

Environmental Awareness and Community Attitude Towards Management of Forest Resources in Boki Local Government Area of Cross River State, Nigeria

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Abstract

The experience of the researchers as environmentalists in the study area over the years, where they observed that the forest resources are gradually disappearing as a result of poor attitude of community members toward forest resources management. It is this poor attitude that necessitated this present study which sought to examine the influence of environmental awareness and community attitude toward management of forest resources in Boki Local Government Area of Cross River State, Nigeria. In order to achieve the aim of this study, one null hypothesis was used for the research work and a sample of six hundred and twenty respondents (620) were randomly selected for this research work. The selection was done through simple random sampling technique. The main instrument for data collection was the environmental awareness and community attitude questionnaire (EACAMFRQ) developed by the researchers. The instruments were subjected to face validation by experts in measurement and evaluation. The reliability estimate of the instruments were established through split half reliability method. The reliability coefficient was corrected with Spearman Brown prophecy formula. The hypothesis was tested at .05 level of significance with 608 degree of freedom. The result of the analysis revealed that there is a positive influence between environmental awareness and community attitude toward management of forest resources. Thus, the result of this research work recommended that environmental awareness is key to conservation of forest resources and should be repeatedly carried out in the study area to change the attitudes of community members toward environmental management.

Keywords: Environmental awareness, community attitude, forest resources.

Introduction

Environmental awareness or awareness creation on the environment is a process of sensitizing or arousing individuals and community members attitude to understand the complex nature of the environment and the negative impact of their actions caused on the environment. It deals with individuals knowledge and sensitivity concerning environmental matters such as deforestation, climatic changes, pollution, erosion, biodiversity loss and depletion of forest resources of different kinds.

According to Raven (1995), there is need for increase public awareness which is a major strategy in solving the problems of deforestation. He explained that the consciousness of the general public and that of government must be increased on issues affecting the environment to enable them understand the importance of biodiversity loss. Moreso, Nduke (2000) commenting on the need for awareness creation on sustainable management of the environment stated a number of programmes that could be used to achieve this. These include: mass literacy campaign, mass enlightenment campaign, forest tracing, reorientation, re-afforestation and formation of conservations clubs.

Anijah-Obi (2001) suggested various ways in which awareness creation could be of help to raise the consciousness of rural communities on environmental issues. These include: immediate adoption of environmental education as a compulsory subject at all levels of educational systems as well as informal and non-formal setting.

That various arms of the mass media newspapers, magazines, radios, television posters, etc should be used towards an effective mobilization of the people by educating and sensitizing them on the need for sustainable forest management.

Formation of conservations clubs and societies that primarily seek to preserve the forest from destruction. Training and deployment of environmental extension officers charged with the responsibility of stimulating the relevant awareness and generates appropriate attitudes among the people on issues concerning deforestation. The use of community penetrating strategies to achieve desired results by going through the chiefs, elders, opinion leaders, young stars and conservation clubs.

Public enlightenment campaign involving primarily the use of film shows in both urban and rural areas to sensitize citizenry on the need to preserve the forest, these films must specifically depict the effect of deforestation as well as sustainable ways of managing the forest ecosystem.

Mobilizing humanitarian groups and non-governmental agencies to help raise concern about forest depletion.

A better understanding of environmental attitudes could be ascertained by observing a given population and assessing their environmental awareness (Ogunbode and Arnold, 2012). Moreso, environmental awareness is associated with the level of environmental information which an individual or groups of individual acquired which have influenced their attitude toward environmental issues. Low levels of environmental awareness could be associated with negative environmental attitudes or perceptions toward the environment (Ormsby and Kaplin, 2005). This implied that low level of environmental awareness will make community members to show poor attitude that would caused damage to the environment.

Community attitude is no doubt a relevant factor in the management of forest resources. Forest resources of any community can only be sustained if community members show positive attitude through increased awareness creation. According to Adie and Eze (2012) attitude refers to a consistent tendency which an individual react either positively or negatively toward a particular thing. It reflect both cognitive and emotional components of an individual. It refers to feelings and thought which make an individual to behave toward something. Ford (2016) reported that people's attitude could be influence when they are motivated. This implied that the community members in the study area would show positive attitude toward management of forest resources if they are motivated.

In a study carried out by Vadouhe, Coulibaly, Adegbidi and Sinsin (2010) on the perception of communities attitude towards biodiversity conservation within protected areas in Benin Republic by adopting a descriptive survey design. The study population comprised of approximately 30,000 people living in 20 villages around the Pendjail National Park while purposive and stratified random sampling techniques were employed to select 8 villages and 164 respondents. The selection of the respondents depended on their willingness to participate in the study and the respondents ranged from 18-80 years. The study addressed three research questions whose test items were designed into a questionnaire that was used to collate data for the study. Inclusive in the study's enquires was that it sought to examine factors, which affected community acceptance of biodiversity conservation.

The data collected was analyzed using Stepwise Discrimination analysis and chi-square, inclusive in the factors which were examined were the participants educational level and the results revealed the following – Wilks = .9224; $F=6.394$; $P=.002$; $df = 1550$. The result on the influence of educational level of participants on their perception towards biodiversity conservation revealed the following ($X^2_{cal} = 373.56$; $X^2_{tab} = 13.82$; $p = .001$; $df = 2$). The results revealed that the level of participants educational attainment significantly influenced their perception towards biodiversity conservation.

In another study carried out by Ukwetang, Neji and Onuoha (2012) which adopted a survey research design in their assessment of the influence of rural people's socio-economic status on their awareness and attitude towards conservation of forest resources. The adult population of Boki local government area made the study population while stratified random sampling technique was employed to select a sample of 10 communities and 600 respondents. Among other assessments, the study sought to inquire the influence of socio-economic status (education level inclusive) on the people's awareness towards forest resource conservation. One way analysis of variance (ANOVA) and fishers' Least significant difference (LSD) were employed to analyze the collated data.

One way analysis of variance (ANOVA) of the influence of the peoples socio-economic status on their awareness towards forest resource conservation yielded the following result ($f_{cal} = 26.35$; $F_{(2,597)} P = .05$). That of the LSD revealed the following) High ($t_{cal} = -23.28$; $t_{tab} = 8.94$); average ($-cal 16.66$; $t_{tab} = 14.96$); low ($t_{cal} = 8.81$; $t_{tab} = 7.45$). This result reveals that not only do socio-economic status influence the people's attitude towards conservation of forest resources but also their level of education.

Also Udeagha, Udofia and Jacob carried out (2013) a study in Akwa Ibom state of Nigeria. The study examine the cultural and socio-economic variable which enhance conservation of sacred forests in the study area. The study adopted a descriptive survey design. The study population is made up of adult population of Ibiono Ibom local government area while snowball and stratified sampling techniques were employed to select a single community (Asanting) and a sample of 75 respondents. The instrument for the study was a questionnaire designed with test items meant to address the study's five research questions. Inclusive amongst the study's enquires was the study sought to inquire the importance of sacred forest to the community.

The question on the importance of the sacred forest to the community had 12 options from which the respondents were to indicate as being the reason why the forest is deemed important, inclusive among the option were five environmental based reasons which were checking of erosion, serving as water catchment, provision of habitat for animals and plants, serving as seed bank and serving as a source for genetic resources. The collated data were analyzed using a frequency counts and reasons. The collated data were analyzed using a frequency counts and percentages and the result revealed the following based on the top five reasons why the sacred forest was deemed important for the provision of habitat for animals and plants (8 respondents (11.86%)), checking of erosion and serves as seed bank (8 respondents (11.02%)); for genetic resources (8 respondents (10.17%)), and

serves as water catchment (8 respondents (10.02%). The result revealed that the top five reasons as to why the sacred forest was deemed important were all environmental based. The study concluded that the sacred forest mainly serve for environmental purposes and not serving as domain for evil spirits and fetish practices as believed by most people.

Moreso, Ukwetang, Otu and Neji (2014) carried out a study on the influence of gender awareness and attitude toward conservation of forest resources in Akamkpa local government area of Cross River State. A descriptive survey research was adopted. The adult population of Akamkpa local government area made up the study population while purposive sampling technique was employed to select a sample of 600 respondents from 10 communities within the local government area under study. The study addressed two hypotheses whose test items were designed into a questionnaire which was employed to collate all data for the study. Inclusive in the study investigations was an assessment of the influence of gender awareness towards conservation of forest resources. Chi-square was employed to collect all data for the study. Chi square was employed to analyse the collated data and the following result yielded ($\chi^2 - \text{cal} = 4.2.52$; $\chi^2 - \text{tab} = 3.04$; $p < .05$). The result indicated that gender awareness has a significant influence on forest resource conservation. It was concluded that both gender require the same level of awareness towards conservation of forest resources as they are both partners in the exploitation of forest resources.

Statement of problem

The forest resources in Boki Local Government Area of Cross River State, Nigeria has been under pressure. It is observed that the owners of the ecosystem have become predators rather than preservers of forest resources. There is exploitation of forest resources through large scale logging, bush burning, fuel wood collection, unsustainable agricultural practices such as the application of chemical on farmlands and the exploitation of non-timber products of various kinds. These negative attitude towards forest resource conservation have pose serious problems such as deforestation, erosion, pollution, climatic changes and the extinction of some endangered species of plants and animals in the study area.

Hypothesis 1

The understated hypothesis was formulated in pursuance of the objective of the study. There is no significant influence of environmental awareness on community attitude toward management of forest resources.

Design and methodology

The researchers adopted ex-post facto design. According to Isangedighi, Joshua, Asim and Ekuri (2004), ex-post facto research design is that type of research which studies phenomena after they have occurred. Thus, the researcher does not have direct control of the independent variables because their manifestations have already occurred. It deals with the investigation of relationship among variables. The choice of the research design was that, the phenomena of interest had already occurred and cannot be manipulated. The population of the study is made up of farmers, community leaders, and various household, and the study area is Boki Local Government of Cross River State, Nigeria. The study sample comprised of six hundred and twenty (620) respondents in the study area. The self made questionnaire titled "Environmental Awareness and Community Attitude toward Management of Forest Resources Questionnaire" (EACAMFRQ) was constructed and was face validated by three experts in measurement and evaluation and items found unwanted were either dropped or reconstructed. Cronbach alpha technique was used to determine the reliability estimate of the instrument with a coefficient of 0.72 to 0.85. One-way analysis of variance (ANOVA) and fisher's least and multiple comparism analysis were employed in testing the null hypothesis at 0.05 level of significance

Results and discussion of findings

Table 1

Summary data and one way analysis of variance (ANOVA) of environmental awareness and community attitude toward management of forest resources (N=609).

Environmental awareness activities	N	X	SD
Low - 1	175	14.937	1.612
Average - 2	250	15.568	1.884
High - 3	184	15.875	1.712
Total	609	15.480	1.793

Source of variance	SS	df	Mean square	F	Sig
Between groups	82.216	2	41.108	13.309*	.000
Within groups	1871.778	606	3.089		
Total	1953.993	608			

* Significant at .05 alpha level. Critical F = 3.02

The result in the above table showed that the calculated F-ratio is 13.309 and is greater than the critical F-ratio of 3.02 at .05 level of significance. The hypothesis was then said to be significant and the null hypothesis was rejected. This implied that, environmental awareness has a positive influence on peoples attitude towards management of forest resources. A post hoc analysis was conducted using Fisher's Least significant (LSD) multiple comparison analysis. The result is presented in table 2.

Table 2

Post Hoc LSD for environmental awareness and community attitude towards management of forest resources

Categories	N	Mean	SD	Sig
Low	175	14.937	1.612	
Average	250	15.568	1.884	.001*
Low	175	14.937	1.612	
High	184	15.875	1.712	.000*
Average	250	15.568	1.884	
High	184	15.875	1.712	.199

Table 2 indicated that the result is significant when comparing people who are low on environmental awareness activities with those who are average on environmental awareness activities in favour of those who are average and it is also significant when comparing people who are low on environmental awareness activities with those who are high on environmental awareness activities in favour of those who are high but the result is not significant when comparing people who are moderate on environmental awareness activities with those who are high on environmental awareness activities in favour of those who are high all at .05 level of significance. This implied that, the source of the difference is basically from people who are low on environmental awareness activities than those who are moderate and high on environmental awareness activities.

Discussion of findings

The result of this hypothesis revealed that environmental awareness significantly influence peoples attitude toward management of forest resources. The findings of this hypotheses is in agreement with the findings of Vadouhe, Coulibaly, Adegbidi and Sinsin (2010) who observed that the perception of communities toward biodiversity conservation within protected areas in Benin Republic was highly influence by their level of educational attainment and environmental awareness.

The finding agreed with Udeagha, Udofia and Jacob (2013) who examined the cultural and socio-economic variables which enhance conservation of sacred forests. They contended that the sacred forests were not serving as domain for evil spirits and fetish practices as believed by most people rather it was mainly used for environmental purposes.

The result is also in line with Ukwetang, Neji and Onuoha (2013) who observed the attitude of rural people and their level of awareness towards conservation of forest resources. It was concluded that it was not only their socio-economic status influences their awareness toward conservation of forest resources but also their level of education.

The findings of this study is also in line with Ukwetang, Otu and Neji (2014) who found out that gender attitude and awareness has a great influence toward forest resource conservation. The researchers observed that both gender require the same level of awareness in conservation of forest resources as they are both partners in the exploitation of forest resources.

The study is also in agreement with Raven (1995) who stated that there is need for increased public awareness that would help both the government and general public to understand the importance of biodiversity. Impliedly, this would help to create positive attitude toward forest resources conservation.

Conclusion / recommendation

Based on the findings of this result, it was concluded that environmental awareness influenced peoples attitude toward forest resources management. Through the conclusion of this research work, it was therefore recommended that awareness creation about the environment should be carried out repeatedly in the study area to change the attitude of community members toward forest resources management.

Moreso, if adequate grassroot sensitization is being carried out in the study area, there is every propensity that the people attitude towards resources management would change for the better.

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