



ASSESSMENT OF COMMERCIAL WOOD SPECIES IN YEWA NORTH LOCAL GOVERNMENT AREA, OGUN STATE



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ABSTRACT

The wood industry has the potential to improve economic performance as well as increase state and household revenues. The realization of these opportunities, however, depends critically on the efficiency of utilization, exploitation and marketing of products. Hence, the focus of this study was to know the common commercial wood species, source and availability that can enhance proper exploitation and marketing in Yewa North. Data were collected from saw millers, plank sellers as well as carpenters and furniture makers through the use of structured questionnaires in three selected towns of Yewa North Local Government, Ogun State, Nigeria. Descriptive statistics of frequency, percentages and tables were used to analyse the data collected. The three towns sampled were Ayetoro, Ijoun and Igbogila. Of these three towns, Ijoun and Igbogila had the highest concentration of carpenter/furniture makers (41.7%) each. Igbogila had the highest percentage of plank sellers (48%) and timber contractors (40.8%), while Ayetoro was the least represented in all three sets of respondents. There are more male representatives among the furniture makers (79.2%), plank sellers (56%) and timber contractors (81.6%). The timber contractors indicated that *Albizia* spp. is the dominant species harvested in Yewa North; for the furniture makers and plank sellers, it was *Gmelina arborea* and *Tectona grandis* obtained outside the study area. All these woods were noted to have come from the natural forests. The respondents sampled deal profitably in wood as they had no other sources of income. Therefore, plantation establishment by the state, individuals and private bodies is highly recommended.

Keywords: Wood industry, Saw miller, Plank seller, Furniture maker

INTRODUCTION

Country report on Nigeria showed that forest and trees outside forests contribute between 1.3 and 3 percent of Gross Domestic Products (GDP) as well as major proportion of domestic energy, food and medicinal supply (FAO, 2004). During the past few years much effort has been put into increasing the earnings from other exportable products derived from other sectors like the petroleum and mining sectors, forestry inclusive. An indication of this is the increase in the number of modern forest based industries. The Nigerian wood based industry comprises about ten groups, these are the sawmills, particleboard mills, plywood mills, match industry furniture manufacturing, wood preservation, flush doors, toothpicks, medical confectionary sticks and pulp and paper mill. The wooden furniture parts and component industry is the new addition to the wood industry in Nigeria (RMRDC, 2001).

The future of forest industry development in Nigeria is closely linked with the level of secondary processed wood products. Integrated conversion mills have been established which further process logs into veneer, plywood, pulp and paper and also particle boards. Sawmill is an important industry whose performance and efficiency has been known to serve both pioneers and the future generation. Timber industry has the potential to improve economic performance and increase state and household revenues. The realization of these opportunities, however, depends critically on the efficiency of utilization, exploitation and marketing of products. Hence, there is need to know the common commercial wood species that can enhance proper exploitation and marketing of wood products in Yewa North.

According to Babatunde *et al.* (2017), the Nigerian government in a bid to increase the domestic value in the processing of wood products has put a ban on the export of logs, rough sawn and clean sawn wood. These measures were put in place to make raw materials locally available for secondary processing mill to achieve the

desired value-addition for export. Further processing of timber will ensure economic value of timber and other forest products to be fully harnessed (Larinde *et al.*, 2010). It will also reduce the ecological impacts of utilization on the forests for sustainable management. The wood-based industry in Nigeria suffers from production inefficiency as a result of poor integration, inadequate auditing of goods sold due to unavailable records and non-reinvestment of profit (Larinde, 2008). Therefore, this work was carried out to assess the economic level of commercial wood species as well as the major constraints in the demand and supply of these species in the study area in order to determine their relevance to the livelihood of the respondents and subsequently suggest sustainable options for future availability.

MATERIALS AND METHOD

This study was carried out in Yewa North, a local government area in the west of Ogun State, Nigeria. Even though there were ten political wards under which more than twenty towns are located, this study through purposive sampling chose only the three active wards with thriving sawmills, plank markets and furniture/carpentry works. Ayetoro, Ijoun and Igbogila were selected not just for the active wood business but because they serve neighbouring towns in this same Yewa North local government for wood and wood products. Data was collected from saw millers, plank sellers as well as carpenters and furniture makers in Ayetoro, Ijoun and Igbogila through random sampling. The study also made use of both primary and secondary data. Primary data was obtained with the aid of one hundred and fifty (150) well- structured questionnaires to obtain information from the respondents made up of saw millers/timber contractors; plank sellers and carpenter/furniture makers in the study area through oral interviews. For each class of respondents, fifty (50) people were randomly sampled in the order 10:20:20 for Ayetoro, Ijoun and Igbogila based on the number of towns represented by each (two towns for Ayetoro and

four towns each for Ijoun and Igbogila). Secondary data was also collected from the internet.

Descriptive statistics was used to analyze the data collected into frequency tables, percentages and bar charts.

RESULTS AND DISCUSSION

Socio-Economic Characteristics

The three towns sampled were Ayetoro, Ijoun and Igbogila (Table 1). Of these three towns, Ijoun and Igbogila had the highest concentration of furniture makers (41.7%) each. Similarly, Igbogila had the highest percentage of plank sellers (48%) and timber contractors (40.8%), closely followed by Ijoun with 32.0% and 38.8% for plank sellers and timber contractors respectively. From Table 1, it is evident that Ayetoro was the least represented for the stakeholders probably because Ijoun and Igbogila served two different towns each. There are more male representatives in the furniture (79.2%), plank sellers (56%) and timber contractors (81.6%) than the females (Table 1). This showed that in Yewa North, the wood industry is dominated by the men. This does not come as a surprise because everything about the wood industry activities involves strength, dirt and time consuming corroborating the research findings that all the furniture makers were males in selected parts of Nigeria; Abeokuta South (Ogunjobi *et al.*, 2018), Lafia, (Alao and Kuje, 2012) and in Port Harcourt, (Aiyelaja *et al.*, 2014). Regardless of this high percentage, a good number of the women folk get their livelihood as plank sellers. This also supports the submission of ILO (2013) that more women work in the informal sector though their contribution to value addition is not included in national accounts.

It was observed that the wood industry as categorized under the class of respondents consists of more youth (average of 60%) than middle aged. This is however a good trait as these industries needs able bodied men who will be available for a long time for the continuous existence and functioning of these industries. For the three classes of respondents, over 80% are married; consequently, a lot of lives are involved in the livelihood benefits attached to wood industry in Yewa North. However, the three classes of respondents have obtained a level of literacy, as over 70% were educated up to the secondary school level. Considering this level of education among the respondents, it is therefore not a surprise to find more respondents (over 70%) who had spent less than 20 years on the job as it seems they join the workforce as soon as they left secondary school. The level of literacy among the respondents is evident in the safety concerns, production and market strategies displayed in the various industry visited supporting the view of Ajayi and Ojutiku (2008) that reasonable literacy level will aid technology acquisition demonstrated by extension agents in (Ogunjobi *et al.*, 2018).

Identification of Common Commercial Wood

The wood in high demand identified in an area could be sourced from within or outside depending on the preference of consumers, price and seasonality among other factors. Sometimes, the available species might be indigenous from natural forest or exotic from established plantations. Figure 1 below showed that the respondents have different preferences. The timber contractors indicated that *Albiziaspp* was the dominant species harvested in Yewa North while for the furniture makers and plank sellers; it was *Gmelina arborea*. This can only mean that the *Gmelina arborea* being sold by plank sellers to the furniture makers were obtained outside Yewa North. This is closely followed by *Milicia excelsa* (Iroko) and *Anogeissus leiocarpus* (Ayin) for timber contractors and plank sellers as well as *Tectona grandis* (teak) and *Milicia excelsa* (Iroko) for the furniture makers. The preference of these exotic species by carpenters and furniture makers for construction works contradicts the findings of Arowosoge *et al.* (2008)

where species such as *Mansonia altissima*, *Khaya ivorensis* and *Cordia millenii* were preferred for furniture making in selected cities in Nigeria. It can be deduced from Figure 1 below that some indigenous species are readily available for supply by the timber contractors but sometimes customers' preference for exotic species like *Gmelina arborea* and teak might call for sourcing from neighbouring states and communities to meet the demand.

Source of Commercial Wood Products in Yewa North

The result of the study carried out showed that the natural forests were the main source of commercial wood for the timber contractors (100%) in Yewa North (Figure 2). These woods go to the sawmillers and plank sellers at the levels of 90% and 10% respectively. However, 87.5% of the carpenters and the furniture makers get their wood products from the plank markets while 12.5% get directly from the sawmillers/timber contractors (Figure 2). All timber contractors fell their trees from natural forests and acquire felling permit before harvesting the trees. They also provided information on the shortage of state owned plantations as the available plantations were young and privately owned

Availability and Preference of Commercial Wood in the Yewa North

Age is an important factor when it comes to the demand and supply of commercial woods as seen from this study. As indicated on Table 2, all the respondents agreed that the age of a tree is important in felling, selling and utilization of wood. This may be due to the fact that most wood properties are positively related to maturity of the wood. Another important factor that affected the preference of wood felled by timber contractors; wood sale by plank sellers and consumers' choice at the furniture/carpenter's place in Yewa North was the available wood at a particular time of the year.

The result of this study also showed that wood products are available throughout the year as gathered from all the respondents. However, the plank sellers usually experience price fluctuation due to seasonal changes (35.4%), cost of transportation (22.9%), production cost (12.5%) and plank storage (25.0%); whereas the timber contractors and furniture/carpenters do not experience such. Moreover, the plank sellers report high patronage during the rainy season as only few of them get consistent supply of wood while others will lack. This will make only those with goods to experience better sales than their counterparts. However, the furniture/carpenters and timber contractors observed better sales during the dry season. A good reason for this as noted by the timber contractors is the easy movement of logs and accessibility of forests. Different factors can affect ability to meet production target; one of which is fuel scarcity, in this case, the stakeholders get the fuel at the available price just to meet their targets.

Future of Commercial Wood in Yewa North

Throughout history, wood and wood products have played a prominent role in window and door making, roofing, flooring and framing in building construction. In many parts of Europe and North America, wood and wood products of various types are used in whole building (walls and foundation inclusive) in residential, commercial and industrial buildings, farm dwellings and service buildings (Willenbrock *et al.*, 1998). In Nigeria, wood is majorly used in roof construction; with the building industry alone consuming about 80% of the country's estimated 20 million cubic meters of annual lumber production (Lucas and Olorunnisola, 2002).

The response gathered from the sampled population has shown that dealing in commercial wood is profitable. Over 70% of those in the furniture/carpentry section, the plank sellers and timber contractors sector had no other sources of income.

CONCLUSION

The most identified commercial woods on the basis of utilization and sales were *Gmelina arborea* (Gmelina) and *Tectona grandis* (teak), both of which are exotic species; as well as indigenous species like *Milicia excelsa* (Iroko) and *Anogeissus leiocarpa*. The represented population of Yewa North involved with commercial wood as a means of livelihood cannot be allowed to join the unemployment market in pursuit of new sources of income when all the trees in the natural forests have been totally exploited. The untold effect of this continuous exploitation on the natural forests of Yewa North is better imagined than experienced. A good number of the respondents have recommended that plantations of the exotic species should be established either by the State Department of Forestry, private bodies, Individuals or as a community effort.

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Table1: Socio-economic characteristics of respondents

VariableCategory		Furniture/Carpenter		Plank sellers		Timber contractors	
Freq.	%	Freq.	%	Freq.	%	Freq.	%
Town							
Ijoun		2041.67		1632.0		1938.8	
Ayetoro		8	16.67	10	20.0	10	20.4
Igbogila		20	41.67	24	48.0	20	40.8
Total		48100.01		50100.0		49100.0	
Gender							
Female		5	10.4	22	44.0	9	18.4
Male		43	89.6	28	56.0	40	81.6
Total		48100.0		50100.0		49100.0	
Age							
21-40		29	60.4	34	68.0	25	51.0
41-60		19	39.6	14	28.0	23	46.9
61-80		-	-	2	4.0	1	2.0
Total		8100.0		50100.0		49100.0	
Marital status							
Single		816.7		9	18.0	36.1	
Married		40	83.3	41	82.0	4489.8	
Widowed		-	-	-	-	24.0	
Total		48100.0		50100.0		49100.0	
Religion							
Christianity		24	50.0	27	54.0	15	30.6
Islam		24	50.0	23	46.0	34	69.4
Total		48100.0		50100.0		49100.0	
Education							
Primary		6	12.5	3	6.0	8	16.3
Secondary		34	70.8	45	90.0	37	75.5
Tertiary		-	-	-	-	1	2.0
Non-formal		8	16.7	24.0		3	6.1
Total		48100.0		50100.0		49100.0	
Service years							
1-10		16	33.3	32	64.0	1632.7	
11-20		20	41.7	7	14.0	20	40.8
21-30		12	25.0	9	18.0	11	22.4
31-40		-	-	2	4.0	2	4.1
Total		48100.0		50100.0		49100.0	

Source: Field study, 2018

Table 2: Factors affecting the availability of Commercial Wood in Yewa north

Variable	Category	Timber Contractor		Plank Sellers		Carpenter/Furniture Makers	
		Freq	%	Freq	%	Freq	%
Wood preference	Age	48	98.0	47	94.0	48	100
	Availability	49	100	50	100	48	100
Price Fluctuation	Cost of transportation	-	-	11	22.9	-	-
	Seasonal changes	-	-	17	35.4	-	-
	Production cost	-	-	6	12.5	-	-
	Plank storage	-	-	12	25.0	-	-
Patronage	Dry	49	100	1	2.0	46	100
	Rainy	-	-	49	98.0	-	-
Availability of wood	Yes	49	100	50	100	48	100
	No	-	-	-	-	-	-

Source: Field Study (2018)

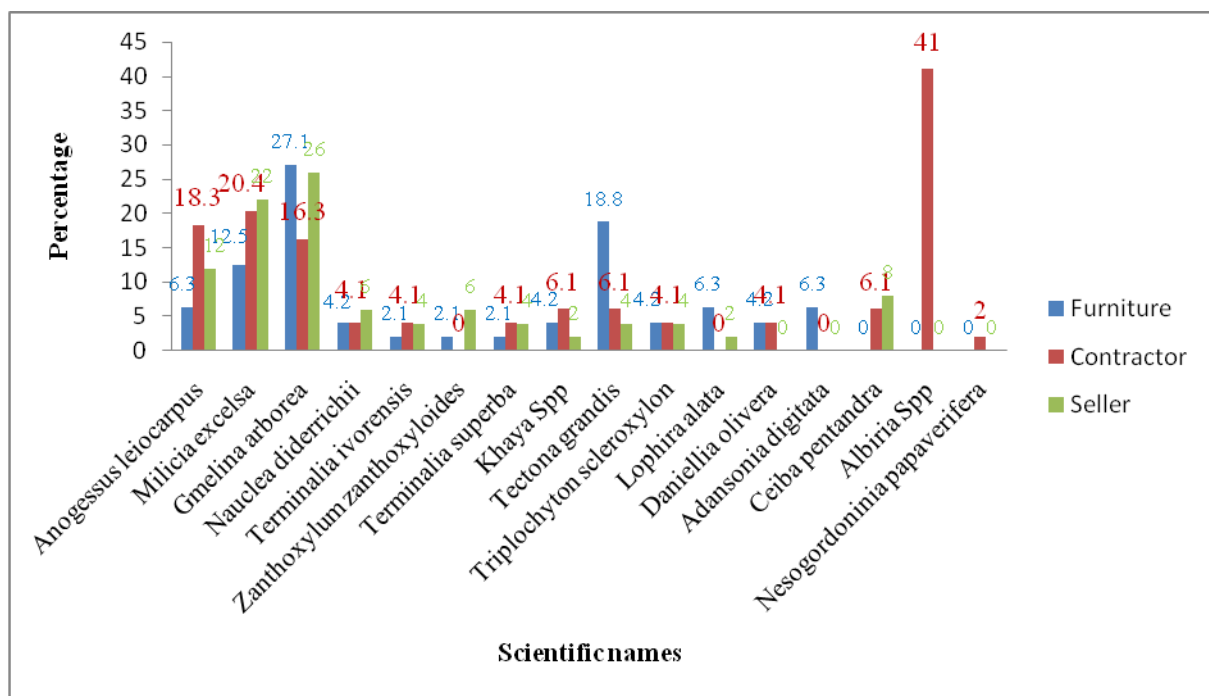


Figure 1: Available commercial woods at Yewa North, Ogun State.
Source: Field Study (2018)

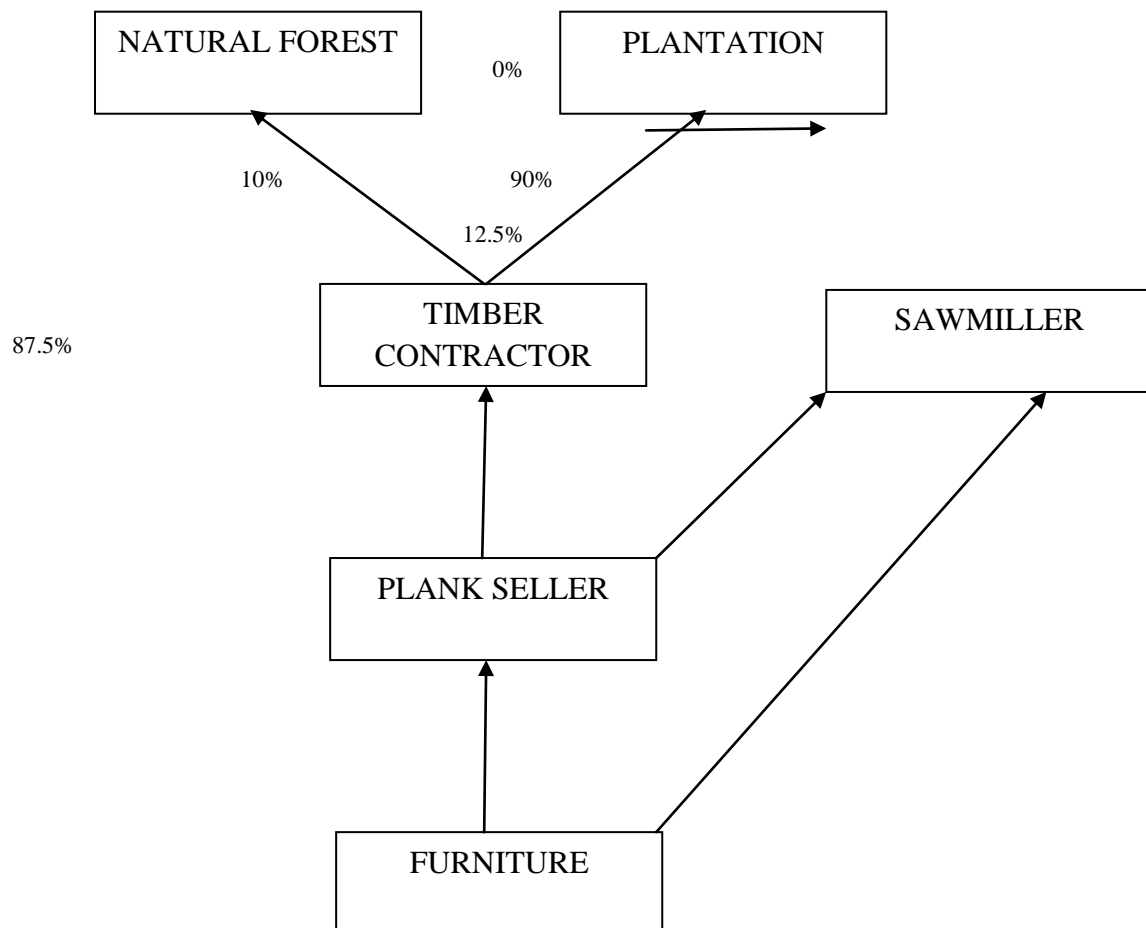


Figure 2: Sources of Commercial Wood in Yewa North.
Source: Field Study (2018)