

ASSESSMENT OF FOREST FOODS UTILIZATION AND MARKETING IN ISHIAGU, EBONYI STATE; NIGERIA

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ABSTRACT

Despite the numerous policies and programs geared towards improving the living standard of rural household in Nigeria, it has been difficult to stem the growth of food insecurity. Substantial population of the rural dwellers derived significant benefits from the goods and services provided by forest. Forests are becoming scares because of increasing pressure on them. This resulted in a state of imbalance between rural household means and what they can obtain. This is a threat to their survival. This study therefore examines the contribution of forests foods to household food security and economy in Ishiagu, Ivo Local Government Area. Data were generated through the use of structured questionnaires administered to forty-nine randomly selected respondents. The results showed that a relationship exists between the household food security and the degree of contribution on non-timber forests products to rural household. The findings of this study recommend that the forests reserved areas should be made more accessible to rural households. Also, law governing forests reserved areas should be reviewed and made flexible so that the rural populace in the forests reserved environment can benefits from them. Existing legislation restricting local people's access to forest reserve, and policy in favour of small forests enterprises should be made so that declining forest would be restored and its inherent benefits could be utilized.

Keywords: assessment, forest foods, utilization, marketing

INTRODUCTION

Forest produce play an important role in supporting rural livelihoods and food security in many developing countries.

Pimentel *et al.*, (1997) found that the integrity of forests is vital to world food security, mostly because of the dependence of the poor on forest resources. In most

parts of Sub-Saharan Africa, forests are considered important for rural livelihoods, as sources of food, medicine, shelter, building materials, fuels, and cash income. It is estimated that more than 15 million people in Sub-Saharan Africa earn their income from forest-related enterprises such as fuelwood and charcoal sales, small-scale saw-milling, honey production, commercial hunting, snail collection, vegetables, herbal plant collection and handicraft production (Kaimowitz, 2003).

Forest food as a concept is a step in the right direction that deserves attention. Forests make significant contributions to food security of the rural population providing a vast array of food which supplies essential nutrients especially at time when other food sources are unavailable (Olawoye, 1996). Forest foods encompass a wide range of natural biological resources other than wood derived from forests and allied land uses (FAO, 2001). Though, both natural and plantation forests are a rich source of Non-timber forest products (NTFPs), their relevance had been over shadowed in the past by the over – concentration on the timber component of the forests produce (Jimoh and Adebisi, 2005). The timber-first orientation arose from the high premium placed on wood by early foresters as the major economic produce from the forest due

to its potential as a source of government export revenue.

The role of NTFPs in rural livelihoods is an important factor stimulating interest in bringing them back into forest management focus. Jimoh and Adebisi (2005) averred that the integration of NTFPs with timber production could provide local benefits and make timber extraction more environmentally sustainable and economically viable. The relevance of NTFPs in sustainable forest management has been highlighted to include its potential in curbing environmental degradation; putting paid to insecurity of forest properties; and promoting traditional / indigenous natural resource management technique (Jimoh and Adebisi, 2005). FAO (2001) listed three benefits of NTFPs integration in sustainable forest management as: (1) income generation for rural development; (2) more equitable sharing of the benefits of forest; and (3) local participation in forest management.

In economic terms, NTFPs contribute substantially to national economic growth and international trade. The wild plant resources contribute an income of US\$ 194 – 1114 per household per year in Southern Africa (Shackleton *et al.*, 2000). Globally, herbal medicines entering the international market were valued at US\$ 14 billion in 1996 (FAO, 2001). Jimoh and Haruna (2007) reported

that the contributions of NTFPs to household income around the Onigambari Forest Reserve, Nigeria, amount to 68.1% of total monthly income. In the Southeast of Cameroon, NTFPs have been found to contribute more than 50% to village household incomes. In two out of eight villages studied in Ghana, collecting forest leaves for wrapping food, sponge-making and basket-weaving provided the main sources of income to the households. In Nepal, the Forestry Department collects US\$ 15 million yearly revenue from the trading of NTFPs (FAO, 1995). This study therefore seeks to examine the utilization and marketing of forest foods in Ishiagu, Ebonyi State; Nigeria.

RESEARCH METHODOLOGY

Study Area

This project was carried out at Ishiagu, Ivo Local Government case study of Ebonyi State in 2012. It is made up of ten (10) autonomous communities: Amaeke, Amaeze, Amagu, Amata, Ihie, Okue, Amaonye, Amaokwe, Ngwogwo, Ogor. Of this, eight (8) was selected for this research work.

Data Collection

The data were collected from two sources: primary data and secondary data. Primary data involve the use of questionnaire, personal interview and field visit, while the secondary data were based

on the review of related literature, text books, journals, proceedings, bulleting, newspapers etc.

Sampling Techniques

The research was conducted with the aid of the structured questionnaires for data collection. Simple random sampling was used to select eight (8) autonomous communities out of eleven (11) autonomous communities in Ishiagu, Ivo Local Government Area, Ebonyi State. A purposive sampling technique, based on field experience of the participants on NTFPs and nutrition-related issues in the community was used for selecting key-respondents in the sampled communities. A structured questionnaire was the main research instrument used for collecting primary data from 50 randomly-selected heads of households and forest produce seller from sampled communities in Ishiagu.

Data were also collected on monthly basis from farmers and collectors of forest foods through a survey that assembled information on the size of household, occupation, trends of production, sales, income, consumption, education of respondents, employment, and farming practices in 2016. Observation of the participants comprised visits to NTFP farms of the 50 respondents, market centres, and traders during April - July 2016. This is aimed at verifying and identifying various NTFPs that farmers collect, consume, or

trade in. To ensure the reliability and validity of data, it was compared with information collected from other elderly members of households within the community. In all, a total of fifty (50) questionnaires were distributed and forty nine (49) were valid. This data was analyzed using descriptive statistics such as frequency and percentage distribution.

RESULTS AND DISCUSSION

Results

Table 1: Demographic Characteristics of the Respondents

Table 1 shows the demographic characteristic of the respondents. Result

shows that 28.5% are male while 71.5% are female, also 67.3% are married, 20.4% single while 12.3% are engage, equally the age distribution of the respondents revealed that 34.7% are between 20-29years, 44.9% from 30-39years, 18.4% between 40-49years while 2% are from 50 and above. Educational qualification of respondents revealed that 12.2% has primary education, 42.8% secondary education, 14.3% obtained from ND/NCE, 18.3% from HND/BSc, 6.2% from PGD while 6.2% was obtained from MSc and above, occupation of respondents indicated that 55.2% of the respondents are farmers, 22.4% are civil servants while 22.4% are traders.

(i) Sex Distribution of Respondents

Sex	Frequency	Percentage (%)
Male	14	28.5
Female	35	71.5
Total	49	100

(ii) Marital status of respondents

Married	33	67.3
Single	10	20.4
Engaged	6	12.3
Total	49	100

(iii) Age distribution of respondents

20 – 29 years	17	34.7
30 – 39 years	22	44.9
40 – 49 years	9	18.4
50 and above	1	2.0
Total	49	100

(iv) educational qualification of respondents

Primary education	6	12.2
Secondary education	21	42.8
ND/NCE	7	14.3
HND/B.Sc.	9	18.3
PGD	3	6.2
M.Sc. and above	3	6.2
Total	49	100

(v) Occupation

Farmer	27	55.2
Civil servant	11	22.4
Trader	11	22.4
Total	49	100

Table 2: Basic Utilization and marketing information

Table 2 indicated the basic utilization and marketing of respondents. The result shows that 81.6% of the respondents engage on forest activities, while 18.4% do not engage on forest activities. Equally 18.4% of respondents classify snail as forest food, 44.8% as rodents, 22.5% as vegetable while 14.3% classify forest food as herbs for medicine. Result further revealed that 44.7% of the respondents utilized vegetable, 10.8% utilized herbs for medicine, 34.7% utilized snail, 6.1% utilized rodents while 4% utilized mushroom. In similar vein, 50% of

the respondents derived their income from forest food, 40.8% as their source of food while 8.2% as their source of medicine. Result further shows that 32.7% of respondents get their forest produce weekly, 26.5% monthly, while 40.8% get their forest produce periodically. 95.9% of the respondents propagate forest produce while 4.1% do not. 8.2% indicated positive response to the cultural value attach to forest produce while 91.8% do not attach any value to the forest produce. 53.1% get the forest produce from natural forest while 46.9 of the respondents get their own forest produce from mixed plantation forest.

(i) Engagement of forest activities by respondents

Forest activities	Frequency	Percentage (%)
Yes	40	81.6
No	9	18.4
Total	49	100

(ii) Classification of forest food by respondent

Snail	9	18.4
Rodents, mushroom	22	44.8
Vegetable	11	22.5
Herbs for medicine	7	14.3
Total	49	100

(iii) Type of forest food utilized by respondents

Vegetable	22	44.7
Herb for medicine	5	10.8
Snail	17	34.7
Rodents	3	6.1
Mushroom	2	4.0
Total	49	100

(iv) value derived forest food by respondents

Source of income	25	50.0
Source of food	20	40.8
Source of medicine	4	8.2
Total	49	100

(v) assess to forest produce by respondents

Weekly	16	32.7
Monthly	13	26.5
Periodically	20	40.8
Total	49	100

**(vi) raising of forest
produce by respondent**

Yes	4	95.9
No	2	4.1
Total	49	100

(vii) any cultural value attach to the forest produce

Yes	45	19.8
No	4	8.2
Total	49	100

(viii) source of forest produce by respondents

Natural forest	26	53.1
Palm plantation forest	0	0
Mixed plantation forest	23	46.9
Total	49	100

Table 3: Information on forest foods marketing

Table 3 specifies information on forest food and marketing. The results show that 100% of the respondents can assess forest food from the market at all-time especially on dedicated market days. 51.1% of the respondents indicated that forest food has special section in the market while

48.9% says that they are display everywhere in the market. Result further revealed that 24.5% of the respondents that engage in marketing are between the age range of 15-25years, 53% from 25-35years while 22.5% are from 45 and above.

(i) Forest food sale in the market

Forest food	Frequency	Percentage (%)
Yes	49	100
No	0	0
Total	49	100

(ii) availability of forest food in the market

Yes	49	120
No	0	0
Total	49	100

(iii) display of forest food in the market

Special section	25	51.1
Everywhere in the market	24	48.9
Total	49	100

(iv) age range of sellers of forest food

1-25yrs	12	24.5
25-35yrs	26	53.0
35-45years	0	0
45yrs and above	11	22.5
Total	49	100

DISCUSSION

About 80% of the population in the communities were involved in agroforestry activities, particularly okra, rice, yam, maize, oil-palm, cassava, cocoyam, banana; snail, wild vegetables, mushroom gathering and plantain production. However, agricultural productivity in these communities was quite low because of small farm holdings and sometimes poor yield. With the exception of rice and okra, most farmers grow crops primarily for consumption at home. Sources of forest foods included buying from market and gatherings from the wild. 90% of forest foods consumed and sold in the market are never domesticated. The survey further found that, in addition to the collection of a large variety of NTFPs from the wild, the respondents were mostly active in subsistence backyard poultry keeping followed by goat rearing respectively; which was sold on market days, mostly by women. This finding corresponds with that of Puustjarvy *et al.*, (2005), who established that forest products are an important income source for rural residents. Okafor *et al.*,

(1994) and FAO (2001, 1995 and 1992) equally substantiated these results.

Demographic characteristics of respondents and the results reveal that 71.5% of the people that utilized forest foods are female and illiterate, and they are married women between the age of 30 and 55 years. Results also show that most of them benefited from primary school education and their main occupation is farming. This confirms Brian *et al.*, (2011) assertion that educational level of a given household determines the probability of participation in NTFP business activities. Households with higher levels of educational attainment are less likely to participate in NTFPs. Thus implying that higher levels of education are associated with a lower likelihood of dependence on forest products for rural livelihoods. Education expands the possibilities for labor and employment, whereas households with lower levels of education may be more economically vulnerable, and thus, more likely to extract forest resources for income. Since Ishiagu falls within the transition zone between the lowland rainforest and derived savannah characterized with abundance

diversity of flora and fauna. The preponderance of high level of activities in NTFPs as reported in this study is inevitable. Etukudo (2000) noted that the diversity of trees in few hectares of the forest in Southeastern Nigeria is greater than the entire vegetation of Europe. This laid credence to the high level of activities in NTFPs in the study area. Federal Environmental Protection Agency (FEPA) (1992) recorded 5, 018 plant species in Nigeria rainforest of which 205 are endemic and 247 species of mammals. The identified forest food in the ecozone (latitude 24⁰5 and 24⁰N and longitude 10⁰E and 20⁰N) showed different proportion of abundance (Okafor, 1997, Akachukwu, 1999). Adekunle (2002) reported most of the species are now endemic, with their relative frequency per hectare being with more fruit during the dry season than the rainy season (Nwoboshi, 1982).

CONCLUSION

Based on the results obtained in this study, it showed that the majority of the respondents are farmers and engaged in forest activities. Results further revealed that most of the respondents utilize plant resources, followed by snail and mushroom. According to the respondents, the values derived from forest food are source of income, food and medicine. Finally, the problems affecting the activities of forest

food utilization are: scarcity of forest produce due to deforestation and preference for unwholesome foreign foods. Despite these challenges, forest foods significantly improve rural economy and nutrition.

RECOMMENDATIONS

Based on the findings of this research, the following are recommended:

- 1) that more forest reserved areas should be created and be made accessible to rural people under strict rules that borders on conservation.
- 2) that private ownership of forest should be encouraged and enhanced with incentives from the government so that more forest goods and services could be utilized by the people for nutrition, income generation.
- 3) that further forest policy should be made to include the production of non-timber plant products and local agroforestry schemes to allow for sustained crop yield and other benefits derivable from such scheme.
- 4) that market for medicinal herbs be explored and market created so as to further encourage local farmers in plant genetic conservation which the country have comparative advantage.

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