

## ASSESSMENT OF INDIGENOUS FOREST AND WILDLIFE CONSERVATION PRACTICES IN AKOKO-EDO LOCAL GOVERNMENT AREA, EDO STATE, NIGERIA

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### ABSTRACT

The study is conducted to assess the indigenous forest and wildlife conservation practices in Akoko-Edo Local Government Area of Edo State, Nigeria. The objectives of the study are to identify the location of the sacred grove and cultural practices like customary laws and taboos used to enhance conservation in the area. Data were collected by the use of structured questionnaires distributed to 202 respondents in the local government area. Data collected were analyzed using descriptive statistics such as percentage, and simple chi-square test was used to separate significant means. The results showed that 36.6, 33.2, 15.8 and 14.4% of the respondents agreed that groves were located in cemeteries, market squares, centres of towns and out-skirts of towns respectively. 99.5% agreed that cultural practices were used to protect endangered species, 98% agreed they were used to conserve medicinal plants, 83.2% agreed that religion, migration and industrialization have negatively affected the use of cultural practices for conservation. Also, 92.6% agreed that customary laws were used to conserve flora and fauna in the area, whereas, 97% agreed that applying appropriate sanctions on defaulters will help conservation. It was therefore recommended that new ways of conservation be explored in the area now that cultural practices are being abandoned because of massive development and industrialization.

**Key words:** Forest, wildlife, conservation, industrialization, migration.

### INTRODUCTION

Cultural practices may relate to language, shared sense of history, religion and spiritual observances, protocol, eating and drinking, habits, prohibitions and taboos in sacred groves (Kremen, 2005). In this research, we look at the contribution of cultural practices to the conservation of flora and fauna species.

Oviedo *et al.* (2005) reported that sacred groves are considered as “sacred natural sites” which are generally seen as a form of nature worship. In common terms, they are the relic forest patches preserved in the name of religion or culture as observed in many societies. They are considered as repositories of local fauna and flora species (Jamir and Pandey, 2003; Jayarajan, 2004). The conservation of these local fauna and flora species is made possible by the existence of some customary laws which prohibit the cutting of trees and destruction of vegetation or animals around the sacred sites (Githitho and Luke, 2007; Andriamiarosa,

2003; Anderson *et al.*, 2007). The existence of sacred groves cannot be overemphasized as they are found in many countries extending from Asia, Africa, and Europe to America, but their present occurrence is restricted in Africa and Asia (Hughes and Chandran, 1998). However, sacred groves are remarkable places which link nature and culture, often determine local/regional /national cultural identity (Schaaf, 2007).

Studies abound in Africa that underscores the importance of sacred groves in the growing conservation efforts in the continent. For instance, Gregory (2009), Shonil *et al.* (2006), Ramakrishan and Ram (1998) and Baidu (2002) reported in different studies how traditional cultural practices have deepened the conservation consciousness of the rural people (CBD, 2010).

This study, therefore, seeks to identify the location of sacred grove and the cultural practices like customary law and taboos used to enhance conservation as they exist in Akoko-Edo Local Government Area of Edo State.

## METHODOLOGY

### Study area

The study was carried out in Akoko-Edo Local Government Area (L.G.A) of Edo State (Latitude; 7°4'N; Longitude 6°12'E). Akoko-Edo has a total area of 1,371km<sup>2</sup> and a total population of 262,110 (NPC, 2006). It lies within the Guinea Savanna vegetation zone of Nigeria.

Akoko –Edo Local Government area is bounded by Kogi State in the North, Etsako East and Etsako West in the East and Owan East in the South. It comprises thirty communities which include – Ibillo, Lampese, Bekuma, Kakumo, Imoga and Ogugu in the North; Igarra, Oloma, Okpe, Sasaro, Ikpeshi, Ebigere, Aiyetoro, Enwa, Akuku and Somorika in the South; Ososo, Damgbala, Ojirami, Atte, Ekpedo, Ojah, Makeke And Ekpe in the East And Ikiran-Oke, Ikiran-Ile, Ugboshi, Uneme, Ijaja and Aiyegunle in the West. Akoko-Edo people are predominantly farmers that speak the indigenous dialect known as Igarra.

### Sampling techniques and data collection

Reconnaissance survey was first conducted in the study area to identify the communities where cultural practices were used in the conservation of the fauna and flora species. Then purposive sampling procedure was used in selecting 8 out of the 30 communities in Akoko-Edo Local Government Area of Edo State across; 2 communities from each of the 4 zones. Data were collected through the use of structured questionnaires. A total of 240 questionnaires (30 each) were administered to the 8 communities. 202 were duly retrieved – 28 from Igarra and 24 from Ikpeshi (South Zone); 27 from Imoga and 26 from Bekuma (North Zone); 25 from Dagbala and 22 from Ojirami (East Zone) and 26 from Uneme and 24 from Ugboshi (West Zone).

### Data analysis

Data which were collected from both primary and secondary sources were analyzed using descriptive statistics, while significant means were separated using chi-square test.

## RESULTS AND DISCUSSION

### Demographic characteristics of respondents

Table 1 shows that in Imoga, 77.8% of the respondents were males and 22.2% were

females and in Bekuma, 65.4% were males and 34.6% were females, both in the North Zone. There were 75% males and 25% females in Igarra; 54.2% males and 45.8% females in Ikpeshi, both in the South zone; in the East zone, there were 52% males and 48% females in Dagbala; 72.7% males and 27.3% females in Ojirami. In the West zone, there were 53.8% males and 46.2% females in Uneme; 37.5% males and 62.5% females in Ugboshi. Overall, 61.4% of the respondents were males and 38.6% were females. The greater percentage of male respondents is a pointer that majority of the households were headed by men.

The table also shows that most respondents in Imoga (51.9%), Bekuma (42.3%) both in the North; Uneme (50%), Ugboshi (45.8%) in the West fall within the age bracket of 24-30 years. Some respondents in Ikpeshi (62.5%) in the South and Dagbala (52%) in the East fall within the age bracket of 17-23. Whereas, others in Igarra (50%) in the South and Ojirami (59.1%) in the East fall within the age bracket of 31 and above. This shows that the respondents are young, virile and trainable.

The educational status of the respondents shows that a majority of them have some kind of education (primary, secondary or tertiary). In Imoga (66.7%), Bekuma (88.5%), both in the North; Igarra (71.45%), Ikpeshi (83.33%) both in the South; Dagbala (80%), Ojirami (81.81%) both in the East; Uneme (84.61%) and Ugboshi (87.50%) both in the West all have some kind of education. The level of literacy observed here is an indication that if the people are integrated in the conservation process in the area, they will adapt easily. The marital status is positive across the local government area for a good number of respondents. The respondents from Imoga (63%), Bekuma (57%), Igarra (67.9%), Ikpeshi (87.5%), Dagbala (52%), Ojirami (72.7%), Uneme (61.5%) and Ugboshi (83.30%) were all married. Table 1 also shows that most respondents in the North-Imoga (55.6%) and Bekuma (50%) were traditionalists. Whereas those in the South-Igarra (42.9%) and Ikpeshi (45.8%); in the East-Dagbala (60%) and Ojirami (40.9%); in the West-Uneme (73.1%) and Ugboshi (75%) were all Christians. This distribution definitely will affect the views of respondents in these areas about conservation of groves in Africa, according to Ormsby and Edelman (2010) and Eneji *et al.* (2012).

**Table 1.** Demographic characteristics of the respondents.

Zone	Variable	Frequency (%)	
		Imoga	Bekuma
North	<b>Sex</b>		
	Male	21 (77.8)	17 (65.4)
	Female	6 (22.2)	9 (34.6)
	Total	27 (100.0)	26 (100.0)
	<b>Age</b>		
	17-23	3 (11.10)	6 (23.10)
	24-30	14 (51.90)	11 (42.30)
	31 and above	10 (37.00)	9 (34.60)
	Total	27 (100.00)	26 (100.00)
	<b>Educational status</b>		
	Primary	12 (44.44)	8 (30.80)
	Secondary	2 (7.41)	6 (23.10)
	Tertiary	4 (14.81)	9 (34.60)
	Non formal education	9 (33.33)	3 (11.50)
	Total	27 (100.00)	26 (100.00)
	<b>Marital status</b>		
	Married	17 (63.00)	15 (57.70)
	Single	10 (37.00)	11 (42.30)
	Total	27 (100.00)	26 (100.00)
	<b>Religion</b>		
	Christianity	8 (29.60)	8 (30.80)
Islam	4 (14.80)	5 (19.20)	
Traditional religion	15 (55.60)	13 (50.00)	
Total	27(100.00)	26 (100.00)	
South	<b>Sex</b>		
	Male	21 (75.8)	13 (54.20)
	Female	7(25.00)	11 (45.80)
	Total	28 (100.0)	24 (100.0)
	<b>Age</b>		
	17-23	6 (21.40)	15 (62.50)
	24-30	8 (26.60)	3 (12.50)
	31 and above	14 (50.00)	6 (25.00)
	Total	28 (100.00)	24 (100.00)
	<b>Educational status</b>		
	Primary	3 (10.70)	2 (8.30)
	Secondary	4 (14.30)	6 (25.00)
	Tertiary	13 (46.40)	12 (50.00)
	Non formal education	8 (28.60)	4 (16.70)
	Total	28 (100.00)	24 (100.00)
	<b>Marital status</b>		
	Married	19 (67.90)	21 (87.50)
	Single	9 (32.10)	3 (12.50)
	Total	28 (100.00)	24 (100.00)

	<b>Religion</b>		
	Christianity	12 (42.90)	11 (45.80)
	Islam	7 (25.00)	7 (29.20)
	Traditional religion	9 (32.10)	6 (25.00)
	<b>Total</b>	<b>28 (100.00)</b>	<b>24 (100.00)</b>
	<b>Sex</b>	<b>Dagbala</b>	<b>Ojirami</b>
	Male	13 (52.00)	16 (72.70)
	Female	12 (48.00)	6 (27.30)
	<b>Total</b>	<b>25 (100.0)</b>	<b>22 (100.0)</b>
	<b>Age</b>		
	17-23	13 (52.00)	1 (4.50)
	24-30	9 (36.00)	8 (36.40)
	31 and above	3 (12.00)	13(59.10)
	<b>Total</b>	<b>25 (100.00)</b>	<b>22 (100.00)</b>
	<b>Educational status</b>		
	Primary	5 (20.00)	4 (18.20)
	Secondary	8 (32.00)	6 (27.30)
	Tertiary	7 (28.00)	8 (36.40)
East	Non formal education	5 (20.00)	4 (18.20)
	<b>Total</b>	<b>25 (100.00)</b>	<b>22 (100.00)</b>
	<b>Marital status</b>		
	Married	17 (68.00)	13 (59.10)
	Single	8 (32.00)	9 (40.90)
	<b>Total</b>	<b>25 (100.00)</b>	<b>22 (100.00)</b>
	<b>Religion</b>		
	Christianity	15 (60.00)	9 (40.90)
	Islam	6 (24.00)	7 (31.80)
	Traditional religion	4 (16.00)	6 (27.30)
	<b>Total</b>	<b>25 (100.00)</b>	<b>22 (100.00)</b>
	<b>Sex</b>	<b>Uneme</b>	<b>Ugboshi</b>
	Male	14 (53.80)	9 (37.50)
	Female	12 (46.20)	15 (62.50)
	<b>Total</b>	<b>26 (100.0)</b>	<b>24 (100.0)</b>
	<b>Age</b>		
	17-23	8 (30.80)	7 (29.20)
	24-30	13 (50.00)	11 (45.80)
	31 and above	5 (10.20)	6 (25.00)
West	<b>Total</b>	<b>26 (100.00)</b>	<b>24 (100.00)</b>
	<b>Educational status</b>		
	Primary	3 (11.50)	2 (8.30)
	Secondary	5 (19.20)	13 (54.20)
	Tertiary	14 (53.80)	6 (25.00)
	Non formal education	4 (15.40)	3 (12.50)
	<b>Total</b>	<b>26 (100.00)</b>	<b>24 (100.00)</b>

**Marital status**

Married	16 (61.50)	20 (83.30)
Single	10 (38.50)	4 (16.70)
Total	26 (100.00)	24 (100.00)

**Religion**

Christianity	19 (73.10)	18 (75.00)
Islam	2 (7.70)	2 (8.30)
Traditional religion	5 (19.20)	4 (16.70)
Total	26 (100.00)	24 (100.00)

Source: Field Survey, 2011.

**Location of groves in the study area**

Table 2 shows that 36.6% of the respondents from the four zones (North, South, East and West) agreed that sacred groves were located in cemeteries. 33.2% identified the market squares as housing the sacred groves; 15.8 %, the centre of the communities; 14.4%, the outskirts of their community.

**Table 2.** Location of groves in the study area.

Location	Frequency	Percentage
Cemetery	74	36.6
Market square	67	33.2
Out skirt	29	14.4
Centre	32	15.8
Total	202	100.0

Source: Field Survey, 2011.

Table 3 shows that majority (51.49%) of the respondents across the various zones of the

local government area agreed strongly that cultural practices were used as a means of conserving both tree and animal species in the area and 44.10% also agreed. Jamir, and Pandey (2003) and Colding and Folke, (2007), in separate studies, also made the same observation. Also, 56.41 and 43.10% of the respondents strongly agreed and agreed respectively that cultural practices were used to conserve and protect endangered species in the study area. 52.00 and 46.00% of the respondents also strongly agreed and agreed respectively that cultural practices were used to conserve medicinal plants in the study area. This is supported by Caillois (1980). A good number of the respondents strongly agreed (48.0%) and agreed (51.00%) that cultural practices were used to protect indigenous species from going into extinction. 54.0% of the respondents agreed strongly and 29.0% agreed that religion, migration and industrialization have affected

**Table 3.** Impacts of cultural practices on wildlife conservation in the study area.

Variable	Strongly disagree	Disagree	Uncertain	Agree	Strongly agree	Total
	No. (%)					
Deforestation and uncontrolled hunting depletes wildlife species	1 (0.5)	2(0.99)	6(2.97)	89(44.10)	104(51.49)	202(100)
Cultural practices are used to conserve and protect endangered species	0(0.00)	0(0.00)	1 (0.5)	87(43.10)	114 (56.40)	202(100)
Cultural practices are used to conserve medicinal plants	0(0.00)	1 (0.5)	3(1.50)	93 (46.0)	105 (52.00)	202(100)
Cultural practices are used to protect indigenous species	0(0.00)	1 (0.5)	1(0.5)	103(51.00)	97 (48.00)	202(100)
Religion, migration and industrialization have impacted negatively on cultural practices on wildlife conservation.	6(3.00)	11(5.40)	17(8.40)	59(29.20)	109 (54.00)	202(100)
Customary laws are used to conserve effectively the flora and fauna of the study area.	1 (0.5)	1 (0.5)	13 6.40)	123(60.90)	64 (31.70)	202(100)

Appropriate sanctions on defaulters help in the conservation of fauna and flora species	0(0.00)	1 (0.5)	5 (2.50)	100(50.00)	95 (47.00)	202(100)
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Source: Field Survey, 2011.

cultural practices negatively and subsequently wildlife conservation in the area. 31.70% of the respondents agreed strongly and 60.90% agreed that customary laws were used to enforce compliance in the effective conservation of flora and fauna in the study area. This conforms with the observations made by Shonil *et al.* (2006). Also, 47.0% of the respondents strongly agreed and 50.0% agreed that appropriate sanctions on defaulters will help in the conservation of the fauna and flora of the study area.

### Conclusion

It is concluded, therefore, that cultural practices like customary laws and taboos have played a major role in the conservation of the flora and the fauna which serve as reserve for indigenous species, medicinal plants and endangered species in the study area. Conservation efforts had also been whittled down by religion, immigration, industrialization and even education to the extent that the survival of the groves today is hanging in a balance. Finally, it is pertinent that new ways of conservation be explored now that the old ways are being jettisoned gradually because of massive development and industrialization.

### REFERENCES

- Anderson, S., Bonthel, K. and Ahrne. (2007).** Measuring Social Ecological Dynamics Behind the Generation of Ecosystem services. *Ecological Applications* 17(5): 1267 – 1278.
- Andriamiarosa, V. (2003).** Information on the sacred forests of the Mahataly Plateau. Internal WWF note.
- Caillois, R. (1980).** Man and sacred groves (Transl. M. Barash) WestPart, Connecticut: Green Wood Press. pp. 20 - 22
- CBD, (2010).** Article IO. Sustainable use of components of biological diversity (online). Available: <http://www.cbd.int/convention/articles.shtml?a=cbd> – 10.
- Colding, J. and Folke, C. (2007).** Social taboos; invisible systems of local resource management and biological conservation. *Ecological Application*. 11:584 – 600.
- Githitho, A. and Luke, O. (2007).** Coastal forest conservation unit, Kerry (CFCU). WWF. Project Ke 0074 Completion Report, 47 pages.
- Gregory, H. M. (2009).** Ecological Dynamics and Social change. *Journal of African Sacred Groves*. 2(1): 207 – 208.
- Hughes, J. D., and Chandran, M. D. S. (1998).** Sacred groves around the earth-an overview. In: Conserving the sacred groves for biodiversity management. Ramakrishan, P. S. Saxena K. G. and Chandrashekara, U. M. (eds.) Oxford and IBH Publishing Co. Pvt Ltd. New delhi, Kolkata.
- Jamie, S. A., and Pandey, H. N. (2003).** Vascular Plant diversity in the sacred groves of Jainta Hills in North East India. *Biodiversity and Conservation*. 12(1): 1497 – 1510.
- Jayarajan, M. (2004).** Sacred groves of North Malabar. Discussion paper No. 92 Kerela Research Programme on Local Level Developmental Studies Thiruvana, Thapuran.
- Kremen, G. (2005).** Ecological letters. Volume 8, Issue 5. Blackwell Publishing Limited pp. 468 – 479.
- National Population Commission, NPC (2006).** The Population of Nigeria.
- Ntiemoa – Baidu, Y. (2002).** Indigenous versus introduced biodiversity conservation strategies: The case of protected area system in Ghana. In Weber, W. (ed.)
- Oviedo, G., Jeanrenaud, S. and Otegui, M. (2005).** Protecting Sacred Natural Sites of Indigenous and Traditional Peoples: An IUCN perspective.
- Schaaf, T. (2007).** Involvement of UNESCO, MAB and UNESCO World Heritage Centre in biodiversity conservation through sacred natural sites. Final Report on the East Asian Biosphere Research Network (EABRN) pp.47 – 58.

**Shonil, A. Bhagwat and Claudia, R. (2006).**  
Sacred Groves: Potential for Biodiversity  
management. *J. Frontiers in Ecology and  
the Environment*. 4: 519 – 524.