Research Journal of Forestry

ISSN 1819-3439

Academic Journals Inc.

www.academicjournals.com

OPEN ACCESS Research Journal of Forestry

ISSN 1819-3439
DOI: 10.3923/rjf.2019.9.13

Research Article
Impact of Cultural Belief on the Preservation of Agunabani Sacred Forest in Okposi, Nigeria

Onyekachi Chukwu, Caleb Ike Ezeano, Jacinta Ukamaka Ezenwenyi and Muhammed Adewole Adeyemi

Department of Forestry and Wildlife, Nnamdi Azikiwe University Awka, Awka, Nigeria

Abstract

Background and Objective: Sacred and/or "evil" forests are ecologically unique, rich in biodiversity and important for conservation on varying scale of landscape, community and species. However, cultural beliefs, indigenous knowledge, myths, traditional taboos (laws) and sanctions have been successfully used to preserve some sacred groves, forests and animals around the world. Information on most traditionally protected forests in Nigeria such as "Agunabani" is yet to be reported. The objective of this study was to investigate the impact of cultural beliefs on the preservation of Agunabani sacred forest in Okposi, Nigeria, with a view to providing a baseline information and outlining the challenges facing existence of the forest. **Materials and Methods:** Random sampling technique was adopted; 120 questionnaires were randomly distributed to dwellers within 0-3 km from the buffer of the forest. The data were analyzed using frequency, percentages and Kruskal Wallis Test of independence to examine the effect of some socio-demographic characteristics of the respondents on the forest preservation. **Results:** About 94.2% of the respondents confirmed that among the taboos supporting existence of the Agunabani sacred forest was prohibition of hunting and cutting of trees within the forest. About 85% support the continuous existence and 97.5% were Christians. The result of the Kruskal Wallis test revealed that foreign religion (Christianity) had significant effect ($p<0.05$) on the respondents' indigenous knowledge. **Conclusion:** It can be concluded that cultural practices of the community still help in the preservation of Agunabani sacred forest not withstanding the challenges of foreign religion. Hence, legal reservation of the forest and detailed conservation research is recommended.

Key words: Cultural beliefs, forest preservation, evil forest, indigenous knowledge, sacred forest

Citation: Onyekachi Chukwu, Caleb Ike Ezeano, Jacinta Ukamaka Ezenwenyi and Muhammed Adewole Adeyemi, 2019. Impact of cultural belief on the preservation of Agunabani sacred forest in Okposi, Nigeria. Res. J. For., 13: 9-13.

Corresponding Author: Onyekachi Chukwu, Department of Forestry and Wildlife, Nnamdi Azikiwe University Awka, Awka, Nigeria Tel: +2348032633835

Competing Interest: The authors have declared that no competing interest exists.

Data Availability: All relevant data are within the paper and its supporting information files.

INTRODUCTION

Tropical forests are the most diverse of the world's terrestrial ecosystems that contains more flora and fauna species[1,2]. However, many studies have reported Nigerian forests lands been decreasing steadily due to the indiscriminate and/or illegal logging activities and over-exploitation of trees[2,3]. Despite the alarming rate of deforestation in Nigeria, some patches of forests are conserved/preserved by cultural beliefs and indigenous knowledge as sacred forests and groves[4,5].

Dei *et al.*[6] defined indigenous knowledge as cultural knowledge and commonsense ideas of local peoples concerning the everyday realities of living. This knowledge (beliefs, norms and traditions) are passed on from the community elders to the younger generation via oral stories and indoctrination[5,7]. Babalola[7] pointed that in most developing countries for instance, Nigeria, most rural communities' dwellers believe that protecting sacred trees, animals as well as inanimate natural features will in turn protect their environment (villages and forests), provide rain, bring good luck and fortune and avoid God's punishment.

Efforts of using cultural beliefs, indigenous knowledge, myths, traditional taboos (laws) and sanctions to preserve some sacred groves, forests and animals in the southern part of Nigeria has been documented[4,5,8-10]. For instance, every "Ejagham" community or village of in Cross River state of Nigeria has forbidden forest[10]. Likewise, in Ovu Inland in Ethiope-East Local Government Area of Delta state is the "Ovughere" regarded as god of war located in a thick forest with the presence of trees such as Iroko (*Milicia excelsa*), Mahogany (*Khaya* spp.) among other plant species[10]. However, despite studies on biodiversity, forest and wildlife conversion in the southern part of Nigeria, most traditionally protected forests in Nigeria such as "Agunabani" are yet to be reported.

Previous studies have shown that sacred and/or "evil forests" are ecologically unique, rich in plant and animal diversity and important for conservation on varying scale of landscape, community and species[11-13]. However, many scientists have refused to recognize traditional ecological knowledge as science because of its spiritual base, which they regard as superstitious and fatalistic[14]. In the same vein, the adoption of foreign religions (Christianity and Islam) by the people has also contributed to the neglect of cultural beliefs that are in support of the sacred forests[4]. Therefore, the objective of this study was to investigate the impact of cultural beliefs on the preservation of Agunabani sacred forest in Okposi Community of Ebonyi state, Nigeria. With a view to providing a baseline information and outlining the challenges facing existence of the forest.

MATERIALS AND METHODS

Study area: The study was conducted for the total time duration of 2 months, from September-October, 2017, around a sacred forest called "Ovia Agunabani" (Agunabani sacred forest) in the heart of Okposi-Okwu town of Okposi, Ohaozara Local Government Area of Ebonyi state, Nigeria[15]. Okposi lies between longitude 7.3932-8.2453°E and latitude 5.7943-6.3702°N (Fig. 1) within the lower fringes of the southern guinea savannah ecological zone of Nigeria and covers a total land area of 750 km^2. The soil is mainly sandy-loamy, the climate is characterized by distinct rainy and dry seasons. Rainfall in the area spreads over April-October. The climate of the area is tropical sub-humid with high temperatures and high humidity, the average maximum and minimum daily temperature of 35 and 21°C in wet season and 38 and 16°C in dry season. The study area is bounded at the north by Onicha, to the east by Ugwulangwu, Uburu to the west and Amasiri to the South[16].

Data collection and analysis: The data for the study were sourced mainly from primary sources that is direct from the communities living around the Forest. Random sampling technique was adopted for this study. The researchers estimated houses within 0-3 km from the buffer of the forest to be about 150 with a mean of 8 individuals in each household. A population of about 1200 individuals was then estimated to be living within the area (150 houses × 8 individuals). Thus, 10% (120) of the total population of the individuals in the area were randomly selected to form the sample size for the study. Structured questionnaires were then used to collect information from the 120 randomly selected individuals living within 0-3 km from the buffer of the forest.

Frequencies, percentages and Kruskal Wallis test were the statistical analysis used in this study. The data collected for this study were subjected to descriptive statistics (frequencies and percentages). Kruskal Wallis Test of independence was adopted to check the effect of some socio-demographic characteristics of the respondents' indigenous knowledge of forest preservation.

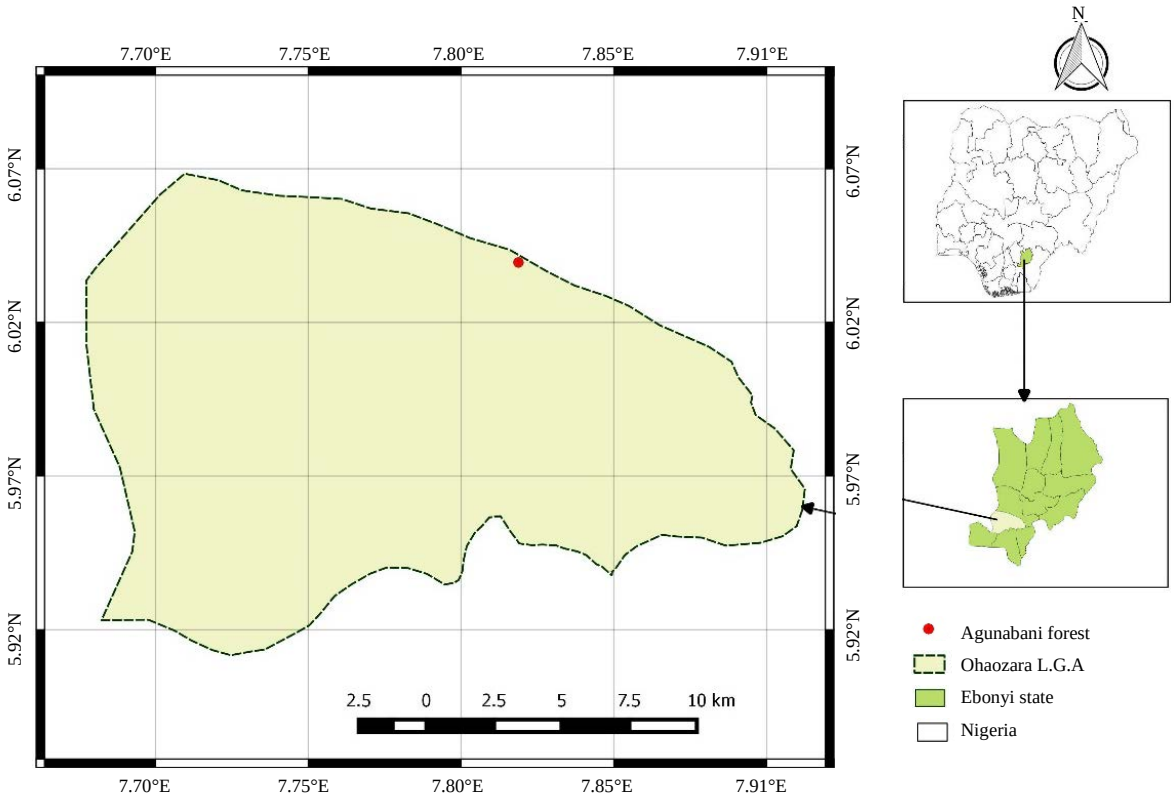

Fig. 1: Map of Ohaozara local government area showing Agunabani Sacred forest

RESULTS

Respondents socio-demographic characteristics: Table 1 revealed that about 60% of the sampled residents were male. About 53% of the respondents are between the ages of 40-39 years old with 97.5% Christians. Table 1 also indicated that about 83.3% had formal education at different levels. Hence, about 70.8% of the respondents have stayed in the community for 40 years and above.

Awareness of culture and traditional law: Table 2 showed that about 62.5% of the respondents are members of Agunabani kindred. All of the respondents confirmed that the law of "No hunting and felling of trees" exist. However about 85% of the respondents believed that the laws were made by their ancestors. Furthermore, about 71.7% of the respondents' believed that the culture constituted the preservation of the forest.

Agunabani sacred forest further existence people's perception: Table 3 revealed that 85% of respondents want the forest to exist. However, most (72.2%) respondents that do not want the existence of the forest indicated that it conflicts with their religious belief.

Table 1: Socio-demographic characteristics of the respondents

Characteristics	Frequency (N =120)	Percentage
Gender		
Female	48	40
Male	72	60
Age		
below 20 years	7	5.8
21-39 years	32	36.7
40-69 years	64	53.3
70 years and above	17	14.2
Religion		
Christian	117	97.5
Muslim	0	0
Others	3	2.5
Educational level		
Non-formal	20	16.7
Primary	19	15.8
Secondary	31	25.8
Tertiary	50	41.7
Length of stay in Okposi		
10 years and below	11	9.2
11-39 years	24	20.0
40 years and above	85	70.8

The impact of the socio-demographic characteristics of the respondents on the cultural belief (indigenous knowledge) was assessed using the Kruskal Wallis Test of independence. Table 4 revealed that the knowledge of the laws guiding the forest was independent ($p>0.05$) of gender,

Table 2: Knowledge on culture and traditional laws

Question	Response	Frequency (N = 120)	Percentage
Are you from Agunabani	Yes	75	62.5
kindred?	No	45	37.5
What are the laws guiding	No felling of tree	5	4.2
the activities in this forest?	No hunting	2	1.7
	All of the above	113	94.2
Who established the law?	The gods	14	11.7
	Our forefathers/ Ancestors	102	85
	The Kings	2	1.7
	Others	2	1.7
What constituted the	Culture	86	71.7
preservation of the forest?	Community conflict	2	1.7
	I don't know	32	26.7

Table 3: Perception on further existence of Agunabani sacred forest

Question	Response	Frequency (N = 120)	Percentage
Do you want the forest	Yes	102	85
to still exist?	No	18	15
If No, why	It conflicts with my religion	13	72.2
	We need social amenities	2	11.1
	I don't know	2	11.1
	Others	1	5.6

Table 4: Impact of the socio-demographic characteristics on culture

	Kruskal Wallis test			
Grouping variable	Gender	Age	Religion	Education
Knowledge of traditional laws				
Chi-square	6.188	5.48	23.103	7.215
df	3	3	3	3
p-value	0.103	0.140	0.000*	0.065

*Significant at 0.05 probability level, df: Degree of freedom

age and educational level. However, religion had significant effect ($p<0.05$) on the residents' indigenous knowledge.

DISCUSSION

This research revealed that male were more than female respondents. This implied that males were more assessable in the study area. Also, age distribution of the respondents showed that most of the respondents were from 40-69 years. Hence, most of the respondents have lived in the study area for over 40 years; this suggested that most of the sampled respondents have been living in the community for a long period of time and can give adequate information on the sacred forests in their community. This is similar to the report of Adom[16] that local chiefs and their people provide important information on a lot of socio-ecological issues such as biodiversity conservation. Thus, this validates the information given by the respondents as true reflection of the study area based on years of residence in the study area. However, the result showed that almost all the respondents are Christians. This infers that the community is dominated by people who practice Christianity while only few of the populace practices other religions. This was in agreement with Okoronkwo[17] that reported the dominance of Christians in the area and that Christian missionary activity in Okposi community dated since the year 1911 (over a century). Furthermore, the result revealed that most of the respondents are educated at various level, tertiary, secondary and/or primary. This might be as a result of the long-time influence of Christianity in the community[17].

The results of this research showed that over two-third of the respondents were from Agunabani Kindred and only about one-third is from other kindred and places. These further validate or give better information about the reality in the study area as most of them are directly involved in the preservation of Agunabani sacred forest. This also was in disagreement with the report of Jimoh *et al.*[10] that presences of other tribe stance danger to the efficiency of these cultural practices as preservation tool.

There was high awareness of the existence of the law and custom that prohibits cutting of trees for any purpose as well as killing of animals in the Agunabani sacred forest. Similar laws were reported by Babalola *et al.*[4] for "Igbo Igunnuko" (meaning Igunnuko sacred forest) and "Igbo Oro" (Oro sacred forest) in Ogun state, southwestern Nigeria. Most of the respondents believed that the laws were either established by their ancestors or the gods and their culture constituted the preservation of "Ovia Agunabani" (Agunabani sacred forest). This belief was also similar to the reports of previous studies in southern Nigeria, that people believes that traditional laws of making certain things sacred in rural communities were made by the gods and ancestors[5,8,14].

However, the larger number of the residents indicated their desire for continuous existence of Agunabani sacred forest. This supported the assertion that; cultural belief in support of the establishment and preservation of sacred forest is part of the livelihood of rural people[4]. Hence, despite the long existence of Christianity in the study area, it did not influence the belief for continuous preservation of the forest. This was not in line with the report that presence of new religions/westernization poses a threat to the effectiveness of these taboos as a conservation tool[10].

Additionally, the result of Kruskal Wallis test showed that the laws guiding the forest were independent of gender, age and education. The test result also revealed that religion had effect on the knowledge of the law, which implied that there was no discrimination in the transfer of indigenous knowledge across age and social status. Thus, Christianity which is the

dominant religion as shown by this study had influence on the knowledge of the law guiding the sacred forest. This could be as a result of foreign religions which perceived sacred forests as evil, superstitious and fatalistic[4,14].

CONCLUSION

The belief and culture of Okposi community in Nigeria supports of the existence of sacred forests. This study also confirmed that the residences of the community were aware that the felling of trees and animals hunting in the sacred forest were highly prohibited despite their religious affiliations. Furthermore, the study established that foreign religions have no influence the community's desire for continuous preservation Agunabani sacred forest as their cultural heritage. Legal reservation of the forest and detailed conservation research is recommended.

SIGNIFICANCE STATEMENT

This study discovered the "Ovia Agunabani" a traditionally preserved sacred forest in Okposi, Nigeria that has not been documented or published before. In addition, the study has found out that culture is a great tool for conservation of biodiversity and forest area. This study will help the researchers to discover the critical areas of forest conservation that many researchers were not able to explore. Thus a new theory on incorporation of traditional institutions in biodiversity conservation may be arrived at.

ACKNOWLEDGMENT

We are grateful to residents of Okposi community, especially Late Chief Ogbonnaya Okorie Nnechi (Traditional Prime Minister of Okposi-Okwu), Mr. Joseph U. Nwachukwu and members of Agunabani kindred for the information and materials provided for this study.

REFERENCES

1. Turner, I.M., 2001. The Ecology of Trees in the Tropical Rain Forest. Cambridge University Press, Cambridge, UK., ISBN-13: 9781139428873, Pages: 298.
2. Akindele, S.O. and V.M. LeMay, 2006. Development of tree volume equations for common timber species in the tropical rain forest area of Nigeria. For. Ecol. Manage., 226: 41-48.
3. Emeghara, E.E., 2012. Forestry: A veritable tool for sustainable rural development in Nigeria. Int. J. Agric. Rural Dev., 15: 953-957.
4. Babalola, F.D., I. Lawal, E.E. Opii and A.O. Oso, 2014. Roles of and threats to indigenous cultural beliefs in protection of sacred forests in Southwest Nigeria. Albanian J. Agric. Sci., 13: 41-50.
5. Jimoh, S.O. and O. Aroso, 2018. Application of indigenous knowledge in sustainable forest management. Proceedings of the 40th Annual Conference of Forestry Association of Nigeria: Emerging Issues in Sustainable Forest Management: Experiences and Lessons for Nigeria, March 12-16, 2018, Forestry Association of Nigeria, Lagos, pp: 587-604.
6. Dei, G.J.S., B.L. Hall and D.G. Rosenberg, 2000. Indigenous Knowledges in Global Contexts: Multiple Readings of Our World. University of Toronto Press, Toronto, Canada, ISBN-13: 9780802080592, Pages: 282.
7. Babalola, F.D., 2014. Potential and challenges of indigenous knowledge in conservation of biodiversity in Osun Osogbo Sacred Grove, Nigeria. Int. J. Sci. Nat., 5: 353-358.
8. Babalola, F.D., 2011. Roles of and threats to Yoruba traditional beliefs in wilderness conservation in Southwest Nigeria. Proceedings of the 9th World Wilderness Congress Symposium: Science and Stewardship to Protect and Sustain Wilderness Values, November 6-13, 2009, Merida, Yucatan, Mexico, pp: 125-129.
9. Rim-Rukeh, A., G. Irerhievwie and I.E. Agbozu, 2013. Traditional beliefs and conservation of natural resources: Evidences from selected communities in Delta State, Nigeria. Int. J. Biodivers. Conserv., 5: 426-432.
10. Jimoh, S.O., E.T. Ikyaagba, A.A. Alarape, E.E. Obioha and A.A. Adeyemi, 2012. The role of traditional laws and taboos in wildlife conservation in the Oban Hill Sector of Cross River National Park (CRNP), Nigeria. J. Hum. Ecol., 39: 209-219.
11. Ramakrishnan, P.S., 1996. Conserving the sacred: From species to landscapes. Nat. Resour., 32: 11-19.
12. Salick, J., A. Amend, D. Anderson, K. Hoffmeister, B. Gunn and F. Zhendong, 2007. Tibetan sacred sites conserve old growth trees and cover in the Eastern Himalayas. Biodivers. Conserv., Vol. 16, No. 3. 10.1007/s10531-005-4381-5
13. Bhagwat, S.A. and C. Rutte, 2006. Sacred groves: Potential for biodiversity management. Front. Ecol. Environ., 4: 519-524.
14. Ogunade, R., 2005. Environmental issues in Yoruba religion: Implications for leadership and society in Nigeria. Proceedings of the Conference on Science and Religion: Global Perspectives, June 4-8, 2005, Philadelphia, PA., USA.
15. Nweze, N.O., 2006. From Our Fathers to Our Children. Saltcoast Treasures Organisation, Abakaliki, Nigeria, ISBN-13: 9789783128446, Pages: 149.
16. Adom, D., 2016. Inclusion of local people and their cultural practices in biodiversity conservation: Lessons from successful nations. Am. J. Environ. Protect., 4: 67-78.
17. Okoronkwo, G., 2010. Okposi Traditional Life and Thought. Catholic Communication Link, Abakaliki, Nigeria, ISBN: 978-978-48275-3-7.