

## **Socio Economic Activities of Rural Community and their Perception on Conservation in Okomu National Park**

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### **Abstract**

This study focused on the human activities of the local communities and their perception towards wildlife conservation in Okomu National Park. An assessment was carried out among the inhabitant of the support zone communities using random selection in administering 55 structural questionnaires through the face-to-face interview method. The data collected from the respondents were analyzed using descriptive analysis of simple percentage, table and chart. The result revealed that there are various human activities in the study area. Activities in the support zone communities are male (80%) dominance, majority of who are married. The level of education is poor, hence, major occupations are farming (58.2%), hunting (21.8%), lumbering (10.9%) and trading (5.5%) purposely to meet social and economic needs. This activities has been intensified more in recent years, even though majority (36.4%) generate less than ₦10, 000 monthly. Knowledge on conservation programme in the study area is low as (69.1%) of respondents has no knowledge of conservation though support for conservation efforts seem positive (52.7%). Similarly 63.6% of the respondents show their readiness to take alternative occupation to illegal activities in the park. It is thus pertinent on park management to ensure inclusion of communities' welfare in park programmes and policy especially in the area of job creation and social amenities as this will likely influence communities' participation in wildlife conservation.

**Keywords:** *Support zone, Conservation, Policy, Perception*

### **Background to the Study**

Increase in human population has produces some of the most serious problems to natural resources especially in the developing countries. Nigeria like any of these countries today has its major problems, the rapidly expanding of human population which is not commensurate with improvement in living standards and the quality of human life resulting from better utilization of natural resources. This poses the greatest dilemma today for wildlife conservation (Okeyoyin, 1996). The increasing pressure to exploit natural resources to a great extent often leads to national parks encroachment, such encroachment include hunting, farming, logging, fishing, grazing, mining, fuel collection, fruit and honey collection of all creatures alive on earth. Man has been noted to be the most profound manipulator of his environment. Man as the polluter, destroyer of wilderness, introducer of slain species, the hunter, the gatherer, these attributes of man have been evident the in the biological system and processes the world over that are today showing signs of strain (Okeyoyin, 1996).

Ajayi (1979) reported that hunting is a traditional occupation in Africa and the demand for game meat is very high especially in the south-western Nigeria where 80% of the population eats game meat regularly. Fuel wood comprises about 8.5% of the wood consumes in developing countries and account for more than 75% of total energy consumption in the world, after petroleum and natural gas making it third most valuable commodity in the world (WRI, 1990). The resultant effect of this sometimes is irrational and unsustainable exploitation of the natural environment, depletion of soil fertility, disruption of matter supply system, destruction of vegetation cover and extinction of wildlife resources as well as endangering and threatening their survival (Marguba, 1996).

Realizing the consequence of total depletion of natural resources through various human activities, Federal Government of Nigeria considered the establishment of National Park backed up by Decree 36 of 1991 as the only institution having objectives of conserving and managing the national resources of the ecosystem.

Although the legal framework controlling the exploitation of natural resources in National Park can be said to be of adequate in its written form, but its effectiveness makes room for more to be desired, the hostile posture of the local people posses serious threat to full realization of the objectives set out for the establishment of the national parks through various human activities inside and in the periphery of the park. With the existence of Okomu National Park and many other Game reserves and sanctuary, other bodies such as Savanna (N.C.F): a Non Governmental Organization operating to show both individuals and government concern for the environment. This augurs well for wildlife conservation but given a past filled with unhappy environment experiences the future through fuel of promise should be viewed with caution optimism.

The human activities (socio-economic features) of local communities impact positively or otherwise on the success of their involvement in biodiversity conservation (Amusa, 2009). Human activities has being going on in Okomu National Park, yet adequate information has not established to identify these activities. This lack of information therefore hindered the

successful implementation of park policies. Therefore, there is need for document information on various human activities (socio economic and agricultural) and how such activities can be managed for the successful implementation of policies in protected area.

### **Objective to the Study**

The primary aim of this study is to examine the socio economic activities of rural communities and the perception of conservation practice.

### **Materials and Methods**

#### **The Study Area**

##### **Brief History of Okomu National Park**

Okomu National Park is part of former 123, 800ha Okomu Forest Reserve gazette in 1935. The presence of the white - throated monkey, Chimpanzee and forest elephant in particular led to the creation of a wildlife sanctuary in 1985 to protect these and other endangered species in 1999, its status was later elevated to a National Park.

**Location:** Okomu National Park is located in Ovia South West Local Government Area of Edo State, West of the River Niger in southwest Nigeria. It lies between North latitude  $6^{\circ} 15'$  and  $6^{\circ} 25'$  and east longitude  $5^{\circ} 9'$  and  $5^{\circ} 23'$ . It is bounded in the west by the Okomu River and in the North, east and south by a series of straight cut lines.

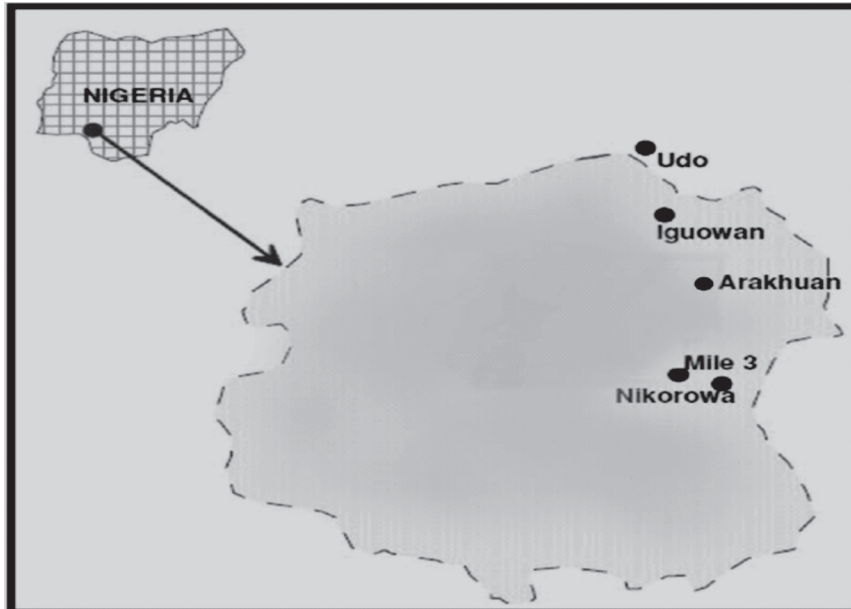
**Size:** The park covers a land area of approximately 19, 712 hectares, making it the smallest of Nigeria's serene National Park.

**Access:** Access to the park is gained mainly through the park gate at Iguowan along the Udo to Nikorgha road, from Lagos and other Western cities is by the Lagos Benin Express way, turning right at the Okada Junction through Iguobazuwa and Udo. The park gate is about 8km from Udo.

There is an alternative route from Benin City straight through Soluko road and turning left at Obarenren Junction after Ora on to Udo. The park is approximately one hour drive from Benin City, four hours from Lagos and six hours from Abuja, Nigeria.

### **Methodology**

This study was conducted by the use of structured questionnaires among the boarded towns and villages around the park. Five (5) of them were randomly selected, these are Udo, Iguowan, Arakhuan, Mile 3 and Nikorowa, in each of the area, farmer, hunters and loggers in rural endeavour were selected for interviews, using questionnaires and personal discussion.



**Fig. 1: Map of Okomu National Park showing the studied area (Source: Nigeria Conservation Foundation, 1998)**

### **Data Collection Methods**

Both direct and indirect methods were used in obtaining data for this study. Direct observation includes visitation to the field to assess the activities of people living in the surrounding villages to determine the types of activities while the indirect method is the use of structured questionnaires to find out the types of activities which the people around the park were engaged with. The questionnaires were designed in such a way to provide information across various professions such as farming, trading, hunting, logging and civil service. The people were engaged in oral discussions in order to extract useful information pertinent to this work.

### **Data Analysis**

The data collected from the five settlements namely; Udo, Iguowan, Arakhuan, Mile 3 and Nikorowa, were analyzed using descriptive statistics (simple percentage, table and bar chart) on the major activities of the inhabitants and their perception toward wildlife conservation in Okomu National Park.

### **Results**

#### **Demographic/Socio Economic Characteristics of Respondents**

A high percentage of respondents were male (80.0%) while females represent only 20%. The age range 31–35 has the modal frequency among those encountered for the study (29.1%) majority is married (65.5%) with an average of 1.5 (49.1%) household size. The level of education in the communities is low: primary education (52.7%) as farming remains the predominant primary occupation (88.2%).

Table 2 show that major respondents activities around the park are farming (58.2%) farming and hunting (21.8%) lumbering (10.9%) and trading (5.5%) which has been more practice in recent years (1 – 5 years 43.6%), even though majority (36.4%) generate less than ₦10, 000 monthly.

**Table 1: Socio Economic Characteristics of Respondents**

<b>Variable</b>	<b>Categories</b>	<b>Frequency</b>	<b>Percentage</b>
<b>Sex</b>	Male	44	80.0
	Female	11	20.0
<b>Age (years)</b>	<20	-	-
	21-25	13	23.6
	26-30	13	23.6
	31-35	16	29.1
	36-40	4	7.3
➤	40	9	16.4
<b>Marital Status</b>	Single	14	25.5
	Married	36	65.5
	Divorced	5	9.1
	Widowed	-	-
<b>Family size</b>	1-5	27	49.1
	6-10	21	38.2
➤	10	1	1.8
No response		6	10.9
<b>Educational Qualification</b>	Primary	29	52.7
	Secondary	17	30.9
	Tertiary	8	14.5
	No formal	1	1.8
<b>Major occupation</b>	Farming	32	58.2
	Lumbering	8	14.5
	Civil servant	4	7.3
	Artisan	1	1.8
	Trading	6	10.9
	Others	4	7.3

**Table 2: Major activities in the study area**

<b>Activities</b>	<b>Frequency</b>	<b>Percentage</b>
Farming	10	18.2
Farming and hunting	12	21.8
Farming and trading	12	21.8
Hunting and lumbering	1	1.8
Hunting	6	10.9
Trading	3	5.5
Lumbering	6	10.9
Farming and lumbering	2	3.6
Others	3	5.5
<b>Years of experience</b>		
1-5	24	43.5
6-10	22	40.0
10-15	3	5.5
16-20	4	7.3
>20	2	3.6
<b>Income generated (Monthly (₦))</b>		
11,000	20	36.4
11,000-20,000	10	18.2
21,000-30,000	15	27.3
21,000-40,000	7	12.7
>41,000	3	5.5

**Hunting Activities in the Study area**

Monkey (*Cocpithecus mona*), duiker (*Cephalophus monticola*), red river hog (*Potamochoerus porcus*), and Baboon (*Papio anubis*) respectively are the most hunted animals species even through 36.8% of the hunter are secretive about their targeted animal. The most popular method of hunting is trapping (68.4%) while wet season is their most active period (63.2%).

**Table 3: Hunting Activities in the Study Area**

<b>Most Hunted Animal</b>	<b>Frequency</b>	<b>Percentage</b>
Monkey	3	15.8
Baboon	1	5.3
Duiker	2	10.5
Red river hog	2	10.5
Others	4	21.5
No response	7	36.8
<b>Total</b>	<b>19</b>	<b>100</b>
<b>Mode of Hunting</b>		
Use of trap	13	68.4
Ambushing	3	15.8
Fire arm	3	15.8
<b>Total</b>	<b>19</b>	<b>100</b>
<b>Period of Hunting</b>		
Wet season	12	63.2
Dry season	7	36.8
<b>Total</b>	<b>19</b>	<b>100</b>

**Farming Activities in the Study Area**

Majority of respondents who responded to farming activities practiced manual method of cultivation (86.1%) while only few (8.3%) are involved in mechanised farming method within the protected area. Response is low to varieties of crops planted (30.6%) though food crop remains the major plantation.

**Table 4: Farming Activities in the Study Area**

<b>Methods of Cultivation</b>	<b>Frequency</b>	<b>Percentage</b>
Manual farming	31	86.1
Mechanised farming	3	8.3
Mechanical and manual	2	5.6
<b>Varieties of crop planted</b>		
Cocoa	3	8.3
Cocoa and plantain	8	22.2
Cocoa, plantain and cassava	1	2.8
Plantain	3	8.3
Cocoa and yam	2	5.6
Plantain and vegetable	4	11.1
Yam, maize, cocoa yam and vegetable	4	11.1
No response	11	30.6
<b>Total</b>	<b>36</b>	<b>100</b>

### Respondents Reasons for Engaging in Activities in the Study Area

Figure 1 show that the majority of the respondents engage in the activities for income (36.8%) 36.1%, 22.2% for hunting, faming and lumbering respectively). Food production id another reason for activities in the study area as 15.8%, 16.7% of respondents engage in hunting and farming respectively for food unemployment rate influence hunting (10.5%) and farming (13.9%), while high percentage respondents reserve comment for lumbering (77.8%).

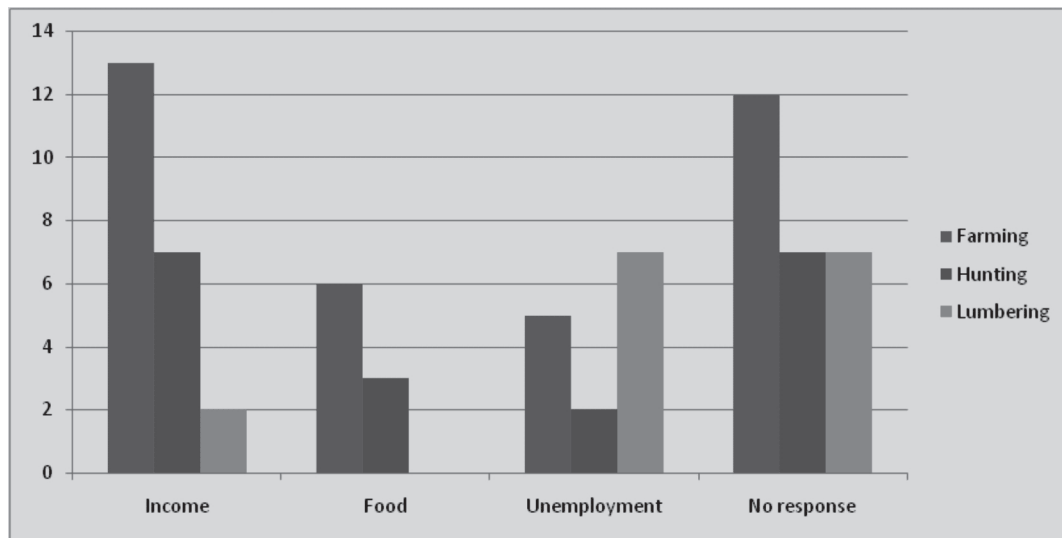


Figure 1: Factors Responsible for Human Activities in the Study Area

### Respondents' Attitude towards Conservation

Knowledge on conservation programme in the study is very low as (69.1%) of respondents has no knowledge of conservation while support for conservation efforts seem positive (52.7%). Similarly (63.6%) of the respondents show their readiness to take alternative occupation to illegal activities sin the park.



**Table 5: Respondents Attitude/Perception to Conservation**

<b>Conservation knowledge</b>	<b>Frequency</b>	<b>Percentage</b>
Yes	17	30.9
No	38	69.1
<b>Total</b>	<b>55</b>	<b>100.0</b>
<b>Support for Conservation Efforts</b>		
Yes	29	52.7
No	26	47.3
<b>Total</b>	<b>55</b>	<b>100.0</b>
<b>Willingness to take Alternative occupation</b>		
Yes	35	63.6
No	20	36.4
<b>Total</b>	<b>55</b>	<b>100.0</b>

### **Discussion**

Activities in the support zone communities are male (80%) dominance, majority of who are married. The level of education is poor, hence, major occupation is farming, farming is practiced in the communities to meet social and economic needs as both cash and food crops are planted, this is in contrary to Akosim *et al.* (2010) which reports that food was not rated as one of park surrounding communities predominant needs though observed that dependency on farming implies that encroachment into park land area is inevitable in the absence of alternative means of livelihood. Hunting activity in the communities is in consonance with Wahab *et al.* (2014) reports that one aspect of human activity in the protected area is illegal hunting which is practiced largely for subsistence to supplement the animal protein supply in the farming community. However, respondents in the studied communities signify that hunting mostly with the use of trap takes place every time of the years, though wet season recorded the highest frequency. This validated Happold (1987) report that hunting of many species takes place at all time of the year. The conservation knowledge in the study area tend negative, this may be due to low level of education in the area, though higher percentage of respondents indicate positive attitude to wildlife conservation and are willing to take alternatives occupation to illegal activities in the protected area.

### **Conclusion**

From the results of this study, it is evident that sustainable conservation has not worked on significant level to date in Okomu National Park, probably because of neglect of socio-economic factors which compel people to abuse the use of park. Human activities such as farming, hunting, trading and lumbering are practiced to meet the social and economic needs of the people. In spite of the respondents' low level of education, they still indicate

positive attitude towards wildlife conservation. However, alternative occupation is a major determinant of respondents' perception and attitude, hence a key factor capable of influencing their involvement in wildlife conservation in the study area.

### **Recommendation**

As a result, they have always been ignored and isolated from the form of development, that these people have access to far community service facilities and receive very little external support and guidance means that the residents has depended almost completely on nearby natural resources for nutrition, health, energy and income. Some were removed from their central areas to pave the way for the game reserve. These affected received no compensation in return because this impingement act prevented the long time residents from having access to the resources which are there to use by custom, some resorted to hunting, farming and lumbering etc. in defiance of the law, resulting in the problems of poaching in the goal of the park is to be realized, there is need to;

- i. Good tracks, firearms, life ammunition, communication equipments, vehicles and other materials necessary for operations and the members of train personnel should be made available to effect anti poaching activity.
- ii. A strict legal action should be taken against anyone caught violating the laid down decree and legislation of the park so as to serves as a deterrent to other unpatriotic members of the society.
- iii. All the existing law court in Nigeria should be informed formally about the existing wildlife decree law and legislation.
- iv. Organization of local communities to participate actively in the administration and in making and executing policies must be employed, extensive consultation with the traditional chiefs, district and village heads, notable politicians in the villages and public meetings with local communities should be carried out to win the confidence of the people and solicit their support, the integration of these local communities will enhance the effectiveness of extension service and in the long run promote and interact in the environment.
- v. A percentage of the money going to the park from the exploitation of wildlife resources must be used for community development in all the surrounding villages such that all sundry will benefit. This should include scholarship for qualified student in the science and environmental conservation courses, gifts to anyone who assist in the arrest of trespasser and selection of local people for training as villages' game scouts.
- Vi. All know non governmental organizations like the world wild fund for nature, food and agricultural organization (F.A.O), Nigeria Conservation Foundation (NCF) United Nation Development Programme (UNDP), African Wildlife Foundation (A.W.F) *etc* should be consulted for assistance in training and materials to ensure the establishment and full functioning of the working plan.

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Plate 1: Trees fell by Loggers



Plate 2: Animal (Red river Hog: *Potamochoerus porcus*) killed by poacher





Plate 3: Food crop farming within the Park



Plate 4: Arrested poachers