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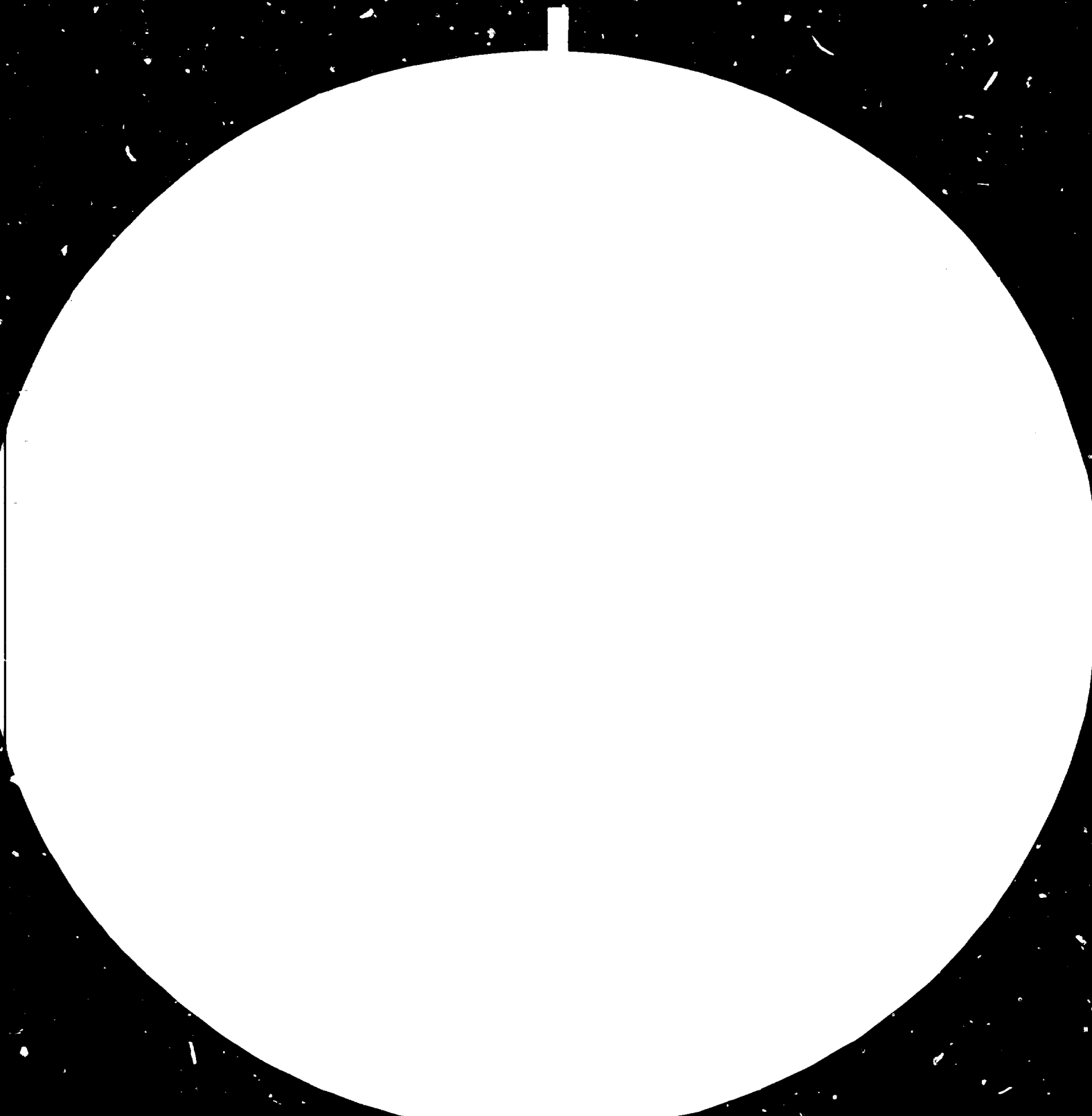


Figure 1. Comparison of the resolution of the image of the test chart (left) and the image of the test chart after the Fourier transform (right). The resolution of the image of the test chart is 1.0 line pairs/mm. The resolution of the image of the test chart after the Fourier transform is 1.25 line pairs/mm.

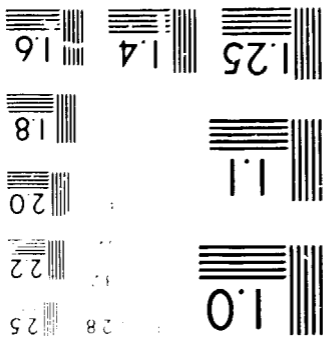


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Regional Preparatory Meeting for Asia in preparation
of the First Consultation on the Wood and Wood
Products Industry
Manila, Philippines, 22-26 March 1982

[THAILAND COUNTRY PAPER *. (wood products).]

by

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Thailand, like most of other Asian countries, is one of the wood and wood products exporting countries. Thai people have been associated with wood through its long history. Wood producing was classified as one of the most important professions among others. Wood industry as such started from sawmill, mainly to serve the construction usage. Only 20 years ago, wood industry has been diversified from sawmill to more sophisticated products, such as mouldings, furnitures, panelling, etc.

As a tropical country in the region, Thailand has various species of wood. The most important which are classified as precious wood of the country are as follows:

- Teak (*Tectona grandis* Linn)
- Makha Moug (*Afaelia xylocarpa* Craib.)
- Daeng (*Xylia ferris* Craib & Hutch)
- Pradoo (*Pterocarpus* spp.)
- Lumpoh (*Insia* spp.)
- Every species in the family of *Dalbergia* spp.
- Every species in the family of *Millettia* spp.
- Every species in the family of *Diospyros* spp.

Standard wood products classified lately by the Ministry of Commerce are as follows:

1. Carving: Household utensils and/or decorative items.
2. Flooring and Laminating Floor, panel, deck and laminated woods,
3. Building Accessory: Door and window frames, door window, mouldings strips, etc.

4. Furnitures: Utility furniture both of solid wood and made from boards and carved furniture mostly hand-made in traditional style.

In each category classified above, the Ministry will specify their specifications and dimensions with the intention to ease export and at the same time try to set up a minimum standard of quality to avoid usage of unnecessary dimensions of precious wood as well as to create quality awareness among exporters of wooden products.

From 1975 up till now, Thai Government has banned the export of wood as raw materials but try to encourage export of semi-finished and finished goods. It's so happened that many wood industries were established during these years. A Furniture Centre was set up under supervision of the Department of Industrial Promotion, Ministry of Industry. This Centre is now equipped with sufficient woodworking machines to train employees from new manufacturers. Seminars, workshop training courses, technical discussions, etc. are organized every year. From time to time International Organization also sent participants or trainees to this Centre for training or observation purposes. Many experts from various organizations concerning furniture and woodworking industries paid their regular visits to the Centre. Among all other activities, the Thai Furniture Industry Association was founded under the same roof in 1978. About 40 members of the Association are mostly leading firms which are geared up for export market. Since 1978 export figures of furniture alone have contributed about 30 million US dollars with constant growth of 10-12 per cent every year. During 1980-1981 the precious wood products were produced in less quantity due to world economic situation, this situation forced most of the manufacturers to concentrate on developing low cost raw materials to serve the market. Rubber wood is one of the most important raw materials, Government Institutions and Private Organizations are paying their attention to make use of the endless supply of this wood. According to the Department of Forestry, some 15 million cubic meters of rubber wood are available as raw material. From 1981 rubber wood is the only species of wood allowed by the Government to be exported as raw material.

MARKET

The biggest customer for Thai wooden products is U.S.A., which imports about 50 per cent of teak products of the country. Scandinavian countries and northern European countries and England are the second largest import territories. Japan is now the largest consumer of rubber wood from Thailand. Australia used to be one of the important market places but unfortunately, since 1980, Australian Government has increased the import tariff to protect own industries, since then this market became less important for Thai exporters.

PROBLEMS

1. One of the most common problems in developing countries like Thailand is statistic figure for investors to use as guideline for their judgment concerning investment in various industries. The only figure available that can be used as tool in feasibility study is export figures of furniture products, other wooden products are not classified clear enough and not identified in category, therefore it is hard to make use of it in a significant manner.
2. Tools and tool doctoring are another key problems to be solved. At present only few workshops are able to produce suitable cutters and knives. Sophisticated tools are still being imported from overseas. This sometimes slows down the production as well as adds unnecessary cost to the products. Because of the hardness of tropical wood, most of the cutters and tools must be of high quality metal such as carbide tipped.
3. More specific training courses are needed in this region. All manufacturers need to train their own employees at least 6 months in order to help them work efficiently. Generally vocational schools or colleges give theoretical education to their students but in most cases lack of practical experiences are common. In this case an Asian Training Centre is essential. As far as Thailand is concerned, the Department of Industrial who now operates a Furniture Centre could be the main target. In the past, the international organizations

had extended their assistance by offering training courses to both officials and private personnel but most of the training courses have been implemented for well-developed countries, therefore from most of the experiences, the participants can hardly adapt the know-how learned during the period to the reality when working in different circumstances.

4. Cost calculation method for wood and wood products are very meaningful. In major part, the manufacturer still lack confidence in this field, the best method used when uncertainty occurs is they add unforeseen cost to the production cost in order to be on the safe side and the direct effect is losing potential customer.
5. Suitable packing is another case to look at. The packing problem is generally left behind others as manufacturers are not aware of it. Most of the claims occur because of poor quality packing. Usage of economical materials is the most important point. When discussing about packing, the most expensive materials are always to be introduced. Beside individual packing, it could be of an advantage to train the manufacturers concerned about container loading system in terms of cost saving for transportation.
6. A directory of common dimensions of wood and wood products used by purchasing countries will be an essential information to the producers in this region.

