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Indonesia

Forest Products

FOREST PRODUCT ANNUAL

1998

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Executive Summary

Beginning in the latter half of 1997, the food and agriculture situation in Indonesia has been severely shaken by the combined effects of record drought and an economic/financial crisis that has brought the economy to a crawl. More specifically, the value of the Indonesian rupiah has plunged by as much as 80 percent in the last year; inflation, which had hovered at 10 percent or below, is currently forecast to top 100 percent in 1998; the economic growth rate has plunged over 20 percent from a positive 6 percent in 1997 to a projected level of negative 13-15 percent in 1998. This is after 27 years of a growth rate averaging 7 percent or better.

Indonesia’s plywood mills are surviving Indonesia’s economic and financial crisis relatively unscathed. Plywood industry officials claim the forest fires had little or no impact on their log production, noting that their logs are sourced from the interior virgin forests while the fires occurred in the peripheral or conversion forested areas. The currency devaluation has had little direct impact on the export-oriented mills since both their revenues and major costs are dollar based. Social unrest that has plagued the country throughout the year has not reached the main logging areas or plywood mills that are generally situated in more remote regions of Indonesia.

The economic crisis did result in the Indonesian Government seeking financial assistance from the International Monetary Fund (IMF). Successive IMF Memoranda eventually led to the abolition of the plywood marketing cartel known by the local acronym of APKINDO. This development will have an immediate and far reaching impact within the industry while the benefit from the reduction of export taxes and lifting of export ban on logs will be of greater significance as markets recover. Also the initial use of the “Check Price” system for assessing export tariffs is resulting in export taxes double or triple the rates justified by current international prices. Another area affected by the economic crisis is the domestic construction sector, with major construction projects coming to a virtual halt. This has led to a sharp decline in domestic demand for all wood products, including plywood and interiors assuming improved market conditions in export destinations.

Of greatest concern to the plywood industry is the economic slowdown that has affected much of Asia. North Asia accounts for over 70 percent of Indonesia’s plywood exports.
Thus, the weak economies throughout the region - most notably Japan and Korea - have had a dramatic impact on the Indonesian plywood industry. Plywood exports for 1998 are estimated at 7.1 million cubic meters, down 16 percent from the year-ago level of 8.35 million cubic meters. Prices are reportedly down 40 - 50 percent from year-ago levels. Total export value for the year is estimated at $2.6 billion, down 33 percent from the 1997 level of $3.9 billion. Plywood exports for 1999 are initially forecast at 7.6 million cubic meters.

For the 3-5 year outlook, Indonesia will remain a major exporter of tropical hardwood although the industry could experience some significant changes. The abolition of APKINDO and the ongoing economic crisis in Indonesia and the region could induce some significant changes/developments, including an eventual tightening in log supplies due to a decline in production; significantly reduced domestic demand for plywood and other products from the construction sector due to the prolonged economic crisis; gradual expansion of exports of high quality logs as export taxes decline; increased competitiveness in the international marker due to

Indonesia’s currency devaluation; consolidation within the industry due to the dismantlement of APKINDO; movement by the mills towards manufacture of value-added products - including garden furniture, fancy plywood, mouldings, and sawn lumber from plantation forest-sourced logs; increased market opportunities for imported forest products, including temperate hardwood logs and veneers to supply the increasingly competitive furniture and other manufacturing industries; increased international pressure on improved tropical rainforest protection and management.

Table: Forest Area

FOREST AREA (million hectares/million cum)			
	CY 1997	CY1998	CY1999
Country: Indonesia	Previous	Current	Following
Report Year: 1998	Calendar Year	Calendar Year	Calendar Year
Total Land Area	192.07	n/a	n/a
Total Forest Area	155.8	n/a	n/a
--of which, Commercial	101.2	n/a	n/a
----of commercial, tropical hardwood	0	n/a	n/a
----of commercial, temperate hardwood	0	n/a	n/a
----of commercial, softwood	0	n/a	n/a
--of forest area, non-commercial	54.6	n/a	n/a
Forest Type			
--Of which, virgin	n/a	n/a	n/a
--Of which, plantation	2.1	n/a	n/a
--Of which, other commercial (regrowth)	0	n/a	n/a
Forest Ownership	155.8	n/a	n/a
--Nationally owned and no commercial access	54.6	n/a	n/a
--Nationally owned, commercial logging permitted	100.6	n/a	n/a
--Other publicly owned land, no commercial access	0	n/a	n/a
--Other publicly owned, logging permitted	0.6	n/a	n/a
--privately owned commercial forest	0	n/a	n/a
Total Volume of Standing Timber		n/a	n/a
--Of which, Commercial Timber	0	n/a	n/a
Annual Timber Removal 1/	26.07	n/a	n/a
Annual Timber Growth Rate	1.2 cum/ha	n/a	n/a
Annual Allowable Cut	29.7	n/a	n/a
1/ If Removals exceeds growth rate, analyze impact in text.			

Table: Forest Product Tariffs and Taxes

FOREST PRODUCT TARIFFS AND TAXES (percent)						
		Tariff	Tariff	Other		
Country: Indonesia	Product	Current	Following	Import	Total Cost	Export
Report Year: 1998	Description 1/	Year	Year	Taxes/ Fees	of Import	Tax
4401	Fuel Wood	0	0	10	10	none
4403	Wood in rough	0	0	10	10	30
4404	Poles/piles	5	5	10	15	30
4405	Wood/Wood Flour	5	5	10	15	none
4406	Rail sleepers	5	5	10	15	30
4407	Lumber, sawn, lengthwise	0	0	10	10	30
4407.99.999		10	5	10	20	none
4408	Veneer/plywood	5	5	10	15	30
4409	Lumber, moulded and rounded	0	0	10	10	none
4410	Particle board	5	5	10	15	none
4411	Fibreboard of wood	5	5	10	15	none
4411.11.000		10	5	10	20	none
4411.91.000		10	5	10	20	none
4411.99.100		10	5	10	20	none
4412	Veneered panel	15	15	10	25	none
4413	Densified wood	15	15	10	25	none
4414	Wooden frames	15	15	10	25	none
4415	Packing cases/pallets	10	10	10	20	none
4416	Cask/Barrel/Vat/Tub	10	10	10	20	none
4417	Tool/handles	10	10	10	20	none
4417.00.000		10	10	10	20	none
Continued next page						

Table: Forest Product Tariffs and Taxes FOREST PRODUCT TARIFFS AND TAXES (percent)						
Country: Indonesia	Product	Current	Following	Import	Total Cost	Export
Report Year: 1998	Description 1/	Year	Year	Taxes/ Fees	of Import	Tax
4418	Builders' joinery	15	15	10	25	none
4419	Wooden tableware	15	15	10	25	none
4420	Jewellery cases	15	15	10	25	none
4421	Oth. Wooden articles	15	15	10	25	none
4421.90.300		10	10	10	20	none
4422	none	none	none	none	none	none
4423	none	none	none	none	none	none
4424	none	none	none	none	none	none
4425	none	none	none	none	none	none
Pre-fabricated Houses, a subsection under chapter 96						
9406		20	20	10	30	none
1/ Insert additional lines for Commodity tariff identification should tariffs vary within						
the four-digit designation.						

Table: Wood Products Subsidies

WOOD PRODUCTS SUBSIDIES			
Country: Indonesia	Previous	Current	Following
Year of Report: 1998	Calendar Year	Calendar Year	Calendar Year
Total Solid Wood Export Subsidy Outlay ($US million)	none	none	none
Is there a ban on the export of logs, lumber, or veneer? If yes, which?	yes	no	no
Are there export taxes (yes/no)? 1/	yes	yes	yes
If yes, for which products? (Identify export tax level in tariff table)	CH. 4403/4404/4406/ 4407/4408	CH. 4403/4404/4406/ 4407/4408	CH. 4403/4404/4406/ 4407/4408
Source(s) of Export Subsidy Information	Ministry of Industry and Trade		
Total Wood Production Subsidy Outlay ($US million)	None	None	None
Are there any programs favoring the development of commercial forestry?	Reforestation Fund		
If yes, Post best estimate of scope (thousands of hectares)	250	250	250
If yes, Post's best estimate of financial outlay ($US million)			
Source(s) of Production Subsidy Information	Ministry of Forestry		
Does the country support export expansion activities similar to the Cooperator Program?	no	no	no
--Which country markets are targeted?	-	-	-
--Which products are targeted?	-	-	-
Are there significant wood products export expansion activities at the provincial or regional level?	no	no	no
--If yes, identify key players	-	-	-
--If yes, identify key market segments	-	-	-
--If yes, identify key country markets	-	-	-
--If yes, identify key products	-	-	-
--Post's estimate for combined outlay ($US million)	-	-	-
Source(s) of Provincial/Regional Support Information	None	None	None
Are there other wood products export expansion activities? If yes, describe in report.	no	no	no

Trade

Overview

As agreed upon under a series of IMF memoranda, the GOI has implemented several steps towards structural reform within the forest products industry. The most dramatic steps include the abolition of the marketing cartel known by the Indonesian acronym of APKINDO; the reduction in export taxes on processed wood and rattan; and the lifting of the export ban on logs. (For more details, see Solid Wood Products Overview).

According to industry sources, the dismantlement of APKINDO has occurred and the related government decrees are being fully implemented. Indonesian plywood industries can now market their product directly to importers and traders, without restriction on pricing or product mix. Business relationships that existed prior to the creation of APKINDO are being re-established, including much of the trade with Japan being conducted through the Jakarta-based branch offices of the Japanese trading houses. New relationships are also being created, both in existing markets and in new markets such as South Asia.

The full impact of the reduction in export taxes, however, is being offset by the Government's utilization of the Check Price system. The Government issues Check Prices on all exported forest products on a periodic basis. The export taxes are applied against these check prices, not the actual international export price (See attached table). Currently, the Check Prices are significantly above the international prices leading to export taxes that are in effect double or triple the announced rate.

Outlook

In recent years, North Asian markets accounted for nearly 70 percent of Indonesia's plywood exports. Thus, the weak economies throughout the region have had a dramatic impact on the Indonesian plywood industry. Plywood exports are down both in volume and value terms. The key markets of Japan and Korea are down significantly, being only partially offset by an expanded market in China.

Plywood exports for 1998 are estimated at 7.1 million cubic meters, compared to 8.35 million cubic meters in 1997. Prices during much of the year were reportedly down 40 - 50 percent from year-ago levels, with C&F prices to Japan recently quoted at $230-$250 per cubic meter. Total export value for the year is estimated at $2.6 billion, which would represent a decline of over 30 percent from the 1997 level of $3.9 billion. No significant level of log exports are expected in 1998. Plywood exports for 1999 are initially forecast at 7.6 million cubic meters, although actual exports will depend largely on the timing and degree of any economic recovery in the Asian region.

Industry officials expressed doubt about any significant level of log exports in 1998 despite the lifting of the export ban. This is due to the remaining export tax and the high government Check Prices as noted above. According to press reports, 44 forest concessionaires have applied for log export licenses for a total requested export volume of 1.16 million cubic meters. To date, 21 of these requests have been approved with a total volume of 0.47 million cubic meters. The approved requests went to concessionaires in the provinces of Aceh, North Sumatra, East Kalimantan, Central Kalimantan and Irian Jaya.

However, as of mid-September, only 11,000 cubic meters have actually been exported according to industry officials. Log exports may increase in 1999, however, if plywood prices remain depressed. Government officials have stated that 4.0-5.0 million cubic meters of exportable logs are available due to the depressed plywood market in Asia. In addition, softwood pine logs are exported with over 100,000 cubic meters reportedly exported in 1997 to Taiwan.

Official statistics indicate no exports of sawn lumber under H.S. 4407.21--4407.23. However, unofficial industry data indicate sawn timber exports will jump to 1.2 million cubic meters in 1998 from about 270,000 cubic meters in 1997. It is assumed that the sawn timber is from species mainly harvested from the plantation forests and not categorized by the government under H.S. 4407,.21-23. The jump in exports is apparently due to the near collapse of the domestic construction sector. Significant sawn lumber exports will likely continue into 1999.

Indonesia will remain a major exporter of tropical hardwood plywood for the foreseeable future. Currently, the overriding issue for local plywood mills is the economic situation in the major markets of Japan and Korea. Other factors or developments that are expected to occur over the next three to five years include:

- A modest restructuring within the plywood industry due to the dismantlement of APKINDO, reduction in export taxes, and the near collapse of the domestic construction sector.

- An eventual tightening in log supplies due to a decline in production fostered by the precipitous drop in prices.

- Significantly reduced domestic demand for plywood and other products from the construction sector due to the prolonged economic crisis.

- Gradual expansion of exports of high quality logs as export taxes decline.

- Movement by the mills towards manufacture of value-added products - including garden furniture, fancy plywood, mouldings, and sawn lumber from plantation forest-sourced logs.

- Increased market opportunities for imported forest products, including temperate hardwood logs and veneers to supply primarily the furniture manufacturing industry.

- Increased international pressure on improved tropical rainforest protection and management.

Industry Activities

Plywood industries in Indonesia are familiar with ISO certification. An ecolabelling agency has been established (LEI=Lembaga Ekolabel Indonesia) and the number of eligible companies is increasing. The Government has stated its intent on adhering to ecolabelling requirements via strict enforcement of the forestry regulations, including selective logging procedures, mandatory reforestation projects, industrial forest development, and imposition of high export taxes on lumber.

The abolition of APKINDO is leading to the re-establishment of old business ties that existed prior to the establishment of APKINDO nearly 15 years ago. Traders throughout the region are visiting the mills. Both prices and product mixes are freely negotiated. The major Japanese trading houses located in Jakarta are emerging as the key players. The mills are also seeking new business relationships and new markets - with South Asia reportedly emerging as an important market. This new environment has also escalated the move towards production of value-added products in the respective mills.

U.S. Exports

Indonesia remains an important market for U.S. temperate hardwoods. In calendar year 1997, total U.S. hardwood exports to Indonesia were $33.8 million, an increase of over 10 percent over 1996. Log exports were $21.3 million, which approached the 1996 level; lumber exports were $8.8 million, up 45 percent from 1996; and veneer exports were $3.6 million, up 19 percent from 1996. Overall, U.S. exports for calendar year 1998 are expected to decline due to the financial crisis, although the manufactured export sector will offer expanded opportunities for U.S. exporters as Indonesia’s own export market improves.

Production

Forest Situation

Indonesia has a total land area of 192.7 million hectares, including 155.9 million hectares of forested area. Of this amount, 131.7 million hectares have been classified by the Government as follows: Protected Forest (34.6 million ha); National Park & Wildlife Reserves (20.0 million ha); Limited Production Forests (23.9 million ha); Permanent Production Forests (34.8 million ha); and Conversion Forests (18.4 million ha). Thus, 54.6 million hectares or 41.4 percent of the 130.6 million ha are fully protected while 77.1 million hectares or 62.5 percent are designated for commercial exploitation.

The Limited Production Forests and the Permanent Production Forests combine for a total of 58.7 million hectares. Commercial logging is permitted within these areas through government-issued concession rights (HPK=Hak Pengusahaan Hutan). Government data indicate that the number of concession holders peaked at 578 in 1990 before steadily declining to an estimated level of 475 in 1998. Except for the three provinces of Aceh, Central Kalimantan, and East Kalimantan, concessions were issued only to companies with wood processing facilities. Under the IMF memoranda this past year, however, this restriction was removed and the transfer of concessions by sale was allowed effective June, 1998.

The 18.5 million hectares designated as conversion forests are generally secondary or peripheral forests. Within this area, the Government continues to annually target 250,000 hectares for industrial forest development (HTI=Hutan Tanaman Industry). Since the beginning of the project in 1989/90, HTI development has totaled 2.1 million hectares including: 844,079 hectares of estates for pulp; 760,495 hectares for wood product; 209,957 hectares transmigration estate; and 306,972 hectares of plantation for leading wood species.

The four Kalimantan provinces on the island of Borneo account for 23.9 million hectares or 41 percent of total production forests in Indonesia. Other major production areas include Irian Jaya (13.7 million ha), Sumatra (10.1 million ha) and Sulawesi (4.9 million ha). Harvest occurs year-round in the major production areas of Kalimantan although log production declines in the rainy season (normally October-April) due to the inaccessibility of the logging roads. During this period, Kalimantan-based plywood mills will source more of their logs from their production areas in Sulawesi and Irian Jaya. Production areas in Irian Jaya remain relatively unexploited due to a lack of supporting infrastructure.

Forest Fire Situation in 1997

The El-Nino induced drought during the latter half of 1997 led to an unprecedented level of forest fires throughout Indonesia. The greatest damage was centered in the province of East Kalimantan, where the fires have been described as catastrophic. Although controversy surrounded the cause of the major fires, most observers indicate the fires were the result of land clearing by either small-scale indigenous farmers or large-scale palm oil plantation owners.

Although estimates vary greatly, approximately 500,000 hectares of forest and other lands were reportedly destroyed. Economic losses in terms of natural resources have been estimated as high as $9.1 billion. In terms of official estimates within the forest industry, the burned areas included 299,850 hectares of forest concession areas (HPH); 85,800 hectares of timber plantation (HTI); and 71,000 hectares areas of national park land. The impact of the fires on human health and wildlife was also significant, although difficult to quantify.

Despite the enormity of the fires, officials at plywood mills in Kalimantan indicate that the fires had little or no impact on their log production. The officials indicated that their logs are sourced from the interior virgin forest areas while the fires occurred in the peripheral or conversion forested areas.

Forest Outlook

Over the past five years, log production in Indonesia has approached 26 million cubic meters annually while plywood demand - especially in North Asia - continued to increase. This led to tightening log supplies. This situation was exacerbated by other factors, including the need to enter more remote logging areas; stricter enforcement of forestry regulations; and continued high levels of illegal logging.

This past year, however, the economic crisis that has hit most of Asia has led to a drastic reduction in plywood demand while log production will remain near 26 million cum. The concomitant surplus in log supplies has led to a dramatic decline in local log prices. Industry officials state that local prices this past August ranged from $40-$60/cum compared to year-ago prices of around $90/cum. At the same time, plywood prices have reportedly fallen to below $300/cum compared to the year-ago level of around $400/cum.
Absent a quick economic turn around, the plywood and logging industry in Indonesia is expected to restructure. This includes less efficient mills going out of business; consolidation among the more efficient mills; and expansion by the more efficient mills into more higher-valued products that involve the application of films, veneers and laminates to basic panel products. Some mills are also expanding the manufacture of mouldings, block board, sawn lumber and garden furniture.

Over the next 3-5 years, plywood industry officials have expressed little or no concern over available log supplies. They expect log supplies to remain at or near current levels with the more efficient mills continuing to run at near capacity. There has been some increased concern over log quality, which may affect the more modern mills' plans to shift towards higher-valued products.

The recent lifting of the ban on log exports has apparently caused little concern among the plywood industry. The stated reasons for this include the following:

- Continued export taxes and high government check prices make exporting logs less attractive.

- Major plywood mills maintain their own concessions, meaning continued access to sufficient log supplies.

- It will not be economically feasible to shift plywood manufacturing from Indonesia to Japan - Indonesia's dominant market - meaning the Indonesian plywood industry will remain competitive.

- The current reduced prices and demand for logs has allowed the major plywood mills to reduce logging from their own concessions, purchase directly from other concessionaires, and reserve future supplies from their own concessions for when prices recover.

According to the Minister of Forestry, the annual deforestation rate is estimated at 900,000 to 950,000 ha. This includes illegal logging (200,000 - 250,000 ha.); conversion into estate crops such as rubber and oil palm (200,000 - 350,000 ha); conversion into plantation timber estates (200,000 - 250,000 ha). These figures do not include the extensive area lost to forest fires this past year and the annual damaged caused by slash and burn farming activities.

The Government's reforestation efforts are targeted through the HTI program described earlier. As noted, the government targets 250,000 ha for reforestation - which means a net deforestation of 650,000 to 700,000 ha per year. The Government also provides financial aid for the development of reforestation projects through the reforestation fund (DR=Dana Reboisasi) collected from the logging operations.

The reforestation fund has been a constant source of controversy due to alleged corruption and this issue was included in the January 15, 1998 IMF Memoranda as follows: "The accounts of the Reforestation Fund will be incorporated in the central government budget at the beginning of the 1998/99 fiscal year. In the specific case of the Reforestation Fund, the government will ensure that the funds are used exclusively for their intended purpose of financing reforestation programs, which include those outside the Concessional forest areas, development of industrial forestry areas, reforestation of unproductive land, and other reforestation programs".

Solid Wood Products: Policy Issues

The deteriorating economic/financial situation that struck Indonesia beginning with the latter half of 1997 eventually forced the Government to seek assistance from the International Monetary Fund (IMF). A series of Memoranda were signed with the IMF, some of which included conditions that affected Indonesia's plywood industry. As noted earlier, the major development was the abolition of APKINDO. Conditions within the IMF Memoranda that affect the plywood industry are summarized as follows:

> *January 15, 1998 Memorandum:* The Government of Indonesia committed - effective February 1 - to dissolve "all existing formal and informal restrictive marketing arrangements--including those for plywood. Henceforth, no firm will be forced to sell its product through a joint marketing organization, nor be required to pay fees or commissions to it. Neither will any organization be allowed to assign exclusive marketing areas, or to dictate production volumes or market shares to individual enterprises".

April 8, 1998 IMF Memorandum: The Government confirmed that APKINDO's role as a marketing cartel has been abolished and included the following appendix:
"Plywood: The government issued a decree in January 1998 establishing the rights of plywood producers to market independently and ship with any carrier of their choice and a statement has been issued by the ministry of industry and trade confirming the dismantlement of the joint marketing body. The government plans by mid-April 1998 to impose resource rent royalties that are linked to international prices and the cost of efficient extraction, and that are independent of end-use. Royalty rates will be revised every six months to reflect price and cost changes and to maintain an appropriate level of public revenue from forestry. The government has provided a timetable for the phased reduction of export taxes on logs and sawn timber to 10 percent ad valorem. To provide plywood producers with some time to adjust in the face of depressed international prices, export taxes will be reduced on an ad valorem basis to 30 percent by April 22, 1998; 20 percent by end-December 1998; 15 percent by end-December 1998; and 10 percent by end-December 2000. By end-June 1998, the restriction that only those with wood processing facilities can hold forestry concessions will be removed and the transfer of concessions by sale will be allowed".

Solid Wood Products: Industry Overview

Plywood Situation

Indonesia remains the largest tropical hardwood plywood exporter in the world, typically consuming approximately 70 percent of total Indonesian log production. No production figures are available for veneer because Indonesia considers sliced and rotary-cut veneer as an integrated part of ordinary plywood. The plywood industry imports temperate hardwood logs (mainly oak) to produce fancy plywood for export.

Plywood industry officials recently stated that they were not experiencing any shipping problems or problems with credit financing. The major export-oriented mills remain in a good state of repair and have no problems accessing spare parts. These mills remain at or near full capacity, with only the mills oriented towards the domestic construction sector experiencing production declines. Due in large part to the remoteness of the plywood mills - including the major mills in Kalimantan - the industry officials were not concerned about the social unrest that had affected urban areas throughout Indonesia.

In recent years, the increase in Indonesia's per capita GDP and continued strong economic growth motivated the construction of new homes, modern apartments and office buildings. Therefore, domestic needs for fancy plywood with extravagant veneer laminating and parquet flooring are also increasing, mostly for interior design and furniture. This domestic construction market has collapsed with little prospect for recovery over the next couple of years.

Independent observers and industry officials have confirmed that APKINDO has been abolished as a marketing cartel. There are no longer any restrictions on pricing, product mix or shipping arrangements. APKINDO's Jakarta office continues to exist and apparently operates solely as a marketing information center.

Log Situation

Although the ban on log exports has officially been lifted, no significant volume of log exports has been reported. Plywood officials indicate that this is a result of the continued export tax and high Government Check Prices. Media reports, however, also cite problems with potential firms receiving permission from the government to export. According to officials at the Ministry of Forestry and Estate Crops, the ministry must first determine the "allowable export volume" before log exports will be permitted. Once permission is granted, the companies will receive an export quota based on the respective company's total output. In addition, the registered exporters must submit reports to the ministry on their monthly export plan and export realization.

According to data from the Indonesian Forest Community (MPI=Masyarakat Perhutanan Indonesia), total log production in 1998 will approach 37.36 million cubic meters, down from 38.73 million cubic meters in 1997. This includes 26.16 million cubic meters from production forests; 11.20 million cubic meters from conversion forest, including 3.00 million cubic meters from HTI. The faster growing species from HTI are expected to increasingly contribute to Indonesia's overall log production. These numbers vary significantly from official government data from the Ministry of Forestry.

Marketing

The Indonesian plywood industry is becoming increasingly familiar with the utilization of temperate hardwood veneer which is utilized for fancy plywood manufacture and export. Indonesia imports most of its veneer from China and Sweden while the United States remains a major supplier of temperate hardwood logs. Through a series of seminars and trade services by the AHEC (American Hardwood Export Council), American temperate hardwoods are better known to fancy plywood producer and furniture manufacturers. Red and white oak are the most popular American hardwood species.

Given the Indonesian industry's trend towards production of value-added products, a continued presence by AHEC is important. Educational activities such as seminars and team visits to the United States appear to be the most effective. Export Credit financing is available through the USDA GSM-102 program, although there was no utilization in fiscal year 1998. Plywood manufacturers continue to request the U.S. Government to make the GSM-102 program available for log imports.

Following a visit to Indonesia during the first quarter of 1998, AHEC made the following observations:

- Indonesia's currency depreciation will make the plywood industry more competitive in the manufacturing sector.

- With the disbanding of APKINDO, more small plywood companies will face bankruptcy.

- A more efficient and productive plywood industry in Indonesia will provide greater competition for U.S. hardwood in the regional markets.

STATISTICAL TABLES

Table: Check Prices of Export Commodities

Check Prices of Export Commodities (FOB) Effective from July 16 through September 30, 1998 Announcement of the Director General of International Trade No. EKS.806/DJPI/1998 - Dated July 15, 1998		
HS Codes	Description of Goods	Check Prices
		US$/CUM
I. Logs		
4403.10.291	Ebony and Sandalwood Logs	2300
4403	Other Logs under Group of Fancy Wood	500
4403.10.270	Teak Logs	700
4403.10.271	Logs under Meranti Group	125
4403	Mixed Forest Logs	90
4403.10.296	Rubber Logs	70
II. Pulp Materials		
4403.20.100	Chip Materials of Natural Rattan	20
4403.99.100	Chip Materials of Crop Forest	9
III. Sawn Timber including Sleepers and Veneer		
Ex.4406	Ebony and Sandalwood	4500

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Check Prices of Export Commodities (FOB) Effective from July 16 through September 30, 1998 Announcement of the Director General of International Trade No. EKS.806/DJPI/1998 - Dated July 15, 1998		
HS Codes	Description of Goods	Check Prices
		US$/CUM
4407.99.110/120		
4407.99.210/290		
4407.99.300/310		
4407.99.911/912		
4407.99.991/992		
Ex.4408		
Ex.4406	Other Fancy Wood	1000
4407		
Ex.4408		
Ex.4406	Teak Wood	1000
4407.29.110		
4407.29.210		
4407.29.310		
4407.29.910		
Ex.4408		
Ex.4406	Group of Meranti	475
4407.26.110		
4407.26.210		
4407.26.910		
4407.26.910		
Ex.4408		
Ex.4406	Mixed Forest Wood	350
4407		
Ex.4408		
Ex.4406	Rubber Wood	250
4407.99.140		
4407.99.230		
4408.99.914		
Ex.4408		

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Check Prices of Export Commodities (FOB) Effective from July 16 through September 30, 1998 Announcement of the Director General of International Trade No. EKS.806/DJPI/1998 - Dated July 15, 1998		
HS Codes	Description of Goods	Check Prices
		US$/CUM
IV. Split Stems and Wood Poles, including		
Electricity/Telephone Poles		
4404.20.210	Ebony and Sandalwood	3000
4404.20.220	Other Fancy Wood	720
Ex.4404.20.220	Teakwood	720
4404.20.230/240	Meranti Group	300
4404.20.220	Mixed Forest Wood	210
Ex.4404.20.230	Rubber Wood	168
Source: Business News, BN. 6187/6188/7-22-1998		

Table: Production of Logs by Type of Logs

Production of Logs by Type of Logs Indonesia, 1994-1996 (In CUM)				
Type of Logs		1994	1995	1996
Local Name	Latin Name			
Agathis	Agathis	153,500	73,551	63,134
Bakau	Rhizopora spp.	410,298	497,412	554,279
Bangkirai	Shorea lalvifolia	142,186	133,856	79,602
Benuang	Octomeles sumatrana Miq	141,980	160,567	106,681
Damar	Shorea spp.	133,465	52,394	56,411
Duabanga	Duabanga molucana BI	92,381	54,848	82,137
Indah	Fancy Wood	199,144	235,881	371,391
Jelutung	Dyera spp	98,538	150,219	145,798
Kapur	Dryobalanops spp.	663,565	702,203	588,465
Kruing	Dipterocarpus spp.	1,321,810	1,106,196	1,375,126
Meranti	Shorea spp.	9,244,737	8,293,203	9,892,463
Mersawa	Anisoptera spp.	129,693	211,793	116,956
Nyatoh	Palaquium spp.	123,367	127,671	153,310
Palapi	Terrictia spp.	105,671	34,525	99,811
Ramin	Gonystylus bancanus Kurz	665,245	655,366	601,130
Resak	Vatica spp	79,259	23,732	106,743
Other		2,626,347	1,251,417	2,673,707
Mixed Forest Wood		3,768,072	2,918,060	4,107,707
Indonesia		20,099,258	16,682,894	21,174,851
Source: Central Statistics Agency (BPS).				

Table: Number of Forest Concession Estates by Province

NUMBER OF FOREST CONCESSION ESTATES BY PROVINCE AND AREA
1994-1996

Province	Number of Estates			Area (Ha)		
	1994	1995	1996	1994	1995	1996
Aceh	20	20	21	1,481,600	1,555,500	1,648,413
North Sumatera	16	15	11	1,076,190	1,180,700	981,700
West Sumatera	9	8	6	571,200	528,900	408,430
Riau	62	58	51	5,348,367	5,147,700	4,284,236
Jambi	23	24	18	1,976,427	2,346,217	1,647,877
South Sumatera	18	15	15	1,747,850	1,406,850	1,305,467
Bengkulu	4	4	4	365,000	352,900	352,900
West Nusa Tenggara	2	2	2	86,150	86,150	86,150
West Kalimantan	46	45	45	5,635,500	5,344,500	5,281,936
Central Kalimantan	90	91	77	9,480,177	9,481,290	8,277,472
South Kalimantan	11	11	11	1,041,250	1,021,090	1,149,790
East Kalimantan	107	86	76	13,658,861	11,559,781	10,717,055
North Sulawesi	9	10	10	607,500	653,700	715,150
Central Sulawesi	18	18	17	1,890,770	1,735,790	1,753,390
South Sulawesi	11	10	9	718,462	604,962	549,722
Southeast Sulawesi	4	4	4	651,000	628,500	651,000
Maluku	38	39	34	3,458,525	3,400,925	2,970,925
Irian Jaya	43	50	50	9,985,870	12,144,140	11,889,030
Indonesia	531	510	461	59,780,699	59,179,595	54,670,643

Source: Central Statistics Agency (BPS).

Table: PSD Hardwood Plywood

PSD Table						
Country:	Indonesia					
Commodity:	Hardwood Plywood					
		1997		1998		1999
	Old	New	Old	New	Old	New
Market Year Begin		01/1997		01/1998		01/1999
Production	9600	10270	9650	9000	0	9500
Imports	0	0	0	0	0	0
TOTAL SUPPLY	9600	10270	9650	9000	0	9500
Exports	8500	8354	8500	7100	0	7600
Domestic Consumption	1100	1916	1150	1900	0	1900
TOTAL DISTRIBUTION	9600	10270	9650	9000	0	9500

Table: PSD Tropical Hardwood Lumber

PSD Table						
Country:	Indonesia					
Commodity:	Tropical Hardwood Lumber					
		1997		1998		1999
	Old	New	Old	New	Old	New
Market Year Begin		01/1997		01/1998		01/1999
Production	7100	7070	7050	7000	0	6800
Imports	0	0	0	0	0	0
TOTAL SUPPLY	7100	7070	7050	7000	0	6800
Exports	150	0	100	0	0	0
Domestic Consumption	6950	7070	6950	7000	0	6800
TOTAL DISTRIBUTION	7100	7070	7050	7000	0	6800

Table: Plywood Production by Province

PLYWOOD PRODUCTION BY PROVINCE (In Cubic Meters)

Province	1992/1993	1993/1994	1994/1995	1995/1996	1996/1997
Sp.Terr. of Aceh	140,258	124,029	137,079	124,484	277,521
North Sumatra	436,378	371,119	448,349	419,825	562,739
West Sumatra	93,654	92,697	84,690	89,443	94,820
Riau	1,014,299	1,012,873	653,084	845,248	984,792
Jambi	576,838	562,697	610,487	703,614	727,470
Bengkulu	0	0	0	5,132	0
South Sumatra	234,762	240,700	204,545	176,380	205,934
Lampung	34,469	31,402	36,600	15,483	73,668
West Java	108,525	178,416	0	23,513	80,437
Sp.Terr. of Jakarta	0	0	0	0	0
Central Java	312,152	336,028	10,359	228,306	0
Sp.Terr. of Yogyakarta	0	0	103,159	0	0
East Java	369,035	433,553	144,915	335,985	472,782
Bali	0	0	0	0	0
West Nusa Tenggara	0	0	0	96,190	0
East Nusa Tenggara	0	0	0	0	0
East Timor	0	0	48	0	0
West Kalimantan	1,357,961	1,364,430	1,140,013	1,417,840	1,879,171
Central Kalimantan	318,096	259,798	251,340	310,084	684,852
South Kalimantan	1,400,302	1,441,775	1,171,864	1,212,970	1,577,923
East Kalimantan	2,185,482	2,115,616	1,616,745	1,811,976	1,912,803
North Sulawesi	0	0	124,144	41,558	0
Central Sulawesi	0	0	7,974	0	0
South Sulawesi	108,623	88,869	132,829	101,760	103,817
S.E. Sulawesi	0	0	0	117,435	0
Maluku	1,035,039	996,744	906,072	849,797	975,400
Irian Jaya	148,127	273,254	282,105	195,378	333,504
TOTAL	9,874,000	9,924,000	8,066,401	9,122,401	10,947,633
Source: Ministry of Forestry: Forestry Statistics of Indonesia, 1996/1997.					

Table: Lumber Production by Province

LUMBER PRODUCTION BY PROVINCE (In Cubic Meters)

Province	1992/1993	1993/1994	1994/1995	1995/1996	1996/1997
Sp.Terr. of Aceh	95,601	56,687	47,826	22,655	2,805
North Sumatra	115,451	92,639	63,663	88,305	138,463
West Sumatra	57,308	51,936	54,988	67,434	38,020
Riau	417,430	364,817	78,194	197,382	377,634
Jambi	234,113	85,867	171,898	203,709	267,629
Bengkulu	20,754	8,538	10,657	2,317	10,288
South Sumatra	443,930	224,166	206,400	233,682	243,131
Lampung	1,909	929	0	1,571	16,001
West Java	26,314	0	1,767	7,890	44,970
Sp.Terr. of Jakarta	0	0	0	0	0
Central Java	21,150	13,841	839	55,972	0
Sp.Terr. of Yogyakarta	0	0	49,985	0	0
East Java	588,747	338,467	127,253	223,086	1,516,597
Bali	0	0	937	12,393	3,872
West Nusa Tenggara	12,329	7,639	7,029	6,399	11,648
East Nusa Tenggara	560	550	412	100	0
East Timor	0	0	107	0	0
West Kalimantan	203,726	220,058	196,263	114,972	139,479
Central Kalimantan	259,939	151,873	142,794	196,588	221,609
South Kalimantan	260,634	227,065	244,302	107,372	48,357
East Kalimantan	624,216	275,970	194,778	399,303	198,085
North Sulawesi	3,463	1,092	32,821	2,850	0
Central Sulawesi	9,527	21,191	19,623	15,133	15,139
South Sulawesi	42,627	44,946	16,580	31,342	50,350
S.E. Sulawesi	5,412	2,705	2,335	2,402	12,393
Maluku	49,413	23,810	51,305	15,757	48,723
Irian Jaya	39,803	29,214	7,083	5,578	21,547
TOTAL	3,534,356	2,244,000	1,729,839	2,014,193	3,426,740
Source: Ministry of Forestry: Forestry Statistics of Indonesia, 1996/1997.					
Note: The data presented above do not include logs produce by small industries.					

Table: PSD Tropical Hardwood Logs

PSD Table						
Country:	Indonesia					
Commodity:	Tropical Hardwood Logs					
		1997		1998		1999
	Old	New	Old	New	Old	New
Market Year Begin		01/1997		01/1998		01/1999
Production	24700	26070	24500	25000	0	25000
Imports	5	0	5	0	0	0
TOTAL SUPPLY	24705	26070	24505	25000	0	25000
Exports	0	0	0	20	0	50
Domestic Consumption	24705	26070	24505	24980	0	24950
TOTAL DISTRIBUTION	24705	26070	24505	25000	0	25000

Table: Logs Production by Province

LOGS PRODUCTION BY PROVINCE (In Cubic Meters)

Province	1992/1993	1993/1994	1994/1995	1995/1996	1996/1997
Sp.Terr. of Aceh	1,363,863	977,789	982,301	700,121	1,075,424
North Sumatra	1,230,863	1,444,109	1,538,478	1,346,676	1,714,956
West Sumatra	513,284	329,719	200,322	402,342	316,567
Riau	3,194,709	3,812,417	1,919,563	2,430,162	2,220,419
Jambi	876,659	1,223,974	1,259,466	844,034	939,582
Bengkulu	86,759	146,486	196,997	193,027	246,196
South Sumatra	629,856	661,843	669,198	589,589	977,716
Lampung	18,501	15,540	23,190	41,712	24,026
West Java	0	0	0	0	0
Sp.Terr. of Jakarta	0	0	0	0	0
Central Java	0	0	0	0	0
Sp.Terr. of Yogyakarta	0	162	45,654	49,876	49,901
East Java	0	0	0	0	0
Bali	0	0	340	299	1,666
West Nusa Tenggara	50,827	98,154	97,728	89,417	55,272
East Nusa Tenggara	0	0	2,737	52	21
East Timor	0	0	0	45	0
West Kalimantan	2,413,984	1,950,229	1,407,003	1,675,851	1,442,570
Central Kalimantan	5,808,353	4,591,917	4,680,811	5,435,557	5,089,426
South Kalimantan	680,656	454,265	355,301	370,483	267,277
East Kalimantan	5,577,736	4,481,786	4,700,111	4,590,770	4,836,853
North Sulawesi	269,505	217,580	194,575	143,026	101,686
Central Sulawesi	448,864	805,747	554,454	517,003	458,397
South Sulawesi	67,184	592,112	541,327	272,815	262,487
S.E. Sulawesi	323,156	123,280	187,524	156,964	72,890
Maluku	2,269,930	1,407,355	966,043	1,119,688	1,131,895
Irian Jaya	1,662,309	1,851,989	1,774,355	2,010,701	2,834,851
State Enterprise Perhutani	780,000	1,661,557	1,729,797	1,869,850	1,949,203
TOTAL	28,267,000	26,848,011	24,027,277	24,850,061	26,069,282
Source: Ministry of Forestry: Forestry Statistics of Indonesia, 1996/1997.					

Table: Reference Prices for the Calculation of Resources Royalti Provision

The Stipulation of the Reference Prices for the Calculation of Resources Royalty Provision Decree of the Minister of Industry and Trade No. 258/MPP/Kep/6/1998 - Dated June 8, 1998 Valid from June 8 up to December 3, 1998		
Description of Products	Reference	Unit
	Price (US$)	
1. Logs		
Logs with a diameter of 30 cm & above		
a. The meranti (timber tree) and		
mixed forest gorups:		
1. Timber originating from Region I		
(Sumatra, Kalimantan, Silawesi, Maluku)		
a. Meranti group	59.00	M3
b. Mixed Forest group	35.00	M3
2. Timber originating from Region II		
(Irian Jaya, Nusa tenggara, Bali, East Timor)		M3
a. Meranti group	47.00	M3
b. Mixed Forest group	22.00	M3
b. Other than the meranti & mixed forest groups		
1. The fancy wood group	81.00	M3
a. The fancy wood group(except the Torem wood	35.00	M3
b. The Torem wood (Manikara kanoensis)	22.00	M3
2. Yellow sandalwood	696.00	M3
3. Yellow wood (Cudrania sp)	45.00	M3
4. Ebony group	574.00	M3
5. Teakwood (Tectona grandis 1.f)		
a. Diameter of 30 cm & above	67.00	M3
b. Diameter of >20 cm and < 29 cm	41.00	M3
b. Diameter of >19 cm and below	17.00	M3
6. Mangrove wood	14.00	M3
7. Pine wood	11.00	M3

The Stipulation of the Reference Prices for the Calculation of Resources Royalty Provision Decree of the Minister of Industry and Trade No. 258/MPP/Kep/6/1998 - Dated June 8, 1998 Valid from June 8 up to December 3, 1998		
Description of Products	Reference	Unit
	Price (US$)	
2. Groups of other types of timber (Region I)	59.00	M3
a. Sonokeling wood (Dalbergia latifolia Roxb)		
b. Ramin wood (Gonystilus bancanus Kurzs)		
c. Mentaos wood (Wrightia javanica DC)		
d. Kisereh wood (Cinnamomum parthenoxylon)		
e. Perupuk wood (Lophopetalum spp)		
f. Giam wood (Cotylelobium spp)		
g. Balangeran (Shore balangeran Burck)		
h. Ulin wood (Eusideeroxylon swageri T. et.b)		
i. Kulim wood (Scorodocarpus bprmeemsos Becc)		
3. Groups of other types of timber (Region II)	47.00	M3
a. Sonokeling wood (Dalbergia latifolia Roxb)		
b. Ramin wood (Gonystilus bancanus Kurzs)		
c. Mentaos wood (Wrightia javanica DC)		
d. Kisereh wood (Cinnamomum parthenoxylon)		
e. Perupuk wood (Lophopetalum spp)		
f. Giam wood (Cotylelobium spp)		
g. Balangeran (Shore balangeran Burck)		
h. Ulin wood (Eusideeroxylon swageri T. et.b)		
i. Kulim wood (Scorodocarpus bprmeemsos Becc)		
4. Logs of small diameters		
(not applicable to no. 2 and No. 3)		
a. Logs with diameter < 30 cm	11.00	M3
b. Palisades	1.00	M3
c. Fish-trapping stakes and piles	3.00	M3
d. Beams for flat-car rails	11.00	M3

The Stipulation of the Reference Prices for the Calculation of Resources Royalty Provision Decree of the Minister of Industry and Trade No. 258/MPP/Kep/6/1998 - Dated June 8, 1998 Valid from June 8 up to December 3, 1998		
Description of Products	Reference	Unit
	Price (US$)	
e. Charcoal:		
1. Mangrove wood, teakwood & meranti group	30.00	M3
2. Mixed forest wood	15.00	M3
3. Firewood	1.00	M3
4. Teakwood poles	26.00	M3
5. Logging waste (not applicable to no. 2 & no. 3).		
The timbernot or not yet utilized in the logging		
activities and originating from trees which may be		
filled shall be in the forrm of the distribution		
remainder made up of tree trunks, tree stumps,		
twigs, leaf tips with diameters of < 30 cm or		
with length of < 1.30 meters.		
6. Chip raw materials (BBS) shall be logs with small		
diameters which shall be processed into ships		
- Wood from areas covered with wood utilization		
licences	11.00	M3
7. Wood from timber estate (HTI)		
a. Pine	7.00	Ton
b. Acacia	5.00	Ton
c. Balsa	3.00	Ton
d. Eucalypthus	5.00	Ton
e. Gmelina arborca	5.00	Ton
f. Rubber	7.00	Ton/M3
g. Sengon	3.00	Ton
8. Timber from state-owned forestry company		
Perum Perhutani and Yogyakarta special region		
a. Teakwood and Sonokeling logs		
1. Diameters of 30 cm and above	67.00	M3
2. Diameter of > 20 cm and < 29 cm	41.00	M3
3. Diameter of > 19 cm and below	17.00	M3

The Stipulation of the Reference Prices for the Calculation of Resources Royalty Provision Decree of the Minister of Industry and Trade No. 258/MPP/Kep/6/1998 - Dated June 8, 1998 Valid from June 8 up to December 3, 1998		
Description of Products	Reference	Unit
	Price (US$)	
b. Fancy forest logs (Sonobrite, Mahogany)		
1. Diameters of 30 cm and above	34.00	M3
2. Diameter of >20 cm and < 29 cm	13.00	M3
3. Diameter of >19 cm and below	8.00	M3
c. Logs of the types of pine, resin, sengon, balsa		
Eucalypthus, Jabon, Acacia mangium, rubber and		
Gmelina Arborea		
1. Diameters of 30 cm and above	13.00	M3
2. Diameter of >20 cm and < 29 cm	11.00	M3
3. Diameter of >19 cm and below	8.00	M3
d. Mixed forest logs other than in point (c)		
1. Diameters of 30 cm and above	11.00	M3
2. Diameter of >20 cm and < 29 cm	8.00	M3
3. Diameter of >19 cm and below	5.00	M3
e. Rasamala	11.00	M3

Table: Distribution of Forest in Indonesia 1997

Distribution of Forest in Indonesia, 1997			
Province	Land	Forest Area	Ratio
	(000 Ha)	(000 Ha)	(%)
Aceh	5,539	3,889	70.21
North Sumatera	7,168	3,677	51.30
West Sumatera	4,230	3,231	76.38
Riau	9,456	4,690	49.60
South Sumatera	10,278	5,290	51.47
Jambi	5,100	2,980	58.43
Bengkulu	1,979	1,158	58.51
Lampung	3,302	1,310	39.67
West Java	4,630	1,013	21.88
Jakarta	59	1	1.69
Central Java	3,421	649	18.97
Yogyakarta	317	18	5.68
East Java	4,792	1,487	31.03
West Kalimantan	14,681	9,208	62.72
Central Kalimantan	15,300	11,029	72.08
South Kalimantan	3,700	2,265	61.22
East Kalimantan	21,144	15,949	75.43
North Sulawesi	2,752	1,818	66.06
Southeast Sulawesi	6,369	5,219	81.94
Central Sulawesi	3,814	2,889	75.75
South Sulawesi	6,292	3,606	57.31
Bali	563	126	22.38
West Nusa Tenggara	2,015	1,073	53.25
East Nusa Tenggara	4,739	1,658	34.99
Maluku	8,573	5,093	59.41
Irian Jaya	41,066	40,585	98.83
East Timor	1,461	700	47.91
TOTAL	192,740	130,611	67.77
Source: Min. of Forestry: Forestry Statistics 1996/1997.			

Table: Size of Forest 1997

Size of Forest, 1997				
Areas	Sizes of Production Forest (000 Ha)			
	LPF	PPF	CF	Total
Sumatera	6,043	6,903	3,253.00	16199
Java	387	1,632	0.00	2019
Kalimantan	11,348	14,250	1,752.00	27350
Sulawesi	4,721	1,443	1,494.00	7658
Bali	6	4	0.00	10
West Nusa Tenggara	223	229	0.00	452
East Nusa Tenggara	399	278	181.00	858
Maluku	1,803	1,298	0.00	3101
East Timor	170	45	10.00	225
Irian Jaya	4,732	7,120	11,772.00	23624
TOTAL	29,832	33,202	18,462.00	81496
Source: Min. of Forestry: Forestry Statistics 1996/1997.				

Table: Land Utilization Design and Forest Land by Agreement

Land Utilization Design and Forest Land by Agreement						
(In 1,000 Ha)						
Province	P.F.	P.R.F.	L.P.F.	N.C.F.	C.F.	Total
Aceh	1,819	635	446	174	607	3,681
North Sumatera	1,925	254	761	871	152	3,963
West Sumatera	911	846	246	408	278	2,689
Riau	1,071	560	0	2,820	0	4,451
South Sumatera	879	822	299	2,269	1,187	5,457
Jambi	616	652	384	830	706	3,188
Bengkulu	253	446	188	36	179	1,102
Lampung	399	441	44	283	144	1,311
West Java	240	220	213	339	0	1,013
Jakarta	0	0	1	0	0	1
Central Java	76	3	174	396	0	649
Yogyakarta	1	0	1	15	0	17
East Java	316	230	0	881	0	1,427
West Kalimantan	1,842	1,708	2,654	1,987	1,509	9,701
Central Kalimantan	1,014	681	4,533	4,448	0	10,676
South Kalimantan	517	214	155	688	243	1,817
East Kalimantan	2,935	2,166	4,755	4,727	0	14,585
North Sulawesi	331	397	568	194	294	1,783
Southeast Sulawesi	1,061	278	419	633	242	2,634
Central Sulawesi	1,490	676	1,476	483	699	4,825
South Sulawesi	2,004	194	993	165	259	3,615
Bali	96	23	0	8	0	127
West Nusa Tenggara	421	139	334	126	0	1,021
East Nusa Tenggara	731	310	197	428	181	1,847
Maluku	1,810	443	1,654	1,053	0	4,960
Irian Jaya	11,453	7,565	3,365	10,380	11,772	44,535
East Timor	419	78	0	122	10	629
TOTAL	34,630	19,983	23,863	34,765	18,462	131,703
Source: Min. of Forestry: Forestry Statistics 1996/1997.						

Table: Location of Plywood Plants in Indonesia

Location of Plywood Plants in Indonesia		
Areas	TOTAL	
	Factories	Prod. Capacity
		(M3)
Aceh	2	203,400
North Sumatera	4	315,000
West Sumatera	1	84,000
Riau	11	863,216
Jambi	9	629,740
South Sumatera	4	342,000
Lampung	1	77,500
West Java	1	71,428
Central Java	1	432,000
East Java	4	435,700
West Kalimantan	18	1,326,093
Central Kalimantan	6	467,680
South Kalimantan	13	1,117,205
East Kalimantan	25	2,037,083
South Sulawesi	2	94,810
Maluku	7	861,600
Irian Jaya	8	879,000
TOTAL	117	10,237,455
Source: Min. of Forestry: Forestry Statistics 1996/1997.		

Table: Distribution of Major Kinds of Trees in Indonesia

Distribution of Major Kinds of Tree in Indonesia	
Group of Tree Kinds	Distribution Areas
Sumatera:	
Dipterocarpaceae: Shorea, Hopea,	Distributed evenly in all areas
Anisoptera, Vatica, Diperocarpus,	Aceh and Northern Sumatera
Dryobalanops	
Pinus Merkusii	Aceh and Northern Sumatera
Rhizopora	Along the eastern coast of Sumatera and
	Riau
Eusideroxylon zwageri	Jambi and Southern Sumatera
Kalimantan:	Distributed evenly in all areas
Dipterocarpaceae: Shorea, Hopea,	
Anisoptera, Vatica, Diperocarpus,	
Dryobalanops	
Gonystylus	West and Central Kalimantan
Eusideroxylon zwageri	South and East Kalimantan
Agathis	Central and East Kalimantan
Rhizopora	Along the eastern coast of Kalimantan
Sulawesi:	
Dipterocarpaceae: Hopea and Vatica	Distributed evenly in all areas
Intsia	Central Sulawesi
Diospyros	Along Tomini gulf and Central Sulawesi
Agathis	North Sulawesi, Central and South Sulawesi
Maluku Island:	
Dipterocarpaceae: Shorea and Vatica	Seram Island, Obi, Sula, Buru, Morotai and
	Halmahera
Eucalyptus	Halmahera and Seram Island
Agathis	Seram, Buru, and Halmahera Island
Rhizopora	Seram Island
Irian Jaya:	
Agathis	Biak and Jayapura
Eucalyptus	Merauke
Intsia	Merauke
Source: Min. of Forestry: Forestry Statistics 1996/1997.	

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