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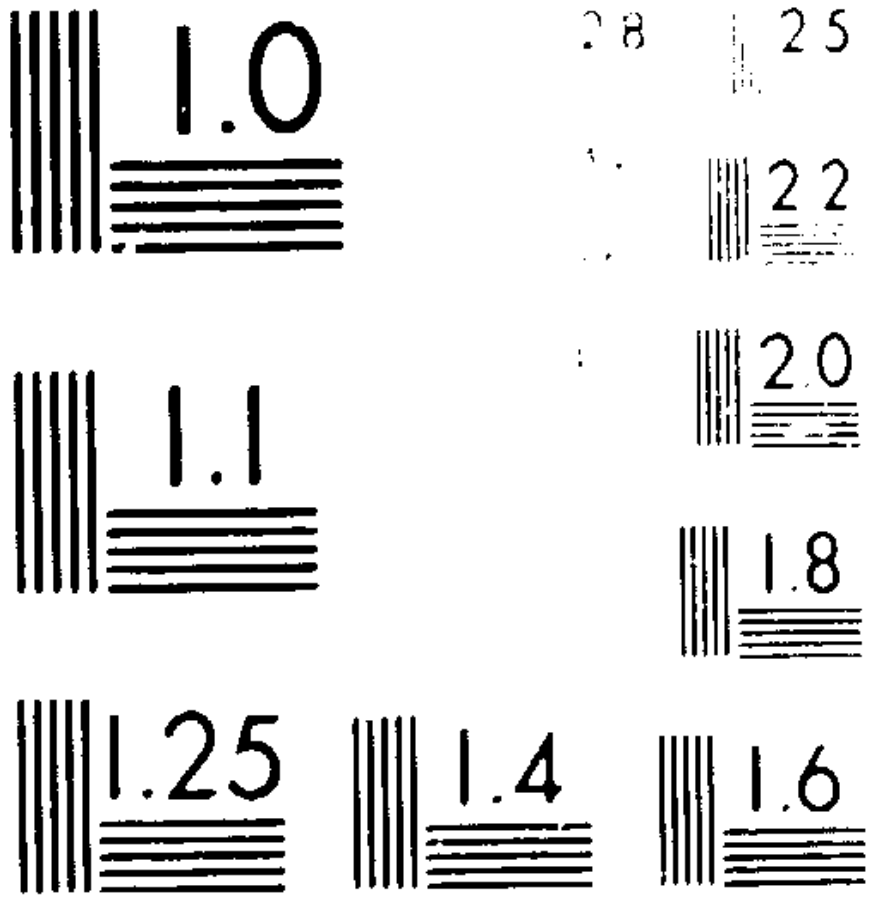
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CURRENT STATUS OF THE WOOD PROCESSING INDUSTRY IN INDONESIA*

by

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UNIDO

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** Vice President/Director, P.T. Sarmiento - Parakantja Timber, Jakarta.

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Indonesia has at present one of the largest timber resources of the world. The annual log production is approximately 30 million cubic meters, consisting of well known species in the world timber market like meranti (Shorea species) and ramin.

This volume is produced by approximately 500 logging concession holders located in Sumatera, Kalimantan, Sulawesi, Mollucas and West Irian, with a total concession area of approximately 50 million hectares.

It has been the Indonesian Government's policy to release logging licences only to those also establishing wood processing industries as it is stated in the forestry agreement between the Government and licence holder. After two years of logging operations the licence holder should start processing his logs into at least sawn timber. The volume processed should be increased with the years. It starts 20 per cent of the production after 2 years, 30 per cent after 3 years, 40 per cent after 4 years, 50 per cent at 5 years and 60 per cent after 7 years of logging operations.

After the sawmill, an integrated wood processing industry should be erected, and most of the concession holders after 7 years operations are now establishing plywood plants for processing their logs.

In 1979 there were 18 plywood factories, with a production of 525.000 m^3 of which 68 per cent (or 357.000 m^3) was for sale to the domestic market. In the next five years, the local market is estimated to grow by 40 percent on the average. Inodnesia exported 168.000 m^3 of plywood in 1979 or 32 per cent of its total production, representing only 1 per cent of the total exports of the Asia - Pacific region.

In 1980, 24 plywood factories will be operating and by the end of 1983 it is expected that there will be more than 80.

With the log export quota system which is now very strictly imposed by the Indonesian Government, it is sure that plywood production will decline very rapidly in those countries that use Indonesian logs as their raw material.

Beside the plywood industry which becomes more and more important in the Indonesian wood products manufacturing sector, saw milling is of course a very important stage as a primary wood processing industry.

This industry was first established long before the second world war; it was then usually manually operated, and supplied sawn timber for the local market. It developed into real sawmills using first circular saws, and later bandsaws. The existence of these sawmills was precarious because they had no assurance of raw material supplies and they have since been replaced by sawmills erected by concession holders, which the latter have to build to comply with their agreement with the Government. The number of these sawmills are more of less the same as the number of concessions granted.

The typical sawmill consists of one headrig, two pony rigs, two to four resaws, four cross-cutters and a sawdoctoring unit; only a few have kiln driers.

Their products are: boards, blocks, squares, scantling.

While meranti and keruing lumber are used in construction; ramin and teak are used in the furniture industry. The production of teak is a Government monopoly (Java teak). Only wild teak grown outside Java can be logged by private enterprises, but this teak is of inferior quality compared to Java teak.

The development trend of this sawn timber business is, that since 80 per cent of the consumers live in Java, the forest resources in this island have declined, so that their lumber needs should now be supplied from the other islands, mostly from Sumatera and Kalimantan.

The problem of bringing in the lumber is related to the limited transportation availability to connect these islands with Java.

The secondary wood processing industries in Indonesia have developed more slowly among the wood processing industry, and are at present limited to a few furniture industries.

The main problem in this kind of industry, is the availability of skilled labour operating the machines, designers who can meet the market requirements, and sometimes even the price of the raw materials, since these industries are mostly located in Java, to be near the main ports enabling them to export their products. The high cost of raw material is caused by the high cost of transportation.

Even then, the high cost of freight from Indonesia to the consumers' countries makes it difficult for the furniture from Indonesia to be competitive on a price basis. While skilled labour is very difficult to obtain, automation in manufacture is not encouraged by the Government (so as to give more employment possibilities). On the other hand, there are only one or two vocational training centres specially used in wood processing industries in the country.

Concerning the woodworking machinery itself, there is no production in Indonesia. Everything is imported.

The main suppliers are, then, Japan, Taiwan, the Federal Republic of Germany, France, Italy and the United Kingdom. No restriction on import of machines exists, except that the usual import duties must be paid.

Indonesia as a producer of tropical hardwoods

General

Indonesia has a total forest area of approximately 121 million hectares and an estimated forest potential of 3,374 million cubic metres.

Most (80.5 per cent) of the forest potential is made up of commercially exportable species as shown in the table on the following page.

SUPPLEMENT 1

Forest Area and Forest/Production Potential by Islands (1977)

	Forest Area '000 hectares	Total Forest Production Potential (million m^3)	Commerical OF WHICH		Non-Commercial (million m^3)
			Dipterocarp. (million m^3)	Non-Dipterocarp (million m^3)	
Kalimantan	41,981 1/	1,691	1,190	236	265
West Irian	31,000	630	142	293	205
Sumatra	26,005	728	533	64	135
Sulawesi	11,388	100	36	41	20
Maluku	5,800	217	120	63	35
Java and Madura	3,082	2	-	1	-
Nusa Tanggara	2,240	6	4	1	-
Indonesia - Total	121,469 2/	3,374	2,025	699	660

1/ By Bambang Duradjak, Vice President/Director for P.T. Sarmiento - Parakantja Timber.

2/ Made up of 47,242 hectares (38.8%) of production forests, 24,537 hectares (20.2%) of protected forests, 3,752 hectares (3.2%) nature reserves and 45,965 hectares (37.8%) of forests, (East Kalimantan has 11,000, West Kalimantan has 9,600 and Jambi has 2,750 hectares.)

The table below gives very broad estimates for the commercial potential by island, no data being at hand to break this down into smaller areas. It shows that all areas except Java have commercial potentials of at least twenty years, even allowing for the high cutting rates planned for 1982 and also for heavy wastage due to felling and processing methods.

Years of Commercial Potential

	Estimated Commercial Production Potential Million m^3	Estimated Total Production Thousand m^3	Years of Commercial Potential at 1977 felling rate 2/	Planned Total Production Thousand m^3	Years of Commercial Potential at 1982 felling rate
Kalimantan	1,426	19,500	60 to 90	29,500	40 to 60
Sumatra	597	5,800	80 to 125	8,500	55 to 85
Java 1/	1.6	100	13 to 19	0	0
Sulawesi	76	700	90 to 130	950	65 to 95
Moluccas, Timor etc.	189	880	170 to 260	1,000	150 to 230
West Irian	435	20	1750 to2600	50	700 to 1040
INDONESIA TOTAL	2,725	27,000	101	40,000	68

1/ Available timber is reckoned to be approaching exhaustion. Forests therefore very uncertain.

2/ These do not take account of timber waste due to the methods of cutting. This wastege is believed to be very high and could cut the years of potential to under half if proper cutting methods are not enforced by the authorities.

Source: Directorate General of Forestry

Indonesia has the largest area of forest after Brazil, three times as much as the Philippines and five times that of Malaysia.

Scope for Indonesian exports of tropical hardwood

The Van Ommeren market study on tropical hardwoods in Western Europe showed that demand in Europe is expected to increase, for logs by 20 per cent and for sawn timber by 50 per cent over the period from 1975 to 1985.

Indonesia is expected to become by far the largest producer of hardwoods in South East Asia by the early to mid 1980's and exports are likely to be doubled by that date.

At present Malaysia exports about the same quantity of timber as Indonesia but, with apparently diminishing reserves of mature timber and increasing home consumption this figure is expected to fall substantially by the 1980's.

Expansion of exports by African, South American and other South East Asian countries is likely to be limited by such factors as transportation difficulties, lack of appropriate species of sufficiently large diameters, political/social unrest or a combination of these.