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Social Awareness Creation and Farmers' Forest Conservation Practices in Obudu Local Government Area, Cross River State

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Abstract
The main purpose of this study was to investigate social awareness creation and forest conservation among farmers in Obudu Local Government Area, Cross River State, Nigeria. To give direction to this study, a research questions was raised and transformed into a null hypothesis based on the variables under study. The review of related literature was carried out accordingly in line with the specific objectives raised. Survey research design is adopted for the study. The targeted population was all the farmers in Obudu Local Government Area, Cross River State. Multiple sampling techniques were adopted in selecting the wards and six hundred and sixty-seven (667) respondents used for the study. Twenty (20) items modified four-point Likert scale questionnaire titled "social awareness creation and forest conservation Questionnaire" (SACFCQ) was used for data gathering. To test the hypotheses formulated for the study, simple linear regression statistical tool was used for data analysis. The hypotheses formulated were tested at .05 level of significance. The result of the analyses revealed that social awareness creation significantly influences forest conservation in the research area. Based on the findings it was recommended among other social awareness creation should be used more effectively in sensitizing and building the capacity of farmers to be able to cope with and adopt positive and forest conservation among farmers.

Keywords: social, awareness creation, forest conservation, farmers, Obudu Local Government Area

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Introduction

Forest degradation is one of the largest threats that are being faced by Cross River State and Obudu Local Government Area today. The United Nations International Strategy for Disaster Reduction characterizes forest degradation as the lessening of the limit of the earth to meet social and forest destinations, and needs. Forest degradation can happen in a number of ways. At the point when forests environments are wrecked or common assets are exhausted, the forest environment is considered to be corrupted and harmed (FAO, 2020). Forest issues can be seen by long term ecological effects, some of which can demolish whole environments (climate change). A forest is a unique unit and incorporates all the living and non-living components that live inside it. Plants and creatures are evident parts of the forest environment, but it also includes the things on which they depend on, for example, streams, lakes, and soils. The forest is to be protected without compromise from all stakeholders. Despite the sustainable forests management practices in place; in 2019 Cross River State had the highest rate of deforestation in the world, according to the Food and Agriculture Organization of the United Nations (FAO, 2020). In 2005 12.2%, the equivalent of 11,089,000 hectares had been deforested in Nigeria. Between 2000 and 2020, Nigeria lost an average of 409,700 hectares of forest every year equal to an average annual deforestation rate of 2.38%. Between 2005 and 2019, in total Nigeria lost 35.7% of its forest cover, or around 6,145,000 hectares (FAO, 2020).

Forest management is a branch of forestry concerned with overall administrative, legal, economic, and social aspects, as well as scientific and technical aspects, such as silviculture, protection, and forest regulation. This includes management for timber, aesthetics, recreation, urban values, water, wildlife, inland and near shore fisheries, wood products, plant genetic resources, and other forest resource values. Management objectives can be for conservation, utilisation, or a mixture of the two. Techniques include timber extraction, planting and replanting of different species, building and maintenance of roads and pathways through forests, and preventing fire (Young, 2012, Onnoghen, Unimtiang & Ogbaji, 2023). The forest is a natural system that can supply different products and services. Forests supply water, mitigate climate change, provide habitats for wildlife including many pollinators which are essential for sustainable food production, provide timber and fuelwood, serve as a source of non-wood forest products including food and medicine, and contribute to rural livelihoods (FAO & UNDP, 2020).

The working of this system is influenced by the natural environment: climate, topography, soil, etc., and also by human activity. The actions of humans in forests constitute forest management. In developed societies, this management tends to be elaborated and planned in order to achieve the objectives that are considered desirable. Some forests have been and are managed to obtain traditional forest products such as firewood, fiber for paper, and timber, with little thinking for other products and services. Nevertheless, as a result of the progression of environmental awareness, management of forests for multiple use is becoming more common (FAO & UNDP, 2020). There has been increased public awareness of natural resource policy, including forest management and conservation of the forests. Public concern regarding forest management may have shifted from the extraction of timber for economic development, to maintaining the flow of the range of ecosystem services provided by forests, including provision of habitat for wildlife, protecting biodiversity, watershed management, and opportunities for

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recreation. Increased environmental awareness may contribute to an increased public mistrust of forest management professionals (Philip, 2003).

But it can also lead to greater understanding about what professionals do for forests for nature conservation and ecological services. The importance of taking care of the forests for ecological as well as economical sustainable reasons has been shown in the TV show Ax Men. Many tools like remote sensing, GIS and photo grammetry modelling have been developed to improve forest inventory and management planning. Since 1980, the volume of standing trees in the Cross River States has reduced by 60% due to unsustainable forest management (Philip, 2003). FAO (2020) noted that, forest management varies in intensity from a leave alone, natural situation to a highly intensive regime with silvicultural interventions. Forest Management is generally increased in intensity to achieve either economic criteria (increased timber yields, non-timber forest products, ecosystem services) or ecological criteria (species recovery, fostering of rare species, carbon sequestration).

Forestry training at the professional level was available at one of the universities in Cross River State till this day. The Number of universities offering single honours and post graduate degree programmes, including those offering forestry electives, have continued to increase in Nigeria. At the technical level, the number of Colleges of Forestry offering diplomas has increased from one to three. Colleges of Agriculture also offer electives in forestry and forestry related courses. The number of vocational training institutions has also continued to increase for sub-technical manpower development (Ministry of Agriculture, 2020). Forestry Extension and Advisory Services are actively pursued through enlightenment programmes and activities to break down the serious public apathy towards forestry conservation ethics and practices. This ensures better reception and pursuit of sustainable development principles by everyone including at the grass roots farmers. The inclusion of forest and forestry conservation issues in secondary school curricular has been actively encouraged. Young Foresters' Clubs have been established and promoted through the provision of inputs, incentives, and technical support (CRSME, 2021).

The international initiatives on criteria and indicators for Sustainable Forest Management (SFM) in which Nigeria participates is the ATO initiative which was developed from many initiations including the ITTO Guidelines to address Sustainable Forest Management and culminate in forest products certification. The criteria and indicators as identified still have to be subjected to field test to validate their application to conditions in Nigerian forest. The application of criteria and indicators is not yet practiced in the country. Information on sustainable management of forest is made available to potential users in digital and hard copy form. In the future, this information can be assessed through the Internet (FAO, 2020). A workshop on agricultural land use and practices has been conducted and proceedings printed and in circulation. Sectoral meetings have been held to articulate and review key areas to be addressed in the policy. These areas are now being subjected to further deliberations with a view to synthesizing the issues that could form the main instrument of the policy. This would later be reviewed by the Legal Unit before a whole package is developed for further deliberation and enactment by the National Assembly.

In short, the media has a role to restore the ‘voice’ to those threatened by the destruction of the forest. It makes a case for citizen journalism as an antidote to the publisher-centric agenda

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setting of forest conservation debates. It also calls for the introduction of forest conservation journalism courses as part of curricula in order to create a critical mass of well-trained science journalists instrumental in mobilizing and sensitizing their communities. The research argues for a paradigm shift asserting that the time is ripe for the discipline at journalism training schools in Africa to welcome a new baby in the family of journalism: forest and environment journalism. Whereas politics, sports, economics, entertainment and health journalism have received considerable attention in most journalism curricula in recent years, the introduction of forest and environmental journalism courses would permit better understanding of the sustainable development challenges as well as enable journalists to better respond, from an informed position, to the challenges of development in such areas as environmental degradation, climate change mitigation, adaptation and disaster warming among others.

There is a wide range of possible roles social media can play in encouraging different attitudes and behaviours around forest conservation, and there are many unanswered questions in these areas of research. First, parsing out the effects of different content-related components of forest conservation communication in social media is crucial for better understanding the role of social media in public perceptions about forest conservation. Scholars suggest that language and iconic visuals that are alarmist in nature or rely on fear appeals may raise concerns but also disengage audiences (Nerlich, Koteyko, & Brown, 2010; O'Neill & Nicholson-Cole, 2009).

While there is reason to be optimistic about the ability of social media to positively influence opinion, knowledge, and behaviour around forest conservation, some caution that social media use may simply encourage more reinforcement of existing perceptions of forest conservation rather than reaching new individuals or changing opinions (Nisbet, Markowitz, & Kotcher, 2012). Indeed, research in other risk contexts provides evidence that online social content in news comments can polarize existing risk perceptions (Anderson, Brossard, Scheufele, Xenos, & Ladwig, 2016), suggesting that social media may exacerbate existing divisions in society. In addition, it could be that certain aspects of tone of social content (e.g., hopeful emotion in a YouTube comment) positively engages others who have not thought much about the topic while other tones (e.g., sarcasm in a news comment) turn people off to any further engagement with the issue. Digging deeper into these sentiment analyses to better understand the negativity in them can inform future research on uncovering effects of social media on forest conservation perceptions and behaviours.

The study of Onnoghen, Unimtiang and Ogbaji (2023) examined social awareness strategies a panacea for farmers' climate change mitigation measures in Ikom Education Zone, Cross River State, Nigeria: implication for Social Studies/Environmental Education. To achieve the purpose of this study, a null hypothesis was formulated to guide the study. A review of related literature was carried out based on the variable of this study. The survey research design was considered useful for the study. A multistage sampling was adopted in selecting the wards and six hundred and fifty-two (652) respondents used for the study. A thirty-item four-point Likert scale questionnaire titled Social Awareness Strategies Farmers' Climate Change Mitigation Measures (SASFCCMM) was the instrument used for gathering data for the study. To test the hypothesis formulated for the study, multiple regression statistical tools was used for data analysis. The hypothesis formulated was tested at 0.05 level of significance. The results from data analysis and hypothesis testing indicated that there

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was a joint significant positive influence of seminar, agricultural extension services, mass media awareness and community-based/non-governmental organizations' activities on farmers' climate change mitigation measures. Based on these findings it was recommended among others that the use of mass media awareness in disseminating climate change information should be widely encouraged and utilized in helping farmers to continue to adopt sustainable climate change mitigation measures. Community-based organizations as well as non-governmental organization should be used more effectively in sensitizing and building the capacity of farmers to be able to cope with and adopt positive and climate change mitigation measures.

From literature reviewed, forest degradation has different and diverse influence on agricultural productivity. For instance, high intensity of heat resulted to discomfort for both the farmer and farm resources. Few related studies on aware creation and forest conservation have been conducted in other parts of the world and they varied in their methodology. To the best of the researcher's knowledge, none of such studies focused on social awareness creation were conducted in Nigeria or Cross River State. This study was therefore meant to fill the gap.

One of the biggest threats to farming in Obudu Local Government Area is growing climate unpredictability, which makes subsistence farming difficult. This study posed the following questions: are farmers aware that the earth's temperature is rising because of some of their farming activities? are awareness strategies or sources of information that farmers in Obudu Local Government Area obtain information are assessable to farmers?

Research Question

The following research question was raised to guide the study:

To what extent does social awareness creation influence farmers' forest conservation practices?

Hypothesis

The following hypothesis was formulated to guide the study:

Social awareness creation has no significant influence on farmers' forest conservation practice.

Methodology

The research deign that was adopted for this study is the survey research design. Ndiyo (2005) defined survey research as a scientific experiment conducted on a large scale on a defined population to determine some desirable characteristic of a population. Survey research is research that is directed towards determining the nature of the situation that exits at the time of investigation. He describes that it is a type of research that studies large and small population by selecting and studying sample chosen from the population to discuss the relative incidence distribution, interrelation of sociological variables. Survey research deigns is therefore useful for opinion and attitude studies. The research area for this study was the entire Obudu Local Government Area of Cross River State. Obudu Local Government Area on the north is bounded with Obudu Local Government Area, on the South with Etung Local Government Area, on the East by Ikom/Ogoja Local Government Area.

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The local government lies between longitude 8º22'E and 9º12'E of the Greenwich meridian and latitudes 5o5'N to 6º15w of the equator. The local government area is known for promotion of cultural festival and tourist attraction that sustains the local government policy for peaceful co-existence among members of the society, talents discovery and arts exhibition. Educationally, primary, post primary schools abounds in Obudu Local Government Area. Obudu Local Government Area land and forest are fertile for the cultivation of crops such as yams, cassava, groundnut, palm oil and palm wine. Travelling across the local government area, most communities display the stereotype of crops produced as a heritage that must be presented which encourages individuals to be productive citizens. The population of the study comprises all the farmers in Obudu Local Government Area, Cross River State. There are sixteen thousand, seven hundred and thirty (16730) registered farmers in Obudu Local Government Area, Cross River State. Female farmers dominate the population in the research area with 9030 while the males are 7700. The researcher adopted multiple sampling techniques to select the sample for this study. Simple random sampling again will be used to select wards used while accidental sampling technique will be used to administer the instruments to the number of subjects used as sample. To do this, names of Wards in Obudu Local Government (stratum) will be written each in piece of paper, folded and put in a container and properly shuffle together. Those that picked yes will be used as respondents in the study while those that picked no will be dropped.

The sample for this study was 667 male and female farmers from six (6) wards in Obudu Local Government, Cross River State. The number of farmers selected was to obtain adequate representative samples of farmers from the Local Government Areas. All the selected wards in the LGA were used to ensure equal representation in the study. Out of the respondents selected for the study, 343 are female while 324 are male respectively. The instruments used for data collection was a set of survey questionnaire called "Social Awareness Creation and Forest Conservation Questionnaire" (SACFCQ). The questionnaire was divided into three sections A, B and C. Section A focused on the personal data of the farmers such as sex, age, local government area of farmer, educational qualification. Section B elicited information on social awareness creation under studies while section C forest conservation among farmers. The researcher with the help of research assistant carryout the administration of the questionnaire in all the wards that were selected to participate in the study. There was prior notice given to all the heads of the villages selected notifying them about the researcher's intention to visit their village. The instrument was administered on the sample group under the closed supervision of the researcher and research assistants. The research assistants were trained of the techniques involved in the administration of the instruments. There are therefore asked to ensure individual farmers' concentration and also prevent exchange of information and discussion of any form among the subjects. Six hundred and sixty-seven (667) copies of questionnaire were administered, but six hundred and fifty-two (652) were properly filled and returned. The researcher developed a key, which served as a guide for coding the data collected for, analysis. The items on the questionnaire were sorted based on the variables measured. The total number of the responses ticked (√) in each of the section covering all the variables under the study was added. The total scores for each section were recorded against these variables. Linear regression statistical technique will be use in the analysis. These scores will be recorded on the blank column as indicated by the researcher.

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Results

Hypothesis

Social awareness creation does not significantly influence forest conservation among farmers.

The independent variable in this hypothesis is social awareness creation while the dependent variable is forest conservation among farmers. Simple linear regression statistical tool was used for data analysis. The result of this analysis is presented in Table 1.

Table 1: Simple linear regression analysis of the influence of social awareness creation on forest conservation among farmers in Obudu Local Government Area, Cross River State (N = 652)

Model	R	R^2	Adj.R^2	Std error of estimate
1	.341	.117	.115	3.98058

Source of variance	SS	Df	MS	F	Sig
Regression	1358.999	1	1358.999	85.768	.000
Residual	10299.277	650	15.845		
Total	11658.276	651			

The result of analysis presented in Table 1 showed that the predictor or independent variable (social awareness creation) significantly influence the predicted variable (forest conservation among farmers). The predictor variable accounted for 11.7% of the variance in forest conservation among farmers in Obudu Local Government Area, Cross River State. This showed a significant positive relationship between the predictor and predicted variables. Furthermore, the regression ANOVA revealed there was a significant positive influence of social awareness creation on forest conservation among farmers $F(1, 650) = 85.768$; $p<.05$. Based on this result, it can be deduced that a further increase in the activities of social awareness creation will promote forest conservation among farmers in the study area. Also, a reduction in the activities of social awareness creation will negatively affect knowledge of forest conservation among farmers.

Discussion of findings

The finding from analysis and testing of hypothesis showed that the null hypothesis was rejected. This implied that there was a significantly positive influence of social awareness creation on forest conservation among farmers in Obudu Local Government Area, Cross River State. This result can be based on the fact that social awareness creation have been at the centre of most environmental awareness programmes and initiatives aimed at sensitizing the populace on various environmental issues affecting the survival of mankind on earth. These groups are more directly involved in information dissemination that many of the awareness strategies that are aimed at helping farmers to develop positive forest conservation practices. The finding of this study agrees with the finding of FAO & UNDP (2020) which stated that the forest is a natural system that can supply different products and services. Forests supply water, mitigate climate change, provide habitats for wildlife including many pollinators which are essential for sustainable food

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production, provide timber and fuel-wood, serve as a source of non-wood forest products including food and medicine, and contribute to rural livelihoods.

Conclusion

The study aimed at assessing social awareness creation and forest conservation among farmers in Obudu Local Government Area, Cross River State. The findings of the study revealed that there is a significant influence of forest regulation and social awareness creation on forest conservation among farmers in the study area. Forest management practices have become increasingly obvious especially in the area of this study. The need for people especially the rural inhabitants to develop forest conservation practices has become paramount in order to cushion the harsh effects associated with such changes. Environmental awareness has been identified as a viable tool that can be utilized to sensitize and build capacity for forest management. It has therefore become an issue of utmost consideration among various stakeholders to brace up and empower the vulnerable with requisite support that would enable them cope with the effects experienced as a result of climate change. This is because an uninformed or poorly informed individual lives in uncertainty and cannot save the environment from further degradation and damage. Hence, the need to raise a citizenry that is aware of and capable of participating actively in solving environmental problem and preventing the occurrence of new ones at all times.

Recommendations

Based on the findings obtained in this study, the following recommendations were made:

1. Forest regulation should be expanded and intensified in the study area in order to enable farmers developed better and improved forest conservation.
2. Social awareness creation should be used more effectively in sensitizing and building the capacity of farmers to be able to cope with and adopt positive and forest conservation among farmers.

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