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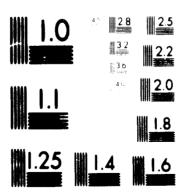
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PURITURE AND JOINERY INDUSTRY IN TANSANIA

by

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The development of wood based industries in Tanzania concentrated on the primary and necondary industries which were meant to produce raw materials in raw or semi-processed forms. It can be recalled that very little was done with report to the manufacturing industries, and as a result much was left to the hands of private investors who concentrated on either small or medium scale of production. Furniture and joinery making is still in private hands bough there are two factories being run by public organisation and Government. Most of the furniture and joinery industries are located in the regions where timber or wood products are produced. It is, therefore, obvious that mest of the existing furniture and joinery industries were the result of the favourable combinations of locally available markets and raw materials. This resulted in having no export-oriented factories, and it would appear that the establishment of these industries has not been based on very deep market surveys, at least as far as both domestic and export markets are concerned. This has caused the industry to rely to a large extent on domestic markets, and their economic operation is very doubtful. Export prospects seem bright, depending on what type of furniture or components, is involved. As regards joinery, doors, window frames, kitchen furniture and closets have been manufactured traditionally for a long time in certain standard nizes at various workshops. The two plywood factories existing in the country are the major producers of flush doors. The paper then will try to evaluate briefly the present status of the industry based on the present industries, and try to suggest in what ways UNIDO can help in developing this manufacturing industry in the country.

Most of the factories existing today have a too comprehensive programme of production, this means that they produce too many different types of furniture coupled with different designs. This is due to the fact that mass production which is usually changer than units made piece by piece has not been introduced, and that production is according to the customer's specifications. This may be due to the fact that there are not many designers and the fear of compatitors copying one's design. The result has been that most furniture makers produce on a one by one basis.

This is justifiable for smaller factories because their production aims at direct sale according to orders from private customers or public institutions. However, for the factories, that have a great many machines at their disposal, this method of production will normally prove unrational and unprofitable. Such factories should try to limit the number of furniture types in their production programme and should make efforts to produce and sell each product on a large scale. By this, they will have to change to start a mass production whereby the single product will be completed in a shorter time and therefore the results will be a lower cost of production and an improved rentability. These methods of production are in practice in very few factories, but lack of knowledge concerning the actual possibilities of the machinery, spoil a satisfactory economic result. On the whole the quality of the production is too low; products of an acceptable good quality can only be seen in two firms -TACOMA in Dar es Salaam and Utilisation Section, Moshi. It can also be argued that the quality of the wood used, and the importance of the dryness and cutting of the wood is too often overlooked. Here the joints are not correct and accurate, the gluings are not properly done and infrequently used; drawers are roughly made as they are often joined with nails and glue instead of dovetailed; and their adaptation is poor; the sanding is insufficient and polishing is frequently inferior. As regards joinery, there are small firms making door and window frames; doors and kitchen furniture is frequently of low quality, with the exception of flush doors.

The poor quality of the furniture and joinery may also be attributed to the raw materials used. Several national species of wood are used or applied in furniture and joinery production. The wood is suitable for furniture production but an almost complete lack of understanding as to the treatment of the wood is common for most of the existing factories. Very little care is taken with regard to nursing and drying of the wood which is a necessary condition for a quality furniture production. The common raw material today is wood which, in most cases, is stacked in the open air, fully exposed to sunshine and rain without any kind of proper stacking. This is subject to all sorts of unfavourable conditions, let alone the fact that the materials are very expensive, plywood, laminated sheets (formica) blockboard, chipboard, veneer, hardboards and also the common raw materials. The way they are sometimes stored results in waste and to the deterioration of the quality.

Most of the buildings housing these factories are not conductive to productivity. Machinery and places for work are often arranged haphuserally and without regard to a systematic process of production. This makes the process of production slow and ineffective, the capacity of production is not fully exploited and it takes too much time to finish the production of the single items. This has resulted in an excessive consumption of wages and other expenses; workers without respect for raw materials, time or quality and the economic result is poor.

Although the status of many of the factories or firms existing today show that their sizes have made the factories unsuited for the use of advanced systems of planning and calculations, all the factories might have submitted to a certain degree of systematic method and would probably have profited from it. The sense of time consumption both in production, delivery and ordering of raw materials should be encouraged. The lack of systematic methods in production processes and insufficient control of the waste of raw material seems to be the centre of activity in these factories. Therefore, the status of furniture and joinery industries comprise a wach lower level as to the techniques, quality and viability of the production. As a result of this, the prices of the products seem to be too high compared to the quality produced. This may have been due to the fact that the industry developed from its traditional handicraft level to the modern one. To enable this trade to keep pace with the future development of trade and industry; mystematic effort, with some kind of central control, should be introduced. Suck efforts should aim at an increased effectiveness of the furniture and joinery industry as to quality, technique of production and economy. This will be achieved if possibilities of extended vocational training and of extended emert service to the single factories can be established.

Taking the importance of the industry and the present prevailing policy of trading to sell more of processed products, such thought has been given to the industry. There are future prospects for the development of this industry. There is plenty of raw materials and there is enough markets for the products. The question is what is to be produced, and for when. The policy of developing the rural areas requires better housing in which furniture and joinery will figure very high. The development of the new capital will entail many offices and residential buildings to be constructed.

The provision of public and community facilities like schools, hospitals, cinemas will require both furniture and joinery goods, increasing thereby the demand of other products.

In view of the above, TWICO and other bodies like SIDO (Small Industries Development Organisation), TACOMA, and Mageresa (Prisons) are planning to further the development of the industry. These organisations want to enter very effectively on this tack; TWICO being a public paractatal organisation is charged with the development of wood based industries to which furniture industry belongs. It is a natural trend in development that the furniture industry first concentrated on covering the demand of furniture on the home market, this is also done by limiting of imports. As regards export, TWICO would like the qualities and prices of the producte to meet the wishes of the buyers. The existing furniture can probably be sold provided an improved quality and a competitive price is introduced. Here the components or knock-down types of furniture should be given high priority. Tanzania, through TWICO, plans to establish furniture which will first cater for the domestic market and eventually enter the export market. In order to fulfill the task TWICO proposes to establish a furniture factory with three departments: Department I will concentrate on manufacturing of bede, sofas, arm chairs and chair seats; Department II will concentrate on chairs, school furniture etc. and Department III will deal with oupboards, wardrobes, chest of drawers. These will be integrated into one main factory where the success will depend on the availability of finance and manpower. It is anticipated that the integrated factory will make great savings in use of raw materials through modern light-weight designs, create a eignificant market for panel products now being produced in the country for veneered tables, cupboards and panels; and will have a significant home market to support the export activity. However, the factory will be faced with some uncertainties which one cannot dismiss, e.g.

- (i) How large a part of the population would be able to afford properly manufactured furniture tables, chairs, etc. and when would they be ready to spend money on such items?
- (ii) To what extent would smaller manufacturers develop and be able to supply improved furniture?

The expert wide of the factory can be approached in different forms

- (i) Export of (semi) finished components for chairs and tables undo from the special wood species in Tanzania, being rare abroad; to be assembled, finished and marketed by the foreign manufacturers.
- (ii) Export of complete chairs and tables to other countries through the foreign manufacturers export organisation to supplement this programme. Export to African and Asian countries may possibly be undertaken by the factory itself, at least at a later date.

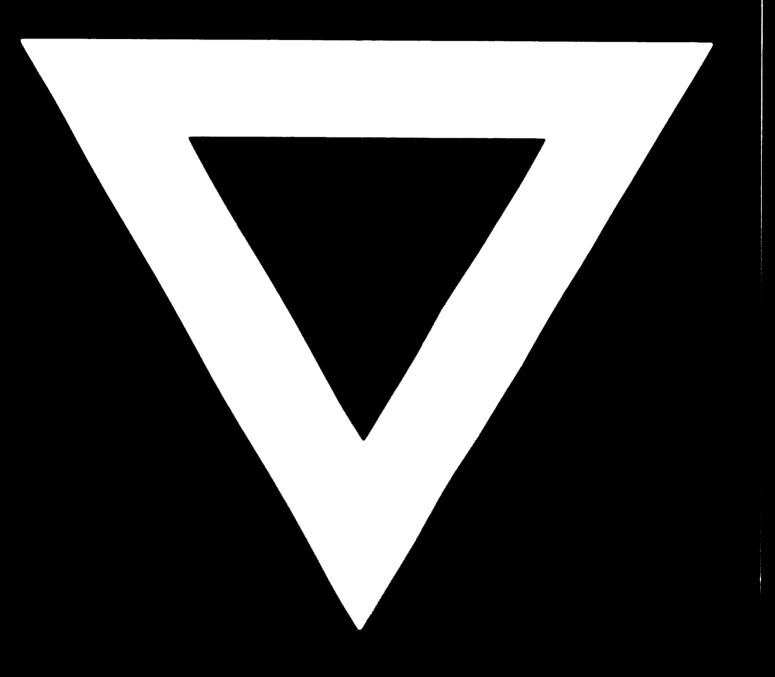
The whole industry has from its out-set been hadly handicapped by a misconceived product programme, not adapted to industrial production, and semi-skilled labour, nor to easy marketing. There has been no standardisation, little knock-down type of furniture, rather heavy and old fundiened designs, and very many different types of products, duplicating each other in the market. This has resulted in a number of individual carpenters shops working around a common eachine facility rather than a furniture industry with organized production lines. This mituation is coupled with overstaffing, inferior quality of finish and delivery time is usually not met. The excensive and expensive use of poor raw material results in poor finishing. There is also little planning of raw materials, utilization, too great a une of expensive apocies of timber, little use of particle products (hardboards, chipboards); too heavy designs in goinery and furniture and ungraded timber delivery without quality specifications, some to be the major problems in the industry. The pricing system does not really reflect the production process. It can be agroud that the production costs are very high due to some inefficiency in the factory, thus forcing the prices to be high. This cituation prevents the ordinary unople from buying or furnishing their housen. Unless there to a proper pricing policy the aim of developing the industry will fall short. This calls for an effective formulation of the markating objectives

and proper costing of the production. There must also be an effective way of distributing the products to reach even the remote areas. The designing of the products seems to be also a major problem in the whole set-up of the industry. Design should play a very important role in development. There are several ways to cover design needs. This requires the designers to have the ability to think creatively and possess artistic aptitudes which are the main criteria for the designers. There is also a need for a more vigorous sales and export promotion through participation in international trade fairs, advertisements and educating the rural people the benefits of having better furnished houses.

If the new efforts to obtain an improved effectiveness of the furniture industry are to have an optimal impact, a coordination of different achievements is necessary. To achieve this TWICO can ask the services of UNIDO or other experienced agencies in the industry to give some support and co-operation. UNIDO will definately be of great help in some fields where such knowledge is lacking with the local expertise. In the wood-working and furniture industry there is a very great demand for knowledge in practically every field - from the most elementary technical difficulties to managerial problems. Thus there are possibilities for UNIDO to give valuable services on technical and managerial problems. Training facilities, seminers and practical attachment can be of great help too. Thus the natural future tasks for TWICO should be to formulate the demands for training and education relevant to the industry; and work out plans for courses of different duration and on different levels and to coordinate these plans with UNIDO. It can also be argued that UNIDO can provide some consultant services which will render quick assistance in solving the problems in marketing, technical know-how, plant layouts, designs and the management of the whole industry until local people can effectively control the industry. These consultants should be able in helping TWICO to collect knowledge of machines and technical equipment and offer assistance to the factories before the purchases are made. A service of this kind will be able to inform about prices, import and servicing possibilities and give technical and manufacturing advice. It should also cover the re-organisation of management of wood works; market conditions and production activities. Such services can also be extended to the old established industries.

In conclusion, both the effectiveness of the production and the quality level are too low in the existing furniture industry. An improved effectiveness and a better quality will be needed, but preconditions are better education and training, arranged quickly and effectively; and technical assistance, rendered to each factory. This calls for a satisfactory development of the existing furniture industry which will demand modernization of the technical equipment. An improvement of the effectiveness of the production ought to bring about a better viability, better chances for finance which should enable the industry to grow and result in better invectment and thus be able to expand. This should be reflected in the establishment of new and modern furniture making factories.

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