

Non-Timbers Forest Products for Poverty Reduction in Ogun Waterside Local Government, Ogun State, Nigeria

O. O. Ogunbanjo and A.S. Aina

Department of Agricultural Education, Tai Solarin College of Education, Omu-Ijebu, Ogun-State, Nigeria

KEYWORDS Non-wood Forests Produce Livelihood Alleviation. Nigeria

ABSTRACT This study examined the possibilities of Non-Timber forests products (NTFPs) in improving the standard of living of the people in the study area and consequently makes life better for them. Primary data were collected using a set of structured questionnaire administered on one hundred and twenty (120) NTFPs harvester/sellers who were selected using multi-stage sampling technique from three communities and markets in the local government areas and were analyzed using descriptive statistics. The major results showed that although there are numerous NTFPs available to the people of this area but *Beilshamediamanni* and *Achatinaachatina* have the major economic potentials or tendencies to improve their standard of living. It is, therefore, suggested that great efforts be made by government to multiply and sustain these products for their continued availability and for the use of the people.

INTRODUCTION

Forests provide resources for people, including a renewable source of energy. Forests remain very important yet undervalued and threatened resources on which millions of people in the tropics depend for their livelihoods (FAO 2012).

In Nigeria, the rate of increase in population has brought about an increase in the demand for food (forests products inclusive) which presently the country's agriculture sector cannot meet according to Federal Ministry of Agriculture, Water Resource and Rural Development (FMAWRRD) (1988). Federal Office of Statistics (1996) further revealed that food production increases at the rate of 2.5%, while food demand increases at the rate of 3.5%. The difference between food production and demand in Nigeria has become the basis of poverty in the country most especially in the rural areas where about 70% of Nigerians population resides. However, because of the closeness of the rural population to the forest, they have resorted into harvesting of NTFPs to supplement their little income from the agriculture sector. Women are found to be involved majorly in harvesting, processing and selling of these products. NTFPs is a sector that offers great promise for women, but to enhance the effectiveness of poverty reduction programmes, opportunities for the greater involvement of women are essential (IFAD 2008). Products harvested are used for food while surplus harvests are taken to market

in exchange for money in order to take care of their needs and meet other family financial obligations. Therefore, income from NTFP activities was important to rural communities (Madi et al. 2010). In the developing countries, 80 percent of the people use forest products for food and personal care (Anon 2000). For example in Ghana, *karite* butter is used as cosmetic product distributed by the International Body Shop Chain of Shops (Anon 2000).

There is no agreed definition for NTFPs but the ones available have many things in common. NTFPs refer to forest goods and services providing for wood products. These include poles, fuels, chewing stick, gum, dye, herbs, shrubs, wine, stem fibers, seed, spices, mushrooms condiments, and so on.

NTFPs according to Andel (2000) are wild plants and animal products harvested from forests such as fruits from the wild, vegetables, nuts, edible roots, honey, palm leaves, medicinal plant, poisons and bush meats. According to International Economic Botany Data Collection Standard (IEBDCS), list of NTFPs uses has been categorized into: food, food additives, animal food, animal products construction, materials, fuel, medicine, poison, social users and environmental uses (Andel 2000). Wickens (1994) similarly reported that various uses that NTFPs are put to range from food, fiber, medicine to biochemicals among others.

Millions of people, especially those living in the rural areas in developing countries, gather these products on daily basis for food while many

regard selling them as a means of livelihood. These products have become major sources of livelihood for most rural dwellers in the world today. However, the level of exploitation varies from one country to the other depending on availability awareness of the products and the use they put them to.

In the year 2000 the millennium declaration by United Nations was adopted and their first goal was to eradicate poverty and hunger. This was aimed at cutting half of the proportion of people living in extreme poverty (less than one U.S dollar per day) and those suffering between 1990 and 2010 (World Bank 2003). It was also examined that NTFPs could be used as one of the means of achieving this goal. NTFPs have always played a central role as sources of income generation in rural community in the world (FAO 2012).

NTFPs contribute about 50 percent of forest revenue and 70 percent income to 50 million tribal households in India (Shive 1993). Another related report by Kumari (1995) revealed that rattan collection in Malaysia contribute 14.8 percent of the economic activity of residents in the swamp forest. In Nigeria, Ojo (1999) reported that the income of rural dwellers from NTFP was between 50-70%. Research suggests that trees and forests are more important to rural women's livelihoods than to those of men. In Madagascar, poor women in one community earned 37% of their income from forest products, compared to 22% earned by men. In Andhra Pradesh, 77% of women's income in some areas was derived from forests (FAO 2012). However; their potentials in alleviating poverty among the rural dwellers in sub-Saharan Africa have not been fully harnessed unlike Asia where tremendous success has been recorded. However, it plays a major role in the life of people in this area socially and economically (Ajonina et al. 2005; Avocevou-Ayisso et al. 2009; Fu et al. 2009; Kanmegne et al. 2007).

Objective of the Study

The objectives of this study therefore are:

1. to examine the possibility of NTFPs in alleviating poverty in the rural area.
2. to determine the level of NTFPs demand and supply in the area.
3. to estimate the revenue generated from NTFPs harvest in the area.
4. to identify the constraints involved in NTFPs harvest and sales.
5. to identify the problems associated NTFPs harvesting and sales.

METHODOLOGY

Study Area: The study area is Ogun water-side Local Government, one of the 20 Local Government Areas in Ogun State, Nigeria. It is bounded in the West by Ijebu East Local Government, in the North and East by Ondo State and in the South by Lagos State and Atlantic Ocean. The Local Government has an area of 1,000 km² and a population of 72, 935 (NPC 2006). The people of this local government are peace-loving Yorubas whose occupation is majorly farming with a few percentages shared by trading, fishermen and lumbering among others. Yoruba language is the predominant language among the others-Ikale and Ilaje dialects. The headquarters of the local government are located at Abigi while Ilusin, Makun-Omi, Ibiade, Efire and Iwopin are among the notable towns.

Data Collection: The data used in this study were collected from a cross-sectional survey of NTFPs harvesters/sellers in the study area. The data were primary collected from one hundred and twenty (120) NTFPs marketers/sellers (respondents) selected from three (3) markets in three (3) communities of Ogun Waterside local government Areas in Ogun State. The sampling method used was multi-stage sampling technique. The sampled communities and markets (Makun-omi, Abigi and Ibiade markets) were based on their history of NTFPs availability and marketing in the Local Government Areas. The second stage involved a simple random selection of respondents-NTFPs marketers in the sampled communities. Data were collected using structured questionnaire designed to gather information on sources of NTFPs, forms of NTFPs marketed, problems associated with NTFPs harvesting, constraints to NTFPs marketing, consistency of NTFPs from sources, NTFPs demand in the market, NTFPs roles in financial obligations and some pieces of information on socio-economic characteristics of the respondents.

Method of Analysis: Simple descriptive statistics-frequencies, percentages, and statistical package for social science were used to analyze the data collected.

RESULTS AND DISCUSSION

Socio-economic Status: Table 1 presents the socio-economic characteristic of NTFPs marketer in the area which clearly revealed that 63.3% of the respondents were female and as such connote that females are more involved in the marketing of NTFPs than their male counterpart. This agrees with the findings of Food and Agriculture Organization (FAO 2012). This is very logical since it is their comfort zone. About 40% of the total respondents fall within the ages of 41 and 56 years and are all married. 43.4 % of the respondents have no formal education while 36.7% have school certification. This shows that the largest proportions of the NTFPs sellers in the local government are non-literate rural traders. The results also show that the respondents are spread evenly across Makun-Omi, Abigi and Ilusin communities in the study area. The largest numbers of the NTFPs sellers are traders by occupation (50%) while 26.7% engaged in farming. This is logically true since the survey took place in the rural market places where the largest population of the society resides.

Table 1: Socio-economic characteristics of respondent

Variables	Frequency	Percentage %
Age Group		
25-40 years	31	30.00
41-56 Years	45	40.00
>57 years	2	30.00
	120	100.00
Gender		
Female	44	36.7
Male	76	63.3
	120	100
Marital Status		
Single	0	0
Marriage	120	100.0
Widowed	0	0
Divorced	0	0
	120	100.00
Education Level		
Non Formal	52	43.3
Primary	16	13.3
Secondary	44	36.7
Tertiary	8	6.7
	120	100.00
Occupation		
Farming	32	26.7
Civil servants	12	10.00
Traders	60	50.00
Fishing	4	3.30
Timber contractor	8	6.7
Others	4	3.3
	120	100.00

Source: Field survey 2010

Selected NTFPs Marketed: Table 2 shows the range of NTFPs marketed in the study area. Snails (*Achatinaachatina*) and gbokonisa (*Beilschmiediamannii*) are the most common with 63.33% and 53.33% respectively. Chewing stick and bush meat follow with 40% and 36.67% respectively. The implication of this is that these NTFPs are ever available in these markets at most times except in their period of scarcity.

Table 2: Distribution of respondents based on type of NTFPs marketed

Variables	Frequency	Percentage
Snail (<i>Achatinaachatina</i>)	76	63.33
Coconut (<i>Cocosnocijera</i>)	32	26.67
Bush meat	44	36.67
Chewing Stick	48	40.00
(<i>Massulariaacuminata</i>)		
Gbokonisa	64	53.33
(<i>Beilschmiediamannii</i>)		
Leave Wrapper	20	16.67
(<i>Mitragynacitiata</i>)		
Agbalumo	20	16.67
(<i>Irringiagabonensis</i>)		
Willow Product	32	26.67

Source: Field survey 2010

Sources of NTFPs: The largest proportion of the respondents revealed that NTFPs marketed are supplied to them while only 36.7% claimed to fetch it themselves (Table 3). This implies that most of the NTFPs accessed are bought.

Table 3: Distribution of respondents based on sources of NTFPs

Variables	Frequency	Percentage
Source	44	36.7
Supplied	76	63.3

Source: Field survey 2010

Level of NTFPs Demand in the Market: Majority of the respondents (90%) opined that the levels of demands for NTFPs are on the increase (Table 4). This seems reasonable since it is in tandem with the population of the society that keeps increasing from time to time (NPC 2006). Therefore, demand for food would be greatly affected. There is no doubt that these activities play cogent roles in solving most of the financial obligation of the respondent, which directly improve their standard of living and consequently alleviate their poverty. This is

closely related to Campbell's observation as cited in Sekar et al. (1996) and Dishan et al. (2010).

Table 4: Distribution of respondents based on kind of Non-timbers forest products marketed

Variables	Frequency	Percentage
Demand		
Increasing	108	90.00
Unstable	12	10
Supply		
Increasing	4	3.3
Unstable	116	

Source: Field survey 2010

Daily Revenue Realized from NTFPs Marketing: Table 5 shows the daily revenue realized from NTFPs marketing by people of these area. There is no doubt that these activities play cogent roles in solving financial obligations of the marketers (respondents) which directly improve their standard of living and consequently alleviate their level of poverty which agrees with the reports of Olawoye (1996) and FAO (1992, 2012). This would make them stick to selling these materials for as long as possible if it can continue to help improve their standard of living. This agrees with Hegde et al. (1996) who observed that NTFPs make 50-75% of the rural dwellers' income in India.

Table 5: Distribution of respondents based on daily revenue realized from NTFPs marketing

Variables	Frequency	Percentage
< N500	4	10
N500 – N1000	92	76.7
N1000 –N5000	16	13.3

Source: Field survey 2010

Constraints to NTFPs Marketing: Results of the study shows that 100% of the respondents were of the opinion that non-availability and decrease in supply of these products are the major constraints militating against NTFPs sales in this area. Products supplied in excess of the demand forces the price to go down; this is another notable constraint (Table 6).

Table 6: Constraints associated with NTFPs marketing in Ogun waterside

Variables	Frequency	Percentage
Decrease in supply at high demand	120	100
Low price at surplus period	108	90
Non-availability all year round	120	100
Others	-	-

Source: Field survey 2010

Problems Associated with NTFPs Marketing: The results shows that all the respondents were of the conviction that all the variables in Table 7 are believed to be problems confronting effective marketing of NTFPs in the area, apart from few numbers who had a different opinion about security attributed to forest loss. This agrees with the report of Andel (2000) on NTFPs pitfalls.

Table 7: Problems associated with NTFPs marketing in Ogun Waterside Local Government Area

Variables	Frequency	Percentage
Reduction in profit at high cost	120	100
Seasonality of the products	120	100
Lack of modern presentation method	120	100
Cost of transportation	120	100
Security due to forest loss	120	83.33

Source: Field survey 2010

Possible Solutions to the Identified Problems: Table 8 shows the perceived solution to the above identified problems. All the respondents suggested that putting in place a good price control system will really help to solve one of these problems, while 96.67% offered that domestication of these product will make them available all the time and this will also prevent the NTFPs from going into extinction. Provision of modern preservation and storage technique is also believed to be very important. This falls in line with the recommendations of Andel (2006) on price and availability of NTFPs.

Table 8: Constraints associated with NTFPs marketing in the study area

Variables	Frequency	Percentage
Provision of modern preservatives and storage techniques	116	96.67
Domestication of NTFPs	119	96.67
Price control system	120	100

Source: Field survey 2010

CONCLUSION

It is evident in this study that, those NTFPs, no doubt, have great potential to improve the standard of living of the rural dwellers in the study area and consequently alleviating their poverty level if serious attention is given to their domestication and sustainability.

RECOMMENDATIONS

Based on plenty of contributions of NTFPs towards the standard of living of these people, it is, therefore, highly recommended that great effort should be directed towards the domestication of NTFPs to avoid its scarcity and consequently rescue them from going into extinction.

Government should also put in place a good price control system, relevant laws/harvest-guiding regulations and joint management scheme for their sustainability. Modern storage and preservation facilities should also be provided to increase the shelf-life of these products thereby prolonging their long-time availability after harvest. With these, poverty can be reduced among the rural dwellers and in particular in our society beyond 2015 as against the projections of the Millennium Development Goals (MDGs) proponents.

REFERENCES

- Ajonina PU, Ajonina GN, Jin E, Mekongo F, Ayissi Usongo L. 2005. Gender roles and economics of exploitation, processing and marketing of bivalves and impacts on forest resources in the Sanaga Delta region of Douala-Edea wildlife reserve, Cameroon. *International Journal of Sustainable Development and World Ecology*, 12(2): 161–172.
- Andel TR Van. 2000. *Non-Timber Forest Products of the North-west District of Guyana. Part I and II*. PhD Thesis. Utrecht University, Utrecht. Tropenbos-Guyana Series 8A and 8B.
- Anon. 2000. Information for Agricultural Development in ACP Countries. *Spore No.* 89, P. 4.
- Dishan E, Eagishi R, Akosim C. 2010. Women involvement in non-timber forest products utilisation in support zones of Gashaka Gutu National Park. *Journal of Research Forestry, Wildlife and Environment*, 2(1): 24-26.
- FAO. 2012. *Food and Agricultural organization of the United Nations*. Rome: FAO.
- Federal Office of Statistics. 1996. *Population Figures*. Nigeria.
- FAO. 1992. *Forest, Trees and Food*. Rome: FAO.
- FMARRD. 1988. *Agricultural Policy for Nigeria*. FMARRD Publication, Nigeria.
- IFAD. 2008. *International Fund for Agricultural Development. Gender and Non-Timber Forest Products: Promoting Food Security and Economic Empowerment*. pp. 21-35.
- Kuman K. 1995. An Environmental and Economic Assessment of Forest Management Option. A Case Study in Malaysia. *Environmental Dept Paper No 026*. The World Bank, D. G.
- Madi OP, Peltier R, Balarabe O, Ntoupka M, Sibelet N. 2010. Should north Cameroon's acacia plantations be abandoned or extended? It all depends on development of the Arabic gum market chain. *Bois et forêts des tropiques*, 306: 57–70.
- NPC. 2006. *Nigeria Population Census Figures*.
- Ojo GON. 1999. *Survey of Non Timbers Forest Products (NTFPs) in Omo Forest Reserve Including Their Uses and Values. A Consultancy Report for FORMECV*. Abuja: Federal Department of Forestry.
- Olawoye JE. 1996. Sociological issue for sustainable forest management. *Ghana Journal of Forestry*. Special Edition, 3: 18-33.
- Sekar CRS, Vinaya Rai, Ramasany C. 1996. Role of minor forest product in tribal economy of India. A case study. *Journal of Tropical Forest Science*, 8(3): 280-288.
- Shive RS, Suryaprakash L, Achot, Baw KS. 1996. Extraction of non-timber forest products in the forest of Biligiri Rangan Hill, India. In contribution to rural income. *Economic Botany*, 50(3): 243-251.
- Van Andel Tindel. 2006. Non-timber forest products, the value of wild plants. *Agrodok* 39: 6-50. Wageningen, The Netherlands.
- Wicken GE. 1994. Sustainable management for non-wood forest product in the tropics and subtropics. In: *Reading in Sustainable Forest Management. FAO Forestry Paper Report*. Rome: FAO, pp. 55-65.
- World Bank. 2003. *World Bank Human Development Report*. Washington D.C.: World Bank.