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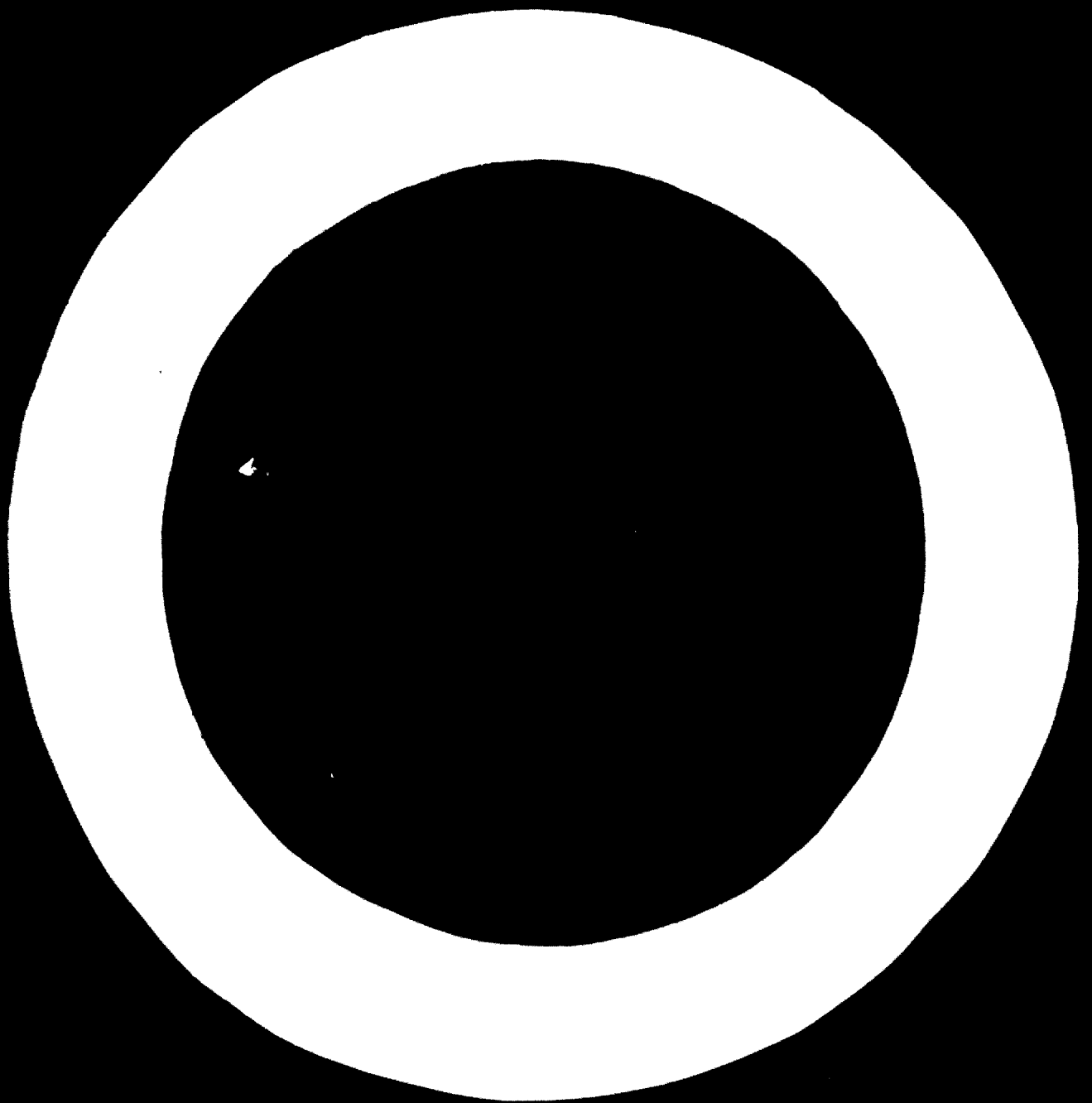
THE FURNITURE INDUSTRY IN TANZANIA^{1/}

by

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INTRODUCTION

The development of the furniture industry in Tanzania fully complies with the industrial policy of Tanzania as contained in the Second Five Year Plan, which identifies the need for establishing furniture industries. Since independence the policy of the Government has been one of maximum exploitation and utilization of natural resources for the country as a whole.

The present scale of wood working operations in Tanzania has been rather small. With the establishment of Tanzania Wood Industry Corporation in 1971 by the Government, development of wood based industries is expected to be considerable on a national level. TWICO is responsible for the development of Tanzania's natural resources by establishing timber extracting and sawmilling industries, promotion of wood processing industries and marketing and distribution of timber and wood products.

TIMBERS AND OTHER MATERIALS

Approximately 140,000 square miles i.e. 40% of Tanzania's mainland area is classified as forest or woodland. The bulk of raw material supplies for local forest industries had, in the past, been provided from the indigenous forests but it is now recognized that future requirements could not be met from this source alone. The Government has, therefore, been creating plantations of fast-growing softwoods and to a lesser extent of hardwoods.

The types of timbers used now for manufacturing furniture are very traditional. Fine hardwoods such as Muingu, Mvule and Lelicendo should be discouraged for local consumption as they fetch a high export price; secondary species of hardwoods such as Caspor, Mianbara, Afzealia, which are cheaper should be utilised for furniture production. The present furniture designs are often not good enough to justify the use of these precious timbers and utilise far too much raw material with the result that they become very heavy.

Seasoning of timber is usually done by air-drying. There is an absence of use of dry kilns in the timber industry in Tanzania. It is only in Moshi at the Utilization Section of the Forest Industries Development Planning Project that kilns are used to dry timber.

We feel that for domestic consumption particularly, the furniture design should be such that as much chipboard as possible is used. The small scale furniture manufacturers in the country have negligible experience in the use of chipboard as a raw material in the furniture industry. TWICO owns a chipboard factory whose production capacity is 20 metric tons per day. Since elsewhere particularly in the developed countries, furniture is the main user of chipboard, use of chipboard must be promoted in addition to developing the industry in a more rational way. A hardboard factory with a production capacity of 9,000 tons per annum went into production in the beginning of this year. There are also two plywood mills in the country.

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On the raw material side, besides chipboard, experiments must be carried out with lesser known species so that the presently used wood species of Mangro and Camphor will be replaced by cheaper timbers.

LABOUR POWER.

The facilities for training the personnel required for forest industries in Tanzania are limited and few trained personnel are available for sawmilling, woodworking or logging activities. Machine operators, for both sawmill and woodworking machines, are given on the job training at the U.N.D.P.'s Rongai sawmill and the woodworking shop at the Utilization Centre in Moshi, but the programme at present is on a small-scale. In the furniture trade, there are no other training facilities in the country.

CLIMATIC CONDITIONS

A considerable variety of temperature and rainfall conditions are to be found in Tanzania. Temperatures, except on the coastal plain, are tempered by altitude and although the annual range may be small, a considerable daily range may occur, especially during the dry season. From sea level to 3,600 feet (1,200 metres) the average temperature is 80° F. i.e. tropical temperature. From 3,900 to 5,900 feet (1,200 metres to 1,800 metres) the temperature drops from 70° F. to 40° F.

Any timber which is used in the furniture industry has to be properly dried. Most of the furniture consumed in the home market will be in houses not air-conditioned.

FURNITURE FACTORIES

(a) Various Categories

Small furniture makers are scattered throughout the country making furniture and a wide variety of manufactured wood products. The woodworking establishments in the country can be divided in the following groups:-

- (i) Medium class furniture makers. They have adequate machinery for a small production and employ about 40-50 skilled, semiskilled and unskilled workers. Usually most of the furniture is made to order and the single furniture manufacturer will make almost every type of furniture.
- (ii) Low class standard furniture makers. These are mainly "one-man shops" whose products are mainly consumed by the low income groups.
- (iii) Establishment making furniture only on Government contract.
- (iv) Establishments making furniture and connected with showrooms in towns.
- (v) Building contractors making own joinery products.

Most of these furniture manufacturers are working on a price level which is very high compared to the quality of furniture being produced.

(b) Workflow

With the existing furniture manufacturers, including the Government-owned factory called TACONA, the efficiency in the factories is very low. A properly planned lay-out of the factories would ensure an efficient work-flow. This will help to achieve both higher productivity and hence higher profitability.

(c) Production Record/Utilization of Capacity

In most factories production is only recorded at the finished goods stage. To obtain better management information, production should be recorded at every cost centre - on machines to ensure that utilization of capacity can be worked out and output per worker can be determined.

(d) Product Planning

To minimize the cost of production and maintain high quality standards, it is important to formulate a production programme, which does not entail the manufacture of different articles in the same period. For instance, TACONA has in its price list 180 types of different items of furniture with the result that their sales programme is not very conducive to an industrial type of production nor to efficient sales promotion.

In order to develop an efficient furniture manufacturing industry in Tanzania, the following production categories could be considered:-

- (i) Mass production of low cost furniture.
- (ii) Production of high quality furniture.
- (iii) Production of furniture and equipment made according to given specification (e.g. schools, hospitals, kitchen and office furniture).
- (iv) Special ordered products.

The management could plan in advance according to the demand for such categories and make necessary provisions in advance for the procurement of raw materials, necessary manpower and special accessories to execute the order within the given period.

(e) Machinery and Equipment

The medium scale factories have adequate machinery for small production and in some it is reasonably maintained. However, to increase the capacity and to improve the quality and to make it possible to manufacture more sophisticated furniture, it is necessary to add some new essential machinery. On the other hand, TACONA is rather well equipped with machinery but due to the lack of doing proper production planning and proper maintenance, the equipment is not fully utilized. Several costly pieces of equipment are not used, for example, drying kiln because there is not enough delivery time to wait for wood to be dried; bit sanding machine because it is too difficult to position for small lots etc. It hardly uses chipboard and veneers in spite of the fact that chipboard is produced in the country and a veneer slicing machine is available. Furthermore, the factory has both veneer splicers, cutters and presses to laminate the veneer on chipboard.

(f) Product Design

There is virtually no qualified designer in the country for the furniture industry. As a result the industry is neither aware of the advanced trend with regard to designing furniture in the world nor knows how to design properly for industrial production.

Cost of raw material in Government furniture designs is 50% -60% of the sales price. Scandinavian type furniture is said to utilize only about 1/3 of the sales price for raw material for products at approximately the same price level. This indicates the importance of design to reduce material costs. Proper design is also very important to ensure quality both in use and aesthetically and to facilitate production and standardization and not the least to introduce on a wider scale the use of veneered panels for tables, cabinets etc. thus saving on valuable raw material.

(g) Joinery Products

Besides the small scale manufacturers, there are also produced by TACONA mainly for the houses constructed by the National Housing Corporation of which it is a subsidiary company. The quality of the joinery articles are very reasonable except that dimensions are not always exact. This may very much be due to the fact that in spite of high quality wood being used, the lack of it being kiln dried makes it dimensionally unstable. Moreover, plans and designs are changed so often that it does not allow for a smooth production.

In order to establish a joinery factory profitably, it is important that a market be created for standardized products and this can be done by the factory actively influencing the selection of these articles in close co-operation with architects to obtain lower costs and standardized designs.

MARKETS AND MARKETING

The UN sponsored Industrial Development and Study Centre has been very active in surveying the market and accessing various proposals made to the Government during the past few years. Estimates on furniture demand are rather rough. In respect of the local market all studies appraised clearly indicate that the domestic market alone warrants the establishment of both modern fully integrated and specialized furniture factories. For example, Ind-Centre report on "New Furniture Factory - appraisal of a proposal made by Industrial Export, Bucharest" published in 1969 states that two modern furniture factories with a capacity of 4,000 sets as well as two chair factories for 100,000 units each could be built. TACONA has a capacity of only 1,500 to 1,800 sets, which is considerably below the above mentioned figures.

In a more recent IndCentre study on a new "specialised export oriented furniture factory" published in 1970 it is stated that even if a significant part of the production would have to be sold in Tanzania it would have very little damaging effect on the existing furniture factories mainly because of the expanding demands. On the contrary, it would have an educational effect towards making higher quality furniture and using less of the valuable timbers.

Estimating the total local consumption of furniture at about Sh. 72 million in 1970, equivalent to about Sh. 6/- per annum per head of population and assuming an annual growth rate of 10%, it is antici-

puted that local consumption of furniture would rise to over 20 million per annum by 1976. Furniture from the proposed new factories will offset presently imported furniture to a kenya which in 1970 was estimated as Sh. 2.9 million.

Individual manufacturers usually do their own marketing. Some of them have showrooms in the city centre, though the furniture on display does not look particularly attractive; the display is not well arranged.

In respect of export possibilities, investigations suggest that there exists a considerable potential in the neighbouring countries. There have also been several inquiries from overseas regarding the export possibility of knock-down furniture.

FUTURE DEVELOPMENT IN FURNITURE INDUSTRY

TWICO aims to carry out a long term plan for furniture manufacturing industry with the intention of participating in the industry already existing on a national level and develop it. TWICO could then establish factories for domestic consumption and for export as well. Domestic consumption will cater for commercial and household furniture and exports will mainly be semi-finished goods.

As stated earlier, TWICO is committed to invest in the industry according to the industrial policy of the country. The continuing rise in the living standard in Tanzania will lead to an increased demand for furniture for home, institutional and industrial use. There will be rising demand for higher quality furniture which can profitably be produced in more mechanized and refined factories than those which are already existing.

A pre-requisite for a viable export factory is indicated to be specialization, mechanization and proper furniture designs which would result in high production per invested unit, a quality of products that can allow for export to developed countries, a greatly minimized training problem and competitive prices.

The resources in Tanzania that will make the basis for success for a new export oriented furniture factory are the availability of rare wood species being high quality furniture timber at reasonable prices and low cost labour. Furthermore, many backward linkages are already available for furniture industry - production of sawn timber, plywood, chipboard and paint and carpenter training facilities. Such a factory is bound to be viable if it is

- (i) specialized and mechanized to produce the proper quality;
- (ii) run by an expert management group, and
- (iii) has at its disposal proven furniture designs and efficient export marketing channels.

Therefore, the resources and know-how that will be required from abroad are apart from plant and equipment, successfully proved furniture designs, training of counterparts and workers and not the least export channels and marketing knowhow.

Technical assistance is also required to improve quality, designs and in the control of raw material utilization in the already existing furniture factories. In order to consolidate the already existing industry and develop it, strong and capable technical and commercial management is necessary. The three experts required are:-

- (i) a wood works advisor with practical experience in furniture industries;
- (ii) a Furniture Designer with significant experience in low-cost furniture design;
- (iii) a Marketing advisor with experience from various furniture and joinery industries and with export knowhow.

The three experts as a team could establish a proper integrated product programme that will meet the special market needs for low cost joinery and furniture products and export to the neighbouring countries, and overseas markets.





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