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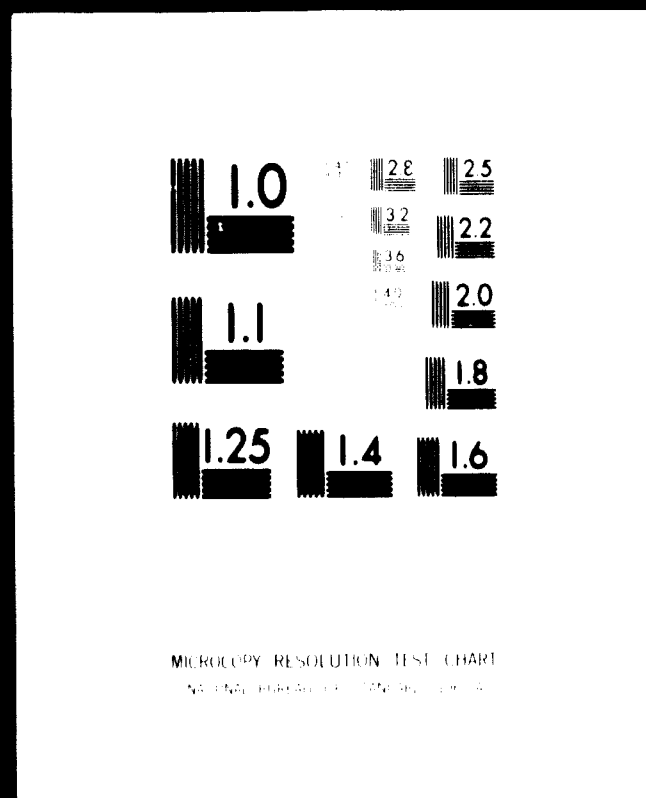
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Seminar on the Furniture  
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THE FURNITURE AND JOINERY INDUSTRY OF BANGLADESH ✓

by

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1. There are two primary ways in which wood is utilized - firstly for construction of elementary structures, viz: huts, low-bridges, rafts etc., and secondly as fuel wood. In Bangladesh at the moment the major consumption of wood is in the above two categories but development of alternate fuel sources is being expedited in the national development planning in order to release timber for higher-value uses in industry.

Industrial uses of wood include those processes, in which the wood is shaped, treated and finished in various ways without altering the basic internal structure or identity of the material. Again, wood may be used as a raw material for conversion by mechanical and chemical means to a product such as paper, rayon etc. which no longer resembles the original wood.

An intermediate group of products consists of particle board, veneer, plywood compressed and impregnated wood products, in which wood raw material is radically altered during manufacture, but the product resembles closely sawn lumber.

2. In this assessment we are primarily concerned with the furniture and joinery industry in Bangladesh, which is based on direct conversion of lumber and has only recently shown a tendency of diverting towards wood-based panel material, as well as steel furniture for institutional uses, due to the high cost of timber.

3. At the time of emergence of Bangladesh there was no modern saw milling facility. The Lumber Processing and Saw Mill Complex, sponsored by the Forest Industries Development Corporation was still under construction and completion. The entire requirement of railway sleepers and sawn lumber for wood-working and joinery industries as well as for the building construction industries were being met by a large number of small, antiquated units.

4. A large number of small furniture and cabinet making shops, employing semi-skilled manpower was catering to the consumer market for domestic and institutional furniture, construction industries - doors and windows - and boat-building yards.

5. The Forest Industries Development Corporation which was established by an ordinance in 1959, had already established four wood seasoning and cabinet manufacturing plants in Chittagong, Khulna, Rangpur and Dacca, along modern industrial lines, and had undertaken studies to rationalise and streamline the primitive wood working industry by ensuring better utilisation of the forest resources in this part of the world.

6. The Forest Industries Development Corporation was faced with the gigantic task of catering to the reconstruction and development needs of the devastated nation. It was observed that in order to maximise production in the installed units, a steady supply of raw material, both indigenous as well as imported had to be ensured. Spares for the industrial units, including imported consumable stores, also have to be guaranteed.

The internal communication system in Bangladesh had suffered colossal damage so that the supply of raw material involved a considerable transportation bottle-neck.

7. The infra-structure supporting the maintenance and operation of industrial units were largely manned by non-resident, and non-local personnel. Emergence of Bangladesh saw a considerable transfer of population affecting this particular element, for example loss of skilled metal workers and technicians.

8. During the 4 years after liberation, manpower has been developed to a certain extent, but requires intense further attention. Most of the industrial wood-working and joinery units are now faced with the problem of replacement of antiquated units as well as modernization of equipment. The internal demand of reconstruction and development works justifies the diversion of both acutely scarce internal resources, as well as external assistance to that sector of the economy, which is intimately linked with various other sectors of the national economy. The pressure of population growth in the demand for construction of new residential, industrial, commercial and institutional buildings, added to the demand for replacement of old, unsatisfactory living accommodations for a large number of families, and the further demand for housing and furniture for families who have no accommodation of their own, but are forced to share with others in overcrowded housing, or sleep out in the

open on pavements or in sub-human conditions. This problem is already engaging the attention of our Government as well as international bodies. The development of the physical planning and housing sector must take into account the simultaneous development of the wood-working and joinery industry in its first stage, together with subsequent development of pre-fabricated low cost housing plants.

A plant for the manufacture of wooden components for prefabricated houses as well as components for wooden boats, can only supply a small portion of the total demand within the economy. But it points the way for a more complete and rational solution of the problem of the same basic idea.

9. The wood-working and joinery industry in Bangladesh is to a large extent in primitive hands, as described above, and the units of the Forest Industries Development Corporation can meet only a fraction of the total national demand. However, the integrated approach adopted by the Forest Industries Development Corporation points the way towards the solution.

The scope of this paper being limited, a brief résumé of the BFIDC approach will not only highlight the particular areas where, due to deficiencies, the development of woodworking and joinery industry in Bangladesh is being hampered but also what steps are being taken to remove these deficiencies.

Vital to the woodworking and joinery industries is the constant supply of lumber and wood-based panel material. The BFIDC Timber Extraction Project operating out at Kaptai in the Chittagong Hill Tracts, is responsible for scientific timber extraction operations in the inaccessible areas of the Chittagong Hill Tracts. The operation being capital intensive, it has been entrusted to this (BFIDC) public sector corporation which has also to ensure that random extraction does not interfere with scientific conservation methods, or criminally deplete the forest resources.

The BFIDC Timber Extraction Project markets raw timber for the private trade as well as feeding the other units of BFIDC both directly and through the BFIDC Lumber Processing & Saw Mill Complex located also at Kaptai.

The basic problem facing the Timber Extraction Project is the communication between its farflung operation centers both in the matter of relay of instructions and transportation of the produced goods. A VOR/TOR system will increase efficiency manifoldly and rationalise control. In the matter of transportation of goods produced which is based mostly on rafting, further mechanization to the extent of improved rafting methods, use of floatation tanks, towing of rafts may have to be investigated.

The Lumber Processing & Saw Mill Complex consists of a modern, efficient high-capacity band saw mill, with re-sizing, planning, treating and joinery facility. In spite of this, in the matter of standardisation of market demand for sized, seasoned, treated and machined lumber the Lumber Processing Complex is unable to operate efficiently. A programme of consumer orientation through the mass media may prove in the long run, satisfactory in the matter of operation of LPC more efficiently.

The Wood Seasoning and Cabinet Manufacturing Units of BFIDC located strategically throughout Bangladesh, receive their requirements of timber both from the BFIDC Timber Projects as raw timber, as well as sized lumber from the BFIDC Lumber Processing Complex. The Wood Seasoning & Cabinet Manufacturing units are equipped with their own small saw milling and re-sizing equipment as well as seasoning equipment. The CMP unit at Chittagong as well as Khulna has the additional advantage of closely located wood treatment facilities. In spite of the fact that the Wood Seasoning and Cabinet Manufacturing Plant supplies a major portion of their output to Government organisations and public institutions, the demand for seasoned and treated wood products is not satisfactory, in view of the additional cost involved. Once again, consumer orientation through the mass-media may prove satisfactory.

Technical workers required for the wood seasoning and cabinet manufacturing plants are being developed at the Bangladesh-Swedish Institute of Technology which places special emphasis on the requirements of the woodworking industry. Product development and marketing of the wood seasoning and cabinet manufacturing plants are sadly neglected areas where international assistance would be particularly useful.

The woodworking and joinery industries in Bangladesh have not expanded along scientific lines, with the result that timber waste is very high.



Products have to be developed, together with industries based on waste wood utilization. According to the BFIDC/<sup>the</sup>Complex at Kalurghat has steam boilers using wood waste in the initial state, and will switch to other energy sources as soon as the Particle Board Mill and the Hard Board Mill both located within the complex, go into production.

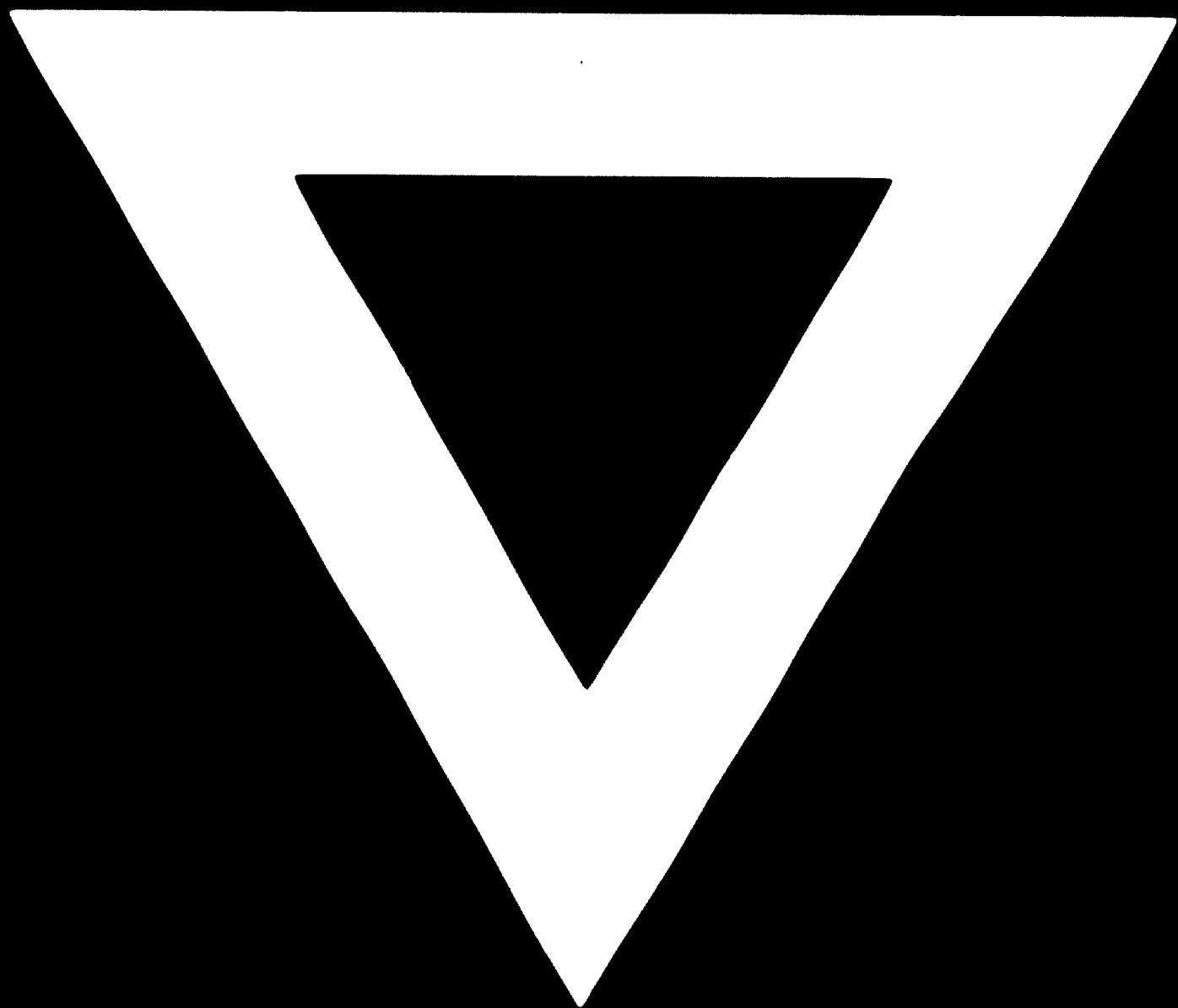
Both the Cabinet Manufacturing Plants as well as the Board Mills, would benefit, CMP supplying waste as raw material for the Board Mills, and the supplying of their finished products - hard board and particle board - through the CMP for further conversion into consumer goods.

The development of the Board Mill has been based on the rationale of conservation of high quality timber. Along with the development of the Board Mills and improvement of the supply position of wood waste panel material, the Woodworking and Cabinet Manufacturing Plants now based on solid timber will have to be modified. Technical scale as well as reorientation will have to be simultaneously evolved through incentive, on-the-job training to develop the required new skills and expertise. International assistance in the middle to upper production management reorientation is indicated. On-the-job training for the existing work force may be arranged locally through the services of advisory personnel.

In conclusion, it will be noted here, that well-meant offers of assistance in the past to developing countries, could not be fully utilised, for the purposes for which it was intended. It may be possible for UNIDO to render concrete assistance to the development of the woodworking and joinery industry in Bangladesh, by making it possible for officials of the BFIDC, actually engaged in production, marketing, and design activity to work in the modern overseas woodworking and joinery industry. Visits of practical experts from the woodworking industries of South East Asia where more or less similar conditions and problems exist as in Bangladesh would also be welcomed.



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