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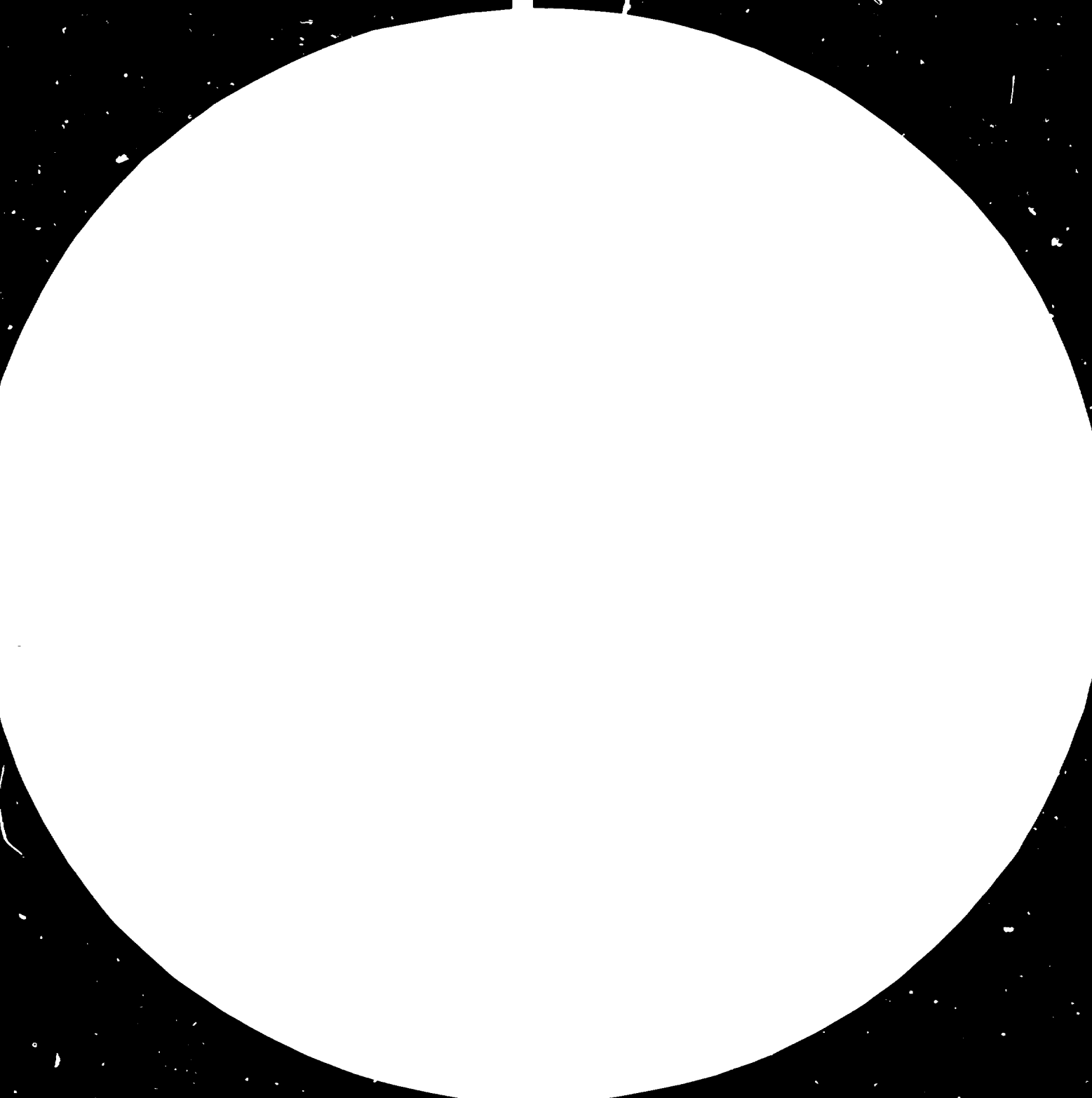
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United Nations Industrial Development Organization

Distr.
LIMITED
ID/WG.323/21
7 January 1981
ENGLISH

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

THE FURNITURE AND JOINERY INDUSTRIES IN BANGLADESH *

by

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Bangladesh is located between 88° and 93° longitude and 20° .30' to 26° .45' latitude. The tropic of cancer passes through the middle of the country. It is mainly a tropical climate with high rainfall and humidity. Average highest rainfall is 200 inches per year. In some northern areas the rainfall is 50 inches per year. Average rainfall is 120 inches per year.

Bangladesh has an area of 55,598 square miles and a population of about 90 million, making it the most densely populated country in the world, while in per capita income it is one of the poorest of the developing countries. Population density more than 160 persons per square mile. 90 percent of the population lives in villages and 80 percent is dependant on agriculture. Only about 6 percent is dependant on modern industries.

Average per capita annual income is only US\$ 100 and four persons out of every 5 are considered to be below the poverty line in terms of intake of minimum caloric requirements. Pressure on land is very high, resulting in miniature peasant farming and high rate of landlessness.

During the 1960's and 1970's genuine efforts were made through a series of development plans to solve the problems, but no tangible improvement in the standard of living of the bulk of the population has taken place. Policies pursued were so polarized between regions and urban and rural areas that the standard of living of the common man in fact suffered, which ultimately led to a violent and destructive war of independence with all its consequent economic problems.

The global inflation, recessions starting in 1973 and unfavourable weather followed by the unprecedented flood and famine of 1974, did in fact allow for little opportunity for development and betterment of the people till the end of 1975.

Population and population growth is given by the following figures: ^{1/}

^{1/} Statistical data quoted in this paper are taken from the Draft Second Five Year Plan and the Statistical Yearbook of Bangladesh.

1957..... 42 million
1978..... 84 million (doubled)
2000..... 160 million (estimated, based on present annual rate of 207 percent. The present ratio of land per head of population is only 0.3 acres, one of the lowest in the world. This will be further aggravated as will be the present unemployment level of 30 percent.

The per capita GDP in 1979-80 was estimated at Tk. 1,992. A 4.9 percent (say 5 percent) growth rate is forecast for the period 1980 to 1985, when it is estimated that it will attain Tk. 2,525. However, the average growth rate projected in the 1980-1985 plan is 7.2 percent per annum, and with a population growth rate of 2.23 percent (planned) per capita income growth will be about 4.85 percent.

Raw material situation:

There are 3.25 million acres (about 9 percent of the total area) which are treated as classified forest and another 2.4 million acres are known as unclassified state forests, plus coastal forest areas totalling 1.2 million acres and 80.6 thousand acres with fruit bearing timber.

Thus, the total available area for forestry and tree crops is 7.2 million acres which is 22 percent of the total land area. The value of output of forests is estimated to be about 5 percent of GDP which indicates sub-optimal utilization of this land for forestry.

Considerable opportunities exist for the forestry sector to make positive contribution to the economy.

Apparent consumption:

At present, the level of forestry production is low and output from the forest industries is rapidly consumed leaving very low stock

holdings. This is so despite the fact that the timber price as well as finished product prices are high. Considerable excess capacity exists in the processing industries and the existing forest resource is also capable of higher output volumes than the current level.

Accurate consumption level, particularly in the rural areas, is difficult to estimate until the UNDP/FAO survey is complete. However, the best consumption estimates are as follows:

Timber consumption per capita per annum about 0.3 cu.ft.

Fuel wood consumption per annum about 1.5 cu.ft.

This consumption figure does not compare favourably with those of neighbouring countries where per capita timber consumption per annum is as follows:

India	0.76 cu.ft.
Burma	2.6 cu.ft.
Thailand	4.5 cu.ft.
Nepal	1.4 cu.ft.

The present availability and consumption levels of timber are extremely low and if the outputs of forest and forest products are not increased, lack of wood fibre will continue and the growth in the furniture industry will be stunted.

The present total availability of timber, including fuel wood, is about 42 million cu.ft. of timber and 58 million cu.ft. of fuel wood. Out of these 42 million cu.ft., the source of 16 million cu.ft. (of the 42 million cu.ft.) of timber is homesteads. By 1985 the total supply of timber is expected to reach 54 million cu.ft. an increase of 28.5 percent.

In addition to natural timber, the furniture industry uses at present only about 10 percent of its requirements in the form of particle boards manufactured by Star Particle Board Mills under their brand name "PARTEX". Consumption of panel products is extremely low despite their desirability in terms of wood saving and species utilization.

One of the reasons is that due to production inefficiency and unfavourable tax structure, the panel products are not yet widely used. It may be reasonably assumed that the price of panel product is unacceptably high. However, an additional unit with a capacity of 2.1 million sq.ft. of particle board and 6.4 million sq.ft. of veneered board is being added. The present available capacity is 8 million sq.ft. of particle board and 5 million sq.ft. of veneered board.

Structure of the industry:

The furniture and joinery industry may be broadly divided into organized and unorganized sectors. There is an association known as Bangladesh Furniture Manufacturers Association with a membership of about 200 small, privately owned firms. Outside this association it is estimated that there is approximately another 700 small-unit firms all over the country.

In the organized sector there are about 47 firms which are sufficiently equipped with machines and modern tools. Very little information is available about the small firms in the unorganized sector as no study or survey has been conducted as yet. The unorganized sector employs about 3,000 workers. The organized sector of these industries consists of about 47 units and their particulars are as follows (data based on a survey carried out in 1976):

Fixed assets	Tk. 9.7 million ^{2/}
Value of stock at the end of the year	Tk. 5.4 million
Total number of employees 1258 (of which production workers 1033)	
Total personnel cost	Tk. 13.6 million
Cost of fuel and power	Tk. 0.3 million
Value of products	Tk. 21.6 million
Value added	Tk. 6.6 million

^{2/} Tk. 15 = US\$ 1,00

Practically almost all the units in the organized sector are located in Dacca, Chittagong and Kaptai in the Chittagong Hill Tracts.

Availability and skill of labour force:

There is no shortage of unskilled labour, but skilled labour is very scarce due to the following reasons:

1. The exodus of traditional carpenter/furniture industry labour coming mainly from the Hindu community who carried the skill from generation to generation and who migrated to India since 1950. Furthermore, carpenters of Bihari ethnic origin migrated to Pakistan since 1971.
2. The more recent exodus of the newly trained work force to the Middle East due to the very high wages available there.

Problem of growth:

Raw materials: The main problem facing the industry is the fast declining supply of quality timber, resulting in the use of poor quality and immature timber. The other problems are as follows:

Price of ancillary items such as upholstery hardware and fittings are rising due to rises in world prices and rises in taxes on these items. The standard quality of the locally produced materials is not yet of satisfactory level. In the Public sector enterprises there is too much idle capacity and facilities. These are not fully utilized due to inherent central as well as local management limitations. In fact, the planning commission has strongly recommended the desinvestment by the Government of all small units which can be more efficiently managed under private entrepreneurship.

Capital goods: Plant and machinery as well as land and building costs are very high for any new furniture industry to be established. Hence, the strategy should be to emphasise on the maximisation of the

utilization of existing capacity and improvement in management of present units. However, there are prospects of establishing joint ventures where the machinery and equipment may be supplied by foreign investors as equity participation and the local equity will provide land buildings and working capital. This type of joint venture envisages export oriented industry and manufacturing of products having export market acceptability both in quality and design. The foreign partner is in an advantageous position to provide technical know-how, assess customer choices and the expertise for international or export marketing.

Design and Marketing:

Product development: There has not been much headway in product development in the furniture industry due to obvious reasons of lack of technical know-how in this field. Although there is a Forest Research Institute in the country, it has made little contribution in practical ways to help the industry in product development. Moreover, most of the units being too small in size, the need for product development was limited; for example, tubular furniture combining metal stands of aluminium or steel with wood or veneered panels would have perhaps been supplementary to the dwindling supply of natural timber.

Lack of technical know-how and institutional facilities did not really facilitate the desired product development or product diversification. The only source for new designs of furniture have been to try to copy a furniture from the picture in a mail order catalogue, etc...

Marketing channels:

Local market: Since most of the furniture units are small and based locally near the main market centre the need for wider coverage

by distribution channels has not yet been seriously felt.

However, a few large units maintain show rooms and delivery centres in cities and towns other than the place where the factory is located. The method of having distributors/dealers for marketing the products of furniture industry is practically non-existent.

Export market: There has not been any significant export of furniture and cabinet items despite the fact that the relative labour cost is favourable and certain units have reasonably good equipment and tools. Paradoxically, the Forest Department and the Bangladesh Forest Industries Development Corporation did export some raw timber (round logs) while the furniture and veneering industry starved for quality timber which could ensure a much better utilization by species of the scarce forest product. At the same time, unveneered particle boards were exported as surplus production.

Some promotional activities are required to enlighten the furniture industry on the uses of panel products along with the transfer of related technical know-how. This would give the double benefit of augmenting the supply of timber and at the same time developing new products and designs along with encouraging the use of combination of raw materials for the furniture. There is one particular point to bear in mind, that is Bangladesh has a very high humidity and temperature. Therefore, some problems relating to use of UF resin bonded products arise which have to be overcome technically. Only recently a joint venture for a furniture unit has been approved for collaboration with an Italian firm. The unit will be located at Khulna in the south western part of Bangladesh. Initially this unit will export photo frames and window palmets. Similarly BFIDC has also entered into some arrangement with Poland for export of some furniture from its factory in Chittagong.

Industrial Infrastructure:

Professional Associations: This sector of the industry is not properly organized in the real sense as mentioned earlier. There is

one association in the name of Bangladesh Furniture Manufactures Association which claims a membership of about 200 firms which are mostly small and medium in size and does not include the bigger and better equipped units belonging to the public sector, BFIDC, Bangladesh Chemical Industries Corporation (BCIC), etc. The technically qualified people are also very few and there is no professional association of any significance.

Training Schemes:

Institutional: There is one Swedish/Bangladesh Institute of Technology at Kaptai under Swedish assistance located near the Forest region in the north eastern part of the country. This institute provides elaborate 2 and 3 year training in woodworking and wood technology to qualified secondary school students. The Forestry Development Training Centre, Kaptai was also set up under Swedish assistance in 1979. It imparts training in forestry, wood treatment and processing, etc.

In addition, there are about 20 polytechnic institutes located at all district headquarters which also provide some formal training in carpentry and woodworking. But, since the industry has still to take its right place in the economy of the country, it has not been able to attract the desired kind of educated young men. Even the school dropouts prefer to go to other sectors like automobile, electrical, masonry works rather than the furniture industry. Perhaps the Manpower Development Institute could be helpful by encouraging the Middle East job seekers to go for training in furniture and joinery. It may also organize such training at the institutes and at the large furniture factories belonging to the public sector.

Standards:

The Swedish Bangladesh Institute of Technology in Kaptai, the Forest Research Institute and Export Promotion Bureau (EPB) can

jointly form a board to provide necessary assistance to the industry in the matter of setting the standards with a view to improve the present quality of products and their design. This board may also help in providing necessary assistance for increasing efficiency in the area of production and management. The EPB can definitely help in promoting export of this non-traditional manufactures item having a good potential in the Middle East and Europe.

Measures for development of the sector:

Management of the enterprises at the plant level can organize apprentice schemes with the help of locally available institutional training centres. Reasonable remuneration and incentives may be provided by the management to the trainees/apprentices.

It can also initiate product development and diversification and start a small cell at the plant level as a nucleus for research and development work. In the field of marketing every enterprise should initiate a market study of which the size and intensity depend upon the plant's capacity, management capability and the financial resources at its disposal. The training scheme can perhaps be dovetailed with the ambitious programme of "Youth Development" of the Government which can eventually open up avenues of self-employment of rural surplus labour.

At present both horizontal and vertical linkages in the furniture and panelling industries are not well defined and not effective. This should be improved for the mutual benefit of all the units in the link chain.

Manufactures associations:

Similarly, the role of the association should be more prominent both as a source of dependable information and also as a forum for exchange of views and to help the Government in its policy formulation. There should be conscious effort to include the public sector enterprises which have so far remained somewhat aloof from the smaller units in the private sector. It would be beneficial if a wider asso-

ciation can be formed including furniture and cabinet makers along with the panelling industries. This association could follow the pattern of similar associations in India and other developing countries in the region.

Possible assistance by the Government and International Organizations:

As mentioned earlier, the majority of the large units in furniture and panelling industries are within the public sector and the Government can play a vital role in taking a lead in the right direction for the betterment and development of this sector as there is considerable market potential both at home and abroad. The very size of the population itself is both a great challenge and a potential. Improvement in the standard of living will mean higher demand for furniture and panels since demand for furniture and panels follows closely development in the housing industry to which considerable importance has been given by the present Government.

Fiscal Policy:

The present fiscal policy does not provide a rational tax structure for the panel industry which is at a great disadvantage due to payment of very high sales taxes/excise duties and import duties on its raw materials as well as on its finished products. As a result, the products of the panel industries become unattractive to small average furniture makers in comparison to ordinary species of timber

The present tax element represents about 54 percent of the total cost of the locally produced panel boards whereas timber is practically tax free. This works as a disincentive towards the use of a wood substitute vis-à-vis natural wood. The sooner this anomaly is removed the better it is for the industry and the country since it creates a vicious circle of high taxation on manufactured panel leading to higher selling prices which in turn

reduce demand which again reduces production and capacity utilization leading to higher overheads which finally results in higher costs of production.:

Perhaps time has come that for the Government to take a bold step by drastically restricting the use of solid natural wood, particularly of the good veneering quality which are needed as veneer logs by the panel industry, wherever the veneered board and other panel materials can be used satisfactorily. Unfortunately, at present the opposite is true. The industry enjoys no priority over the individual allottees who take the majority of the best timber and the industry has to be satisfied with whatever is left over.

Integrated policy for forest products:

The Government should not allow exports of raw timber, instead they should encourage exports of processed or semi-processed products when there are facilities which are not fully utilized. An integrated policy for forest products and panel industries should be formulated which will take into consideration a meaningful utilization of resources and ensure the avoidance of resource transfer in the name of foreign exchange earnings. During 1979-1980 the Forest Department and BFIDC exported 200,000 cu.ft. of unprocessed timber at rather unattractive prices while the domestic industry was left to suffer. My own enterprise only managed to have a part of an export lot at a much higher price after the foreign buyer (an East European country) protracted in establishing the letter of credit and eventually abandoned the deal.

International Agencies:

UNIDO and FAO can be of great help in providing the national Government not only with technical information but also assisting them in establishing a commercially beneficial policy and strategy for the less developed industrial sectors like furniture, joinery and

panel production. A study is already under way under a UNDP financed project for accurately assessing the demand and supply position of this sector. When completed, this study should give some dependable basis for adopting more effective policies in the future.

The most important area where International Agencies, in collaboration with the national Government can render help in the development of the sector is through "Transfer of technology". Utilization of manpower and improvement of its skill by organizing a phased training scheme at various levels (particularly at the skilled labour and supervisory levels) should be very helpful. Management personnel connected with policy making and implementation should be given higher training. The assistance in training skilled and unskilled workers can be arranged locally with the help of certain foreign expertise of appropriate qualification, preferably drawn from neighbouring countries like India, Burma, Thailand, Malaysia, etc. The transfer of modern skills and technology would also involve the introduction and use of some modern tools in place of the traditional tools now being used in the small sized firms, and this may necessitate some kind of financing arrangement for self employed wage earners.

Appropriate technology:

Before concluding, a word about appropriate technology:

"Small is beautiful" is perhaps the slogan of the day particularly for developing countries. The perpetual snowballing of the foreign loan burden and its debt servicing problem cannot be really avoided for any development project of considerable magnitude. This reality shakes the belief of everyone who has any concern over the future of his next generation. It may not be too early to stop, look back and see if it is possible to attain maximum benefit with minimum foreign capital input for the development of a country like ours which happens to be a typical LDC. Real benefits must have to be both in economic

and social terms.

With the right infrastructure, both administrative and social, and the use of "appropriate technology" a breakthrough is possible in this relatively less significant sector also, by way of providing meaningful employment largely to the rural and agricultural surplus labour and the educated urban unemployed.

Maximisation of the value added in production should go hand in hand with the intelligent use of scarce forest resources and under an effective system of vertical and horizontal industrial linkages. The Comilla approach of co-operative movement may be considered as a system of mobilizing rural resources to attain this objective. This somewhat unconventional approach to development is what our present government is trying to achieve for the rural masses representing 90 percent of our total population, by involving the whole population in comprehensive national economic activities with their total participation. The furniture and joinery industries sector can be a sector with good prospects both for domestic and export production if properly organized on a national level.

We look to the future with hope and confidence under the able and dynamic national leadership. The international understanding of our problems and the mutual help and assistance from the developed and more fortunate member countries of the United Nations towards the needs of this sector of the forest based industry will certainly go a long way in improving the present status of the sector both in material and human terms.



