

MARKETING OF SOME SELECTED NON- TIMBER FOREST PRODUCTS IN BOLUWADURO LOCAL GOVERNMENT AREA OF OSUN STATE

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Abstract

In the past, plant and bush meat values to people were disregarded. This led to the indiscriminate harvesting of the resources. Recently however, there is great awareness about the values of the Non-Timber Forest Product (NTFPs) to the people and the society at large, for both consumption and economic ventures. Random sampling was used to assess the marketing of some selected Non-timber Forest products in Boluwaduro Local Government Area of Osun state. The simple descriptive analysis revealed that middle aged people between the age group of 40-49 years (48.9%) and only 18.9% of the respondents were within the age group of 50 years and above mostly were involved in the marketing activities and out of this also women dominated with (80%). The study also indicated a regular income source from the NTFPs if properly managed of (#1201-#1400) per week. Problems associated with the marketing activities were also identified and possible solutions were proffered.

Forest has been defined as a plant association predominantly of trees and other woody vegetation (society of America foresters, Washington D.C 1964). In essence, a forest is an ecological complex involving an intricate inter relationship of trees, shrubs, vines, other plants and animal life, soil, sub soil, atmosphere and water. In Nigeria is labelled major forest produce in all forestry acts. However, the forest produces many other products which are widely used in various forms, but due to the fact that their consumption and marketing were not recognised they were termed minor forest produce.

Jimoh (2004), defined non-timber forest products as all forest products other than timber that are extracted from the forest ecosystem and utilized within the household, marketed or have social cultural and religious significance. Also Jimoh and Adebisi (2005) defined non- timber products as a vast number of edible and non-edible products gathered from the forest by the forest edge (rural) people or a team of urban people for their subsistence or for local and external trades.

Rijsort (2000), defined Non-Timber Forest Products (NTFPS) as all tropical forest product plants and animals or plants thereof, other than industrial timber which are (or can be) harvested for human use at the level of self-support or for commercial purposes.

Non-Timber Forest Products (NTFPs) constitute an important source of livelihood for millions of people across the world. In India alone it is estimated that over 50 million people are dependent on NTFPs for their subsistence and cash income. Forest-based activities in developing countries, which are mostly in NTFPs area, provide an equivalent of 17 million full-time jobs in the formal sector and another 30 million in the informal sector, as well as 13-35% of all rural non-farm employment (Duong, 2008). NTFPs were for long overshadowed by timber products and has received increased policy and research attention only in the last few decades. This policy and research attention were based on three propositions (Arnold and Ruiz-Perez, 2001): The first was that NTFP contribute significantly to the livelihood and welfare for households living in and adjacent to forest.

Secondly exploitation of NTFP ecologically less destructive than timber harvesting and other forest uses, and the third point was that NTFP production and development by giving a foundation for sustainable economic development could reduce tropical deforestation. These propositions encouraged researchers to put much effort on the determination of monetary values of NTFPs as well as their contribution to overall livelihoods. For instance, studies by Neuman and Hirsch (2000) and Campbell and Luckert (2002) showed that NTFPs contribute from over 50% of the total livelihood income in some areas to less than 20% in others. Regarding the positive impact of NTFPs to forest conservation. Duong (2008) opined that “harvesting NTFPs usually has a lower impact on the forest ecosystem than timber harvesting and can provide an array of social and economic benefits, particularly to community operations, and can therefore be an important component of forest ecosystem management”.

The NTFPS therefore refer to both tangible and intangible forest products by local people for the home consumption (food, fibre, and forage) as well as essential source of cash and incomes. These non timber forest products (NTFPS) include fuel wood, honey, charcoal, vegetables, fruits, medicinal plants, snails, barks, herbs, and shrubs (Jimoh 2004).

However, difficulties exist in establishing the real cost and returns from NTFPS activity, because of its joint production nature and its integration with their household activities, its linkage to multiple livelihood objectives, it is difficult to understand and hence predict peoples interaction with markets but evidence has shown that extraction of NTFPS contributes to local economy (Larinde and Aiyelaja 2006).

It is useful to further sub-divide the non- timber forest product into non- wood and those that are woody. The wood products

comprise fuel wood, poles, chewing sticks and converted products derived from elements such as charcoal and sponge while the non- wood comprises of the vegetables, fruits, bush meat, snails, honey, local wines, gum, mushroom etc.

According to (Jimoh 2004).NTPFS were exclusively free to charge for anybody that could go into the forest to harness them. Due to the scarcity of most of the NTFPS now as a result of deforestation as noted by Nwoboshi (1986) and present awareness of their importance more value is being added which has made them more (NTFPS) highly marketable. (Osomecho 1991) noted that rural women were found to be making between #115 and #500 in the fruit gathering and sale. The low income may not be unconnected with the fact that NTFPS markets have been in the middle of a drastic evolution.

Marketing of NTFPS connects marketing in all its possible variations since NTFPS comprise a variety of all products that satisfy the needs and wants of all kinds of end-users some of the products are bought by the final consumers without any major processing (e.g. fruits, mushrooms e.t.c.) others are bought by industrial consumers who use them as raw material, in making other industrial products (Aiyelaja, 2006). Despite the fact that both the rural and urban economies are highly dependent on NTFPS such as leaves, fruits, fuel wood, mushroom, and others generate income and provide food and medicine, little or no attention is given to this important natural renewable revenue source.

Research Methodology **Information about Osun State**

Nigeria covers an area of about 983,213km² and about one third is classified as forest (Ogunlade 1993), while Osun State covers a total area of approximately 8,602km² and is bounded in the south by Ogun State, in the north by Kwara State, in the west by Oyo State and in the east by Ondo State. Agriculture is the

traditional occupation of the people of Osun State. The tropical nature of the climate favours the growth of a variety of food and cash crops. The main cash crops include cocoa, palm produce, kola, while food crops include yam, maize, cassava, millet, rice and plantain.

The vegetation consists of high forest and derived savanna towards the north. The high forest often called tropical rainforest areas are dominated by forest tree species such as *Melicia excelsa*, *Terminalia ivorensis*, *Terminalia superba*, *Khaya grandifoliola*, *Nuclea diderichii*, *Lophira alata*, *Lovoa trichiloides*, *Trema guineensis*, *Musanga cercepiodes*, *Sterculia tragacantha* and *Ceiba pentandra* among others. Savanna tree species include *Annona senegalenses*, *Brideia ferrugina*, *Casia sieberiana*, *Khaya senegalensis*, *Nauclea latifolia*, *Prosopis africana*, *Vitalleria paradexum*, *Parkia biglobosa*, *Terminalia glauca* and *Daniella oliveri*. These trees and other living components of the area have been disturbed by annual forest fires and other human activities.

A sizeable part of the old Oyo forest reserve are located in the present Osun State. These include Ago Owu Forest Reserve with 32,116 hectares in the high forest area, Oba Hills Forest Reserve with 3,367 ha each in both the high forest and derived savanna la reserve has 259 ha in the high forest area Ife NA, Oni and Ikeji/Ipetu have 8,598;5,283; and, 3,548 ha, respectively, in the high forest area. The grand total of Osun State Forest Reserve is 58,839.32 ha comprising of 53,172.40 ha in the high forest and 5,666.92 ha in the savanna. Osun state is located between longitude 040⁰33¹E and latitude 07⁰28¹N. Usually the wet season last between March and October, while the dry season comes between November and February. Mean annual rainfall is between 2,000 and 2,200 mm. Maximum temperature at 32.500, Relative Humidity 79.90% (Ayelaja &

Ajewole 2006).

The study area is Boluwaduro Local Government Area of Osun state. It comprises four towns namely; Otan Aiyegbaju, Oke Irun, Igbajo and Iresi, with Otan Aiyegbaju as the Local Government Headquarters. Random sampling was used to select respondent in each of these towns. Primary data were collected with the aid of structured questionnaire and interview schedule. Research assistance or facilitators were selected based on their ability to communicate in English and Yoruba. They were trained on how to administer the questionnaire and record responses. A total of 100 questionnaires were administered. The total number of the questionnaire for each town was 25. A total of 90 were recovered. Additional information was sourced from relevant literature, journals, textbook and magazines to complement the primary data. All the information obtained from these constituted the secondary data used in the study. The data collected were analysed using simple descriptive analysis. For the social characteristics of respondents the models used in the analysis include

Percentage formula expressed as:

$$\frac{\text{No. of respondents in each town}}{\text{Total no. of respondents of all the towns}} \times 100$$

Gross margin = selling price – cost price

$$\text{Marketing efficiency} = \frac{\text{Selling price}}{\text{Total marketing cost.}}$$

Research Questions

- i. To examine the socio-economic characteristics of sellers and traders of NTPFPs in Boluwaduro Local Government Area.
- ii. To examine the marketing of NTFPs in Boluwaduro Local Government Area.
- iii. To identify problems encountered by the traders and suggest possible solutions to the problems

Result and Discussion

Table 1: Age Distribution of Respondents

Age	Igbajo	Otan Aiyegbaju	Oke Irun	Iresi	Total	% Distribution
20-29	4	2	4	3	13	14.4
30-39	4	2	5	5	16	17.8
40-49	10	12	10	12	44	48.9
50 above	5	5	4	3	17	18.9
	23	21	23	23	90	

Data in Table 1 above shows that 48.9% of the respondents were within the age group of 40-49 years. However, only 18.9% of the respondents were within the age group of 50years above. This shows that old or middle aged people are mostly involved in the marketing of NTFPS. This could be due to the fact that younger ones have migrated to urban centres in pursuit of greener pastures with the hope of improving the level of income and living standard (Igben 1988; Ajayi 2000).

Table 2: Gender Distributions of Respondents

Gender	Igbajo	Otan Aiyegbaju	Oke Irun	Iresi	Total	% Distribution
Male	6	3	4	5	18	20
Female	17	18	19	18	72	80
	23	21	23	23	90	100

The gender distribution of NTFPS Shows that women were more involved than men. Hodder and Uliwu (1996) disclosed that more women predominate the marketing of the products, this is true in the study because women constitute 80% while males constitute 20% of the respondent.

Table 3: Marital Status of NTFPS Marketing

Status	Igbajo	Otan Aiyegbaju	Oke Irun	Iresi	Total	% Distribution
Single	2	1	2	2	7	7.8
Married	15	15	16	17	63	70
Divorced	5	4	3	3	15	16.7
Widow	1	1	2	1	5	5.6
Total	23	21	23	23	90	

Table 3 above shows that 70% of the marketers were married, 16.7% of the marketers were divorced. The percentage of single and widowed marketers were 7.8% and the 5.6% respectively.

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Table4: Table Showing Substitute Occupations Engaged in by Respondents

Job	Igbajo	Otan Aiyegbaju	Oke Irun	Iresi	Total	% Distribution
Farming	15	11	16	15	57	63.3
Hunting	5	3	5	5	18	20
Schooling	3	7	2	3	15	16.7
Total	23	21	23	23	90	100

The table above shows that 63.3% were engaged in farming activities apart from marketing, 20% were engaged in hunting while only 16.7% were engaged in schooling. This is in support of the fact that the commonest and important occupation of rural dwellers is farming Olayide, (1982) which makes it easier for them to collect NTFPs from their farmland.

Table 5: Estimated Income Generated Per Week.

Estimated income generated per week (₦)	No of respondents	% Distribution
400-600	7	7.8
601-800	12	13.3
801-1000	7	7.8
1001-1200	19	21.1
1201-1400	35	38.9
Above 1400	10	11.1
Total	90	

Table 5 reveals that majority of the respondents' generated income above #1201-#1400 per week on marketing of non timber forest products. The implication of this finding is that, if marketing activities is properly managed regular income could be saved and later used in ameliorating the poor financial standing of the rural dwellers.

Table 6: Collection and the Distribution of Products

	Igbajo	Otan Aiyegbaju	Oke Irun	Iresi	Total	% Distribution
Rural farming	9	7	8	9	33	36.7
Local collectors	4	5	3	3	15	16.7
Self collection	10	9	12	11	42	46.7
Others	0	0	0	0	0	0
Total	23	21	23	23	90	

Table 6 shows that 46.75% of the respondents collect these non-timber forest products themselves. 36.7% are supplied by rural farmers while 16.7% get them from local collectors. This is due to the fact that most sellers engaged in the marketing of NTFPS have farmlands where they get non-forest produce without having to procure them while others collect from rural farmers who might be their friend's, husbands or relatives.

Table 7: Preservative Methods Used for NTFPs

Preservative	Igbajo	Otan Aiyegbaju	Oke Irun	Iresi	Total	% Distribution
Sun drying	10	10	12	11	43	47.8
Smoking	3	4	3	3	13	14.4
Salting	2	2	1	1	6	6.7
Water preservation	8	5	7	8	28	31.1
	23	21	23	23	90	

Table 7 shows that 47.8% preserved their NTFP by aeration to keep them dry always. This also economised method of storage since no money is incurred in this process. This is followed by water preservation which is 31.1% which is used for honey preservation.

Table 8: Showing Method of Marketing by Respondents

Hawking method	Igbajo	Otan Aiyegbaju	Oke Irun	Iresi	Total	% Distribution
Street hawking	2	1	-	1	4	4.4
Market hawking	8	8	8	9	33	36.6
Road side display	10	9	3	10	41	45.6
Store system	3	3	3	3	12	13.3
Total	23	21	23	23	90	

Table 8 shows that 45.6% of respondents or sellers display their goods on the road side for passer-by or travellers to see and buy while 36.7% hawk their goods within the market.

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Table 9 Gross Marketing Margin for NTFPs Sold Weekly

	Per buying price	Selling Price	Gross Margin	
	Production	transport (N)	per kg(#)	value
Wrapping leaves	free	200	500	300
Herbs	free	100	400	300
Fruit & seeds	free	300	600	300
Charcoal	10,000	15,000	40,000	15,000
Bush meat	600	100	1,400	700
Honey	6,000	1,500	12,000	4,500
Mushroom	free	free	100	100
Snail	400	50	1,000	550

The above table shows margin of NTFPs marketing at retail level. The data shows that gross margin for these markets are high but transportation costs cover most of the expenses.

Table 10 Analysis of Marketing Efficiency of NTFPS

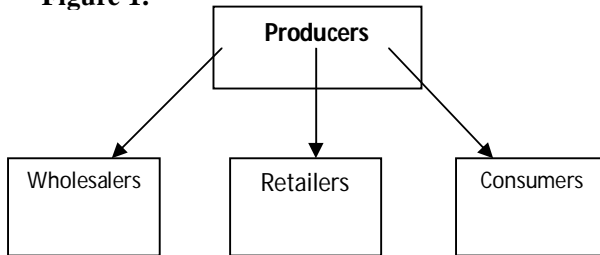
Product	Selling price (#)	Cost of marketing function (N)	Marketing efficiency
Wrapping leaves	500	220	2.3
Herbs	400	110	3.6
Fruits & seeds	600	330	1.5
Charcoal	40,000	27,500	1.5
Bush meat	1,400	770	1.8
Honey	12,000	8250	1.5
Mushroom	100	20	5.0
Snail	1,000	495	2.0

The marketing efficiency at Boluwaduro Local Government Area is very high since the marketing efficiency is higher than 1. This indicates that marketing of non timber products in Boluwaduro local government is profitable business.

Botanical Name	Common Name	Plant Part Used	Uses
<i>Vernonia amygdalina</i>	Ewuro	Leaf, Stem and root	Soup
<i>Zanthoxylum zanthoxonoides</i>	Fagara	root	chewing stick
<i>Morinda lucida</i>	Oruwo	root	-
<i>Nauclaea latifolia</i>	Ogbeal	root	-
<i>Garcinia kola</i>	Orogbo	stom	-
<i>Jatropha curcas</i>	Lapalapa	stom	-
<i>Raphia nitida</i>	Irosun	stom	-
<i>Terminalia glaucescens</i>	Idi-odan	stom	-
<i>Psidium guajava</i>	Guava	stom/fruit	-
<i>Parkia biglobosa</i>	Igba	fruit /food	food
<i>Irvingia garbonensis</i>	Oro	fruit	-
<i>Butyrospermum paradoxum</i>	Eini	fruit	-
<i>Tetracarpidium canophorum</i>	Awusa	fruit	-
<i>Aframomum melegueta</i>	Ataro	fruit	medicinal
<i>Tetrapleura tetraptera</i>	Idan	stom/back	-
<i>Agaricus sp</i>	Mushroom	leaf	food
<i>Tectona grandis</i>	Teak	leaf	wrapping food
<i>Thaumatococcus daniellii</i>	Ewe Iran	-	-
<i>Sarcophrynium brachystachys</i>	-	-	-
<i>Mitragyna stipulos</i>	Ewo obe	-	-
<i>Cola nitida</i>	Obi	fruit	Food
<i>Zingiber officinale</i>	Gingor	fruit	medicinal
<i>Spondias mombin</i>	Agbalumo	fruit/bark	-
<i>Megaphrynium macrostachyum</i>	Iyeye	fruit/bark	food /med.
<i>Alstonia bonnei</i>	Gbodogi	leaf	wrapping food
<i>Momordica foetida</i>	Awun	bark	medicinal
<i>Rauwolfia vomitoria</i>	Ira	leaf	chew.Stick/me
<i>Ficus exasperata</i>	Eopin	leaf	washing
<i>Pycnathus angolensis</i>	Akomu	bark	medicinal
<i>Melicia excelsa</i>	Iroko	bark	-
<i>Azadirachta indica</i>	Dongoyaro	leaf/bark	-
<i>Ocimum gratissimum</i>	Elinrin	leaf	-
<i>Mitragyna cylindrica</i>	Abura	leaf	-
<i>Solanum incanum</i>	Igba	fruit	food
<i>Obvienthera abbyssinica</i>	Oparu	stem	craft/buildin
<i>Massularia acuminata</i>	Pakojebu	stem	chewing stick
<i>Newboulda laevis</i>	Akoko	leaf	cultural
WILD GAMES			
<i>Tragelaphus scriptus</i>	Antelope, Igala		meal
<i>Sylvicapra graminia</i>	Antelope, Esuro		-
<i>Thryonomys swinderianus</i>	Grass-cutter, Oya		-
<i>Antherurus africanus</i>	Porcupine, Ooro		-
<i>Antherurus africanus</i>	Monkey, Obo		?/pet
<i>Erythrocebus patas</i>	Squirrel, Okoro		-
<i>Anomaluus spp</i>	Snail, Igbin		-
<i>Archachatina marginata</i>	Crocodile, Oni		-
<i>Crocodilus niloticus</i>	Bush pig, Imado		-
<i>Potamochoerus porcus</i>	Bush fowl, Etu		-
<i>Traucolinus bicakratus</i>	Monitor		-
<i>Varanus niloticus</i>	Monitor		-
<i>Cricetomys gambianus</i>	Giant rat, Okote		-
	Common Names		-

Marketing channels of NTFPs marketing in Boluwaduro Local Government.

Figure 1:



The marketing channel of NTFPs in Boluwaduro Local Government consists mainly of the producer, retailer and consumer as shown in chart above. The marketing starts basically with the collection of NTFPs from forest farm land. The producer can sell directly to consumer in consuming quantities in market place or to retailers. Packing from collection point are done by producer. In only few occasions goods are sold to wholesalers who deliver them to consumers in far areas. The consumers certainly have choice whether to buy from the producers or go to retailers to buy.

From the responses, it was observed that marketing of NTFPs encounter the following problems;

- Illiteracy: most marketers are illiterate thereby not able to negotiate reasonable prices with their most frequent literate customers.
- Non timber forest produce were not given necessary attention when compared to the attention given to timber.
- Instability in prices: it was observed that prices often fluctuate and this occurs at the period of availability of this product. They sell mostly during the dry season and therefore there are low sales during the raining season.

Conclusion

While the importance of NTFPs is coming into lime light, there are some militating problems against their production and marketing. NTFPs are biological entities which are grossly affected by seasonal variation. This in turn affects their prices. In Nigeria, there are two seasons, rainy and dry. Most of the NTFPs are cheap during the raining season because of the abundance of rain while they are relatively expensive during the dry season. There has not been any recorded irrigation scheme for the production of NTFPs in the State.

The result of this study showed that NTFPs business in Boluwaduro local government is profitable business and while the importance of NTFPs is coming into lime light there are still problems hindering their production and marketing. NTFPs are affected by seasonal variation. This in turn affects their prices. In Nigeria there are two season, rainy and dry season. NTFPs are cheap during the rainy season because of abundance of rain while they are expensive during the dry season.

Another problem that affects the supply of NTFPs is the presence of competing substitutes. Hardly are there any NTFP without a close substitute so demand for NTFPs is perfectly elastic. Other problems are high transportation cost caused by poor road network which affects the prices of NTFPs brought from far distances. Having low credit facilities and inadequate capital, also production of many NTFPs is labour intensive and a lot of wastage accompanies it.

It is common to see drugs made from NTFPs; most of medicinal products found with herb sellers. These are women who deals with the sales of NTFPs in used in medicines. Most

of the medicinal products have competed favourably with orthodox medicine in the past and present; they have been incorporated into the therapy which has proved successful. It is common to see drugs made from NTFPs in patients' stores after they have been certified by registered pharmacists (Table 6).

These problems encountered by NTFPs marketers could be alleviated if the government would come to the aid of the marketers by providing loans to them and other facilities such as good roads linking urban and rural areas and good processing and storage facilities.

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