

ASSESSMENT OF NON-TIMBER FOREST PRODUCTS UTILISATION IN IBARAPA CENTRAL LOCAL GOVERNMENT, OYO STATE, NIGERIA

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Abstract

Forests are very important though undervalued and there after resources on which millions of people depend for their livelihood in the tropics. Apart from timber, non-timber forest products (NTFP) include foods like fruits, nuts, honey, insect and animals. They are also used as fodders, fibers, medicinal extracts, cosmetics, spices, edible oils, decorate articles, horn, tusk etc. The study investigated the Survey of Non Timber Forest products activities among rural dwellers in Ibarapa Central Local Government Area (LGA) of Oyo State. Multistage sampling Methods was used in selecting respondents. Simple random sampling procedure was used to select markets where respondents got for the purpose of this research. Also, 100 questionnaires were used. Majority of the respondents were youth, married, had formal education with family size of 3-5members and had farming as their main occupation. NTFP gathered by the respondents include firewood, medical herbs, snails, bush meat, wrapping leaves and honey in order of their performance. Many of the respondents gathered non – timber forest products basically for food/drink and for sales as income generating activity for the use of the households.

Keywords: Assessment, Non-Timber, forest, Products, Utilization

Introduction

Forests remain very important yet undervalued and threatened resources on which millions of people in the tropics depend for their livelihoods (FAO, 2012). Forest provides resources for people, including a renewable source of energy. Non-timber forest products are wild plant and animal products harvested from forests such as fruits from the wild, vegetable, nuts, edible roots, honey, palm leaves, medicinal plants, poisons and bush meats (Andel, 2000).

NTFPs have enormous uses among rural communities in Nigeria such as sources of foods like fruits, nuts, honey, insects and animals. They (NTFPs) are also used as fodders, fibers, fertilizers, medicinal extracts, construction materials, cosmetics and culture products, natural dyes, tannins, gums and other exudates.

Other benefits include essentials oils, spices, edible oils, decorative articles, horn, tusks, bones, pelts, plumes, hides and skins, on-wood lingo-cellulose products, phytochemical and aroma chemicals. And these products are derived from a variety of sources, such as plants (palms, grasses, herbs, shrubs and trees) and animals (insects, birds, reptiles and large animals) and some other non-living components of the ecosystem (Akanni, 2013). They also refer to all the resources produced other than industrial round wood and derived savanna sawn wood/timbers (wood chips, wood based panels, and pulps) that may be extracted from the forest ecosystem that are utilized within the household which have socio-cultural and religious significance (FAO,1990, Tee and Amonum, 2008).

Millions of peoples, especially those living in rural areas in developing countries like Nigeria, collect forest products daily and sell as a means of livelihood (Andel, 2006, Sale, 2006, Shomkegh *et al.*, 2008). The past decade witnessed a rapid growth of interest in non-timber forest products (NTFPs) among conservation and development organizations (Neumain and Hirschall, 2003). Non-timber forest products contribute highly to the income and welfare of households. These among others include gathering and collection of medicinal herbs, food vending and sale of fuel wood and honey (Odebode, 2003). These products provide a green social security to billions of people in the form of low-cost building materials, food supplement and traditional medicines. In some cases, the revenues earned from NTFPs are the only source of cash income which increase the dependency of people on commercially interesting NTFPs resources (Andel, 2000)

There is direct link between forests, their products and households' food security (Andeokun *et al.*, 2002). Farmers and other inhabitants possess appreciable indigenous knowledge arising from their long utilization of NTFPs, how plant and wild animals are used, their distribution, classification and identification in the ecosystem (Olufemi and Akinlosutan, 2006). NTFPs have always played a central role as source of income generation in rural community in the world (FAO 2012). NTFPs harvested are used for food while surplus harvested 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 NTFPs activities was important to rural communities (Madi *et al.*, 2010). In the developing countries 80% of the people use forest products for food and personal care (Anon, 2000). NTFPs contribute about 50% of forest revenue and 70% income to 50 million tribal households in India (Shive, 1995). Another related report by Kumari (1995)

revealed that rattan collection in Malaysia contribute 14.8% of the economic activity of the residents in the swamp forest. In Nigeria, Ojo (1999) reported that the income of rural dwellers from NTFPs is between 50-70%. Researchers suggest that trees and forests are more important to rural women's livelihood 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).

In Nigeria the rate of increase in population has brought about an increase in demand for food (forests products inclusive) which presently the country agriculture sector cannot meet according to Federal Ministry of Agriculture, Water Resources and Rural Development (FMAWRRD), (1988). Federal Office of Statistics (1996) further revealed that food production increase at the rate of 2.5%, while food demand increase 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 to harvesting of NTFPs to supplement their little income from agricultural sector (IFAD 2008). Millions of peoples, especially those living in rural areas in developing countries like Nigeria, collect forest products daily and sell as a means of livelihood (Andel, 2006, Shomkegh *et al.*, 2008). This study assessed the utilization of NTFPs in Ibarapa Central Local Government Area.

Methodology

Area of study

The study area is Ibarapa Central Local Government Area. It is made up of two major towns, Igboora and Idere, and some villages. The area shares boundary with Ibarapa North

(Ayete) and Abeokuta, Ogun State in the East and Imeko/Ayetoro in the West.

The Local Government Area is made up of ten political wards with a population of 102,979 people. The rainfall pattern of the area follows tropical types with average annual rainfall of between 1000mm and 1450mm and fairly high temperature. The vegetation is largely rain forest and savannah and this makes it possible to cultivate many crops ranging from tree crops to arable crops e.g. maize, cowpea, cassava, melon, cashew, cocoa, citrus, oil palm, yams, vegetables, etc. There are two main planting seasons in the area- early planting season beginning around March and end around July – August and the late season planting which usually begins from September and ends around December. Also, there exists the rainy season and dry season in the area.

Population of the Study

The population comprises of all rural households engaged in NTFPs activities in Ibarapa Central Local Government Area of Oyo State.

Method of data collection

Data was collected with the aid of a well-structured questionnaire. This was used to collect information from those households which engaged in NTFPs activities.

Sampling procedure and sampling size

Simple random sampling method was employed to select respondents from four major markets in the study area. Twenty five respondents were selected randomly from the four selected markets namely: Towobowo, Ojaoba, Onlado, Ayeda (Idere) to make sample size of one hundred (100) respondents.

Data analyses

Descriptive statistics was used to analyze the data collected.

Results and Discussion

Personal characteristic of the collector of non-timber forest product

Table1 shows that 35.64 % of the respondents fell between the ages of 21-30 and 31-40, while 6.93% of the respondents fell between ages 60 and above. Those actively involved in the business of NTFPs are the youth who are very young and agile as they can move around and gather these products.

Results for gender revealed that 59.41% of the respondents were male while 40.59% of them were female; this shows that the business of non-timber forest products is not gender biased. This implies that both genders are actively involved in the NTFPs enterprise as it is a way of generating income.

Furthermore, the table below shows that 64.36% of the respondents were married and 26.73% were single. This infers that married respondents are more involved in the sale and consumption of NTFPs which may be used to help in sustaining their families.

In addition, table 1 shows that 53.47% of the respondents were Muslims while 42.57% of them were Christians. This implies that both religions do not pose a constraint to NTFPs enterprise.

Also, table 1 reveals that 32.67% of the respondents had secondary education, 25.74% of them had no formal education while 19.80% of the respondents had tertiary education. This implies that both the educated and non – educated respondents are both actively involved in the NTFPs enterprises, that is, education is not a constraint.

However, tables 1 shows that 29.70% of the respondents were traders, while 25.74% were farmers and those respondents who engaged in other activities were 25.74%. This implies that those involved in the enterprise used NTFPs for either home consumption or basically to generate income.

Lastly, table 1 shows that 50.50% of the respondents had a household size of 6-8 people while 21.78% and 71.78% of the respondents

had a household size of between 3 – 5 and 9 – 11 people respectively. This implies that they engaged in NTFPs mainly to sustain their family.

Table 1: Personal characteristics of the respondents

Age	Frequency	Percent (%)
10 – 20	8	7.92
21 – 30	36	35.64
31 – 40	36	35.64
41 – 50	14	13.86
60 and above	7	6.93
Gender		
Male	60	59.41
Female	41	40.59
Marital Status		
Single	27	26.73
Married	65	64.36
Widow	9	8.91
Religion		
Christianity	43	42.57
Islamic	54	53.47
Traditional	4	3.96
Educational level	26	25.74
No formal education		
Adult literacy education	8	7.92
Primary education	14	13.86
Secondary education	33	32.67
Tertiary education	20	19.80
Occupation		
Farming	27	26.73
Civil servant	7	6.93
Trading	30	29.70
Hunting	8	7.92
Artisans	3	2.97
Others	26	25.74
Size of Household		
3 – 5 people	22	21.78
6 – 8 people	51	50.50
9 – 11 people	22	21.78
12 and above	6	5.91
Total	101	100

Source: Field Survey 2015

Available NTFPs in the study area

Table 2 shows that honey 99.01%, bush meat 99.01%, fruit and roots 99.01% were the products that were readily available to

respondents in the study area while spices 66.34%, sap and gum 53.47%. and Mushroom 44.55 % respectively were not easily available to respondents in the study area.

Table 2: Available NTFPs

Non Timber Forest Timber	Available		Not available		Total	
	Freq	%	Freq	%	Freq	%
Snail	99	98.02	2	1.98	101	100
Honey	100	99.01	1	0.99	101	100
Bush meat	100	99.01	1	0.99	101	100
Fire wood	101	100	0	0	101	100
Medicinal plant	83	82.18	18	17.82	101	100
Mushroom	56	55.45	45	44.55	101	100
Spices	34	33.55	67	66.34	101	100
Sap and gum	47	46.53	54	53.47	101	100
Fruit and roots	100	99.01	1	0.99	101	100
Wrapping leaves	98	97.03	3	2.97	101	100
Local sponge	77	76.24	24	23.76	101	100
Edible oil	92	91.09	9	8.91	101	100

Source: Field Survey, 2015

Source of non-timber forest products

Table 3 revealed that 51.49% of the respondents got the NTFPs from nearby forest while 48.51% got their NTFPs from other

sources like market, farm and nearby villages. This implies that all NTFPs are mostly got from the forest as most of the respondents are farmers.

Table 3: Sources of Non-Timber Products

Sources	Frequency	Percent
Market	32	31.68
Nearby forest	52	51.49
Farm	13	12.87
Nearby village	4	3.96
Total	101	100

Source: Field Survey 2015

Level of demand of non-timber forest products

Table 4 reveals that firewood (71.29%), fruit and roots (57.43%) and wrapping leaves (58.43%) had high demand while snail (56.44%), local sponge (49.50%), and edible oil (44.55%) had medium demand. Spices

(64.36%) and sap and gum (64.36%) had low demand in the study area. This implies that fire wood may be used mainly for cooking by the respondents in the house. Both fruits and vegetables can be for human consumption and for sale.

Table 4: Level of demand of non-timber forest products

NTFPs	High		Medium		Low		Total	
	Freq	%	freq	%	Fr	%	Freq	%
					q			
Snail	44	43.56	57	56.44	0	0	101	100
Honey	51	50.50	45	44.55	5	4.95	101	100
Bush meat	52	51.59	45	44.55	4	3.96	101	100
Fire wood	72	71.29	27	26.73	2	1.98	101	100
Medicinal plant	23	22.77	54	53.47	24	23.76	101	100
Mushroom	19	18.81	29	28.71	53	52.48	101	100
Spices	23	22.77	13	12.87	65	64.36	101	100
Sap and gum	15	14.85	26	25.74	60	64.36	101	100
Fruit and roots	58	57.43	40	39.60	3	2.97	101	100
Wrapping leaves	59	58.42	40	39.60	2	1.98	101	100
Local sponge	26	25.74	50	49.50	25	24.73	101	100
Edible oil	36	25.64	45	44.55	20	19.80	101	100

Source: Field Survey 2015

Table 5 shows that the majority (82%) of rural dwellers collected fruit and roots for food/drink while 80% of the respondents gathered bush meat for food/drink. This shows that most of the respondents collect fruits and roots for food. Table 5 shows that 98% of the respondents gathered fire wood for sale, 84% of the respondents gathered local sponge for sale while 64% of the respondents collected spices for sale, indicating that they mainly gathered fire wood purposely for sale.

Table 5 shows that 3% of the respondents collected spices for fodder while 6% of them gathered sap and gum for construction.

The table also shows that 36% of the rural dwellers collected sap and gum for decoration while 3% collected spices for decoration.

The table shows that 11% of the rural dwellers gathered sap and gum for other uses while 20% of the respondents used wrapping leaves for other uses.

Table 5: Extent of use of non-timber forest products.

NTFPS	Food/Drink		Sale		Fodder		Construction		Decoration		Other		Total	
	F	P	F	P	F	P	F	P	F	P	F	P	F	P
Snail	79	78.22	22	21.78	0	0	0	0	0	0	0	0	101	100
Honey	48	47.52	49	48.51	0	0	0	0	0	0	4	3.96	101	100
Bush meat	80	79.20	21	20.79	0	0	0	0	0	0	0	0	101	100
Fire wood	2	1.98	98	97.03	0	0	0	0	0	0	1	0.99	101	100
Medicinal plant	53	52.47	38	37.62	0	0	0	0	0	0	10	9.90	101	100
Mushroom	67	66.34	23	22.77	0	0	0	0	0	0	11	10.89	101	100
Spices	24	23.76	64	63.37	3	2.97	0	0	0	0	10	.99	101	100
										0				
Sap and gum	0	0	48	47.53	0	0	6	5.94	36	35.64	11	10.89	101	100
Fruit and roots	82	81.19	17	16.83	0	0	0	0	0	0	2	1.98	101	100
Wrapping leaves	0	0	81	80.20	0	0	0	0	0	0	20	19.89	101	100
Local sponge	0	0	87	86.14	0	0	0	0	0	0	14	13.86	101	100
Edible oil	53	52.48	45	44.55	0	0	0	0	0	0	3	2.97	101	100

Source: Field Survey 2015

Conclusion and Recommendations

Conclusion

Based on the findings of the study, the following conclusions are made. Most of the respondents were young, adult, married, had formal education, had family size of 3 – 5 members, and having farming as their major occupation. Non – timber forest product gathered by respondents included firewood, medicinal herbs, snails, bush meat, wrapping leaves and honey in order of their performance. Majority of the respondents gathered non – timber forest products basically for food/drink and for sales as income generating activity for the use of the households.

Recommendations

Based on the conclusion of the study, the following recommendations are made:

1. The Forestry Department in the State should endeavor to train farmers on the collection of NTFPs in a sustainable way. Where the NTFPs can be propagated, farmers should be trained on ways of propagation as a means of conservation, availability and ease of harvesting in the future.
2. Attention should be given to the role of non – timber forest products in areas where forest forms an important environmental function and where non – timber forest products production can be part of a participatory multifunction forest management strategy.

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