

Socio-Economic Contributions of Forest Products to the Livelihoods of Residents of Yewa North Local Government of Ogun State, Nigeria.



Olawumi A.T. and Banjo, O.S
Department of Agricultural Science,
Tai Solarin University of Education,
P.M.B. 2118, Ijagun, Ijebu-Ode,
Ogun State, Nigeria.

Address for correspondence: aremutim@gmail.com

INTRODUCTION

- Millions of households in the developing countries (Nigeria inclusive) depend on food and fodder from the forest to supplement their own diet and their livestock feeds.
- Forests are home to approximately 50-90% of all the world's terrestrial (land living), biodiversity- including for pollinators and wild relatives of many agricultural crops. (WWF Living planet Report, 2010).
- Globally, millions of people depend on the forest for their livelihoods – directly, through the consumption and sale of foods harvested in forests, and indirectly through forest-related employment and income generation, forest ecosystem services and forest biodiversity.
- An estimated 2.6 billion people rely on fuel wood including charcoal for cooking their foods (FAO, 2013).

The Problem: Conflicting Natural Resources Uses

- Farmers crave for more land for Agriculture for their livelihood
- Fulani herdsman wants more grazing lands for livestock production for livelihood
- Both have conflicting resource use interests and hence, incessant clashes leading to destruction of arable farms and incessant killing of over 2000 lives!
- Nonetheless more foods are needed to sustain lives!

Conflicting Natural Resource Use



Conflicting Natural Resources Uses



OBJECTIVES OF THE STUDY

- The main objective of the study is to carry out a socio-economic inventory of the forest food in Yewa North Local Government Area of Ogun State, Nigeria
- The specific objectives are to;
- Identify and describe the socio-economic characteristics of the respondents,
- Identify the available edible forest/wild plants and animals in the study area,
- Determine the socio-economic factors influencing the use of forest foods in the study area.
- Identify and describe major problems facing forest food collection, processing, marketing and consumption in the study area.
- And make policy recommendation based on the findings.

METHODOLOGY

- **The Study Area:** Yewa North Local Government of Ogun State, Nigeria
- **Sources of Data :** Primary data was collected using questionnaire aided by personal interview of the respondents - forest users(traditional medical practitioners, farmers, herdsman, consumers and forest product sellers).
- **Sample Size and Method:** 50 respondents each were randomly selected from seven major communities ; four (4) Peri – urban (Aiyetoro, Oja – Odan, Igbogila and Ijoun) and three rural (Igan – Alade, Owode – ketu and Imasayi) to give a total of 350 respondents.
- The researchers personally visited the study area and administered the questionnaire aided with personal interview for those who may not be able to read and write. The questionnaire were retrieved within two days of administering to the literate respondents.

DATA ANALYSIS TECHNIQUES

Descriptive Statistics: The summaries of the socio-demographic of the respondents are presented using frequency counts and percentages.

Logistic Regression: was used to estimate the odds in favor or against the use/consumption of wild foods by the respondents. The formula is given as:

$$F(x) = \frac{1}{1 + e^{-(\beta_0 + \beta_1 x)}}$$

Where $f(x)$ is ad probability of the dependent variable

$$g(f(x)) = \ln \frac{f(x)}{1 - f(x)} = \beta_0 + \beta_1 x$$

or

$$F(x) = \frac{e^{\beta_0 + \beta_1 x}}{1 + e^{\beta_0 + \beta_1 x}}$$

Where:

$g(x)$ = the logit function

$g(f(x))$ = illustrates the logit i.e., log – odds or natural logarithm

l_n = natural logarithm

$F(x)$ = the probability that the dependent variable equals a case.

β_0 = the intercept from the linear regression equation (the value of the criterion when the predictor is equal to zero.

$\beta_1 x$ = the regression coefficient multiplied by some value of the predictor base e denotes the exponential function.

RESULTS

**Table 1:Socio-economic and Livelihood characteristics of Respondents
(N = 350)**

Variable	Mode
Gender	Male (62%)
Age	21-40 (58%)
Marital Status	Married (64%)
Educational Qualification	Secondary School Cert. (45%)
Household size	6-10 members (62%)
Major Occupation	Farming (41%)
Farm size	Below 1 Ha (85%)
Form of Land Tenure	Purchase (44%)
Type of residence	Peri-Urban: Concrete (75%) Rural : Mud House (22%)

Table 2: Identified wild Animals

Name of Animal	<i>Botanical Name</i>
Monkey	<i>Macaca fascicularis</i>
Elephant	<i>Loxodonta africana</i>
Squirrel	<i>Sciurus carolinensis</i>
Bats	<i>Tacca chantriers</i>
Grasscutter	<i>Thryonomys swinderianus</i>
Antelopes	<i>Annova reticulata</i>
Deer	<i>Cervidae</i>
Bee honey	<i>Apis mellifera</i>
Lion	<i>Panthera leo</i>
Snakes	<i>Venomous</i>
Buffalo	<i>Bubalus arnee</i>
Leopard	<i>Panthera pardius</i>
Crocodile	<i>Crocodylus acutus</i>
Snail	<i>Phylum mollusca</i>
Wolf	<i>Canis lupus</i>
Toad or frog	<i>Bufo bufo</i>
Guinea fowl	<i>Numida meleagris</i>
Boar	<i>Sus scrofa</i>
Tiger	<i>Panthera tigris</i>

Bitter Leaf	<i>Vernonia amygdalina</i>
Efo Yanrin	<i>Dandelion Green</i>
African Spinach	<i>Amaranthus hydridus</i>
Lagos Spinach	<i>Celosia argentea</i>
Water Leaf	<i>Talium triangulare</i>
Eggplant Leaf	<i>Solanum macrocarpon</i>
Malabar Spinach	<i>Basella alba</i>
African basil	<i>Ocimum gratissimum</i>
Bologi	<i>Solanecio biafrae</i>
Pumpkin	<i>Telfairia occidentalis</i>
Moringa leaf	<i>Moringa oleifera</i>
Mangoes	<i>Mangifera indica</i>
Cashew	<i>Anacardium occidentale</i>
Kolanut	<i>Sterculiaceae colavera</i>
Sheanut	<i>Butryospermum parkii</i>
Walnut	<i>Juglans regia</i>
Guava	<i>Psidium guajava</i>
Ackee	<i>Blighia sapida</i>
Awin	<i>Dialium indum</i>

Major Contributions of Wild Products to Livelihood

- Supplementary Foods
- Livestock Feeds
- Sources of off season Income
- Medicinal Applications
- Foreign Exchange Earning
- Raw Materials for manufacturing other products
- Tourist Attractions, etc.

Table 4: Logistic regression analysis of the determinants of forest food consumption in the study area

VARIABLE NAME	ESTIMATED COEFFICIENT	STANDARD ERROR	T- RATIO
SEX	0.15139E-01	0.52294	0.2894E-01
AGE	-0.18871	0.38270	-0.49310
EDU	-0.65200E-01	0.31023	-0.21017
HHSZ	0.12216	0.14184	0.86123
FARMSZ	-0.54758E-01	0.13235	-0.41373
TOOLSZ	-0.16310	0.23708	-0.68796
CONSTANT	2.3740	1.8705	1.2692

SCALE FACTOR = 0.14344

CRAGG-UHLER = 0.437

LOG- LIKELIHOOD FUNCTION = -59.616

LOG OF LIKELIHOOD RATIO TEST= 1.71834

Determinants of use of forest foods

- **Sex** of the respondent and **household size** tended to increase the odds in favor of consumption of forest foods;
- **Age** of respondents, **educational** attainment, **farm size** and the **tools owned** by the respondents decreased the odds in its favor.

Conclusion

The study concludes that forest products contributes significantly to livelihoods of respondents through improved nutrition and health maintenance.

Recommendation

- The study recommends:
- Domestication, Conservation and Proper Management of available forest resources;
- Education of the stakeholders on the sustainable harvesting and uses of beneficial wild products to forestall extinction.

THANKS FOR YOUR ATTENTION