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Environmental Awareness Strategies and Sustainable Forest Utilization in Ikom Education Zone of Cross River State, Nigeria.

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Abstract

The thrust of this study was to investigate Environmental Awareness strategies and Sustainable Forest Utilization in Ikom Education Zone, Nigeria. To achieve the purpose of this study, two hypotheses were formulated to guide the study. Literature review was carried out accordingly. Ex-post facto research design was adopted for the study. A sample of four hundred and seventy-three (482) respondents was used for the study. The sample was selected through stratified and simple random sampling techniques. The questionnaire was the instrument used for data collection. The reliability estimate of the instruments was established through Cronbach Alpha reliability method. One Way analysis of Variance (ANOVA) was the statistical technique employed to test the hypotheses under study. Each hypothesis was tested at .05 level of significance. The result of the analysis revealed that, conference attendance, and mass media significantly influenced sustainable forest utilization in Ikom Education Zone. Based on the findings of the study it was recommended that, people should be involved at the stage of planning, monitoring and evaluation to enhance better participation in Forest Management Practices. Environmental awareness strategy programs should be encouraged through mass media to motivate individual in developing interest in tree planting and natural forest conservation.

Introduction

The issue of forest resources utilization has in recent times called for global discourse and debate in many countries of the world. In the struggle for survival and development, man creates a lot of negative impacts on the forest environment, these impacts ranges from over-exploitation of forest resources, destruction of ecosystem, pollution, among others. Often, the exploitation of forest resources in Ikom Education Zone has been done in a non-sustainable way, which is causing an increasing concern, as the non-sustainable exploitation of forest resources ultimately threatens human existence. One difficult task faced by forest users is to guarantee the lasting utilization of natural resources at the lowest possible environmental cost, while still assuring the economic and social development (Klawitter, 2004). Ikom Education Zone with its increased population and poor economic foundation is engaged in a process of increased resource consumption, development and the current inefficient economy are severely threatening the lasting utilization of forest resources. The rate at which forests are destroyed in the name of furniture making, pulp, paper production, farming and as a source of domestic energy is at alarming rate in Ikom Education Zone. . Jackson, Nurse, and Singh (2015) noticed that a low degree of mindfulness in regards to manageability and insurance of backwoods regions as far as preservation practices can likewise be related with negative mentalities toward woodland assets. Be that as it may, more significant level of mindfulness on guidelines can be related to supportable usage disposition (Heinen &Shrivastava, 2009). Woodland preservation meetings are significant determinants of mindfulness creation among occupants (Silori, 2007) it depends on this reality that inhabitants should be enough educated with regards to the practical usage regarding backwoods through gatherings. According to Hesselink, Goldestein, Van Kempen, Garnett & Dela, 2007), to have an agency's messages reach the general public, the agency has to build a sound relationship with the media. GreenCom. (2001) for example, reportedly, newspapers and television news are the best channels for reaching urban opinion leaders, while national and local radios are best for reaching rural audience.

Methodology

Ex-post facto research design was adopted for this study. The study area is Ikom Education Zone of Cross River State, Nigeria. This comprises of six Local Government areas; Abi, Boki, Etung, Ikom, Obubra and Yakurr. The accessible population consists of 4,823 adults between the ages of 18 to 50 years the sample of this study comprise of 482 respondents which is ten (10%) percent of the accessible population of adult inhabitants (males and female). developed a 36 items questionnaire titled Environmental Awareness Strategies and Sustainable Forest Utilization Questionnaires (EASSFUQ). The questionnaire was constructed in two, Part A sought information on the demographic variables of the respondent, part B seeks to provide information on sub-independent variables; to determine reliability of research instrument (questionnaire) a trial test was done using 50 respondents from the population area who were not part of the actual study. Cronbach Alpha reliability was used to determine the reliability coefficient of the instrument. The reliability coefficient ranges from .75 to .92. The statistical analysis technique deployed to test this hypothesis was one-way analysis of variance (ANOVA).

Pesentation of Results

Ho1: There is no significant influence of conference attendance on sustainable forest utilization.

The independent variable in this hypothesis is conference attendance; while the dependent variable is sustainable forest utilization. The scores obtained from the respondents were split into the three categories of conference attendance. The highest score a respondent was expected to have is 20, lowest 5 and the average score was 12.5. Any respondent that scored 9 and below was below the average and was considered to be low, between 12.5 and 15 scores were within the average and were seen as moderate while those with the score of 16 and above were above the average and these were considered to be high. The statistical analysis technique deployed to test this hypothesis was one-way analysis of variance (ANOVA). The results of the analysis are presented in Table 1.

The result on Table 1 revealed that the calculated F-value of 61.243 was higher than the critical F-value of 3.00 at .05 level of significance, with 2 and 470 degree of freedom. With this result the null hypothesis was rejected. This result therefore implied that, Conference attendance significantly influences sustainable forest utilization.

Table 1: Summary of data and one-way ANOVA of the influence of conference attendance on sustainable forest utilization (N=473)

Conference attendance	N	$\bar{x}$		SD	
Low – 1	135	37.21		.74	
Moderate – 2	238	36.34		1.92	
High– 3	100	38.53		1.30	
Total	473	36.94		1.77	
Source of variance	SS	Df	Ms	F	Sig of F
Between group	225.740	2	112.870	61.243*	.000
Within group	865.996	470	1.843		
Total	1091.736	472			

* Significant at .05 level, critical F=3.00, df= 2, 470.

Since conference attendance have significant influence on sustainable forest utilization, a post hoc analysis was employed using Fishers' Least Significant Difference (LSD) multiple comparison analysis. The result of the analysis is presented in Table 2.

Fishers' Least Significant Difference (LSD) multiple comparison analysis of the influence of Conference attendance on sustainable forest utilization LSD

(I) Conference attendance	(J) Conference attendance	Mean Difference (I-J)	Std. Error	Sig.
Low	Moderate	.87379(*)	.19778	.000
	High	-1.32396(*)	.26363	.000
Moderate	Low	-.87379(*)	.19778	.000
	High	-2.19775(*)	.23648	.000
High	Low	1.32396(*)	.26363	.000
	Moderate	2.19775(*)	.23648	.000

* The mean difference is significant at the .05 level.

The result of the analysis in Table 2 showed that respondents whose Conference attendance is low are significantly different in their sustainable forest utilization from those whose Conference attendance is either moderate or high. Also, respondents whose conference attendance is moderate are significantly different from those who are high in sustainable forest utilization.

Ho_2: There is no significant influence of mass media on sustainable forest utilization.

The independent variable in this hypothesis is mass media; while the dependent variable is sustainable forest utilization. The scores obtained from the respondents were split into the three categories of mass media. The highest score a respondent was expected to have is 20, lowest 5 and the average score was 12.5. Any respondent that scored 9 and below was below the average and was considered to be low, between 12.5 and 15 scores were within the average and were seen as moderate while those with the score of 16 and above were above the average and these were considered to be high. The statistical analysis technique deployed to test this hypothesis was one-way analysis of variance (ANOVA). The results of the analysis are presented in Table 3.

Table 3: Summary of data and one-way ANOVA of the influence of Mass media on sustainable forest utilization (N=473)

Mass media	N	$\bar{x}$	SD		
Low – 1	83	34.00	.00		
Moderate – 2	245	36.57	1.10		
High– 3	145	38.80	.985		
Total	473	36.94	1.77		
Source of variance	SS	Df	Ms	F	Sig of F
Between group	745.222	2	372.611	372.058*	.000
Within group	470.514	470	1.001		
Total	1091.736	472			

*Significant at .05 level, critical F=3.00, df= 2, 470.

Source: Filed work 2021

The result on Table 3 revealed that the calculated F-value of 372.058 was higher than the critical F-value of 3.00 at .05 level of significance, with 2 and 470 degree of freedom. With this result the null hypothesis was rejected. This result therefore implied that, Mass media significantly influences sustainable forest utilization.

Since Mass media have significant influence on sustainable forest utilization, a post hoc analysis was employed using Fishers' Least Significant Difference (LSD) multiple comparison analysis. The result of the analysis is presented in Table 4.

Table 4: Fishers' Least Significant Difference (LSD) multiple comparison analysis of the influence of Mass media on sustainable forest utilization LSD

(I) Mass media	(J) Mass media	Mean Difference (I J)	Std. Error	Sig.
Low	Moderate	-2.57143(*)	.17135	.000
	High	-4.80000(*)	.18429	.000
Moderate	Low	2.57143(*)	.17135	.000
	High	-2.22857(*)	.12030	.000
High	Low	4.80000(*)	.18429	.000
	Moderate	2.22857(*)	.12030	.000

* The mean difference is significant at the .05 level.
Source: Filed work 2021

The result of the analysis in Table 4 showed that respondents whose Mass media is low are significantly different in their sustainable forest utilization from those whose Mass media is either moderate or high. Also, respondents whose Mass media is moderate are significantly different from those who are high in sustainable forest utilization.

Discussion of Finding

Conference attendance and sustainable forest utilization.

The result of the first hypothesis study indicated that, conference attendance significantly influenced sustainable forest utilization. The finding is in line with the view of Olaleye (2014) who observed that the forest, being naturally occurring vegetation, requires planning and sustainable utilization by divers' stakeholders and managers for its preservation Agbogidi, Ofuoku and Dolor (2005) also noted that no strategy to conserve or manage the forest ecosystem on a sustained basis would be successful unless the needs of the least advantaged and most vulnerable section of the society are considered. It is through workshops that the local inhabitants could be made to know that continuous expansion of human enterprises is out of balance with the shrinking forest resources conservation and the diminished natural environment which is an immediate global problem Wallennius (2002) also stated that public participation in workshops processes are also an important means of raising awareness. The involvement of the public in decision making regarding forest conservation is an important

way of transmitting knowledge and values that provide opportunities for dialogue, mutual learning, and trust building among stakeholders. The concept of sustainable development and Forest conservation is based on the full consideration of economic, social and environmental consideration. In this context, raising awareness of forest and forestry conservation through workshops is an important tool to improve interaction between stakeholders, and by so doing, it enhances society's support to sustainable Forest conservation. Public mindfulness should actually be possible through bunch conversation. This is on the grounds that they offer more open doors for cooperation which might arrive at a seriously huge number of crowds. Jackson, Nurse, and Singh (2015) noticed that a low degree of mindfulness in regards to manageability and insurance of backwoods regions as far as preservation practices can likewise be related with negative mentalities toward woodland assets. Be that as it may, more significant level of mindfulness on guidelines can be related to supportable usage disposition (Heinen &Shrivastava, 2009). Woodland preservation meetings are significant determinants of mindfulness creation among occupants (Silori, 2007) it depends on this reality that inhabitants should be enough educated with regards to the practical usage regarding backwoods through gatherings.

Mass media and sustainable forest utilization.

The result of this hypothesis indicated that, mass media has a significant influence on sustainable forest utilization. The result showed that respondents whose Mass media is low are significantly different in their sustainable forest utilization from those whose Mass media is either moderate or high. Also, respondents whose Mass media is moderate are significantly different from those who are high in sustainable forest utilization. The findings are in line with the view of Olujobi and Sale (2015) who asserted that the Media must accept and carry out positive developmental tasks in line with nationally established policies. Freedom of the Media should be open to economic priorities and development needed in the society. Therefore, the issue of sustainable forest utilization is a serious problem which requires attention, because it impinges development and increases human mystery.

Kiplimo & Obiri (2015). It is further regrettable that many media reports on the environment tend to concentrate on crises or challenges rather than dwelling more on problem solving mechanisms. The intensity of environmental broadcasting and stories on the print media remain below par and the media's constant attention on sensationalism and confrontations need to be reversed (Kitchin, 2010). It is however prudent to note that in spite of the above criticism, the mass media may still demonstrate utter effectiveness at educating individuals on the need to preserve their environment (Kiplimo & Obiri, 2015). Alternatively, environmental organizations may still use the media to disseminate critical information to the public that can help alter their negative habits, views and decisions towards the environment (Castro & Wyss, 2004).

Sherpa (2011) also noted that the mass media has a key role of conveying vital content that addresses environmental concerns which is in essence vital for the decision makers as well.

Media has a mandate of educating and informing its audience and many citizens can access government information via these media platforms. It is prudent for environmental organizations to have a cordial relationship with the media so as to ensure that their messages get to the general public via the media. Unarguably, the mass media remains influential in effecting strategies on environmental conservation through its capacity of reaching out to the decision-makers and opinion leaders in the society. The watchdog role of the media where government officials and other leaders in general can be held accountable for any decisions on environmentalism is critical as well. The media has the capacity of gathering information from a given nation's planning records, news on local environmental matters and pollution accounts. According to Hesselink, Goldestein, Van Kempen, Garnett & Dela, 2007),to have an agency's messages reach the general public, the agency has to build a sound relationship with the media. GreenCom. (2001) for example, reportedly, newspapers and television news is the best channels for reaching urban opinion leaders, while national and local radios are best for reaching rural audience.

Communication, education, and public awareness (CEPA) play a role in developing this collaboration and change in society. Center for International Media Assistance (2009) stated that the local media in transitioning countries can play a critical role in holding government officials, corporate leaders, and other individuals accountable for their environmental records by collecting information from governments' planning documents, reports on local environmental conditions and pollution records. By providing accurate, high-quality environmental report and engaging the public in a policy dialogue, independent media can also help citizens protect their own environmental interests (Center for International Media Assistance

Conclusion

It is therefore critical to note that environmental sustainability can be greatly achieved only if the public is engaged in public debates, well informed and educated to attain social change. The media ought to carry out a vigorous promotions and campaigns linked to justifiable development. One of the suggested strategies is the identification of a target group and then tailoring the message to reach to that specific audience. The mass media is fundamental in effecting and strengthening environmental messages meant to foster awareness of the matters on preservation in the wider society.

Recommendations

On the basis of the findings of this study, the following recommendations were made:

1. People should be encouraged to attend conferences to enhance better understanding and participation in Community Based Forest Management.
2. The government should ensure that mass media programme on forest management have a wider coverage, this with help in creating awareness and to motivate individual in developing interest in tree planting and natural forest conservation.

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