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ECONOMICS OF NON-TIMBER FOREST PRODUCTS (NTFPS) MARKETING IN IKWUANO LOCAL GOVERNMENT AREA, ABIA STATE, NIGERIA

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ABSTRACT: *Non-Timber Forest Products are capable of providing food, medicine and income to sustain livelihood. The study investigated the economics of Non-Timber Forest Products (NTFPs) marketing in Ikwuano Local Government Area, Abia State, Nigeria. Specifically, the study identified the major NTFPs present in the study area; examined the marketing channel of NTFP; ascertained profitability of NTFP marketing as well as constraints faced by the NTFP traders. Forty NTFP traders were interviewed using structured questionnaire from two markets in Ikwuano Local Government Area. Data were analyzed using descriptive statistics, Net Income and Profitability Index. Results showed that trade in NTFPs is profitable with Net Income of ₦180/2kg and ₦250/2kg from Ukazi leaf (Gnetum africanum) and oil bean seed (Pentachlethra macrophylla) traded. The profitability index was 0.18kobo and 0.16kobo respectively. There is need for support from research institutes and the government to harness the sustainable extraction and further processing of these NTFPs.*

KEYWORDS: Non Timber Forest Products, Marketing, Ikwuano, Nigeria.

INTRODUCTION

Non-Timber Forest Products (NTFPs) have become a topical issue that have attracted global interest in recent years. Forest plays a crucial role in promoting the economic advancement and welfare of the people and it is accepted as a veritable means of alleviating poverty among rural communities because of its role in livelihood sustenance, food and environmental security (FAO, 1999). Apart from timbers derived from the forest community, Nigeria forests houses numerous Non-Timber Forests Products (NTFPs) which provides food, medicine, aesthetics and most importantly income to sustain the livelihood for people living around and outside the forest communities.

In spite of the importance of NTFP and their contribution to rural livelihood in Nigeria, and Abia State in particular, markets for NTFPs to add value at the local level are not well known. It is paradoxical that in spite of their real and potential value, most NTFPs remain as minor products of forest. Both rural and urban economies are dependent on NTFPs to generate income and provide food and medicine; hence, there is need for more attention to this important natural renewable revenue earner. It becomes pertinent that this study assess the determinants of marketing of Non-Timber Forest Products (NTFPs) for livelihood sustenance in Ikwuano LGA in Abia State, Nigeria. Specifically, the study; identified major NTFPs available in the study area; determined the marketing channel of NTFPs in the study area; ascertained the income realized from marketing of NTFPs in the study area and identified constraints faced by NTFPs marketers in the study area.

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LITERATURE

Non-Timber Forest Products are goods of biological origin other than timber derived from the forest or associated ecosystems, which are, consumed either directly as food, drugs or medicine or which contribute non-consumptive values to human welfare (Bastiaan, *et al.*, 2009). NTFPs include fruits, mushrooms, wild games, nuts, seeds, oils, spices, resins, gums, medicinal plants, fibres, etc. NTFPs sustain the livelihoods of hundreds of millions of people in forest-dependent and adjacent communities and contribute significantly to their domestic energy, food and health-security needs (Balgis *et al.*, 2009). A large proportion of rural population earn their living from collection and sales of NTFPs, thereby improving their quality of life and standard of living (Agbogidi *et al.*, 2003).

Market value and demand for NTFPs have grown considerably in recent years. Declining revenues from timber in some areas have led foresters to consider the values of a wide variety of commodities other than timber (FAO, 1997). NTFP collection and marketing is a traditional and cultural activity in many regions of the world. Trades on NTFPs generate employment opportunities, substantial income and support livelihood in communities living around the forest. Currently, about 75 percent of poor people in the world depend on NTFPs for their subsistence while 80 percent of forest based people in the developing countries use NTFPs daily (Noubissie *et al.*, 2008)

NTFPs are a dependable source of income and food supply in the rural areas and it presents several opportunities for rural development (Adepoju and Salau, 2007). Research conducted in India (Kant, 1997) quantified the significant contribution of NTFPs to households' income. The study showed that the percentage of total forest products income resulting from NTFPs varies between 50 and 95 percent and returns from NTFPs are comparable with those of agriculture even when NTFPs prices are low due to lack of competitive markets at the local level (Kant, 1997). In a similar study in Ihiala, Nigeria, (Aiyeloja *et al.*, 2012) found that NTFPs provides livelihood sustenance to people living around the forest communities. Rural communities derive substantial revenue from the collection, processing and marketing of these NTFPs. Ndoye *et al.*, (1998) observed that sale of NTFPs enables forest dependent households realize a substantial part of their cash income.

METHODOLOGY

The study was conducted in Ikwuano Local Government Area in Abia State, Nigeria. The area is bounded by Bende and Umuahia North LGAs in the West, Ikono and Obot Akara LGAs of Akwa Ibom State in the East and Cross River State in the South. The area has a population of 137,993 persons (NPC, 2006) with a land area of 281km^2. The area is made up of four principal clans namely Oboro, Ibere, Oloko and Ariam Usaka. The vegetation of the area is tropical rain forest consisting mainly of trees, shrubs and grasses. The climate of the area is characterized by bimodal rainfall with peaks in July and September (www.wikipedia.com/Ikwuano). The people are predominantly farmers who grow both cash and food crops. Apart from farming, the inhabitants also engage in other occupations like, manufacturing and trading.

A multi-stage random sampling technique was used to select respondents for the study. Two clans, Oboro and Ariam Usaka were randomly selected from the four clans that make up the study area. One major market was purposively selected from each of this clan because of the

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presence of NTFPs traders. 20 NTFPs traders were selected randomly from each market from the list of NTFPs traders obtained from the market union. A total of 40 respondents were selected which makes up the sample size and structured questionnaire was administered to them. Descriptive statistics and Net Income analysis was also used to analyse data for the study. The Net Income Model was stated as follows;

NI = TR – TC ..... eqn. 1

TC = TVC + TFC ..... eqn. 2

Where;

NI = Net Income

TR = Total Revenue

TC = Total Cost

TVC = Total Variable Cost

TFC = Total Fixed Cost

The profitability index was used for further measure of profitability of NTFP marketing in the study area. The Profitability index model as used by Ibekwe *et al.* (2012) is expressed as:

$$PI = \frac{NI}{TR} \quad \text{..... eqn. 3}$$

Where ,

PI= Profitability Index

NI= Net Income

GR= Gross revenue

RESULTS AND FINDINGS

Major NTFPs Present in the Study Area

Table 1 shows the major NTFPs that exist and are marketed in the study area.

Table 1.0: Major NTFPs Present in the Study Area

S/N	Common/Local Name	Scientific Name	Type
1	African guinea pepper/ Uda	*Xylopia aethiopica*	Seed
2	African nutmeg/ Ehuru	*Mandora myistica*	Seed/Nut
3	African star apple/Udara	*Chrysophyllum albidum*	Fruit
4	Bitter kola/Akilu	*Garcinia cola*	Fruit
5	Bitter leave/ Onugbo	*Vernomia amygdlania*	Leaf
6	Black pepper	*Piper guineensis schum.*	Seed

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7	Bush mango/ Ugiri	*Irvingia gaboneensis*	Fruit
8	Cashew	*Anarcadium occidentalis*	Fruit
9	Elephant grass/ Achara	*Pennisetum purpereum*	Leaf
10	Grasscutter/Nchi	*Thryonomys swinderianus*	Animal
11	Kolanut/Mkpuru-oji	*Cola accuminata*	Fruit
12	Kerosene wood/ Mmu	*NA*	Twig
13	Mushroom/Ero	*Agaricus bosporium*	Plant
14	Ogbono	*Irvingia wombulu*	Fruit
15	Oilbean seed/ Ugba/ Ukala	*Pentachlethra macrophylla*	Seed
16	Oil palm/ Mkpuru nkwu	*Elaies guinensis*	Fruit
17	Rubber	*Hivea brassilensis*	Gum
18	Snail/ Eju	*Achatina achatina*	Animal
19	Ukazi	*Gnetum africanum*	Leaf
20	Utazi	*Pergularia daemia*	Leaf
21	Uziza	*Gongronema latifolium*	Leaf
22	Cane	*Rattan Calamus spp.*	Stick

Source: Field survey, 2013.

**NA Not Available*

Marketing Channel of NTFPs in the Study Area

The marketing channel of Non Timber Forest Products in Ikwano Local Government Area is presented on Figure 1.

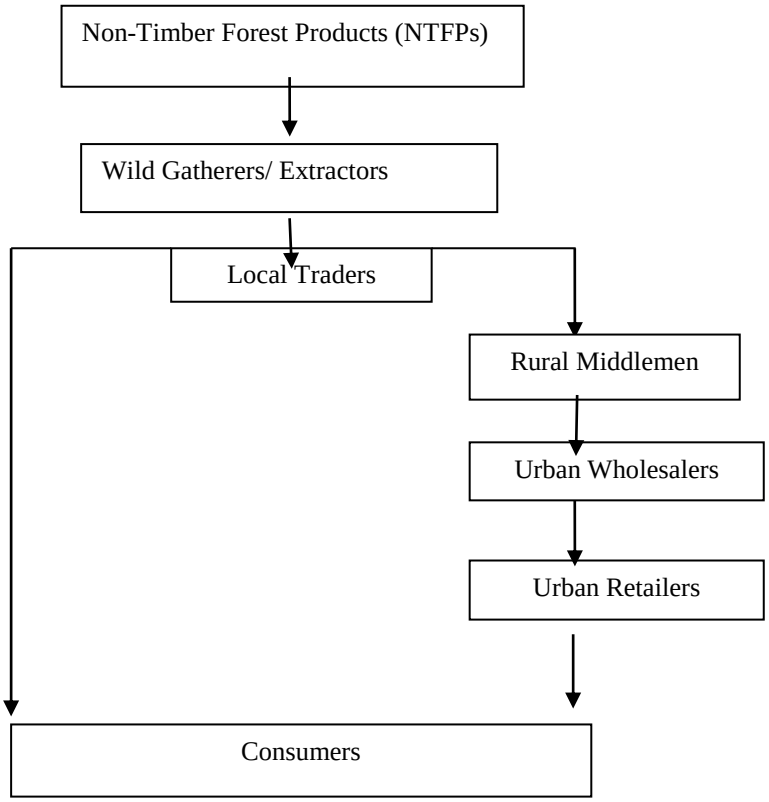

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Figure 1: Marketing Channel of NTFP in Ikwuano Local Government Area of Abia State.

Source: Field Survey, 2013

Cost-Return Analysis of NTFP marketing

Table 2 shows the net income realized from NTFPs marketing in the study area.

Table 2: Cost-Return Analysis of NTFP's (Ukazi leaf and Oilbean seed) Marketing

Items	Ukazi leaf (*Gnetum africanum*)	Oilbean seed (*Pentachlethra macrophylla*)
	Cost (₦)	
A. Total Revenue	₦ 1000 (One head/2kg)	₦ 1600 (2 kg)
B. Variable Cost		
i. Cost of goods	₦ 700	₦ 1,200
ii. Processing cost	-	₦ 100
iii. Nylon bags	₦20	₦ 20
C. Total Variable Cost (TVC)	₦ 720	₦ 1,320
D. Fixed Cost		
iv. Depreciation on equipment		
a. basket	₦ 100	_
b. knives	_	₦ 10
c. cutting board	_	₦ 20
E. Total Fixed Cost (TFC)	₦ 100	₦ 30
F. Total Cost	₦820	₦1350
G. Net Income	₦ 180	₦ 250
H. Profitability Index	**0.18kobo**	**0.16kobo**

Source: Field survey, 2013.

The result shows that a Total Revenue (TR) of ₦1000 and ₦1600 was obtained from sales of 2Kg of Ukazi leaf and Oil bean seed respectively. A gross income of ₦ 180 and ₦250 was obtained respectively.

Constraints of NTFPs Marketing in the Study Area

Table 3 shows the result on constraints faced by NTFPs marketers in the study area. About 92% were constrained by poor feeder roads while 90% of the respondents reported lack of affordable modern equipment for extraction and processing

Table 3: Distribution of constraints facing NTFPs marketers in the study area

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Constraints		Frequency Percentage
High cost of NTFPs	19	45.50
Inadequate fund	30	75.00
Lack of affordable and modern equipments for extraction and processing	36	90.00
Inadequate market information	25	62.50
Inadequate storage facilities	28	70.00
Price fluctuation	20	50.00
Protection of reserve	27	67.50
Theft	13	32.50
Poor feeder roads	37	92.50

Multiple responses recorded

Source: Field survey, 2013.

DISCUSSION

There is dominance of various types of NTFPs in the area, ranging from seed, nut, fruit, leaf, animal etc. These variety of NTFPs creates a market for local trading, urban wholesaling and can be further harnessed for export.

Non-Timber forest products have two main marketing channels in the study area. The first channel is from the wild gatherers/extractors to the local traders and to the final consumer. This channel is shorter and it is expected that the final price which is that paid by the consumer will be lower than the final price in the second link.

In the second link, it was observed that the wild gatherers and extractors gather NTFPs from the forest and sale to the local traders who in turn sale to the rural middle men, urban wholesalers and urban retailers before it finally gets to the consumer. The longer the channel, the more prices are inflated, because at each channel, it is expected that the traders will make some level of profit. These marketing channels represented are only but a few of the marketing channels of NTFP's that exist in the area.

The net profit margin shows that for every ₦1 invested by the NTFP trader in Ukazi leaf and Oil bean Seed, 0.18 kobo and 0.16 kobo profit are realized respectively. Oil bean seed is profitable but the rate of return is low compared to Ukazi leaf. It may be that the Ukazi leaf commands a wider market as it serves as a vegetable in the local dish. However, considering that the return on investment was for a small unit of each of these commodities, higher rate of returns can be expected per increase in units traded. Trading of these NTFPs is therefore a livelihood source that should be encouraged and maximized.

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The marketers of NTFPs in the study area are faced with a number of constraints. About 92% of the respondents reported poor feeder roads. NTFPs are goods that command a wide market and better prices especially in the urban areas. There is need for the Government to construct and maintain good feeder roads to enhance access of the urban marketers to the rural areas. This will in turn increase the income of the NTFPs traders as there would be higher demand for their products. Lack of affordable modern equipment for extraction and processing was reported by about 90% of the respondents. The need for modern extracting equipments arises from the fact that natural resources need to be harvested sustainably. Also, most NTFPs serve as raw materials which can be further processed into finished goods in frms that appeal to consumers.

CONCLUSION

The study investigated the economics of Non-Timber Forest Products (NTFPs) Marketing In Ikwuano Local Government Area, Abia State, Nigeria. The profitability index of selected NTFPs (Ukazi leaf (*Gnetum africanum)* and Oilbean seed *(Pentachlethra macrophylla*) reveals that NTFP marketing is a lucrative and profitable venture. The NTFP traders face certain constraints that if adequately addressed would harness the trade and well as promote further processing of these NTFPs to serve as revenue earner for the local communities, Abia State and the nation. There is need for support from the local, state and federal government in provision of amenities like good feeder roads for easy accessibility of the rural areas from the urban centres. New and improved varieties of NTFPs which can be domesticated should be promoted by Research institutes, as well as extracting and processing equipments for sustainability of the Forest resource. NTFPs marketers should be encouraged to form agricultural co-operatives in order to eliminate the exploitative activities of middle men.

FUTURE RESEARCH

There is need for future studies on the effect of government policy on NTFP extraction and marketing in the study area.

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