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THE FURNITURE INDUSTRY IN SRI LANKA*

by

N.L. Abeysekera**

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** Manager, Ampara Woodworking Factory, Ceylon Plywoods Corporation, Sri Lanka.

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Sri Lanka enjoys an almost constant type of climate. It is a tropical island, the temperature variation is very slight being around 80 to 90 degrees Fahrenheit in the coastal belt to slightly less than 70 - 80 degrees in the hill-country in the centre of the island. Very great variations are not felt. The relative air humidity is high in the coastal belt especially in the cities near the coast whilst in the suburbs of these cities and the hill country there is very little humidity. Very few homes are airconditioned.

The largest proportion of furniture for domestic and business is still more or less a cottage industry in the island. Seventy-five per cent of the furniture produced for both domestic and business use is manufactured by individual carpenters working mainly with hand-tools. For timber conversion Rack Circular saws are used throughout the country whilst the capital city (Colombo) and its suburbs has a concentration of band-saw mills, vertical and horizontal saws are also used, but less commonly.

The importance of this sector that is the furniture industry could develop as a source of foreign revenue. Further since no imports of furniture are allowed, this sector will have to meet the entire needs of the island's furniture demands.

Very little foreign trade is presently occurring as international standards can be met only with a very high overhead expenditure.

Most of the country's furniture manufacturers especially in the private trade, prefer to obtain their products from the above mentioned private individual carpenters without maintaining large factories for furniture production. In this way, the overheads are cut down to a minimum, whilst the profits are very high. However, the quality of the products are low. A few large firms employing around 50 to 100 people do manufacture furniture utilizing a few woodworking machines.

The Ceylon Plywoods Corporation employs around 3000 persons and operates two large woodworking complexes where particleboard and plywood are also manufactured. They have also seven smaller factories, which are semi-mechanized.

The main problem facing the industry as a whole is the lack of timber. Timber species mainly in use by the private carpenters and firms are timbers which require growth cycle of nearly 75 years for use in the furniture industry. As most the furniture constructed is solid wood based in a few years time, most of this timber will be used up since there is no re-planting except for Ceylon Teak which matures in twenty-five years.

The industry has been industrialized to a certain extent in the Plywoods Corporation. The main incentive for further industrialization is to provide an industry which will meet with the employment needs of the population as well as a source of foreign exchange revenue. The present cottage industry method cannot meet with the entire demand for inexpensive furniture.

Nearly a third of the island is forested. The Sinharaja Forest Reserve is the largest and it is from this source that the Ceylon Plywoods Corporation draws its timber for plywood, particleboard and furniture manufacture. Indigenous timbers of importance to the furniture industry in the island are Satin (Cloroxylon Swietenia) Halmilla (Berrya Condifolia) Ceylon Teak (Tectona Grandis) Hulanhik (Chukrassia Tabularis) Kiriambiliya (Palaquium grande) and Jak (Artocarpus heterophyllus). However, all the above timbers require a growth cycle of over 75 years before they can be used in the furniture industry except for Ceylon Teak to which it is 25 years. The Forest Department of Sri Lanka has organized a re-planting programme for Ceylon Teak which is being carried out at present in the dry zone.

Recent experiments have been carried out by the Industrial Development Board of Sri Lanka with regard to the use of chemically treated Rubberwood (Hevea Brasiliensis) for the manufacture of furniture with success. It has been found that Rubberwood which is a semi-hard wood is of reasonable strength and durability after treated by the Borron chemical process and can be utilized for furniture manufacture. Considering the fact that it takes the rubber tree only ten to fifteen years to reach maturity and further since there is an unlimited source of this raw timber due to the fact that it is being re-planted by the Rubber Estate Managements for their Latex content, this timber can very easily meet the entire demand of furniture industry in the island.

Problems in the lack of facilities to season timber is also being faced by the industry. At present very little seasoning is being done and mostly the furniture constructed is out of unseasoned timber.

Very few drying kilns are available in the island. Since the timbers mentioned above except for rubberwood take a considerable period of time for air drying this type of seasoning is not undertaken.

The Ceylon Plywoods Corporation manufactures particle board and plywood. These materials are used in the Corporation's furniture factories as well as by the private trade. However, the main use of this material is for panel and partition work.

Plastics are not used in the island for furniture manufacture though plastic laminates like "Formica" are used for table tops, counters, etc.

The glues used are mainly locally manufactured animal glues. PVA adhesives are also used but to a lesser extent. Urea formaldehyde and phenolformaldehyde types are also used by the Ceylon Plywoods Corporation for particleboard and plywood production.

Surface finishing is mostly done by the so called French Polishing process using a mixture of copal, mastic, castor, gum rosin, shellac and spirits of wine. This is extensively used throughout the island. Beeswax based wax polishes are also being used. Nitro-cellulose lacquer is used only in the furniture plants of the Ceylon Plywoods Corporation Complex at Salawa, Kosgama.

Hardware in use is mainly various sizes of screws, both iron and brass, nails, hinges (brass, brass-coated iron) and locks.

Both skilled and semi-skilled labour is readily available at a very low rate. The average wage rate per day for a skilled carpenter is about US\$ 2. Carpenters skilled in the use of hand-tools are available throughout the island but only a few skilled operators of wood-working machinery are to be found.

Vocational training in wood-work can be obtained in the several Government run technical colleges in the main cities of the island, but due to the low wage rate very few take up this as a trade.

No avenues are open for the higher technical education in furniture and joinery industries. University courses are not available.

The main furniture factories of the Ceylon Plywoods Corporation, and a few private firms turn out school and office furniture. The range of products are in the main tables, chairs, cupboards, chalk boards for

schools desks, chairs, cupboards and filing cabinets for business undertakings. Hospital furniture for the Government hospitals and dispensaries like beds, cupboards, racks, etc. are also being manufactured by the Corporation.

There is very little product designing being done. The private trade copy designs given in foreign magazines and books whilst the Corporation maintain traditional designs except for in a few instances. School furniture was transformed a few years back with the introduction of the "ARISER"^{1/} type of furniture modular and knocked down furniture has been adopted by the Ceylon Plywoods Corporation lately.

As stated earlier wood-working machinery is being used by a few firms and by the Ceylon Plywoods Corporation who have an up-to-date wood-workshop at Mosgama and mechanized workshops at Ginot and Ampara. The machinery available, except for Mosgama, is very old.

There is very little interest on being used. A few of the Plywoods Corporation units tried flow-line manufacture without much success since each unit is run independently of the other and whilst some factories are generally better equipped, machinery wise, to handle this sort of flow-line while others are not. Hence the present method is for each plant to run independent of the others. A job of work for instance the construction of a table or chair is given to a single carpenter who gets sawn and sized timber in plank form to his bench and he is expected to complete the work on his own with hand-tools. Little attention is paid to design or the finer points of carpentry, as the jobs are estimated to be finished within stipulated times.

The Plywoods Corporation sells its products mainly to Government Departments and state sponsored corporations. A limited amount of private trade also takes place. As stated earlier the private trade is being dominated by the private dealers.

New markets can be sought in the private sector by the Corporation if overhead costs can be cut-down and a standard type of inexpensive furniture is developed for home and office use. New markets can also be sought in the building industry.

However, the Corporation will have to overcome the following main problems before venturing into this field.

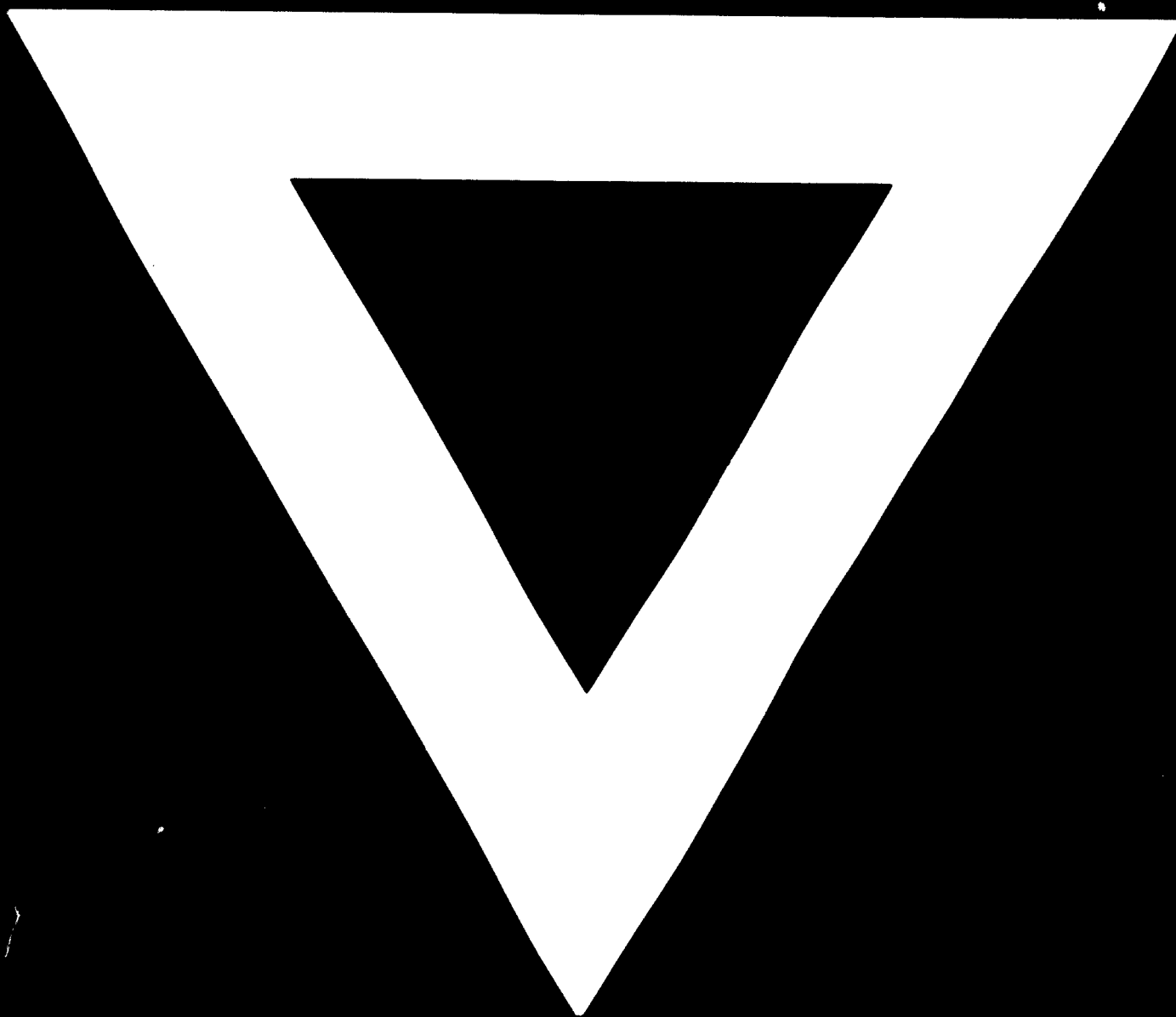
^{1/} Asian Regional Institute for School Building Research

1. The problem of finding raw material;
2. The problem of cutting down its present heavy overhead cost;
3. The problem of developing new furniture designs to compete with the private trade.

The foregoing is a synopsis of the state of the furniture industry as a whole and the present problems of the Ceylon.



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