Wood and Wood–Products Movements from and into Nigeria: The Need for Sustainability of Resource Base and Trade

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Abstract

Harvesting and trade in forest products, especially wood, have contributed to local and international economy. These activities have also been part of the mainstay of Nigeria's economy until focus shifted to crude oil some years ago. However, the present reality is that the country's mono–economy based on petroleum products can no longer sustain her burgeoning population. Suggestions are that the economy should be diversified with the development of, and value–addition to, renewable natural products for local and export being part of this proposed economic diversification. Consequently, it is necessary to be acquainted with necessary information regarding import and export of these resources such as secondary processed wood products, most of which the Nigerians government gave approval to for export. It is not enough to have only this information but also those that have to do with their implications on resource base, current available technology and the need for investment in research capacity. These are the highlights of the content of this article aimed at contributing to the efforts at diversifying Nigeria's current mono–economy.

Key words: *Renewable natural resources, wood export and import, research and development*

Introduction

Wood removal from forests – for different applications – predates the eventual amalgamation of the erstwhile geographical entities known as the northern and southern protectorates to form what is currently known as Federal Republic of Nigeria. However, in order to satisfy the demand for wood, mostly for export to European markets and their wood–products manufacturing industries, the intensity of wood removal increased to a point that towards the end of the 1800s, the colonial government began the establishment of forest reserves on lands that the government set aside for this purpose. Apart from this, there were also efforts aimed at setting up forest plantations. Irrespective of these initiatives, pressure did not reduce on natural forests, particularly as it concerns the removal of some highly sought-after wood species. This situation continued into the 20th century and by the 1970s the then military government banned the exportation of unprocessed round wood.

Currently, the Federal Government of Nigeria's policy does not approve the export of round wood and sawnwood. The policy only approves the export of processed wood inform of furniture components (this includes; moldings, sleepers, and wood floors) and Gmelina wood in any form. The special concession accorded Gmelina round wood is as result of its earlier marketing problem in Nigeria and inability of the moribund pulp and paper industry to utilise Gmelina that outgrew rotation age as raw material for pulping. The case in the past was that supply was more than demand for Gmelina wood locally within Nigeria thereby requiring export-oriented market policy for it. It is noteworthy that import of sawnwood, veneer, plywood and particleboard are prohibited while fibreboard import has some approvals because this product is not manufactured in Nigeria. Fiberboards are imported for consumption in Nigeria from countries such as Brazil, Portugal and Spain (Omoluabi, 1994).

It was observed that export of wood products from Nigeria later declined significantly as a result of increase in per capita income particularly as a result of higher prices earned from sales of crude oil, which generated a lot of local demand for sawn wood in the building and construction industries during the period simply described as "oil boom" era. This was the epoch in Nigeria (and today appears to be part of that epoch) when attention shifted from renewable natural resources and was focussed on crude oil exploration, exploitation and export. A lot of money was generated from this finite resource thereby enriching the country but this wealth, one way or the other, got frittered away. During this period wood that would have been exported were consumed locally.

Nevertheless, current realities have shown that the seemingly economic prosperity earlier experienced in the country was not only unsustainable but also appear to have contributed to impoverishment of a large proportion of the population through some convoluted means partly explained under what is described as resource curse, a term first used by Richard Auty in 1993 and also espoused in an article by Erakhrumen, (2010). The resource curse, also known as the paradox of plenty, refers to the paradox that countries with an abundance of natural resources (such as fossil fuels and certain minerals), tend to have less economic growth, less democracy, and worse development outcomes than countries with fewer natural resources. There are many theories and much

academic debate about the reasons for, and exceptions to, these adverse outcomes. Although, most experts believe the resource curse is not universal or inevitable, but affects certain types of countries or regions under certain conditions (Ross, 2015; Venables, 2016; Wikipedia, 2019).

There was poor emphasis on capacity development (human and infrastructural) during this "oil boom" period which eventually led to poor capacity, economic crunch and weak local currency. Successive governments in the country, realising this massive error committed by operating a mono–economy that was not well managed, decided to collectively and successively pay lip service to diversification of the economy but with no will to confront the challenge and do the needful. Capacity for local production for export is currently weak and one of the ways by which foreign exchange earnings and by extension the value of local currency can be shored up is through exportation of value–added renewable natural resources and other locally developed products and services. This assertion is what necessitated this article that has been aimed at concisely reviewing the state of wood and wood–products import into and export from Nigeria with a view to draw attention to how to maximise these movements in sustainable beneficial manner to local economy.

Trade in Forest Products

The global market for forest products has expanded considerably since the 1980s, from 125–130 million tonnes per year in the mid 1980s to around 150–155 million tonnes per year at the start of the 1990s and some 170–175 million tonnes per year as at year 2000 (FAO, 2000). Two principal forces drive the growth; construction activity and demand for paper products, both of which are highly sensitive economic indicators. These in turn gain their impetus from population growth, improving standards of living and high literacy levels in many parts of the world. Specifically, lumber is marketed in three major grades: structural–grade, appearance–grade, and factory–grade. Structural–grades are used as load–bearing (support) lumber in houses and other buildings. Structural lumber is typically covered by other materials in the finished building, so the appearance of structural lumber is often not a major consideration.

Houses and buildings are constructed from wood known as structural lumber. Appearance–grade lumber is valued for colour and texture. It is often used for flooring, panelling, shelving, and interior trimming. This grade of lumber is often stained or left in its natural state because of its quality appearance. Appearance–grade lumber of lower quality is used for crating and pallets, fence boards, and light general construction. Factory–grade lumber is used to manufacture furniture, windows, doors, moldings, stairs, cabinets, and many other products. While both structural–grade and appearance–grade lumber typically is not tooled extensively for use, factory–grade lumber is usually tooled extensively to form furniture and other products. Additionally, the grading system for processed wood–products and trading for export is referred to "cutting system" which refers to the proportion of clear or sound face cutting which can be produced from a piece.

A cutting is a rectangular piece of sawn timber (wood block/strip) which can be obtained by cutting either along the length, across the width, or a combination of both. Grades are exclusively based on appearance (clear) and consideration is given to knots, wormholes, cracks, splits, streaks, grains, colour and sapwood. Three grades are common: Prime (Grade A), Standard (Grade B), and Tavern (Grade C).

Grade A: It's usually practically free from all defects. That is no knot, no crack, no pinhole, no sap, and no mineral. This is used where fine appearance and high wear resistance are both desired. Varying colour of the wood would not be a defect. (Variation in natural colour of the wood is allowed).
Grade B: Must have one of the faces free from all imperfections. This admits tight sound knots and slight imperfections in dressing and must be useable without waste. It is next in use where Grade A wood is in short supply.

Grade C: This grade admits more defects more than Grade B such as light stains, little sapwood allowed. This grade is used mainly where requirement is for services rather than appearance e.g. industry/ factory floors.
SURFACE GRADING: Woods are also described/graded based on surface value viz; One side planed = (S1S); Two sides planed = (S2S); One edge = (S1E); Two edges = (S2E); It may also be combinations of sides and edges e.g. S1S1E, S2S1E, S1S2E or S4S.

Wood Import into and Export from Nigeria

Wood export from Nigeria can be simply described as the trade of wood and its product obtained from Nigeria with the rest of the world whereas wood import refers to the wood and wood–products that are brought into the country. These imports and exports are usually through the seaports but there are few cases of land border imports and exports. Wood import through the land border are minimal and mainly occur around Nigeria and Cameroon border, although there are significant wood exports through the land borders of Nigeria with Cameroon to the east, Niger and Benin Republic to the west, and Chad Republic to the north. There are no adequate records of data on most of these movements through the land borders even as there are available limited

records of inflow and outflow with the Nigeria Export Promotion Council (NEPC).
As earlier as the 1970s, Adeyoju, (1975) noted that timber is the only forest product accorded statistical recognition in the national account whereas a lot of other forest products that are non–timber forest products abound which are exported. These include gums, silk, shea nuts, and butter, resin, various fibres, and ivory and reptiles' skins. In the account of FORIS, (2001) it was claimed that Nigeria exported forest products to the value of US$18,545,000 in the year 2001 with sawn wood, wood–based panels, paper and paperboard, industrial round wood and other wood products having monetary value of US$13,890,205, US$37,090, US$649,075, US$871,615, $3,149,947 respectively. In order for wood export from Nigeria to be legal, the exporting company is expected to register with the NEPC and the council assists with export information and approved prices. The council also monitors the companies export activities on behalf of the Central Bank of Nigeria.

As stated earlier, exportation of wood and wood–products from Nigeria declined for some reasons that have to do with increase in local consumption during the "oil boom" there encouraging the local sawmills to adapt their equipments in such a way that all types of logs were converted to keep the mills running and ensure supply, thus the best logs no longer had an absolute chance of being processed for export. Furthermore, the ban on export of unprocessed timber also reduces the volume of export because majority of stakeholders lack the capital to go into processing of this timber in acceptable form that could be exported. In addition, hostility during the military era affected the country's trade relationship (Akande and Olokesusi, 1999). Nevertheless, exportation of some wood species from Nigeria still occurred and increasing trends are expected. It is important to note that the wood to be exported must be supported by documents such as the under listed:

1. Certificate of incorporation of the export organisation or company.
2. Certificate of registration from the Nigeria Export Promotion Council.
3. Letter of support of the Federal Department of Forestry.
4. Evidence of allocation Asycuda number to such an Exporter by the Nigeria Customs Service.
5. Filling of an NXP form with a legally established bank in Nigeria and opening of a domiciliary account into which such export proceeds are paid.
6. Passage of the above documents attached with an SGD "Single Goods Declaration form" through the Customs Processing Units.

The shipping and forwarding agents is expected to load on board their vessels, export cargoes that are supported by approved documents that include the under listed:

1. Original Certificate of 100% Physical Examination from the Nigeria Customs Services – Export Seat.
2. Original Certificate of Clearance of the National Drug Law Enforcement Agency (NDLEA).
3. Original Certificate of 100% Physical Examination of the Federal Department of Forestry – Federal Ministry of Environment.
4. Receipt of payment of the Nigerian Port Authority – NPA Shipping Note– where applicable.
5. Copy of the Nigerian Customs Service– Single Goods Declaration Form (SGD) that has gone through the C.P.U. and finally certified and endorsed by the Nigerian Customs Service – Export Seat.
6. Copy of the Phytosanitory Certificate of the Nigerian Plant Quarantine Service.

Trade in wood products is done both at the local and international levels and are normally conducted based on written trade agreements so that what the buyer wants will not be different from what the customer will supply. This is because production is based on buyer's request and if there is slight variation in specification it might affect usage. Also, if the buyers reject the product the seller may have difficulties in getting the product sold to another buyer. In preparing the agreement whatever the buyer wants and in whatever forms are clearly stated and the seller also sign to say that he can and will be able to supply accordingly. The agreement stipulates, among other things, the followings: quantity, size, grade, species, product and condition of seasoning, surfacing and working, grading rules, manufacturer and re–inspection. Products are in different dimensions (sizes) depending on the contract or order of purchase signed by buyers and producers or suppliers.

Sample of a Timber Purchase Contract Paper

Seller:

Agent:

Buyer:	HOL Import–Export Gmbh, Stenzelring 3,321107 Hamburg, Germany.
Species:	RED APA Strips (Furniture Components)
Quantity:	Container load of min. 18 cbm each
Quality:	FAS free of sap, no knots, no worm, and straight grain.Smooth, straight and even cut, properly square edged and crosscut
Dimensions:	25 (+3)mm X 600 (+20) mm/900(+20)mm/120(+20) mm/150 (+20) mm/180(+20) mm/2100(+20) mm
Price:	US$ 580.00/per cbm, FOB
Shipment:	October, 2019
Destination:	ANTWERP/ROTTERDAM vessel to be nominated by WATA Timber
Payment:	90% cash against full set of documents including 3/3 original Bill of Lading 10% after arrival of the Goods
Special Remarks:	(1) All timbers to be loaded on pallets with 5/8 steel strapping wire. (2) The Timber is to be inspected by WATA'S Repre sentative before loading into the container. (3) If the delivery period is expired an extension of 14 days Will be granted before buyer can decide on a further extension or cancellation of the contract.

……. ……. ……. ……..……

(For Seller) (For Buyer)

Date……..…….…….. Date…….…….…..……..….

Some Properties Used by End–Users in Assessing Furniture Parts

As noted earlier, the government of Nigeria – through its approved agencies – mainly approves the export of furniture components from the country, therefore it should be of interest to be acquainted with some of the properties customers and end–users look out for in order for trade to be successful. The followings are some of the properties as documented by Troadio, (1986).

1. Grains – refers to the arrangement and the direction of alignment of wood elements when considered en masse. Grains may either be straight or interlocked. Grain is an important criterion in the selection of materials for decorative purpose in furniture due to the figures produced in sawing the wood. Figure is the pattern or design produced on a smooth longitudinal surface of the wood as a result of the arrangement of the different tissues and nature of the grain.
2. Texture – refers to the size and the proportional amount of woody elements. In hardwoods, the tangential diameter and the number of vessels and the rays are the best indicators of texture. The texture may be classified as moderately fine to fine, and moderately coarse to coarse.
3. Specific gravity – weight of wood substance per unit volume. Specific gravity may be subdivided into low,

medium and high.

4. Workability – summarise the suitability for sawing, planing, shaping, turning, boring, mortising, and other properties related to cutting and shaping of wood.
5. Shrinkage properties – refers to the amount of physical changes in wood when it is exposed to varying climatic conditions.
6. Seasoning characteristics – refers to the ease in drying wood in conventional lumber drying kilns. Wood may be easy to dry, moderately difficult to dry, and difficult to very difficult to dry.
7. Finishing properties – relates to surface quality and appearance after wood working and it includes filling and sealing, staining, painting, transparent coating and print–ability.
8. Modulus of rupture – this refers to the strength property of wood.

Implications of Potential Trade Increase in Secondary Processed Wood Products

There is no doubt that increasing trade in processed wood within the country and those for export will have implications on rate of sourcing and resulting conditions of the resource base. This is because consumption of this product is expected to increase in the developed and emerging economies (Erakhrumen, 2011) coupled with the fact that supplies to these developed countries are expected mainly from these developing economies. It is therefore imperative that strategies that will aim at balancing diverging priorities of sustainable economic and social development on one hand and ecological sustainability on the other should be earnestly and vigorously pursued since forests and forestry is still expected to play the traditional roles of ecological stabilisation and at the same time engender economic development (Erakhrumen, 2012). It is thus, implicit in the foregoing that there is the need to plant more forests as suggested in publications (e.g. Erakhrumen, 2011; 2012).

In addition, there is need to highlight the fact, as previously done, that local industrial capacity is still currently weak. For instance, the seemingly prolific local sawmills within the country declined in terms of capacity and has also been collectively static concerning cubic lumber recovery (Badejo and Giwa, 1985; Rappold et al., (2007); Okunomo et al., (2008); Egbewole et al., (2011); Erakhrumen and Idele, 2016). The likely implication of this is that the volumes of recovered wood either from logs or already machined wood appear to be within the same range that accomodate so much wood waste and residues (Erakhrumen and Idele, 2016; Larinde et al., 2018) while the number of these sawmill including their capacity have been progressively reducing (Aruofor, 2000). Therefore, necessity exists for the improvment of technology/associated macineries (local/imported) and massive investments that have helped in other climes to improve local economic empowerment.

There is no gainsaying that Nigeria and sub–Sahara Africa is a geographical region widely accepted to possess abundant renewable natural resources and human population but with poor strategies for developing this massive population in terms of improved contemporary knowledge. This is the main reason behind the current underdevelopment in the region as neither lack nor availability of renewable natural resources determines how poor or wealthy a geographical entity could be but lack or availability of appropriately and adequately skilled human capital to develop and make use of science/technology in adding value to these resources (Erakhrumen, 2007). It therefore means that efforts at scaling up required investments in research and developmental priorities that will benefit the local scenario in the short and long run are necessary. The current situation whereby good research outputs are allowed to gather dust on the shelves is not only to be condem but also to be prevented.

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