.860	305.51
Malaysia (Penins.)	*Calophyllum spp.*	Bintangor		8.330	198.76
Malaysia (Penins.)	*Madhuca utilis*	Bitis		.690	123.27
Malaysia (Penins.)	*Shorea spp.*	Dark Red Meranti		126.550	842.36
Malaysia (Penins.)	*Shorea spp.*	Dark Red Meranti	(PHND)	95.590	856.40
Malaysia (Penins.)	*Durio spp.*	Durian		21.420	282.68
Malaysia (Penins.)	*Cratoxylon arborescens*	Geronggang		2.600	590.63
Malaysia (Penins.)	*Hopea ferrea*	Giam		.280	112.01
Malaysia (Penins.)	*Parashorea spp.*	Hvy White Seraya	Gerutu	4.220	359.62
Malaysia (Penins.)	*Dyera costulata*	Jelutong		4.880	613.96
Malaysia (Penins.)	*Dryobalanops spp.*	Kapur		32.130	286.20
Malaysia (Penins.)	*Pometia pinnata*	Kasai		7.490	173.62
Malaysia (Penins.)	*Syzygium spp.*	Kelat		25.540	114.38
Malaysia (Penins.)	*Artocarpus integra*	Keledang		4.860	178.61
Malaysia (Penins.)	*Koompassia malaccensis*	Kempas		32.170	350.44
Malaysia (Penins.)	*Dialium platysepalum*	Keranji		2.710	131.73
Malaysia (Penins.)	*Dipterocarpus spp.*	Keruing		150.090	286.91
Malaysia (Penins.)	*Scorodocarpus borneensis*	Kulim		10.890	125.78
Malaysia (Penins.)	*Shorea spp.*	Light Red Meranti	Melantai	.050	475.81
Malaysia (Penins.)	*Shorea spp.*	Light Red Meranti		13.170	709.85
Malaysia (Penins.)	*Mangifera spp.*	Machang	Macang	.010	166.88
Malaysia (Penins.)	*Kokkona littoralis*	Mata Ulat		.300	130.19
Malaysia (Penins.)	*Listea spp.*	Medang		7.920	137.53
Malaysia (Penins.)	*Mezzettia spp.*	Mempisang		4.070	570.56
Malaysia (Penins.)	*Heritiera simplicifolia*	Mengkulang	Kembang Semangkok	5.600	520.08
Malaysia (Penins.)	*Heritiera simplicifolia*	Mengkulang		19.730	429.24
Malaysia (Penins.)	*Shorea spp.*	Meranti	(All Colors)	.020	254.29
Malaysia (Penins.)	*Shorea spp.*	Meranti Bakau		4.000	222.33
Malaysia (Penins.)	*Hopea spp.*	Merawan	Cengal	1.630	184.26
Malaysia (Penins.)	*Hopea spp.*	Merawan		13.720	158.32
Malaysia (Penins.)	*Intsia bijuga*	Merbau		37.440	591.27
Malaysia (Penins.)	*Switonia floribunda*	Merpauh		3.940	348.58
Malaysia (Penins.)	*Anosoptera spp.*	Mersawa		34.090	711.69
Malaysia (Penins.)	*Palaquium spp.*	Nyatoh		4.530	507.67
Malaysia (Penins.)	*Mesua ferrea*	Penaga		1.760	123.64
Malaysia (Penins.)	*Myristica spp.*	Penarahan		4.000	554.65
Malaysia (Penins.)	*Lophopetalum spp.*	Perupok		2.630	581.30
Malaysia (Penins.)	*Alstonia spp.*	Pulai		1.590	312.62
Malaysia (Penins.)	*Tetramerista glabra*	Punah		.750	320.21
Malaysia (Penins.)	*Gonystylus bancanus*	Ramin		1.990	608.71
Malaysia (Penins.)	*Shorea spp.*	Red Balau		2.240	387.36
Malaysia (Penins.)	*Shorea spp.*	Red Meranti		66.400	382.52
Malaysia (Penins.)	*Melanorrhoea spp.*	Rengas		2.320	108.85
Malaysia (Penins.)	*Vatica spp.*	Resak		5.230	159.91
Malaysia (Penins.)	*Pseudosindora palustris*	Sepetir		9.250	481.43
Malaysia (Penins.)	*Endospermum medullosum*	Sesendok		.640	344.71
Malaysia (Penins.)	*Dillenia spp.*	Simpoh		.040	184.11
Malaysia (Penins.)	*Toona sureni*	Suren	Surian	4.120	371.00
Malaysia (Penins.)	*Tectona grandis*	Teak		.120	439.57
Malaysia (Penins.)	*Fagraea fragrans*	Tembusu			245.92

Table 6-2-b. Major Tropical Sawnwood Species Exported by ITTO Producers, 1994

Country	Latin Name	Pilot Name	Local Name	Volume 1000 m3	Avg. Price $/m3
Malaysia (Penins.)	*Campnosperma spp.*	Terentang		.430	289.50
Malaysia (Penins.)	*Pentace spp.*	Thitka	Melunak	3.660	454.69
Malaysia (Penins.)	*Koompassia excelsa*	Tualang		58.680	215.25
Malaysia (Penins.)	*Canarium spp.*	White Dhup	Kedondong	1.970	502.44
Malaysia (Penins.)	*Shorea spp.*	White Meranti		2.720	930.28
Malaysia (Penins.)	*Shorea spp.*	Yellow Meranti		45.390	208.99
Malaysia (Penins.)			Acacia	.960	171.82
Malaysia (Penins.)			Bekak	1.260	646.08
Malaysia (Penins.)			Berangan	.040	89.39
Malaysia (Penins.)			Coconut Tree	.200	148.18
Malaysia (Penins.)			Kasah	2.680	633.01
Malaysia (Penins.)			Kayu Ara	.020	312.65
Malaysia (Penins.)			Kekatong	8.660	139.61
Malaysia (Penins.)			Keruntum	.130	286.15
Malaysia (Penins.)			Mempening		560.82
Malaysia (Penins.)			Merbatu	.060	451.44
Malaysia (Penins.)			Perah	.900	181.30
Malaysia (Penins.)			Podo	.030	511.22
Malaysia (Penins.)			Redwood	49.800	184.63
Malaysia (Penins.)	*Hevea brasiliensis*		Rubberwood	45.300	323.60
Malaysia (Sarawak)	*Shorea albida*	Alan		73.380	346.28
Malaysia (Sarawak)	*Shorea spp.*	Balau	Selangan Batu	106.840	406.60
Malaysia (Sarawak)	*Dyera costulata*	Jelutong		15.760	337.96
Malaysia (Sarawak)	*Dactylocladus stenostachys*	Jongkong		2.890	297.81
Malaysia (Sarawak)	*Dryobalanops spp.*	Kapur		115.280	381.10
Malaysia (Sarawak)	*Dipterocarpus spp.*	Keruing		102.340	352.40
Malaysia (Sarawak)	*Shorea spp.*	Meranti		331.790	368.25
Malaysia (Sarawak)	*Anosoptera spp.*	Mersawa		.920	622.31
Malaysia (Sarawak)	*Gonystrylus bancanus*	Ramin		75.570	661.67
Malaysia (Sarawak)	*Pseudosindora palustris*	Sepetir		106.150	312.73
Malaysia (Sabah)	*Albizia falcataria*	Kokko	Batai	2.810	191.07
Malaysia (Sabah)	*Agathis spp.*	Agathis	D.Minyak/Mengilan	44.170	654.21
Malaysia (Sabah)	*Shorea spp.*	Balau	Merarm/Gagil	3.080	251.16
Malaysia (Sabah)	*Shorea spp.*	Balau	Selangan Batu	204.060	419.41
Malaysia (Sabah)	*Pterospermum spp.*	Bayur		8.590	243.30
Malaysia (Sabah)	*Castanopsis acuminatissima*	Berangan	Berangan	2.040	267.32
Malaysia (Sabah)	*Eusideroxylon zwageri*	Billian	Belian	27.310	556.36
Malaysia (Sabah)	*Calophyllum spp.*	Bintangor	Penaga	56.720	294.11
Malaysia (Sabah)	*Tetrameles nudiflora*	Binuang		27.690	231.46
Malaysia (Sabah)	*Michelia spp.*	Champaka	Chempaka	1.270	268.01
Malaysia (Sabah)	*Balanoparpus heimii*	Chengal	Cengal	.770	227.08
Malaysia (Sabah)	*Shorea spp.*	Dark Red Meranti		49.390	656.77
Malaysia (Sabah)	*Shorea spp.*	DRM PHND		.260	716.88
Malaysia (Sabah)	*Durio spp.*	Durian		1.390	365.34
Malaysia (Sabah)	*Dispyros crassiflora*	Ebene	Ebony Flitches	.020	1166.20
Malaysia (Sabah)	*Cratoxylon arborescens*	Geronggang	Serungan	9.730	471.28
Malaysia (Sabah)	*Hopea ferrea*	Giam		.110	264.34
Malaysia (Sabah)	*Dyera costulata*	Jelutong		3.750	382.65
Malaysia (Sabah)	*Dactylocladus stenostachys*	Jongkong		.560	350.55
Malaysia (Sabah)	*Dryobalanops spp.*	Kapur		78.480	385.68
Malaysia (Sabah)	*Pometia pinnata*	Kasai		1.290	282.41
Malaysia (Sabah)	*Podocarpus spp.*	Kayu-Cin	Kayu Cina	.960	433.18
Malaysia (Sabah)	*Syzygium spp.*	Kelat	Obah	2.070	170.47
Malaysia (Sabah)	*Artocarpus integra*	Keledang	Terap	1.520	323.97
Malaysia (Sabah)	*Koompassia malaccensis*	Kempas	Impas	12.540	274.16
Malaysia (Sabah)	*Dialium platysepalum*	Keranji		16.110	251.81
Malaysia (Sabah)	*Dipterocarpus spp.*	Keruing		130.190	402.62

Table 6-2-b. Major Tropical Sawnwood Species Exported by ITTO Producers, 1994

Country	Latin Name	Pilot Name	Local Name	Volume 1000 m3	Avg. Price $/m3
Malaysia (Sabah)	*Scorodocarpus borneensis*	Kulim	Bawang Hutan	.090	221.00
Malaysia (Sabah)	*Pithecellobium confertum*	Kungkur	Petai	1.160	269.45
Malaysia (Sabah)	*Shorea spp,*	L. Red Meranti/Red Seraya		381.280	471.76
Malaysia (Sabah)	*Shorea spp,*	Laran		32.170	284.03
Malaysia (Sabah)	*Shorea spp.*	Light Red Meranti	Melantai/Kawang	.160	474.83
Malaysia (Sabah)	*Mangifera spp.*	Machang	Mcang/Assam	36.700	237.72
Malaysia (Sabah)	*Kokkona littoralis*	Mata Ulat		.020	623.48
Malaysia (Sabah)	*Listea spp.*	Medang	Lisang/Lamaue-Amau	2.520	316.23
Malaysia (Sabah)	*Mezzettia spp.*	Mempisang	Karai/P.Pisang	26.530	238.54
Malaysia (Sabah)	*Heritiera simplicifolia*	Mengkulang	Kembang Semangkok	1.870	498.19
Malaysia (Sabah)	*Heritiera simplicifolia*	Mengkulang	Kembang	3.920	530.54
Malaysia (Sabah)	*Shorea spp.*	Meranti	Red Melapi	2.380	532.09
Malaysia (Sabah)	*Shorea spp.*	Meranti (All Colours)		3.430	389.10
Malaysia (Sabah)	*Intsia bijuga*	Merbau		7.260	547.22
Malaysia (Sabah)	*Anosoptera spp.*	Mersawa	Kayu Pengiran	1.920	474.82
Malaysia (Sabah)	*Palaquium spp.*	Nyatoh		11.500	487.70
Malaysia (Sabah)	*Myristica spp.*	Penarahan	Darah-Darah	2.890	212.39
Malaysia (Sabah)	*Lophopetalum spp.*	Perupok	Perpok	11.650	699.37
Malaysia (Sabah)	*Alstonia spp.*	Pulai		18.290	261.96
Malaysia (Sabah)	*Tetramerista glabra*	Punah	Tuyot	.060	252.97
Malaysia (Sabah)	*Gonystrylus bancanus*	Ramin	Bidaru/Melawis	.380	519.68
Malaysia (Sabah)	*Shorea spp.*	Red Balau	S.Bate Merah	.170	360.00
Malaysia (Sabah)	*Shorea spp.*	Red Meranti/Seraya		1.980	311.71
Malaysia (Sabah)	*Melanorrhoea spp.*	Rengas		2.740	275.11
Malaysia (Sabah)	*Vatica spp.*	Resak		20.590	303.19
Malaysia (Sabah)	*Pseudosindora palustris*	Sepetir		12.620	259.09
Malaysia (Sabah)	*Endospermum medullosum*	Sesendok		4.430	234.04
Malaysia (Sabah)	*Dillenia spp.*	Simpoh	Simpor	4.490	259.40
Malaysia (Sabah)	*Toona sureni*	Suren	Limpaga/Kalantas	1.780	435.52
Malaysia (Sabah)	*Campnosperma spp.*	Terentang		2.910	316.34
Malaysia (Sabah)	*Pentace spp.*	Thitka	Melunak/Takalis	30.600	261.36
Malaysia (Sabah)	*Koompassia excelsa*	Tualang	Mengaris/R.Kayu	115.180	287.79
Malaysia (Sabah)	*Shorea spp.*	W. Meranti /Melapi		17.850	574.91
Malaysia (Sabah)	*Canarium spp.*	White Dhup	Kedondong/Maitus	1.270	287.81
Malaysia (Sabah)	*Parashorea spp.*	White Seraya	Uratmata	144.450	558.68
Malaysia (Sabah)	*Shorea spp.*	Y. Meranti/Yellow Seraya		107.250	379.18
Malaysia (Sabah)			Acacia	1.330	230.41
Malaysia (Sabah)			Bawang - Bawang	.640	354.43
Malaysia (Sabah)			Coconut Tree	1.040	213.36
Malaysia (Sabah)			Kandis	1.850	269.66
Malaysia (Sabah)			Kayu Malam	.520	1173.28
Malaysia (Sabah)			Kekatong	.020	181.39
Malaysia (Sabah)			Limpaga Ranggau	.240	453.55
Malaysia (Sabah)			Magas	5.040	179.60
Malaysia (Sabah)			Mempening/Jabor	12.620	277.25
Malaysia (Sabah)			Merbatu	.030	198.78
Malaysia (Sabah)			Nara	.030	842.57
Malaysia (Sabah)			Obah Nasi	1.590	190.93
Malaysia (Sabah)			Perepat Hutan	.410	223.73
Malaysia (Sabah)	*Pinus caribaea*		Caribbean Pine	2.150	160.17
Malaysia (Sabah)			Putat Raya	3.330	166.43
Malaysia (Sabah)			Ranggij	1.650	213.66
Malaysia (Sabah)	*Hevea brasiliensis*		Rubberwood	7.570	379.49
Malaysia (Sabah)			Siroh-Siroh	.010	813.99
Malaysia (Sabah)			Teluto/Melembu	.490	370.26
Myanmar	*Tectona grandis*	Teak		16.520	1313.00
Myanmar	*Dipterocarpus spp.*	Keruing	Guljan	.420	245.00

Table 6-2-b. Major Tropical Sawnwood Species Exported by ITTO Producers, 1994

Country	Latin Name	Pilot Name	Local Name	Volume 1000 m3	Avg. Price $/m3
Myanmar	*Pterocarpus macrocarpus*	Padauk		1.660	2446.00
Myanmar	*Xylia dolabriformis*	Pyinkado		.490	27.00
Myanmar	*Gmelina arborea*	Yemane		.150	27.00
Philippines	*Shorea spp.*	Red Meranti			
Philippines	*Dryobalanops spp.*	Kapur			
Philippines	*Pentacme Contorta*	Lauan			591.00
Philippines	*Gonystrylus bancanus*	Ramin			
Philippines	*Tarrietia utilis*		Almon		466.00
Philippines	*Paraserianthes falcataria*		Falcata	47.000	127.00
Philippines		**Subtotal**		27.000	360.00
Thailand	*Tectona grandis*	Teak		5.000	2031.00
Thailand	*Pterocarpus macrocarpus*	Padauk	Pra-du	10.000	1545.00
Thailand	*Shorea obtusa*		Teng and Rang	.001	743.00
Thailand	*Hevea brasiliensis*		Para-rubber wood	34.000	732.00
Thailand	*Shorea spp.*	Dark Red Meranti			
Thailand	*Shorea spp.*	Light Red Meranti			
Thailand	*Shorea spp.*	Meranti Bakau			
Thailand	*Parashorea spp.*	White Lauan			
Thailand	*Shorea spp.*	White Meranti			
Thailand	*Parashorea spp.*	White Seraya			
Thailand	*Shorea spp.*	Yellow Meranti			
Thailand	*Shorea spp.*	Alan			
Thailand	*Dipterocarpus spp.*	Keruing			
Thailand	*Gonystylus bancanus*	Ramin			
Thailand	*Dryobalanops spp.*	Kapur			
Thailand	*Dactylocladus stenostachys*	Jongkong			
Thailand	*Intsia bijuga*	Merbau			
Thailand	*Dyera spp.*	Jerutong			
Thailand	*Koompassia malaccensis*	Kempas			
Thailand		**Subtotal**		.030	130.00
Brazil	*Carapa guianensis*	Andiroba		13.000	190.00
Brazil	*Dinizia excelsa*	Angelim pedra	Angelim Vermelho	20.000	245.00
Brazil	*Bagassa guianensis*	Bagasse	Tatajuba		
Brazil	*Cedrella spp.*	Cedro		97.000	260.00
Brazil	*Amburana cearensis*	Cerejeira		6.000	430.00
Brazil	*Hymenaea courbali*	Courbaril	Jatoba	70.000	200.00
Brazil	*Cordia goeldiana*	Freijo		2.000	270.00
Brazil	*Astronium spp.*	Goncalo-alvez	Aroeira		
Brazil	*Ocotea porosa*	Imbuia		7.000	550.00
Brazil	*Tabebuia spp.*	Ipe		144.000	300.00
Brazil	*Swietenia macrophylla*	Mahogany	Mogno	175.000	570.00
Brazil	*Aspidosperma spp.*	Pau-marfim		1.000	280.00
Brazil	*Aspidosperma spp.*	Peroba		.180	420.00
Brazil	*Araucaria augustifolia*	Pin de Parana	Pinho	35.000	471.00
Brazil	*Pinus spp.*	Pitch Pine	Pinus	245.000	133.00
Brazil	*Bowdichia nitida*	Sucupira		4.000	290.00
Brazil	*Cedrelinga catenaeformis*	Tornillo	Cedrorana	15.000	250.00
Brazil	*Virola surinamensis*	Virola		21.000	145.00
Brazil			Canafistula		
Brazil	*Paulownia spp.*		Quiri	1.000	320.00
Colombia	*Carniana pyripormis*	Abarco			
Colombia	*Carapa guianensis*	Andiroba	Guino		
Colombia	*Prioria copaifera*	Cativo			
Colombia	*Cadrela spp.*	Cedro			
Colombia	*Bombacopsis ruinatun*	Saqui-Saqui	Ceiba Tolua		
Colombia	*Samanea*		Campan		
Guyana	*Peltogyne Pubescens*	Amarante	Purpleheart	1.877	320.00

Table 6-2-b. Major Tropical Sawnwood Species Exported by ITTO Producers, 1994

Country	Latin Name	Pilot Name	Local Name	Volume 1000 m3	Avg. Price $/m3
Guyana	*Carapa guianensis*	Andiroba	Crabwood	.091	350.36
Guyana	*Aspidosperma Album*	Araracanga	Shibadan	.012	296.80
Guyana	*Ocotea puberula*	Canelo	Silverballi	.008	342.37
Guyana	*Hymenaea courbali*	Courbaril	Locust	.018	430.00
Guyana	*Goupia glabra*	Goupi	Kakukalli	.102	224.58
Guyana	*Ocotea rodiaei*	Greenheart		9.855	340.90
Guyana	*Mora excelsa*	Mora		.882	160.00
Guyana	*Eperus Fulcata*	Walaba	Wallaba	2.414	179.22
Guyana	*Humiria Balsamifera*		Tauroniro	.034	280.85
Honduras	*Swietenia macrophylla*	Mahogany	Caoba del Atlantico		
Honduras	*Swletenia humills*	Mahogany	Caoba del Paclfico	2.900	71.25
Honduras	*Cedrela odorata*	Cedro			
Honduras	*Pinus caribaea*	Pino Caribe		119.600	71.25
Honduras	*Pinus maximinol*	Pino Lloron			
Honduras	*Pinus oocaroa*	Pino Ocote			
Honduras	*Pinus tecumumanll*	Pino Rojo			
Peru	*Cedrela odorata*	Cedro			
Peru	*Amburana cearensis*	Cerejeira	Ishpingo		
Peru	*Copaifera spp.*	Copaiba			
Peru	*Swietenia macrophylla*	Mahogany	Caoba		
Peru	*Cedrelinga catenaeformis*	Tornillo			
Peru	*Virola spp.*	Ucuuba vermelha	Cumala		
Peru	*Ormosia spp.*		Huayruro		
Peru	*Aniba spp.*		Moena		

Table 6-2-c. Major Tropical Veneer Species Exported by ITTO Producers, 1994

Country	Latin Name	Pilot Name	Local Name	Volume 1000 m3	Avg. Price $/m3
Cameroon	*Entandrophragma candellei*	Sipo			
Cameroon	*Entandrophragma cylindriace*	Sapelli			
Cameroon	*Triplochiton scleroxylon*	Obeche	Ayous		
Cameroon	*Terminalia superba*	Limba			
Cameroon	*Pycnanthus angolensis*	Ilomba			
Congo	*Aucoumea klaineana*	Okoume		23.665	
Côte d'Ivoire	*Hallea ciliata*	Abura	Bahia	.463	1680.61
Côte d'Ivoire	*Khaya spp.*	Acajou d'Afrique		.406	1255.50
Côte d'Ivoire	*Antiaris africana*	Ako		1.071	583.22
Côte d'Ivoire	*Aningeria robuste*	Aniégré		.354	1532.53
Côte d'Ivoire	*Mansonia alt.*	Mansonia	Bété	.314	2706.22
Côte d'Ivoire	*Hallea ciliata*	Abura	Bahia	.513	714.05
Côte d'Ivoire	*Lovoa trichilioides*	Dibetou		.146	2007.74
Côte d'Ivoire	*Daniellia th.*	Faro		.383	587.80
Côte d'Ivoire	*Terminalia superba*	Limba	Frake	.370	553.76
Côte d'Ivoire	*Ceiba pentandra*	Fuma	Fromager	68.128	517.79
Côte d'Ivoire	*Pycnanthus angolensis*	Ilomba		16.830	548.16
Côte d'Ivoire	*Rhodognaphalon brevicuspe*	Kondroti		3.404	567.25
Côte d'Ivoire	*Nesogordonia pap.*	Kotibé		.251	1186.33
Côte d'Ivoire	*Pterygota macrocarpa*	Koto		1.368	1392.77
Côte d'Ivoire	*Pterygota macrocarpa*	Koto		2.878	834.04
Côte d'Ivoire	*Tieghemella africana*	Makore		.196	1801.07
Côte d'Ivoire	*Triplochyton sol.*	Obeche	Samba	5.425	503.57
Côte d'Ivoire	*Entandrophragma o.*	Sapelli		.662	1426.07
Côte d'Ivoire	*Entandrophragma utile*	Sipo		.175	1239.54
Gabon	*Aucoumea klaineana pierre*	Okoume		2.106	97.16
Ghana*	*Aningeria altissima*	Longhi	Aningeria/Asanfona	12.080	984.00
Ghana*	*Ceiba pentandra*	Fuma	Ceiba/Fromager	7.810	
Ghana*	*Tieghemelia heckelli*	Makore	Baku	3.240	778.00
Ghana*	*Daniellia ogea*	Faro	Ogea/Shedua	1.750	
Ghana*	*Khaya ivorensis/Anthotheca*	Acajou d'Afrique		2.040	701.00
Ghana*	*Entandrophragma cylindricum*	Sapelli		1.170	957.00
Ghana*	*Pycnanthus angolensis*	Ilomba	Otie	.890	
Ghana*	*Pterygota macrocarpa*	Koto		1.470	866.00
Ghana*	*Entandrophragma angolense*	Tiama	Edinam	.660	738.00
Ghana*	*Entandrophragma candolei*	Kosipo	Omu/Candollei	.380	796.00
Ghana*	*Triplochiton scleroxylon*	Obeche	Wawa	.670	1214.00
Ghana*	*Antiaris africana*	Ako	Antiaris/Chenchen	1.930	1039.00
Ghana*	*Terminalia superba*	Limba	Afara/Ofram	.350	869.00
Ghana**	*Ceiba pentandra*	Fuma	Ceiba/Fromager		319.00
Ghana**	*Tieghemelia heckelli*	Makore	Baku		446.00
Ghana**	*Daniellia ogea*	Faro	Ogea/Shedua		386.00
Ghana**	*Khaya ivorensis/Anthotheca*	Acajou d'Afrique			588.00
Ghana**	*Pycnanthus angolensis*	Ilomba	Otie		377.00
Ghana**	*Pterygota macrocarpa*	Koto	Koto		505.00
Ghana**	*Triplochiton scleroxylon*	Obeche	Wawa		357.00
Ghana**	*Antiaris africana*	Ako	Antiaris/Chenchen		343.00
Ghana**	*Terminalia superba*	Limba	Afara/Ofram		335.00

*: Sliced Veneer

**: Rotary Peeled Veneer

Table 6-2-c. Major Tropical Veneer Species Exported by ITTO Producers, 1994

Country	Latin Name	Pilot Name	Local Name	Volume 1000 m3	Avg. Price $/m3
Ghana*	*Aningeria altissima*	Longhi	Aningeria/Asanfona		1375.00
Ghana*	*Ceiba pentandra*	Fuma	Ceiba/Fromager		502.00
Ghana*	*Tieghemelia heckelli*	Makore	Baku		1734.00
Ghana*	*Khaya ivorensis/Anthotheca*	Acajou d'Afrique			1327.00
Ghana*	*Entandrophragma cylindricum*	Sapelli			1336.00
Ghana*	*Pterygota macrocarpa*	Koto	Koto		1539.00
Ghana*	*Entandrophragma angolense*	Tiama	Edinam		1246.00
Ghana*	*Entandrophragma candolei*	Kosipo	Omu/Candollei		1303.00
Ghana*	*Triplochiton scleroxylon*	Obeche	Wawa		1951.00
Malaysia	*Shorea spp.*	Meranti			
Malaysia	*Dryobalanops spp.*	Kapur			
Malaysia	*Dipterocarpus spp.*	Keruing			
Malaysia		**Subtotal**		412.000	423.00
Malaysia	*Tetrameles nudiflora*	Binuang		1.000	428.00
Malaysia	*Shorea spp.*	Red Seraya		10.000	489.00
Malaysia	*Shorea spp.*	Yellow Seraya		8.000	406.00
Myanmar	*Tectona grandis*	Teak		.060	2031.00
Philippines	*Pentacme contorta*	Lauan		3.000	420.00
Thailand	*Tectona grandis*	Teak		3.000	4209.00
Colombia	*Protium heptaphylum*		Amezalar		
Colombia	*Erysma uncinatum*	Jaboty	Cedrillo		
Honduras	*Pinus caribaea*	Pino Caribe		8.500	57.12
Honduras	*Pinus maximinol*	Pino Lloron			
Honduras	*Pinus oocaroa*	Pino Ocote			
Honduras	*Pinus tecumumanll*	Pino Rojo			
Honduras	*Swletenia humills*	Mahogany	Caoba del Paclfico	3.900	57.12
Honduras	*Swietenia macrophylla*	Mahogany	Caoba del Atlantico		
Honduras	*Cedrela odorata*	Cedro			
Peru	*Chorisia integrifolia*		Lupuna		
Peru	*Swietenia macrophylla*	Mahogany	Caoba		
Peru	*Cunuria spruceana*	Cerejeira	Ishpingo		
Peru	*Ficus spp.*		Matapalo		

*: Jointed Veneer

Table 6-2-d. Major Tropical Plywood Species Exported by ITTO Producers, 1994

Country	Latin Name	Pilot Name	Local Name	Volume 1000 m3	Avg. Price $/m3
Cameroon	*Entandrophragma candellei*	Sipo		5.000	790.00
Cameroon	*Entandrophragma cylindriace*	Sapelli		8.000	780.00
Cameroon	*Triplochiton scleroxylon*	Obeche	Ayous	10.000	695.00
Cameroon	*Terminalia superba*	Limba		8.000	680.00
Côte d'Ivoire	*Ceiba pentandra*	Fuma	Fromager	14.941	797.66
Côte d'Ivoire	*Pycnanthus angolensis*	Ilomba		3.071	756.28
Côte d'Ivoire	*Eribroma oblonga*	Eyong		.246	3974.36
Côte d'Ivoire	*Khaya spp.*	Acajou d'Afrique		.149	986.04
Côte d'Ivoire	*Rhodognaphalon brevicuspe*	Kondroti		.099	1089.95
Côte d'Ivoire	*Antiaris africana*	Ako		.087	1871.08
Côte d'Ivoire	*Aningeria robuste*	Aniégré		.048	661.26
Côte d'Ivoire	*Entandrophragma o.*	Sapelli		.036	1120.75
Côte d'Ivoire	*Pterygota macrocarpa*	Koto		.029	833.53
Côte d'Ivoire	*Gymnostemon zaizou*		Zaïzou	.018	940.31
Gabon	*Aucoumea klaineana pierre*	Okoume		10.225	300.32
Ghana	*Ceiba pentandra*	Fuma	Ceiba/Fromager	.830	396.00
Ghana	*Khaya ivorensis*	Acajou d'Afrique		.027	456.00
Ghana	*Antiaris africana*	Ako	Antiaris/Chenchen		445.00
Ghana	*Triplochiton scleroxylon*	Obeche	Wawa		
Ghana	*Celtis mildbraedii*	Ohia	Celtis/Esa		
Ghana	*Rhodognaphalon brevicuspe*	Kondroti	Bombax		
Ghana	*Pterygota macrocarpa*	Koto	Kyera	.030	502.00
Ghana	*Daniellia ogea*	Faro	Ogea/Shedua		
Malaysia	*Shorea spp.*	Meranti			435.00
Malaysia	*Dryobalanops spp.*	Kapur			435.00
Malaysia	*Shorea spp.*	Red Seraya			436.00
Myanmar	*Tectona grandis*	Teak		1.100	441.00
PNG	*Araucaria spp.*	Klinkii Pine			
PNG	*Araucaria spp.*	Hoop Pine			
Philippines	*Pentacme Contorta*	Lauan		24.000	462.00
Colombia	*Dialianthera spp.*	Virola	Cuangare		
Honduras	*Swletenia humills*	Mahogany	Caoba del Pacifico	3.600	148.67
Honduras	*Swietenia macrophylla*	Mahogany	Caoba del Atlantico		
Honduras	*Cedrela odorata*	Cedro			
Peru	*Chorisia spp.*	Lupuna			
Peru	*Copaifera spp.*	Copaiba			
Peru	*Hura Crepitans*	Assacu	Catahua		

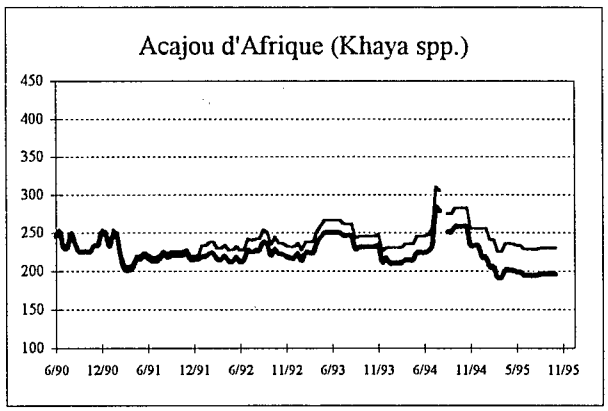
Appendix 7

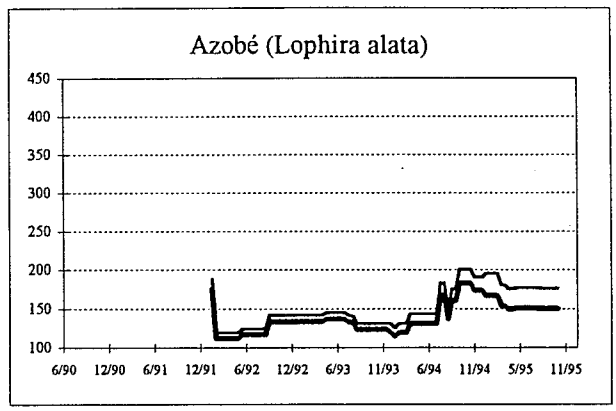
Prices of Tropical Timber Products, 1990-95

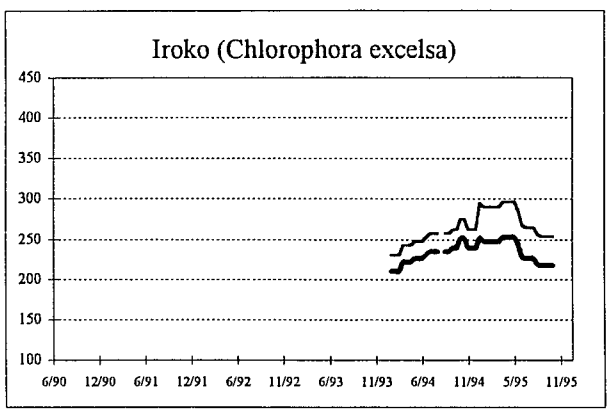
Appendix 7.

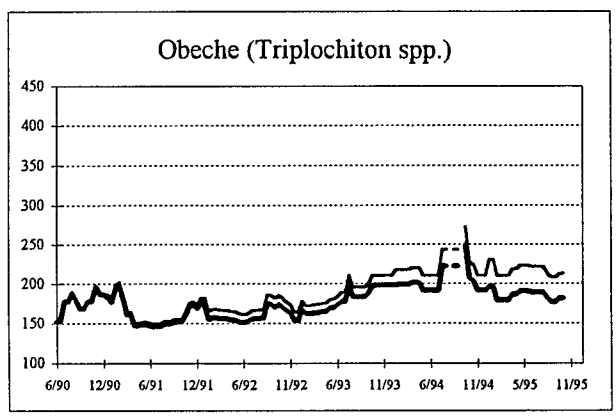
7.1 Price of African Logs, 1990-1995

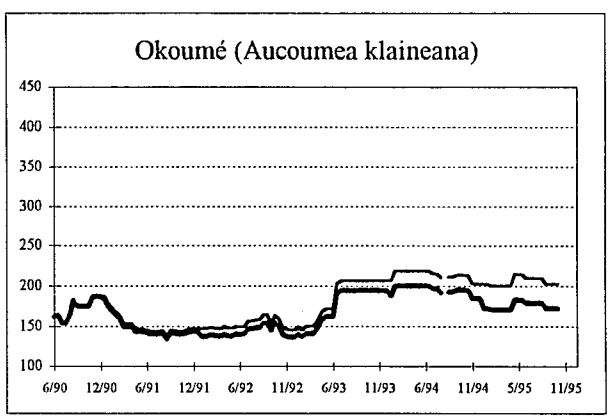
Bold lines show prices in constant 1990 US$ per cubic meter (deflated by the G-5 MUV Index used by the World Bank for deriving real commodity prices). Normal lines show nominal price trends.
Grades for all species shown are Loyal et Marchand/Fair Average Quality.

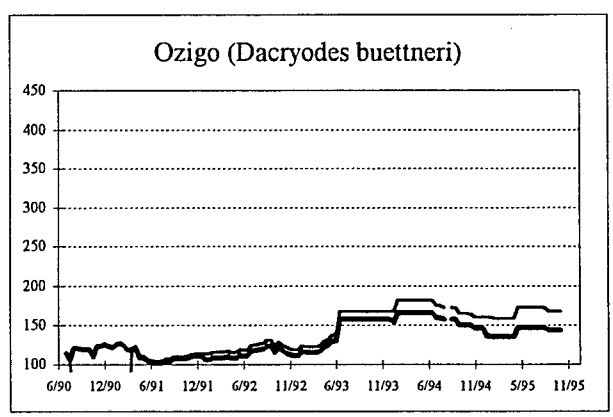


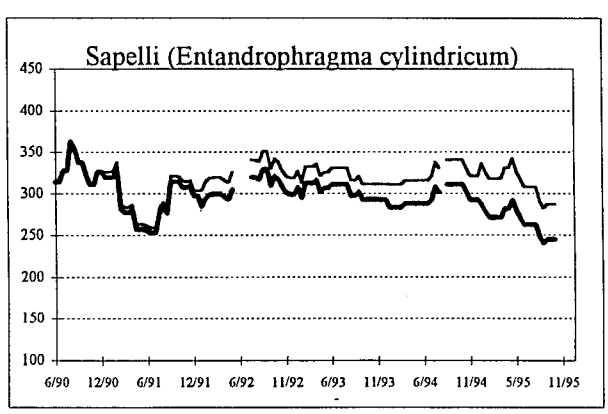


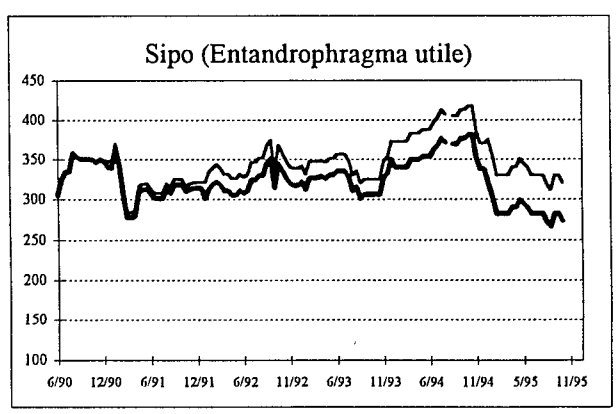






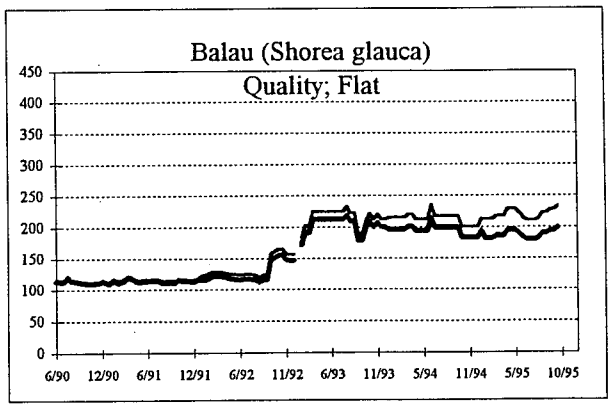


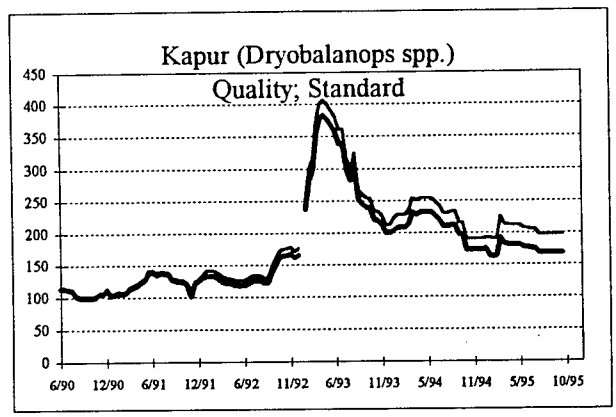


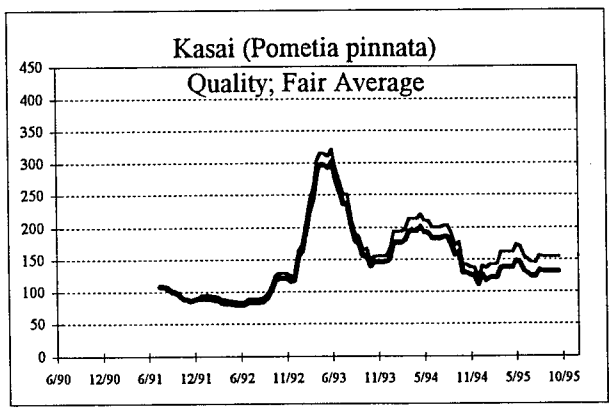


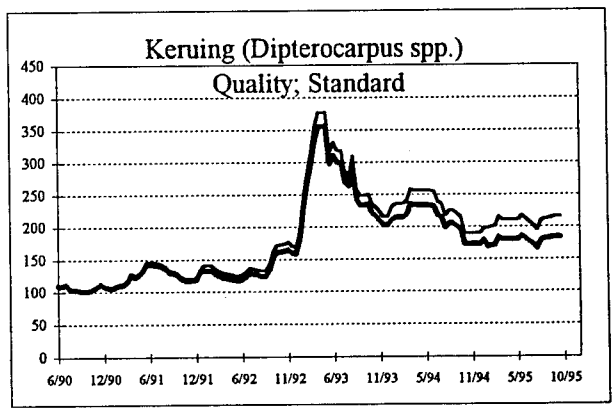
7.2 Price of Asian Logs, 1990-1995

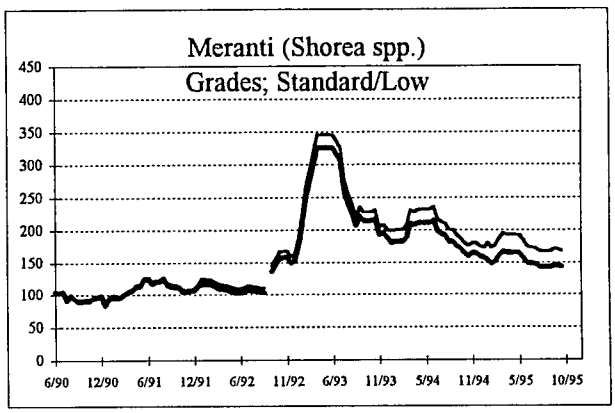
Bold lines show prices in constant 1990 US$ per cubic meter (deflated by the G-5 MUV Index used by the World Bank for deriving real commodity prices). Normal lines show nominal price trends.

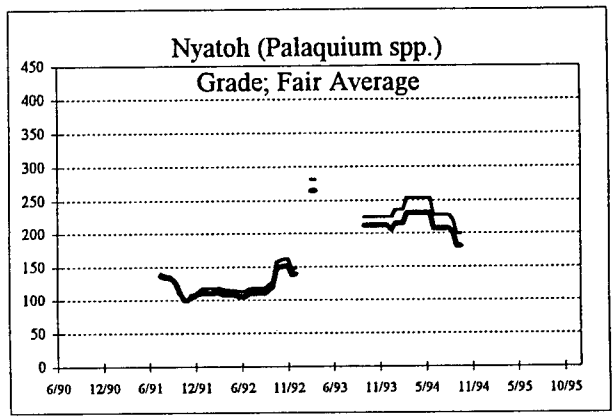


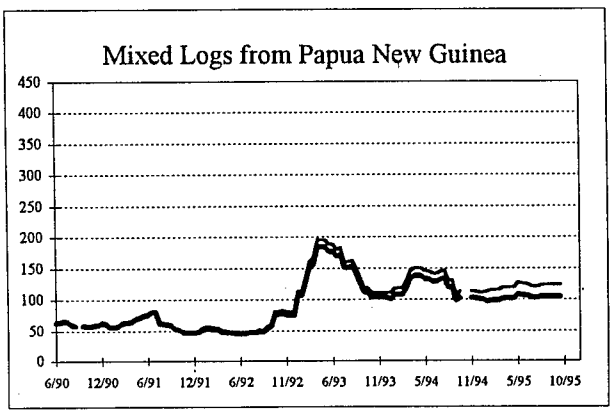


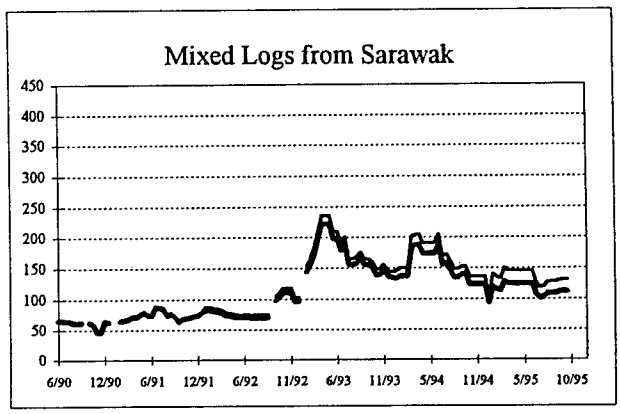






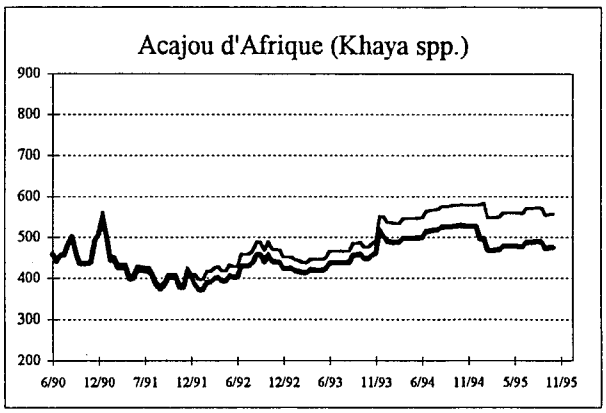


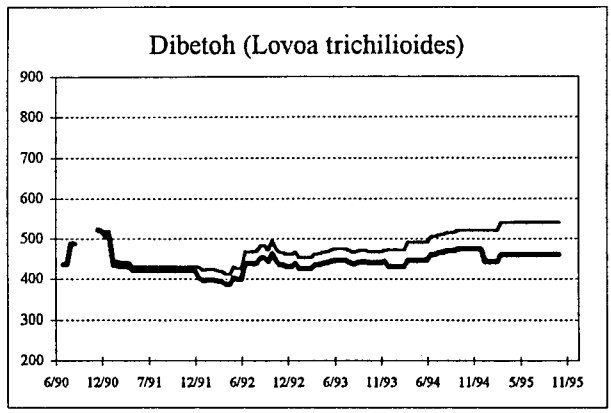


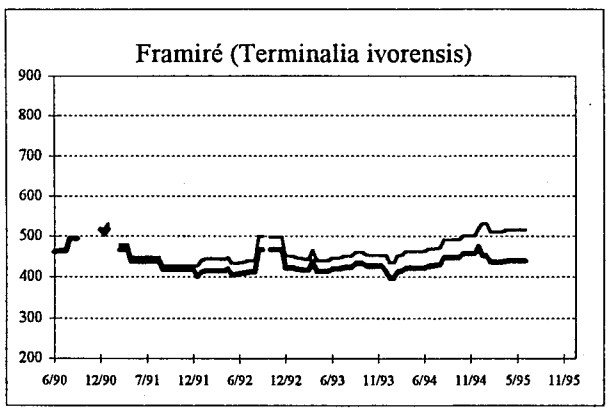


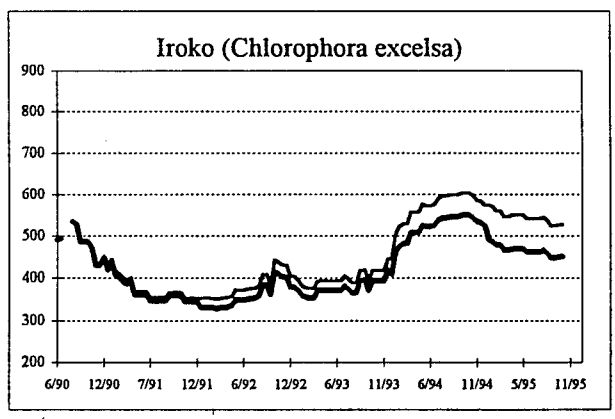
7.3 Price of African Sawnwood, 1990-1995

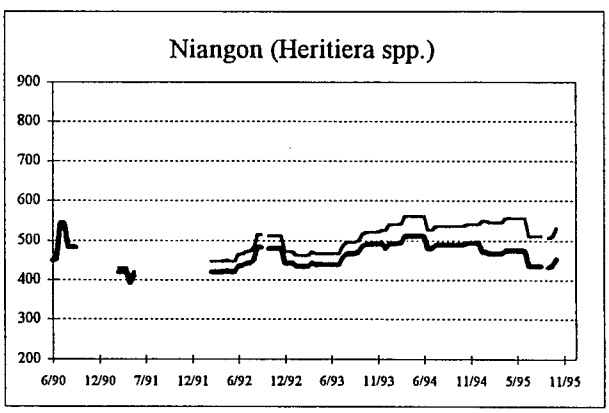
Bold lines show prices in constant 1990 US$ per cubic meter (deflated by the G-5 MUV Index used by the World Bank for deriving real commodity prices). Normal lines show nominal price trends.
Grades for all species shown are Loyal et Marchand/First and Seconds.

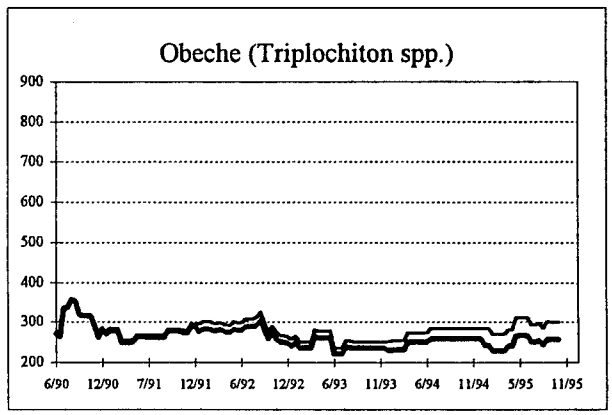


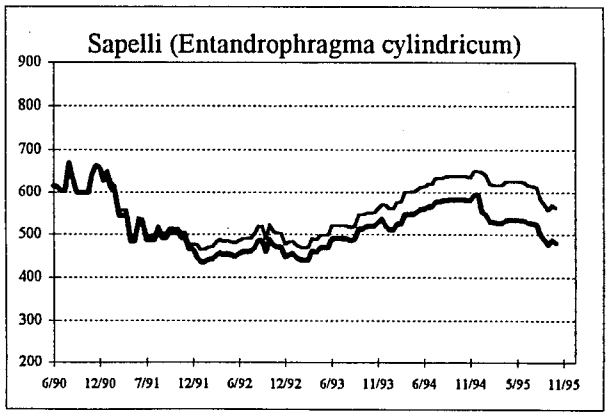


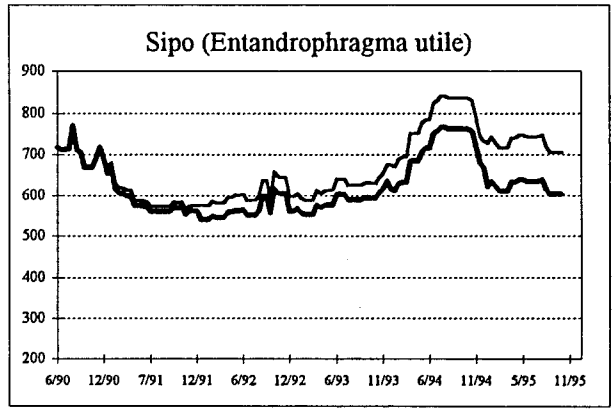






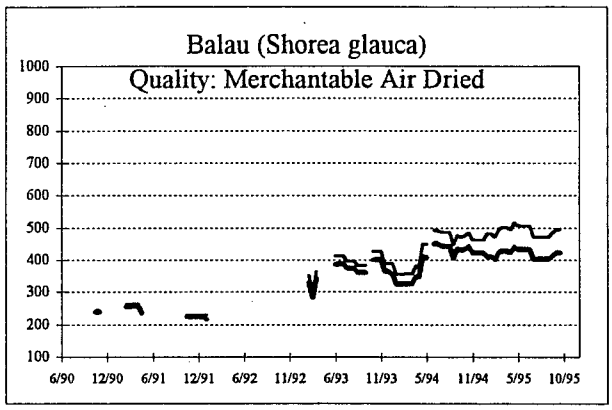


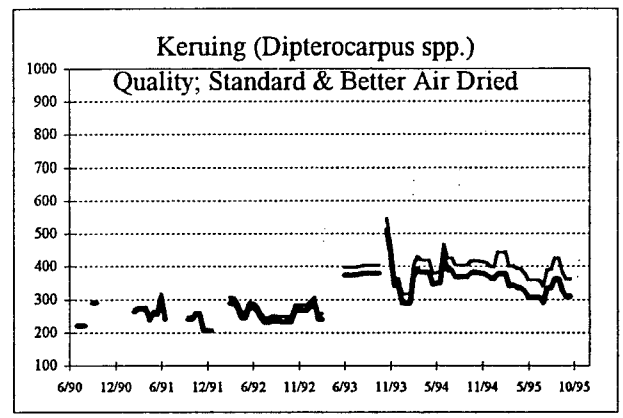


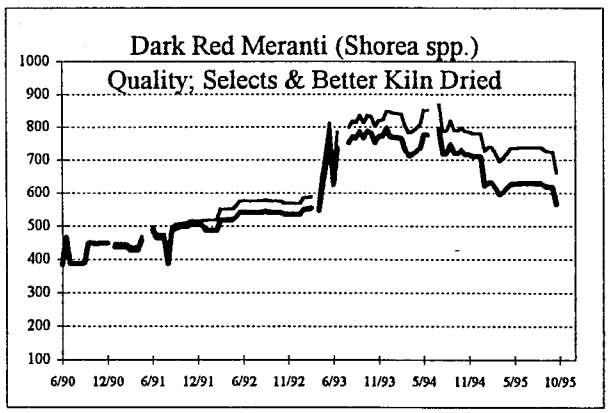


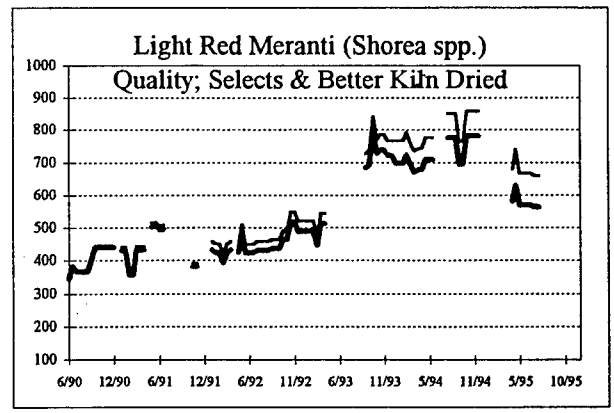
7.4 Price of Asian Sawnwood, 1990-1995

Bold lines show prices in constant 1990 US$ per cubic meter (deflated by the G-5 MUV Index used by the World Bank for deriving real commodity prices). Normal lines show nominal price trends.



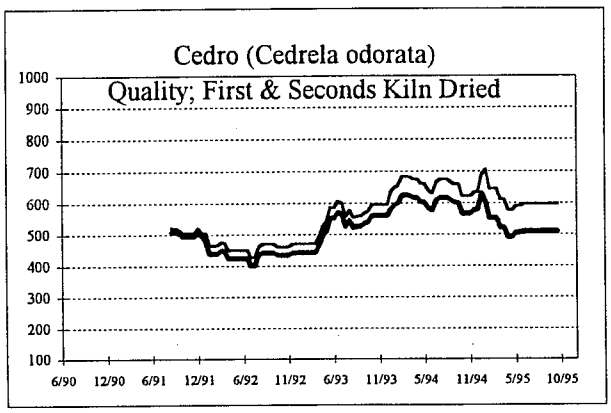


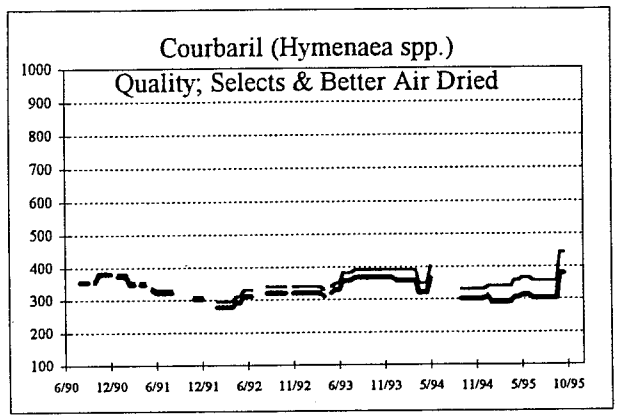


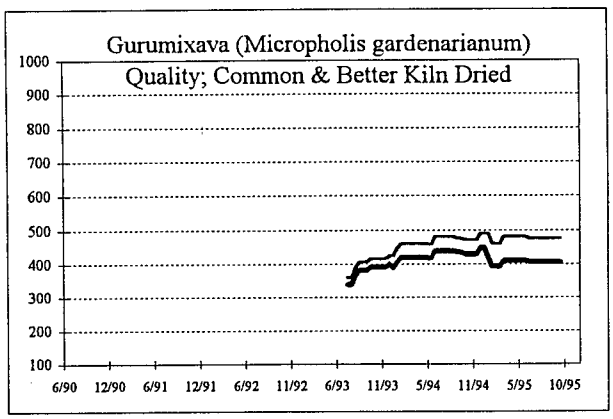


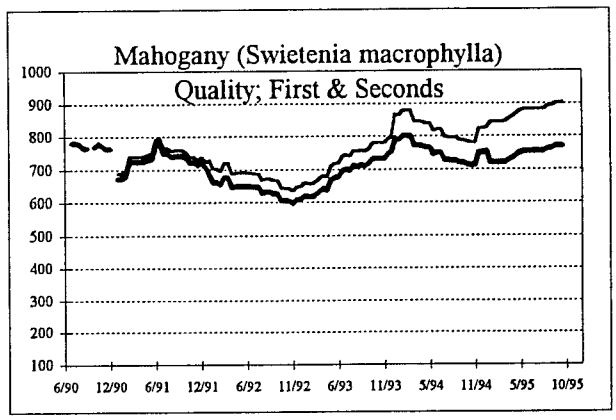
7.5 Price of Latin American Sawnwood, 1990-1995

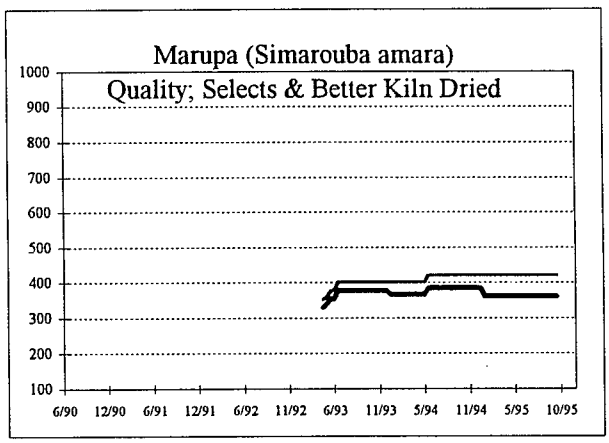
Bold lines show prices in constant 1990 US$ per cubic meter (deflated by the G-5 MUV Index used by the World Bank for deriving real commodity prices). Normal lines show nominal price trends.

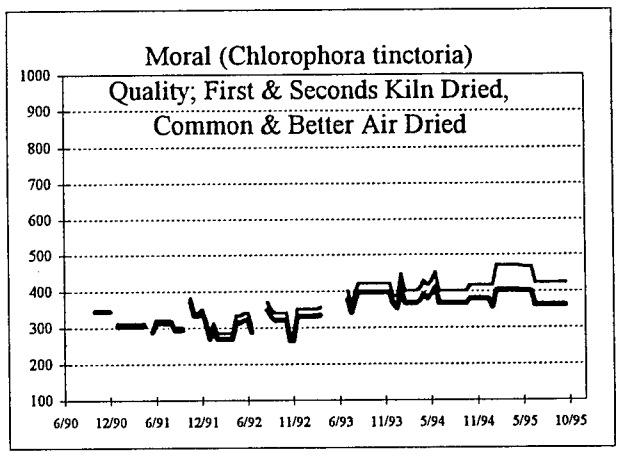


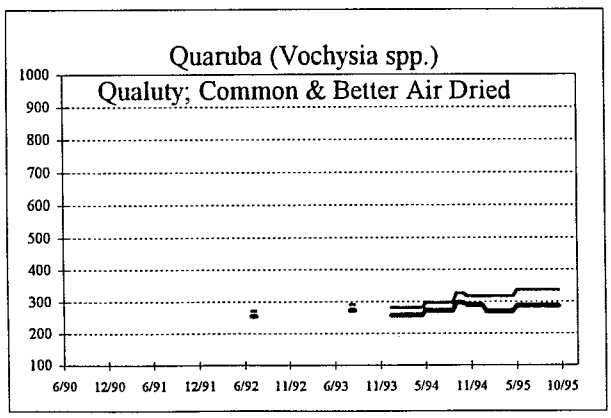


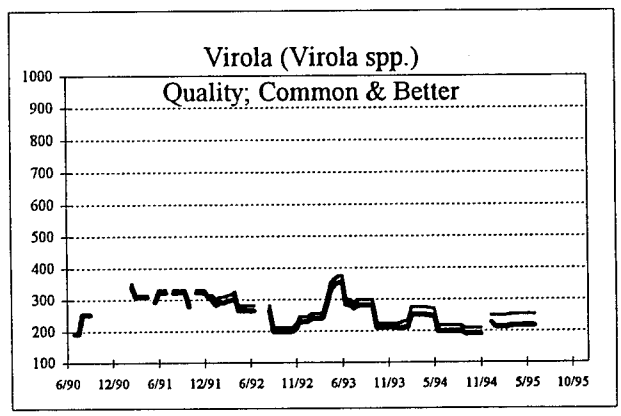












7.6 Price of Plywood, 1990-1995

Bold lines show prices in constant 1990 US$ per cubic meter (deflated by the G-5 MUV Index used by the World Bank for deriving real commodity prices). Normal lines show nominal price trends.
Grades for all species shown are B/BB Moisture Resistant, 9mm thickness unless otherwise indicated.