



TOGETHER
for a sustainable future

OCCASION

This publication has been made available to the public on the occasion of the 50th anniversary of the United Nations Industrial Development Organisation.



TOGETHER
for a sustainable future

DISCLAIMER

This document has been produced without formal United Nations editing. The designations employed and the presentation of the material in this document do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations Industrial Development Organization (UNIDO) concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries, or its economic system or degree of development. Designations such as “developed”, “industrialized” and “developing” are intended for statistical convenience and do not necessarily express a judgment about the stage reached by a particular country or area in the development process. Mention of firm names or commercial products does not constitute an endorsement by UNIDO.

FAIR USE POLICY

Any part of this publication may be quoted and referenced for educational and research purposes without additional permission from UNIDO. However, those who make use of quoting and referencing this publication are requested to follow the Fair Use Policy of giving due credit to UNIDO.

CONTACT

Please contact publications@unido.org for further information concerning UNIDO publications.

For more information about UNIDO, please visit us at www.unido.org

We regret that some of the pages in the microfiche copy of this report may not be up to the proper quality standard, even though the best possible copy was used for preparing the master fiche.



08111



Distr.
LIMITED

ID/WO.256/11
24 November 1977

ENGLISH

United Nations Industrial Development Organization

Seminar on Furniture and Joinery Industries
Lahti, Finland, 1 - 20 August 1977

THE FURNITURE AND JOINERY INDUSTRIES IN INDONESIA*

by

H.T. Kamal **

* The views and opinions expressed in this paper are those of the author and do not necessarily reflect the views of the secretariat of UNIDO. This document has been reproduced without formal editing.

** Technical Manager, P.T. Macrowood, Jakarta Selatan, Indonesia.

id.77-8413

Introduction

Indonesia is a country consisting of many islands, of which the most important are Java, Sumatra, Kalimantan, Sulawesi, Moluccas and the western part of Irian, with its 125 million population, extends from 6°N to 11°S latitude and from 95° to 140° longitude, covers a total land area of 190 million ha. From this total land-area, two thirds, e.g. 120 million ha is forest land. Most of this forest land, about 90 million ha, is covered with tropical rain forests. The types of wood, which have a commercial potential are: Teak - Red Meranti - White Meranti - Keruing - Kamin - Mahony - Ebony - Java Palisander - and some other types. The total number of forest concessions up to 1970 was 99, which covered about 13 million ha.

Before 1972 our forest products were the country's third largest foreign exchange earner, next to oil and rubber. During 1960's important changes have taken place in Indonesia's forestry sector, among others the establishment of a Directorate of land use, which is under the Directorate General of Forestry. This addition can be regarded as a significant progress in administration in view of its important role in controlling floods and erosion. By this improvement, positive results have been achieved since 1965 in the field of legislation, organization, planning and policy.

Since 1972 our forest production has increased and became the second largest foreign exchange earner next to oil.

The timber production for selected years is given below:

1931	256.000 cu m Teak	721.000 cu m non-teak species
1940	515.000 cu m Teak	1.026.000 cu m non-teak species
1950	484.000 cu m Teak	1.004.000 cu m non-teak species
1960	439.000 cu m Teak	1.420.000 cu m non-teak species
1970	566.000 cu m Teak	10.231.000 cu m non-teak species
1976	573.000 cu m Teak	19.927.000 cu m non-teak species

From 1971 to 1975 our export of timber in log form has increased from approximately 11 million cu m. to 14 million cu m.; while export of sawn timber rose from 80.000 cu m. in 1971 to 400.000 cu m. in 1975.

Log exports in 1974 consisted of:

Teak	55.000 cu m.
Ramin	670.000 cu m.
Meranti	10.641.000 cu m.
Keruing	1.512.000 cu m.

Forest industries

Generally speaking, the forest products industry in Indonesia is still at an early stage of development.

The largest branch is the saw milling industry, which is concentrated mainly in Java, Sumatra and Kalimantan.

Sawmilling: In 1956 most of the sawn timber in Indonesia was still sawn by hand. About 4000 sawmills were manually operated with an estimated intake of 3 million cu m. logs. A number of sawmills, owned by the State Forest Enterprise, considered as the best equipped establishments at that time, were equipped with horizontal frame saws and circular saws. Some were equipped with bandsaws. The number of these mechanically operated sawmills was 412 with a capacity of 500.000 cu m. logs.

Plywood industry: At that time only two factories existed in Sumatra, producing plywood specially for making tea-boxes. During the recent years several plywood factories have been established in Java, with a big capacity, but producing still only for domestic consumption. The number of forest products industries in 1967 was reported to be: 412 large sawmills, 4 plywood factories, 355 furniture factories, 10 match factories, 1 fibreboard factory and 7 pulp-paper factories.

Furniture and joinery industries:

Up to 1970 most of furniture and joinery industries were still at a stage of handicraft. In Jakarta for instance, only a few (not more than 5) were equipped with standard machinery, such as circular saw, band saw, planer and thicknesser. The rest of the process, up to the finished product, was still done manually. At that time the main raw material for furniture used by the industries on Java was solid teak of second quality.

Even table tops were made of solid teak. The reason was, that people disliked other sorts of wood for furniture making, it was considered as their tradition, and we still had sufficient supply of this specie. Besides, the use of plywood for furniture was still unknown by the furniture manufacturers.

Knowledge about kiln drying of lumber was also not popular at that time. Generally said, modern production techniques and equipments were still unknown among the most of woodworking manufacturers.

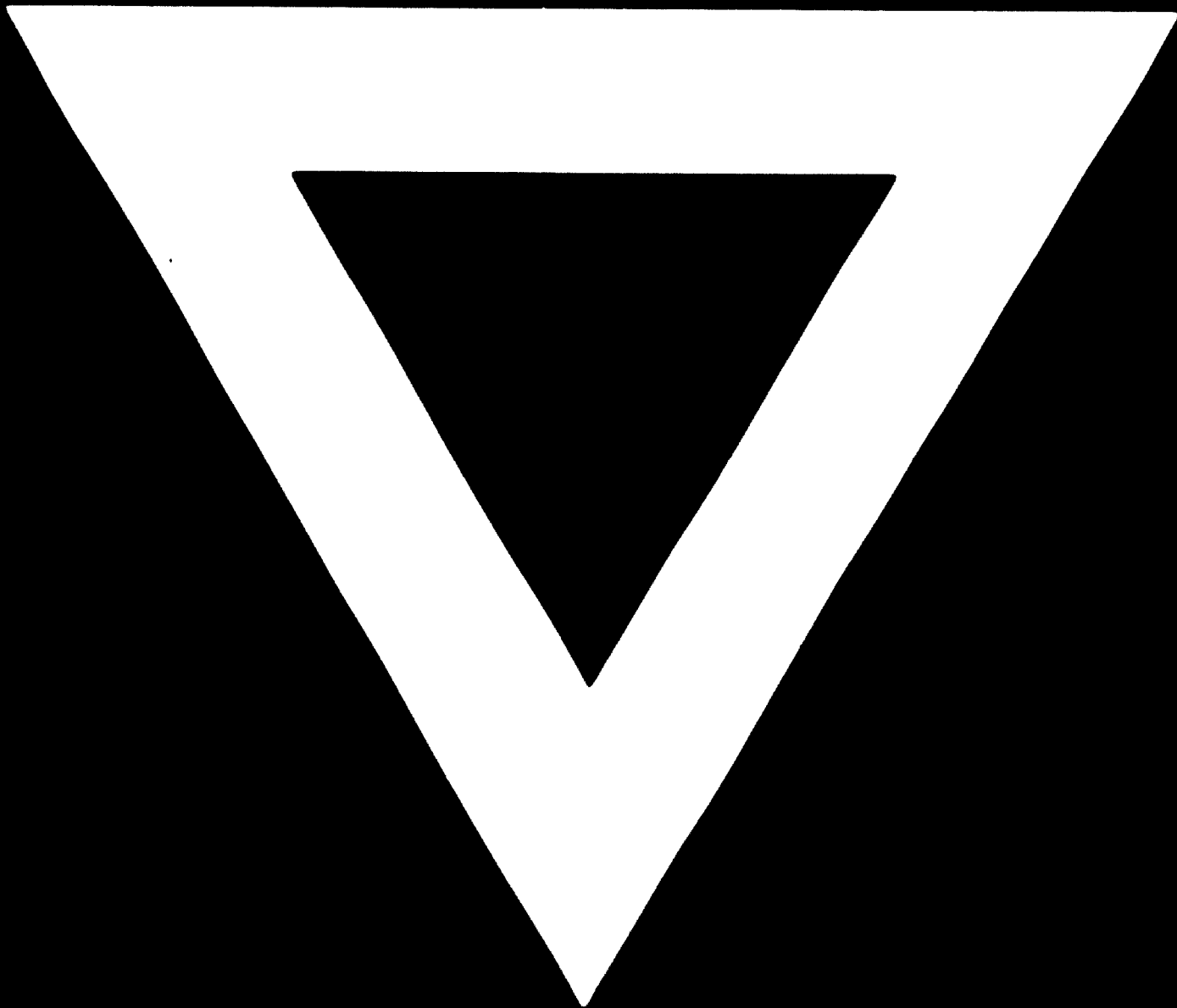
The present situation

Since the beginning of the 1970's, modern sawmilling, joinery and wood moulding plants, plywood factories, furniture factories have been erected by both the State and private enterprises. Moulding products have been exported by some of these factories, while plywood and furniture are still reserved for domestic consumption. The quality of the plywood is still below the quality of the imported one, especially concerning the glue and the uniformity of the product. The number of furniture factories with modern machinery in Jakarta has increased since the recent years to more than 20 factories, of which 2 or 3 are equipped with sophisticated machines and are using low cost automation. The average employment per factory varies from 50 to 200 persons. In the next four or five biggest towns, an average of two modern factories each have been erected. Most of them are manufacturing their products mainly against order. Until now there are only 1 or 2 furniture factories having a programme of large scale manufacturing units producing for the overseas market.

The problems

Bearing in mind the tremendous forest resources, the increased production of our timber, the country's population, etc., we must increase the size of our wood-working industries accordingly, and export our timber as much as possible, in the form of finished products. Our situation at this moment is still far away from achieving this target. One of the solutions is: education and training both at home and abroad.

C-674



78. 11. 10