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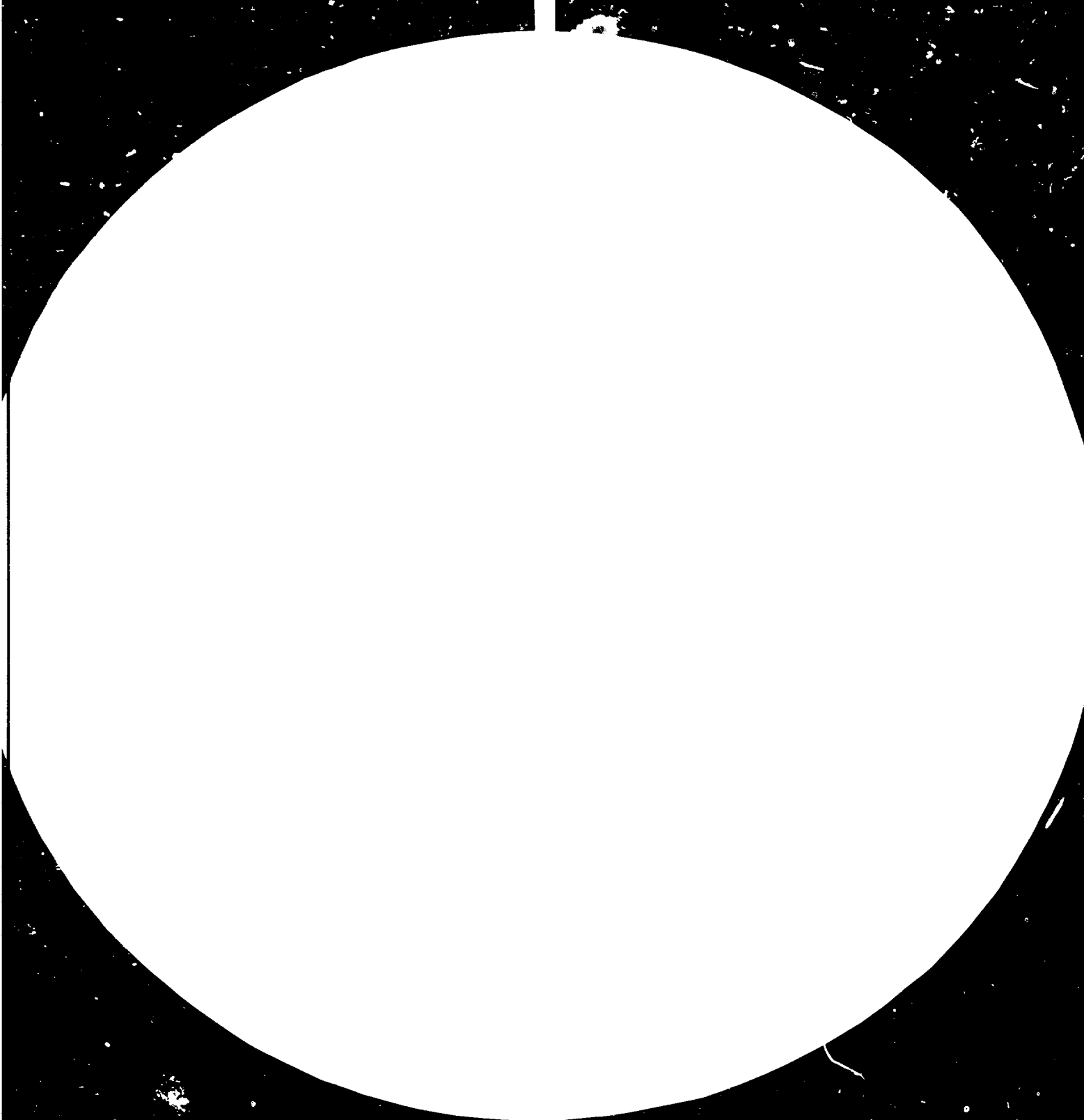
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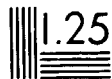
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Seminar on Economic Criteria for the Selection of
Woodworking Machinery and Plant Systems
Hannover, FRG, 19 May to 2 June 1981

TANZANIA'S WOODWORKING INDUSTRY*

by

Daniel Ndesario Mmari**

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** Woodworking instructor, Ministry of Natural Resources, Forest Division, Forest Industries Training Institute, Moshi.

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1. Introduction

The importance of the woodworking industries sector in Tanzania to the nation is to insure that the forest products such as logs and timber are profitable to the country in general. The second most important concern of this sector is to secure the beauty of one of our natural resources through more modern furniture making processes, etc.

The incentives for industrialization are too many to list here however suffice it to say that the Government has decided that more up-to-date methods of industrialization are needed throughout every industrial sector of Tanzania and the woodworking industry is naturally a part of this modernization scheme.

The problems facing the sector are varied, of course, and many in number. We have the time old problems such as outdated machinery and equipment, lack of spares for new and old machinery, lack of foreign currency with which to buy new machinery and equipment, etc. Our methods of dealing with these problems are, probably, like those of other developing countries and therefore will not be mentioned in this paper.

2. Forest Resources

Local Resources

(i) Country forest resources: (figures given in hectares)

REGION	PLANTATION	
	SOFTWOOD	HARDWOOD
Arusha	5809	1165
Coast	3245	-
Iringa	11363	1208
Kilimanjaro	9386	305
Morogoro	1660	1716
Tanga	3705	3187

These figures represent forest regions as of June 1979, however.

- (ii) Indigenous timber of major importance to the furniture and joinery industries are those used in construction.

The country areas shown in "(i)" on the previous page also show the woods used for furniture making and for other constructions.

Tanzania, therefore, does not need to import woods for the various uses but we do need to import the machinery and tools as well as the woodworking equipment from various other parts of the world. As mentioned earlier, this is a grave problem in that we endeavor to produce high quality furniture without the proper facilities. Through seminars and courses, though, we hope to offer our people a better product.

3. Primary wood processing industries

After receiving the logs, they are sawn into different sizes according to the order being presented from the woodworking shop or customer. The size can be of 2" x 2", 2" x 3", 2" x 4", 2" x 5" and upwards and also of 1" x 2" up to 1" x 12" depending on the diameter of the logs.

The volume and value of production to this sector depends on the workers and the machine types, this means the volume of the production made by log band saws cannot be compared to that of the gang frame saws so the production can vary from 8m³ to 20 m³ per day (depending upon the type of the machine as well).

As for the market of our products, the timber being produced is generally used inside the country for furniture and building purposes. Some, however, is exported for use in wooden floors, walls and ceilings and also for ship building.

The equipment installed in our mills are not of the same level that one would expect in an industrialized country. You may find one or another equipped with a log band saw, band resaw and cross-cut saw while other have only the log bandsaws and cross-cut saws, etc.

Through the aid of the more developed countries, though, we will sooner or later reach a consistently high level of production capacity (which would then include all of the proper equipment available).

Since Tanzania does not produce its own woodworking equipment and machinery we must import and with this come the problems of a lack of foreign currency and the experience with which to operate the newly installed machines.

4. Secondary wood processing industries - furniture and joinery

The range of products manufactured by the secondary wood processing industry cover items necessary for the home, hospitals and schools as well as offices. The variety of products offered is of course not high but adequate (many of the items are still handmade in fact).

When discussing the technical level of employees in this sector one must always remember that Tanzania is a developing country and therefore the designs produced and the standards of quality of the product is not comparable (or, rather, not to be compared) with the industrialized markets throughout the world.

Our specific technological problems are the following:

- Most of our furniture makers do not plan jobs in advance. They "make to order" the majority of their pieces and so are generally inconsistent and considered non-technical in concept.
- There is an obvious lack of knowledge of technical drawing and drafting.
- Our craftsmen have no idea of which modern tools and equipment to use for the various pieces.
- There is no trend as to the availability of modern machinery and tools. Some facilities have quite a few imported woodworking aids and others have none at all.

5. Labour

The skills available for jobs within the woodworking industry vary according to the job. Persons are trained at certain levels and required to sit for National Grade Tests 3, 2, and 1 and there are opportunities for a few to attend higher levels of education (i.e. University either in Tanzania or abroad). Experience shows us that

the most effective method of teaching is on-the-job exercises and it is to this end that we are striving.

6. Local manufacture and/or import of woodworking machines

Range of machines, tools and spare parts manufactured locally:

- (i) Machines: simple machines like small circular saw benches, wood turning lathes, etc.
- (ii) Tools and spare parts: spanners, bolts and nuts.

Comparative quality and prices of these machines cannot be calculated. Many of the items we receive are not actually for sale at all but used as test models or samples.

The value of local production too is impossible to gauge. Most machines made in Tanzania are made "to order" or, rather, to fill in for a specific job and so they are often creative inventions of the manufacture's own design.

The import of woodworking machines is rarely restricted however we do have Government regulations which guide the import market. The problem we do encounter with the import of machines, though, is that we do not as yet have mass production facilities and we also have a lack of raw materials like steel for high speed steel cutters, etc. It is with these that the Government regulatory control helps a great deal.

7. Energy Consumption

- Installed capacity 40 kw - 80 kw
- Consumption per month 5 - 10 kw
- Average consumption 3 kw/hour
- Energy generated from: Tanzanian Hydro power stations.
- Wood waste utilization: forestry, for firewood and charcoal which are sold within the country
Sawmills: firewood for boiler generated energy, steam for machine operation, wood waste used to manufacture toys, ash trays and firewood not otherwise being used.

