



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.

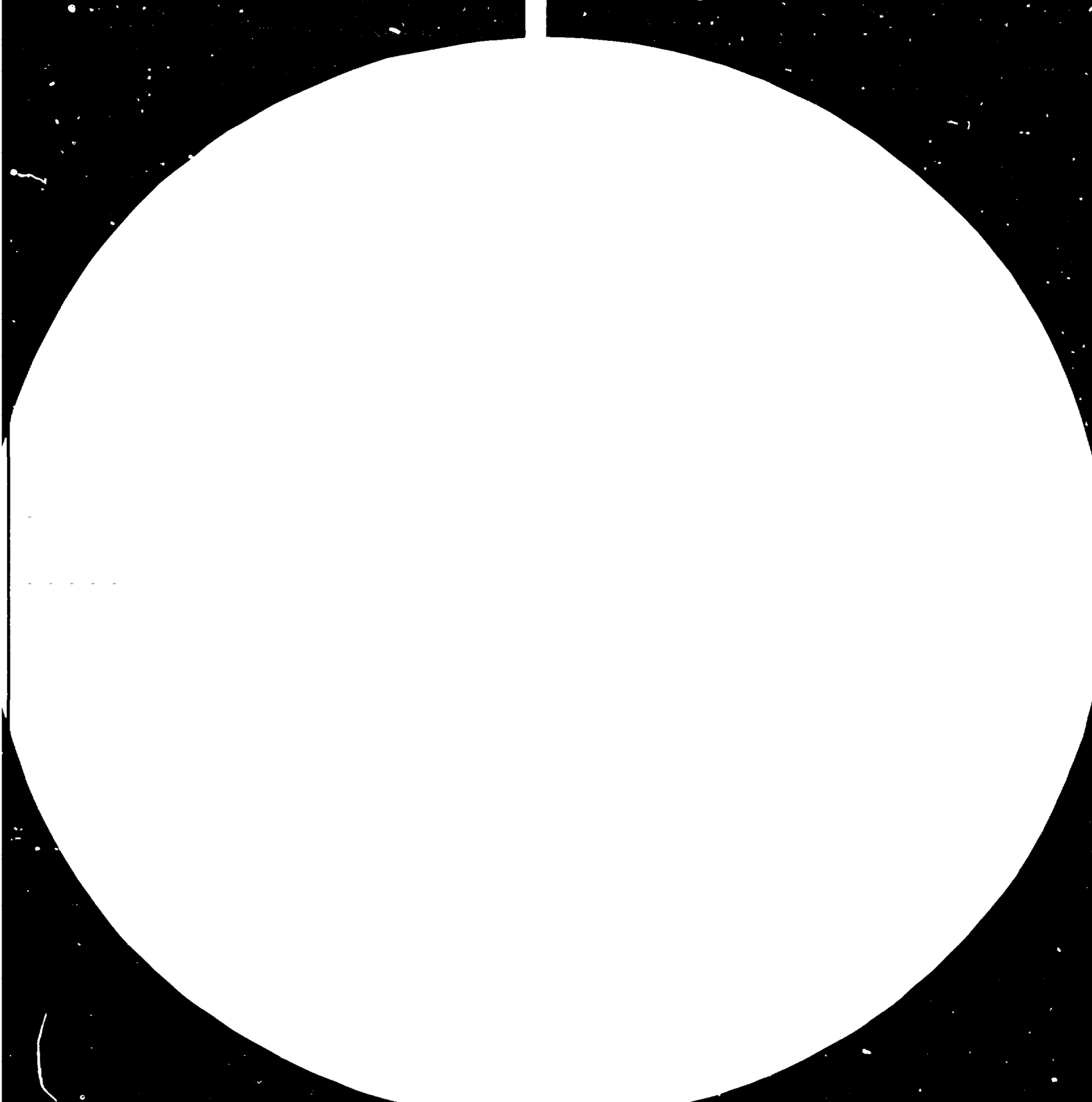
FAIR USE POLICY

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





M. RICHIE, B. J. LEE, A. G. J. VAN DER WERF

Department of Optics, University of Cambridge



10345



Distr.
LIMITED
ID/WG.323/26
11 February 1981
ENGLISH

United Nations Industrial Development Organization

Seminar on Furniture and Joinery Industries
Lahti, Finland, 3 to 24 August 1980

THE FURNITURE INDUSTRY IN CUBA *

by

Efrain M. Oramas**

000001

* The views 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.

** Production Sub-Director, Furniture Industry, Ministry of Light Industry

Introduction

Cuba is situated in the Caribbean Sea, under the Tropic of Cancer. It has an area of 110,000 Km² and a tropical climate, the mean temperature being approximately 32 degrees centigrade in the summer and 15 degrees in the winter months. Year round the weather is humid and the summer months are especially rainy. There are 10 million inhabitants of Cuba (only 2.5 million having been added in the last 20 years) and the growth rate is extremely low.

Raw material situation

A large portion of the country's forests have disappeared due to intense felling from 1947 to 1959 at which time a plan was applied to put an end to the land erosion through plantations of conifers, cedars and other wood species.

Therefore, wood for the furniture industries is imported excepting for the small Cuban cedar (low in diameter) and another wood specie known as "Yama Güa" both of which are plentiful enough in supply to cut and use.

In Cuba we produce particle boards from bagasse, in several measures: (a) 5' x 10' x 3/4" and (b) 6' x 12' x 3/4" and also (c) 6' x 12' x 1/2" to use in boxes, drawers, mattress supports and in some pieces of school furniture. It is not used in tables and clothes chests because particle board surfaces do not permit being veneered. Therefore, particle boards for these furniture industries is imported.

With profiles brass, in small industries we produce polishing and painted handles for drawers and door furniture. Other pieces such as plastic liners, plastic pegs, etc. are produced by the national plastics industries. Hardware items such as hinges, door-stops, and locks are imported as well as certain specialized drawer handles.

For the fittings tubular steel is used for legs and arms of chairs. Legs of tables, clothes chests, pegs and stacks and supports for shelves. We produce these fittings for school furniture.

In adhesives, Cuba produces glue made from animal residue for the furniture industries and other uses. But, PVAC and PV glues have to be imported. Moreover,

we use urea-formaldehyde glues, with a percentage of imported components, and make the mixture in the industries.

Surface finished products are finished with the following materials made by the National Cuban Paint Industries: Nitrocellulose lacquers, pre-catalysed lacquers and solvents (alcohol).

Concerning the sanding materials the furniture industries buy national brands of abrasive sanding sheets but abrasives in rolls have to be imported.

Structure in the industry

There are about seven thousand employees in nine enterprises. These enterprises have the following furniture producing lines: two that use particle board, two that use solid wood and other lines for metallic parts and moulded parts. In addition to this, there are other industries that work with solid wood and plywood.

The yearly capacity of the furniture industries based on wood working machines installed and operating is for 300 complete schools and for 12,000 houses for the average Cuban family.

The composition of production of these nine enterprises is the following:

Boxes	10 per cent
Furniture (solid wood, wood based panels, and metal)	60 " "
Mattresses	20 " "
Tool wood, pencils and other	10 " "

Industrial Infrastructure

Cuba is a developing country. Our labour force does not have sufficient skills above the base technological requirements, especially in the use of particle board and other resources (and most especially hardware). Therefore, a Furniture Technological Institute was founded to change the existing situation. This Institute, however, needs much time to become established.

Design

The design features are based on the situation explained as such: our teams of designers are far more capable of creating the designs than we are

of producing that design in a piece of furniture. We do not possess the know-how of yet to satisfy the needs of modern-day designs.

Measures to be taken

The main measure recommended can be summed up in the following way:
(a) Re-forestation, (b) Creation of new particle board industries which will produce particle boards from bagasse and (c) Creation of a Furniture Technological Institute. To achieve this collaboration and technological assistance through the C.E.C.E. (State Committee for Economic Co-operation) will be needed.

