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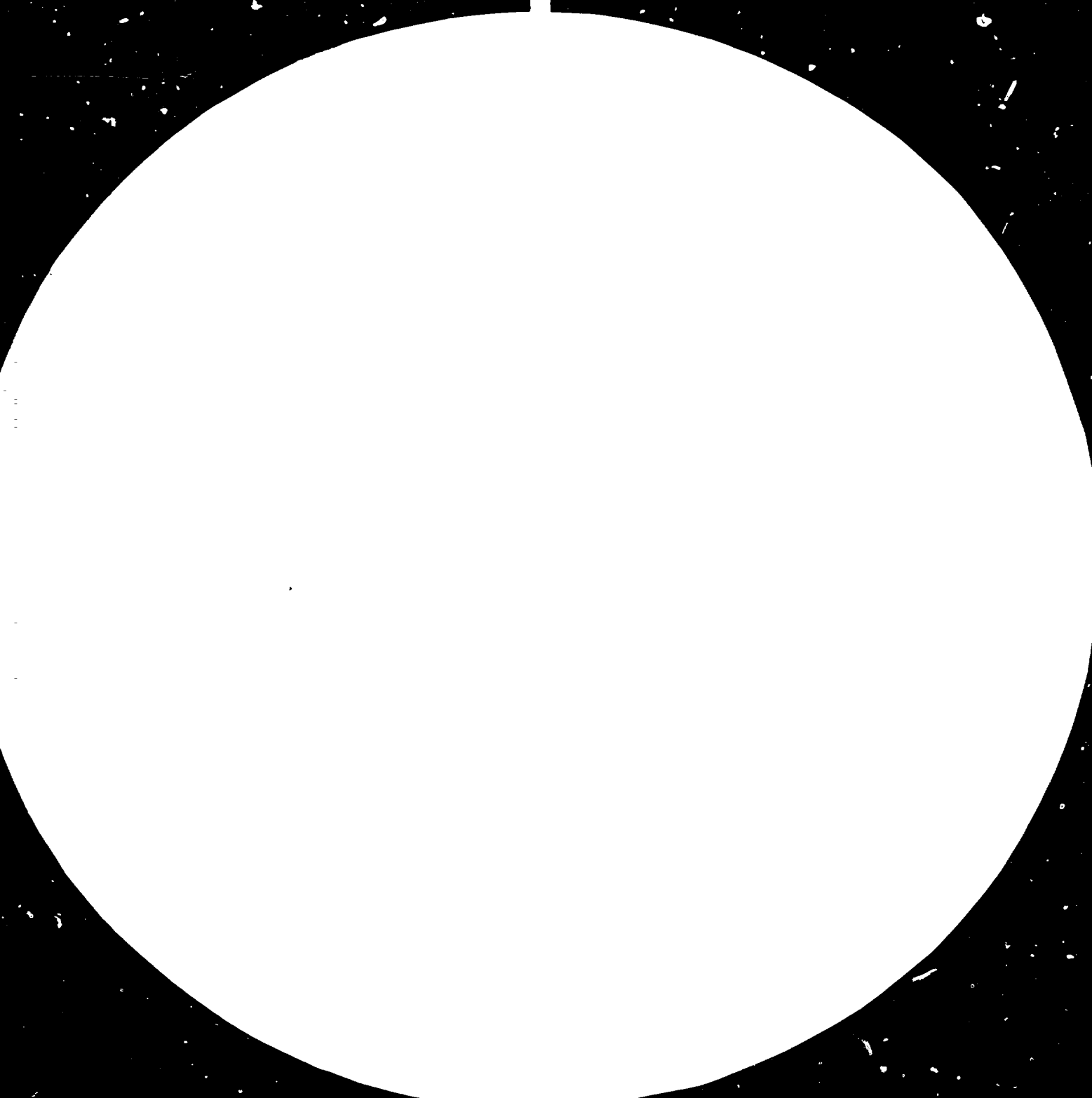
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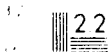
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Resolution Test Chart
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SECONDARY WOOD AND RATTAN PROCESSING INDUSTRY
IN INDONESIA *

by

Jin Mintahir **

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** Chairman, Indonesian Woodworks Manufacturers Association, Jakarta

I. THE PRESENT SITUATION

Like other developing countries, Indonesia has also started to develop industries and to process the existing raw materials into more valuable products. The first step in the direction is import substitution with the accelerated production of finished products to supply the world market.

1. Raw material supply (Schedule 1)

Productive forest area totalling 65 million hectares in Indonesia still has a standing stock of logs of 4.7 billion m³. From the above area a continuous supply of 40 million m³ can be cut annually to supply the domestic as well as the export market; provided replantation efforts are carried out properly.

In reality the actual production is less than 50% of the total estimated supply, while at the same time reforestation program is not effected as should be required. Lesser-known-species are sold as mixed logs at unreasonable prices, while selected and already known species having a good market price are cut in such a big volume, so that in certain areas such species are depleted viz. Indonesian rosewood from Central/East Java and ramin from West Kalimantan. The remaining standing stock of rattan is still unknown but according to the Directorate General of Forestry of Indonesia, continuous supply of rattan will be 80,000 tons per annum and the actual supply is approximately a bit over the above level. Almost 95% of the rattan is for export as per Schedule 2. Supply of rattan in certain areas are almost depleted so that it becomes very necessary to have man-made estates.

Teakwood (*Tectona Grandis*) and Mahogany (*Swietenia*) are Indonesian species that already known years ago in Europe, but now Meranti (*Shorea*) and Ramin are also becoming popular for production of furniture, doors and mouldings.

Production of Teakwood:

<u>Year</u>	<u>Teaklogs for construction</u>
1978	517.950 M3
1979	552.549 M3
1980	613.404 M3

Teak and Mahogany are grown and kept replanted in Java island, logs of which are banned for export. Production of Mahogany logs are 3.000-4.000 M3 per year.

2. Waste

Indonesia is still not able to utilize properly its available wood resources. Last year approximately 19 million log equivalent was considered as waste, comprising of logging residues as well as wastes from sawmills, plywood factories and secondary wood processing industries. To, it is not considered economical to transport said wastes to the harbour for sale. It is suggested, therefore that such a big volume of woodwaste in Indonesia should be utilized. At least 15% of such waste accounting to at least 2.5 million m³ log equivalent may be used for secondary wood products, provided that everything can be done in efficient, modern establishments.

3. Manpower

At the same time, Indonesia is now still facing employment problem, as at least additional 1 million of workforce annually need suitable employment. In order to absorb the excess production of wood as well as to reduce the amount of woodwaste as mentioned above, a program to develop the secondary wood-based industry in Indonesia is deemed urgent. The need to set up more mechanized establishments like furniture, mouldings and joineries, floorings as well as craft industries should be given priority. The need to have skillful managers and machine operators is also of the essential necessity to support successful results of the above establishments. An extensive training scheme has to be carried out in Indonesia in the very near future.

4. Government Policy on Log Export

Timber industrial development has been intensified with the aim:

- a. To add the value to every unit of timber processed for export purposes.
- b. To provide more employment opportunities.
- c. To be able to supply the domestic demand for timber in sufficient quantities and at reasonable prices.
- d. To preserve the continuity of raw material sources and the environment.

Accordingly, the Government has banned and reduced the export of logs. Commencing in May 1980, export taxes of 20% of log exports and additional export taxes for certain fancy logs and sawn timber are applied. The log exports will be continuously lowered and planned to be at a zero level in 1985.

In January 1982, a new policy in increasing the export of non-oil and gas commodities was announced. Through this policy certain encouragements are to be given to exporters, among others:

- a. To lower the interest rate becoming 6% to 9% per annum.
- b. To improve import and export procedures and the term of export payments
- c. To use freely the export proceeds in foreign currency/formerly has to be surrendered to Bank of Indonesia. which
- d. To implement the export insurance and to improve the service on export loan applications.
- e. To improve harbour servicing facilities and to lower the harbour charges as well as the inland and ocean freight charges.

The aim of the above regulation is to be able to increase the volume as well as the value of the commodities exported and to be able to compete in the world market.

5. Export Figures

The amount of wood product exports in 1981 (January to November) is only US\$10.575.00 as per Schedule No. 2, among which US\$5.809.000 representing wooden furniture and parts.

Export figures for secondary wood-based products during 1978-1981 are as follows:

1978	FOB Indonesia	US\$ 8.779.000	
1979	" "	" 8.075.645	as shown in
1980	" "	" 8.711.421	Table 2
1981 (Jan.- Nov.)	" "	" 10.575.623	

Rattan

Rattan is available abundantly in Indonesia and is exported in polished condition as well as after having been further processed. The manufacture of rattan furniture has progressed but in terms of value, it is far behind when compared to export of rattan as raw material.

Totals of rattan exports, unworked, worked, matting are:

<u>Year</u>			
1978	US\$ 29.449.469		
1979	" 81.543.445	as shown in	Table 2
1980	" 85.101.089		
1981 (Jan.- Nov.)	" 73.663.914		

II. OUR PROBLEMS

1. The Secondary Wood Product Industry

Most forest concession holders who have to process the logs have established integrated industries which consist of logging, sawmilling, plywood manufacturing and woodworking. These companies are large-scale capital-intensive industries getting license from the Coordinating Board of Investment and enjoying

attractive investment facilities. The total number of these establishments presently operational are estimated to be less than 40 units, at the same time there are almost 4,000 small and medium-scale industries spread over the country, 95% of which are home industries employing less than 5 workers. Most of the small-scale industries are furniture makers.

2. Productivity

Productivity of furniture industries are still low compared with other ASEAN countries. The designs of the furniture produced are considered not good enough but are acceptable by most of the lower income people. The demand for domestic market is big to meet the increasing income of 140 million Indonesian inhabitants.

III. WHAT WE NEED

1. Increasing Productivity and Lowering the Cost

With the abundant supply of raw materials plus the available labour force and in order to meet the national industrial development programme on improving secondary wood and rattan industries, a serious step has to be taken. This can be done through investment on capital goods as well as the improvement of the necessary human investments. A training programme to upgrade the ability of the middle managers and plant workers should be undertaken in Indonesia. This is desirable to avoid time waste and to minimize material waste. It is very urgent to conduct technical training facilities for:

- a. marketing
- b. production management and engineering, design
- c. costing and pricing
- d. setting up of training centres to train
instructors

Practical training for 6 months to 1 year of machine operators should be given priority.

Technical assistance, marketing cooperation and exchange of information.

2. Skilled Machine Operators

Indonesia needs at least 3.000 skilled operators in the next 4 years to be employed by the coming wood-based industries, which can not be fulfilled by the present existing two vocational training centres. The wood and rattan excess supply may create 200.00 employments within the next 4 years.

3. From Other Regions

We need cooperation among Asian countries especially in the field of technical assistance, marketing cooperation, exchange of information and setting up plants for the increasing demand for woodworking machineries and furniture fittings.

IV. WHAT WE OFFER

1. To buy logs, sawn timber, plywood now being available.
2. To deal in marketing and production management contracts.
3. To buy processed timber and rattan for furniture components.
4. Industrial complementation and closer cooperation among ASEAN countries.

Finally, I do hope that this paper in my personal view will be able to serve the need to develop wood and wood product industries in developing countries.

DATA OF INDOONESIAN FOREST AND WOODBASED INDUSTRIES

1. Total land (area) : 19,9319 Mill. HA = 100 %
2. Total tropical moist forest : 119,3 " " = 62,1 %
3. Total productive forest : 64,9792 " " = 33,86 %
with standing logs of 4.786,662 Mill. M3.
4. Number of registered sawmills: 1510 units, with production of 3,797 Mill. M3
of sawn timber, among which :
202 units with forest concession
1.308 units without forest concession.
5. Number of plywood factories : Year 1980 - 21 units in operation with
production capacity 800.000 M3.
1981 x) 34 units in operation, with
production output of 1.550.000 M3
20 units under construction, with
production output of 910.000 M3
118 units under process, with
production output of 5.000.000 M3.

6. Production and sales

	Year	Logs 1.000 M3	Sawn timber 1.000 M3	Plywood & Veneer
a. Total production	1979	27.500 M3	4.000 M3	624 M3
	1980	21.500 M3	4.797 M3	1.011 M3
	1981 x)	21.500 M3	6.250 M3	1.545 M3
b. Export	1979	18.500 M3	1.270 M3	126 M3
	1980	14.185 M3	1.130 M3	283 M3
	1981 x)	7.000 M3	2.000 M3	655 M3
c. Domestic use	1979	9.000 M3	2.730 M3	624 M3
	1980	7.315 M3	3.667 M3	1.011 M3
	1981 x)	14.000 M3	4.250 M3	1.545 M3

x) estimated

7. Specification of Sawn Timber Export :

	Teak	Ramin	Meranti	Other	Total
1980	17.000 M3	648.000 M3	260.000 M3	205.000 M3	1.130.000 M3
1981 (Jan-May)	5.700 M3	200.000 M3	114.000 M3	119.000 M3	438.000 M3

EXPORT OF SECONDARY WOODBASED PRODUCTS, RATTAN
AND RATTAN PRODUCTS FROM INDONESIA

FOB in US Dollars

C.C.C.N	Commodity	1978	1979	1980	Jan/ Nov. 1981
4420000	Wooden picture frames photograph/mirror	113 617	134 252	229 424	329 784
4424000	Household utensils of wood	-	74 549	313 430	3 571 268
4427000	Standard lamp, table lamp	140 043	239 885	327 490	359 007
4428990	Other articles of wood	636 779	1 261 950	1 073 501	421 036
9401110	Chairs and other seats of wood	133 394	701 714	1 885 435	917 325
9401910	Parts of chairs and seats of wood	-	-	-	7 872
9403290	Other furniture of wood	682 745	968 022	1 186 410	202 431
	Total furniture	1 706 578	3 380 372	5 015 690	5 308 723
4419000	Wood beadings and soundings	5 652 828	2 072 000	2 704 710	1 466 962
4423100	Prefab buildings of wood	-	-	-	823 618
4423900	Other builders' joinery of wood	1 420 494	2 623 273	991 021	2 476 320
	Total mouldings & joineries	7 073 322	4 695 273	3 695 731	4 766 900
	Total secondary woodbased products	8 779 900	8 075 645	8 711 421	10 575 623
1401311	Rattan & cane, whole unwashed	22 612 019	58 172 973	57 424 434	-
1401312	Rattan & cane, whole washed and sulphured	-	-	-	19 893 999
1401313	Rattan & cane, whole, short/ small in 50 cm	-	-	-	13 305
1401319	Other whole rattans & canes	-	-	-	25 179 216
1401320	Rattan split	-	-	-	94 525
1401330	Rattan cane	2 829 163	11 382 973	13 297 221	12 331 133
1401340	Rattan bark	1 184 215	2 866 750	4 476 855	4 532 719
1401900	Other vegetable mat for plaiting	839 144	2 396 617	1 107 885	7 797 392
9403390	Other furniture of other mat.	-	-	1 186 410	3 571 268
460220	Matting of rattan	2 184 928	6 724 132	7 608 304	249 857
	Total rattan and rattan products	29 449 469	81 543 445	85 101 089	73 663 914

Source : Central Bureau of Statistics

