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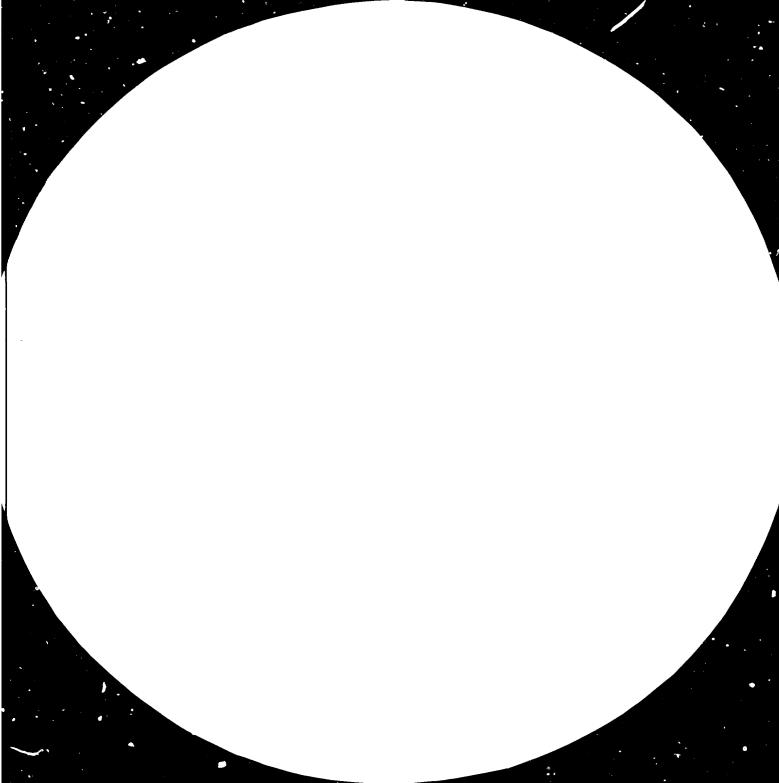
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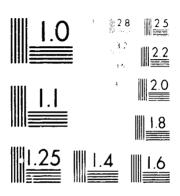
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Distr. LIMITED ID/WG.323/17 31 December 1980

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United Nations Industrial Development Organization

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

THE CURRENT STATUS OF THE FURNITURE AND JOINERY INDUSTRIES IN KENYA*

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Industrial growth:

The wood based industry in Kenya has continued to apply a significantly increasing role in our economy and welfare, contributing to employment, residential housing, business and institutional housing, furniture and packaging and to a small measure, earning foreign exchange.

Between 1955 and 1978, the number of furniture establishments remained relatively the same i.e. 228 and 233 respectively, while employment increased modestly from about 1,900 to 2,900. Understandably, unlike timber production where mechanization can substantially replace labour, in furniture production labour can be substituted with machinery only to a limited degree due to the precision of operation and personal attention required in handling, joining and finishing. Thus labour employment in the furniture industry has tended to increase with the firm's expansion.

Table I: Size of the furniture industry.

Number	r of fi	TES			Number	of emp	loyees		
1955	1961	1968	1972	1978	1955	1961	1968	1972	1978
228	179	171	383	233	1940	1218	2189	2618	2903

Apparently no precise data is readily available on production and consumption of sawn wood in Kenya and any data available is based on inference estimates primarily from studies, and returns from saw-millers and wood product industries and a few field surveys conducted by the Forest Department.

A trend analysis of furniture industries indicates that a drastic rise occured during the period of mid 1950's and the mid 1970's. Understandably this was the time when the people in Kenya started knowing exactly the value and use of timber. Also due to the rise of the number of furniture firms the employment went up drastically as shown in table I above.

Porspective users:

Kenya offers a wide variety of commercial timber, both hard-woods and softwoods. Almost all hardwoods are indigenous to Kenya while softwoods are a mixture of inidgenous and plantation grown exotic species. The most important timber is East African cedar (Junperus Procera) and Podo (Podocarpus Graciliar and Podocarpus Millajiunus) which grow naturally in Kenya's mountain coniferous forests.

The exotic species are Cypress (<u>Cupressus Lustanica</u>) and Pinus (<u>Pinus Patula</u> and <u>Pinus Radiata</u>). The four softwood species have formed the bulk of Kenya's local and export timber due to the following two factors.

- (1) Their abundance in the forest.
- (2) The wide variety of end uses by the construction, joinery and furniture industries.

Hardwoods:

The rainy semi-tropical and mormtain forest of Kenya provide a wide variety of hardwood species due to the ideal conditions of tree growth. Although a number of these species have long been established in the market as high quality furniture timbers, there still remains many more which tradition has neglected despite their high value both as constructural and furniture timber. Through research on their mechanical behaviour and appearance characteristics, many more have been introduced on the market and are competing favourably with the traditionally favoured species.

Due to growing interest and research on these hardwoods many of what was classified as non-commercial species have now generated such high demand both in the industry and the market that the whole policy of growing them had to be reviewed.

The following is a list of some of the most important hardwood timbers and their uses:

Trade Name (Botanical name)	Timber colour	Uses			
Campor (Ocotea usabarersis)	deep brown ribbon figure	panelling, furniture veneers, coach frames and cabs, lorry bodies and decorative work			
Mueri (Prunıs africanum)	red medium texture	highly prized for its strength lorry bodies flooring, blocks, strong furniture, doors and windows.			
Meru Oak (Vitex Kenensis) Muhuru	pale grey brown wavy grain figure	panelling, furniture cabi- nets, coffin boards, joinery work.			
Hagenia/Mumondo (Hagenia abyssinica)	reddish brown silver grain- figure medium texture	furniture, cabinets, flooring, handsome finished work.			
Misizi/Mutete (Maesopsis enuii)	Yellow grey golden brown or pinkish	furniture, joinery, interior lining, veneers plywood.			
Elgon olive/Loliodo (Olea Welwitschii)	yellow grey brown with dark streaks	heavy decorative furniture, bridges and decking, flooring, decorative veneer, heavy construction.			
East AFrican Olive/ Musharage (Olea Hochstetteri)	Pale brown with grey brown beautiful markings.	High class flooring, floor boards in carriages, panelling, car bodies, fancy articles, cabinets and furniture veneers and tool handles.			
Mukeo (Dombeya goevzenii)	Pale brown dark brown core olive streaks	ladders, lorry bodies, tool handles, furniture flooring, boats.			
Muna (Anigeria adolffriederici)	Pale grey brown with a pink tinge	general utility, motor car bodies, joinery, boats, mouldings and furniture.			
Afzelia/Mbanbakofi (Afzelia quanzensis)	rich redish brown	heavy construction work and ornamental curved doors and chests outdoors joinery work, boats.			

Trade Name (botanical name)	Timber colour	Uses
Shikuma/Satinwood (Fagara Macrophylia)	yellow, white to saffron yellow and sweat scented	first class furniture, cabi- nets panelling and boats. heavy construction above ground.
Mpingo/African black- wood (Dalbergia Melanoxylon)	heart wood black and yellow sapwood	ornamental turnery, hand carving of figures ornamental walking sticks.
Australian blackwood (Accacia melanoxylon)	grey brown to dark blockish heartwood	furniture, flooring, joinery cabinets and tool handles.
East African Walnut (Lovao Lyonnertonii)	grey brown to deep olive brown	handsome furniture and cabinets.
Mtandarusi (Trachy Cobium Verrucosum)	Sapwood white pale and reddish	Boats, doors, door frames, flooring, construction

This list is by no means exhaustive and only serves as an example of the wide range of timber that Kenya can offer.

From the above description of these species, it is evident that Kenya has a reasonably good selection of timber available for furniture. The characteristics are varied, for instance: there are both pale coloured and dark coloured timber, there are both coarse and fine textured timber.

Structure of the wood industry in 1978:

The data available is based on the returns from the wood manufacturers and the information now available on all aspects is upto 1978. The trend thereafter is expected to be on an upward curve.

The table below shows the number of establishments by employment groups as at 1973 in Kenya.

	9	1-	4	5-	.9	10	-19	20-	-49	50	+	Tota	1
	(a)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(ъ)	(a)	(b)
Manufacture of wood containers	1	1	1	2	10	1	12	_	-	1	74	6	97
Manufacture of cork products	8	5	12	-	_	2	27	2	51	1	62	18	152
Manufacture of wooden furniture	7	32	85	20	131	26	337	21	684	16	1857	123	3113
Total	16	38	98	22	141	29	376	23	736	18	2012		

The figures under (a) indicate the number of firms for each employment group, while the figures under (b) show the number of employees per each employment group.

Other firms:

Plywood

Kenya has three plywood mills dealing mainly in hardwoods, but one of them is currently peeling cypress. The annual production of plywood was 15,367 m³ in 1978 and 18,262 m³ in 1979. Our plywood exports have been mainly to the Eastern and Central African countries.

Plywood is a traditional sheet material which is being used in construction and housing, woodwork, furniture making, shelves and packaging like tea chests, etc.

Fibreboard:

One fibreboard factory started production in 1974; it was estimated to produce about 6,000 tons annually. It started with an annual production of 2,816 tons in the first year and then the production started going up to nearly half of the estimated production, thus in

1979 the production was 3,235 tons. It is expected that when the initial technological problems have been overcome and the expansion plans initiated accomplished, Kenya will have a larger surplus for export markets.

The major uses of fibreboards are in construction of public buildings and, to a lesser extent, in housing and builders' woodwork. Only a small amount of fibreboard is used in furniture manufacture.

Particleboard:

In Kenya, there exists a particleboard mill which started production in 1975 and a second one is starting production on a trial basis. It was expected that when the first mill is in full production it could produce about 50 tons a day of particle board for both local and export markets but due to unforeseen problems at present the production only caters for home market.

Marketing:

Forniture

Although Kenya imports some wooden furniture, only metal furniture are recorded in the import statistics and therefore no information is available to date.

Most of our export market is just with'n the eastern and Central African countries but some exports to the European countries have taken place.

The table below indicates the destination and value of Kenya's exports of furniture in 1978.

Chairs, seats and their parts

Country	Quantity units $\frac{1}{}$	Value (Kenya Shs.)		
Rwanda	200	5,200.00		
Somalia	100	6,990.00		
Sudan	6,800	58,185.00		
Uganda Zaire Other African countries	100 100 200	2,300.00 800.00 262,212.00		
Total	7,500	335,687.00		

Other furniture

Country Qua	ntity units $\frac{1}{}$	Value (Kenya Shs.)		
Australia	-			
Burundi	400	12,298.00		
Denmark	100	900.00		
Ethiopia	100	4,200.00		
Fed.Rep.of Germany	200	4,100.00		
Nigeria	-	712.00		
Sechelles	700	17,215.00		
South Yemen	100	1,780.00		
Tanzania	-	940.00		
United Kingdom	400	3,203.00		
Aircraft stores and ships	600	8,901.00		
Belgium	.	450.00		
Rwanda	500	19,743.00		
Somalia	2,300	67,102.00		
Sudan	56,800	364,293.00		
Uganda	3,600	125,896.00		
Zaire	100	3,450.00		
Other African countries	600	13,920.00		
Other foreign countries	900	19,600.00		
Total	67,400	669,025.00		

^{1/} to the nearest 100

Medical furniture

Country	Quantity units $\frac{1}{}$	Value (Kenya Shs.)			
Burundi	1,500	18,000.00			
Somalia	100	3,275.00			
Sudan	3,100	44,478.00			
Tanzania	11,200	171,158.00			
Uganda	11,000	185,000.000			
United Kingdom	400	6,500.00			
Total	27,300	428,411.00			

Recently the Kenya Government formed a National council of Science and TEchnology in the University of Nairobi, currently annexed to the Office of the President but so far no report has been published from this Council and as a result very little is known on the furniture and joinery development in this country.

Problems facing at present

- (a) Although Kenya has valuable wood species which can produce high class furniture for export markets, there is a need for UNIDO to provide expertise and assistance both in manufacturing and marketing as well as designing.
- (b) Such experts will help teach the people how to use timber economically because at present the wood is mostly wasted due to the fact that most of the people do not have the know-how and they are less trained. For example, the majority of the

^{1/} to the nearest 100.

people in Kenya believe that good furniture can only be made from solid and sound timber. Also such experts will help the local manufacturers in designing their production processes and their products less expensively.

- (c) The majority of the furniture industries in Kenya operate with very old machines, and, as such, they are forced to employ many personnel for handling, joining and finishing. If the modern machines are used it will be easier to produce high quality furniture at lower cost.
- (d) The Menya Government is now planning to open a furniture and joinery workshop with the help from the Finnish Government for training local people, but this will not be enough because we also need some people with experience who could visit the existing industries and educate them how to apply modern technology.

In conclusion Kenya should have a complete feasibility study on the manufacturing, designing and marketing of furniture, and since some of the local manufacturers do not apply proper technology in processing wood in furniture production, UNIDO, or any other body or any developed country should provide demonstration and training facilities, plus finance, because some of the manufacturers are capable but are forced to continue applying the old methods and technology which are outdated due to their financial difficulties.

Finally, it must be pointed out, once again, that Kenya has a very high quality timber for furniture production and every effort should be made to save for the benefit of mankind.

