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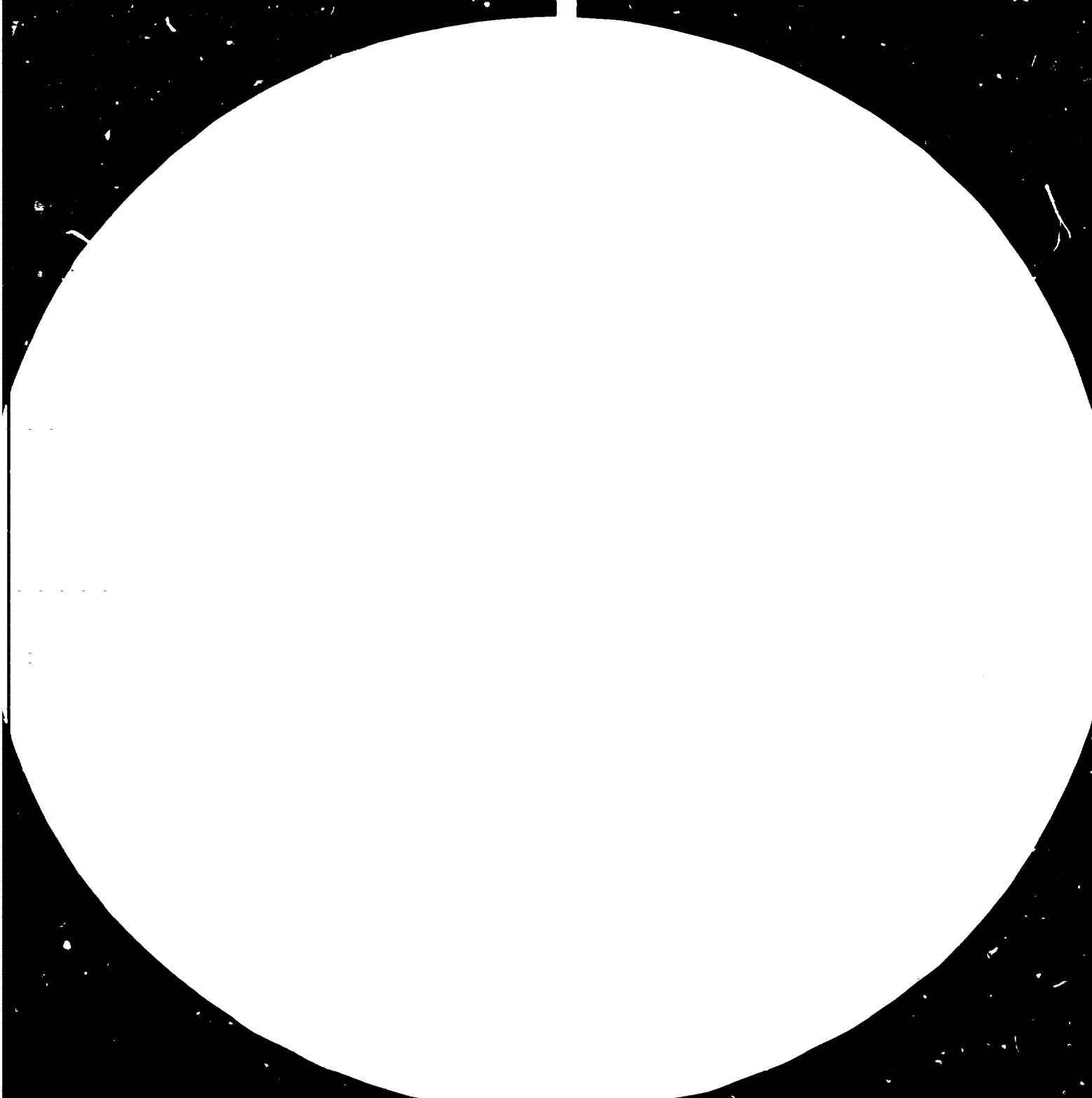
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MEASUREMENTS BY THE BOARD

OF THE

OF THE



11426



United Nations Industrial Development Organization

Distr.
LIMITED
ID/WG.371/8
29 April 1982
ENGLISH

Regional Preparatory Meeting for Asia in preparation
of the First Consultation on the Wood and Wood
Products Industry
Manila, Philippines, 22-26 March 1982

THE WOOD AND WOOD PRODUCTS INDUSTRY
IN PENINSULAR MALAYSIA *

by

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1.0 INTRODUCTION

The wood and wood products industry plays an important role in the national economy of Malaysia. This can be seen from the fact that in 1980 the industry accounted for about 4.6% of the Gross Domestic Product. Exports of logs, plywood, and other timber products were valued (F.O.B.) at about MR4,351 million (Malaysian Ringgit), being approximately 15.4% of national export earnings. (US\$1 = MR2.30)

In quantitative terms, sawntimber is the predominant timber product processed in and exported from Peninsular Malaysia. Other products include veneer, plywood, block-board, mouldings and knockdown furniture. In Sabah and to a lesser extent in Sarawak the industry centres around the export of logs although during the past few years, there has been significant development in the sawmilling sector.

2.0 BRIEF HISTORY OF THE INDUSTRY

In order to gain a better understanding of how and why the industry has developed to the present level, let us briefly examine its history. For this examination, it is convenient to think in terms of three time spans, all of which are characterized by the existence or absence of factors which at that time governed industrial development.

2.1 The Industry Before World War II

It has been reported that the first mechanised sawmill in Peninsular Malaysia was erected prior to 1900. However, no exact date was mentioned. Hitherto, sawing was accomplished solely by hand. Mechanisation nevertheless took a considerable length of time to replace handsawing completely, for even as late as 1946, there were reports that in some instances, Meranti planks were still being handsawn. Most of the mechanised sawmills were erected in the 1930's and all were installed throughout the accessible forests. There were 12 sawmills by 1931 most of which were mills with a single circular saw, but the intervening period between 1931 and 1940 saw the industry expanding to 65 sawmills. The factor responsible for this expansion was the development of the timber export trade to China and the United Kingdom.

During this period, plywood mills were not yet in existence, and there were some small furniture shops using carpentry hand tools.

2.2 The Disturbed Years (1940-1960)

Prior to 1940, most of the sawmills were located in the accessible forests. During the years spanning World War II, many of those mills were either destroyed or dismantled and this trend was continued throughout the Emergency brought about by Communist terrorists. All forest-based activities then were severely restricted.

Under these circumstances, the sawmilling industry underwent a new pattern of development. Sawmills had to be located entirely in the urban areas and were, therefore, generally divorced from the source of log supply. The earlier concept of the forest-based sawmill operating its own forest concession was thus replaced by the urban mill relying on logs supplied by an independent logger.

The period after the Korean war found strong international demand for tropical sawntimber. This triggered off a phase of accelerated growth in the local sawmilling industry, resulting in an increase in the number of sawmills from 65 to 406. Most of the mills were located near population centres in the West Coast States and Central Pahang.

The first two plywood mills were erected during this period. As in the case of the sawmills, both the plywood mills were located in urban areas in the West Coast States.

The situation in regard to woodworking mills did not undergo any significant changes during this period. Small units developed unobtrusively and at random, catering solely for domestic needs.

2.3 The Industry Today

The continued international demand for tropical products coupled with the implementation of new government policies on land development after the Emergency led to increased investment into the timber industry. These land schemes involved the clearance of high quality lowland forests, providing the industry with an abundance of high quality logs at relatively low prices.

The build-up in capacity of the sawmilling sector was relatively gradual dictated as it was by the Forestry Department's new policies and regulations. There was, however, discernible increase in recovery efficiency due to the change-over from circular to bandsaws. At the

present time, this change-over can be regarded as almost complete, with only a few exceptions left.

Much more marked was the build-up in the processing capacity of the veneer and plywood sector. Again, this was precipitated by high profits arising from high international demand and low log prices.

Towards the end of the 1960's, there was more rapid growth for the industry in the East Coast States. Of particular interest was the introduction of the concept of integrated manufacturing complexes, the first of which was the Jengka Timber Complex in Pahang. These complexes were envisioned to achieve fuller utilization of the forest resources through integrating processing operations such as sawmilling, plywood milling, moulding as well as other secondary processing operations. Designed for high throughput to enjoy economies-of-scale, these complexes invariably required very high capital expenditure. All the major complexes have state participation on a joint-venture basis with foreign entrepreneurs.

In the early 1970's, a great deal of attention was directed towards solving the problem of small-diameter log utilization. Large quantities were left behind in the land conversion schemes to be disposed of by burning because of rejection by the sawmills and plywood mills. The concept of specialised sawmills designed for sawing only logs of small-diameter was developed. There are now some 85 mills approved by the various State Forestry Departments for the processing of such logs.

In recent years, a small number of secondary processing plants have been erected producing mouldings and knock-down furniture for export. Besides these, there are now many woodworking factories producing joinery and furniture for domestic consumption (see Table 1).

Other timber processing operations which have developed up to the present time include those which manufacture particle board, wood-wool cement slabs, woodchips, matches and pencils. Table 1 shows the number of factories for each type of manufacturing process.

Table 1.
Profile of the Timber Industry of
Peninsular Malaysia

| <u>Manufacturing Process</u> | <u>Number of Factories</u> |
|------------------------------|----------------------------|
| Sawmilling | 585 |
| Small-log sawing | 85 |
| Veneer and Plywood | 36 |
| Moulding | 110 |
| Woodworking/Furniture | 715 (est.) |
| Particleboard | 3 |
| Wood-wool cement slabs | 2 |
| Match | 3 |
| Pencil | 1 |
| Woodchips | 1 |

3.0 NEED FOR POLICY AND STRATEGY FOR FUTURE DEVELOPMENT

Up to now, the industry has been enjoying a uniquely high monetary return from a relatively low-level investment into plant, management and expertise. The development has been conditioned by an abundance of high quality logs to an extent that there has been scarcely any need for concern over the enormous problems of wastage in forest harvesting or over the low levels of utilization. The level of profit has been so high that there has been little incentive to develop interest into further product diversification and sophistication. As an illustration, sawntimber which is a product from primary processing, still accounts for approximately 75% of the total value of timber products exported. The value-added product, mouldings, accounts for only about 7% of the total.

The high levels of profitability also tended to attract short-term capital as distinct from planned long-term investment. The result has been a proliferation of small-scale enterprises which, over the years, has significantly expanded the national manufacturing capacity. Expansion has been largely unplanned, with factories often badly sited relative to the long-term availability of log supplies and to the optimization of transportation economics. This unplanned growth has resulted in a structure which does not serve the national interest to best advantage.

In view of changing conditions, internally in the form of a declining flow of high quality logs, increases in transportation and manufacturing costs and externally in the form of growing international competition and freight increases, the Malaysian Government has formulated an industrial development policy, the implementation of which will enable the industry to remain internationally competitive, while at the same time, the socio-economic aspirations of the Government can be fulfilled.

4.0 INDUSTRIAL DEVELOPMENT POLICY

The industrial development policy requires action to:

- a) promote efficient harvesting, flow and utilization of all forms of forest produce;
- b) ensure the compatibility of national industrial processing capacity in relation to resource availability;
- c) stimulate the sound development and diversification of the existing wood-based industrial sector in line with national planning objectives and priorities;
- d) encourage private sector's involvement in forest products research with particular emphasis on the wider use of lesser-known-timber species and the development of new forms of wood processing industries;

- e) ensure that industrial safety measures are adequately provided for all levels of workers in the industry;
- f) ensure that the problem of industrial pollution is kept under adequate control; and
- g) promote bumiputra (indigenous citizens) participation in forest and wood-based industries consistent with Government policy.

5.0 STRATEGIES FOR DEVELOPMENT

In order to implement this policy, effective strategies must be planned and operationalized. Of utmost importance is the effective domestic processing of all wood having commercial potential to the maximum possible level of value-added product and in a manner which maximizes national returns. This is a key factor in the realization of full resource potential and investigations have revealed this can only be attained through the re-structure of the existing primary processing industry, particularly the sawmilling sector.

Firstly, log flow forecasts should be carefully planned so as to use these as an incentive to stimulate the build-up of new industrial activities and the re-location of existing primary wood-based factories to the extent desired in optimal locations.

Each projected industrial growth point should be investigated in detail so as to plan the phasing of industrial growth and re-location relative to the availability of logs, and to the establishment of adequate infrastructure which may be necessary to attract investment.

Logging and log transportation studies should be continued in order that reliable data can be available for planning and advisory services.

No new plywood mills should be installed unless it can be proved that these have fully guaranteed access to additional markets. Every effort should be made to consolidate the recent extensive expansion of plywood manufacturing, and to expand its production to a full operation, as markets improve, rather than by the installation of new plants. The plywood sector should be encouraged to diversify into higher value production.

Emphasis should be placed upon the establishment of a new generation of up-to-date and efficient sawmills at strategic locations throughout the forest-rich states of the East Coast. These mills should be regarded as growth points for subsequent expansion and diversification.

In consideration of the shift in the location of primary processing sector to the forest-rich states of the East Coast, action should be taken to encourage existing sawmills on the West Coast to re-structure with a view to product diversification into such items as component parts, shelving, cabinets, door and window frames, mouldings, knockdown furniture, flooring and laminations.

Investigations should be carried out to assess the feasibility of utilizing the large volume of low-grade logs, lower grades of sawntimber and industrial residues as a raw material supply for secondary and tertiary processing activities.

The transfer of technology should be expedited, particularly the technology required for secondary and tertiary processing. Associated with this is the action to be taken to increase and upgrade technocratic and managerial skills.

Market intelligence activities should be intensified and more aggressive marketing programmes should be carried out with emphasis on value-added products. Efforts too should be stepped up to gain better market access into countries where exports are presently deterred by tariff and non-tariff barriers.

In view of the growing public consciousness and concern over environmental pollution, studies should be started to determine the extent and seriousness of the existing situation and to devise measures to keep the problem under adequate control.

Lastly, action should be taken to formulate industrial safety codes for all levels of workers in all the wood-based industry.

6.0 CONCLUSION

It is anticipated that the implementation of the above-mentioned strategies will result in providing a major stimulus to the development of the wood and wood products industry. Higher levels of employment will be also created and higher per capita incomes earned, especially in areas where job opportunities are presently either limited or else unavailable.

