

SOCIO-ECONOMIC ANALYSIS OF CITIZENS' PARTICIPATION IN FOREST CONSERVATION IN IKOM AGRICULTURAL ZONE OF CROSS RIVER STATE, NIGERIA

BISONG, THERESA LARRY AND OGBONNA, KALU IROHA

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ABSTRACT

The general objective of this study was to assess the relationship between some socio-economic variables of the citizens and participation in forest conservation in Ikom zone of the Cross River State Agricultural Development Project, Nigeria. The specific objectives of the study were to describe some of the socio-economic variables of the people, ascertain the relationship between some socio-economic variables and their participation in forest conservation and to assess the level of participation of male and female citizens in forest conservation. Also, one research hypothesis was developed to test the level of participation of male and female citizens in forest conservation activities. A total of three hundred (300) respondents were randomly selected from three (3) local government areas (Boki, Ikom and Etung). Data were obtained with the aid of a validated questionnaire. Data obtained were analyzed using frequency count, percentages, chi-square and probit regression analysis. The result of the analysis revealed that a substantial proportion of the respondents were youth within the age range of 30-35 years and also educated, majority of the respondents had large family sizes (10-14 persons). Also, low income of 20,000 – 60,000 characterizes the status of most respondents with farming as their main occupation. It was also revealed that there is a significant variation between female and male level of participation in forest conservation, as men are more disposed to participate. The study therefore recommended that women should be trained to acquire necessary skills and credit facilities should be provided to citizens to motivate them to conserve the forest and its resources.

KEYWORDS: Citizens' participation and forest conservation.

INTRODUCTION

The new paradigm in most developmental interventions is participatory in nature, as participation which involves stakeholders in the planning and implementation of developmental programmes has recorded positive effects on development across the globe as against the top down approach which does not involve the beneficiaries of developmental programmes, instead, act on assumptions. For interventions to be sustainable, there must be active involvement of the people who eventually support the implementation of development programmes (Odebode, 2003).

Citizens or community forestry involves activities that take into consideration the intimate relationship between men, women and the forest which is of value to the citizens (Amika, 2003). The world's land area, which has alternative uses overtime is fixed, but human population which has to be fed, keeps increasing (Udom, 2011). As a result, the forest is under pressure to provide food, and other resources for citizens.

The contribution of local communities in the conservation of forest has been recognized by the international community. Agarwal (2001) therefore maintained that citizens participation will enable the government and non-governmental organizations to

explore the citizens wisdom and initiatives to better conserve and manage the forest.

Population structure determines the number by age and sex of individuals within a habitat and it is important to have a balance between the male and female, young and old as knowledge of the forest and its resources is necessary in managing and conserving it (Ogar, 2009). Owing to the fact that the local people's livelihood revolves around forest and forest resource and their knowledge of its conservation cannot be over emphasized, as they have sustainably utilized forest and its resources for generations (Bisong, Ogbonna and Kyari, 2016). It is therefore, necessary to assess the relationship between some socio-economic variables and the level of male and female citizens' participation in forest conservation in Ikom Agricultural Zone of Cross River State.

Objectives of the study

The specific objectives include to;

1. Describe the socio-economic variables of the people in the study area.
2. Ascertain the relationship between some socio-economic variables of the citizens and their participation in forest conservation.
3. Assess the level of participation of male and

female citizens in forest conservation.

Research Hypothesis

There is no significant difference between the level of participation of male and female citizens in forest conservation activities.

Methodology

The study was carried out in Ikom agricultural Zone of Cross River State, Nigeria. The Ikom Zone is made up of six(6) local government areas namely; Boki, Abi, Yakurr, Obubra, Ikom and Etung. Three local government areas (Boki, Ikom and Etung) were purposively used for the study because these are the main forest areas of the zone. The population of the study comprises farmers, traders and civil servants. A questionnaire was administered to 300 respondents in the study area. Data obtained were analyzed using frequency count, percentages, chi-square and probit regression statistics.

Definition of term

Citizens: citizens are people who were born in a particular place and have certain right or have been given certain rights because of having lived there.

Citizens' participation: This is the employment of local people to mobilized their people to make decisions, manage their resources and control the activities that affect their lives. It could also be referred to the opportunity given to local people to take full part in policy issues and development plans.

Forest conservation: Is the preservation, maintenance, sustainable utilization, restoration and enhancement of all species, breeds and strains of variety of forest resources (plants and animals) especially those of economic, Scientifics and cultural interest to mankind for agriculture either at present or in the future (FAO, 2009)

Results and discussion

TABLE 1: Distribution of respondents by socio-economic variables

Socio-economic variables	Boki		Etung		Ikom		Total	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Sex								
Male	40	40	34	53	37	42	111	44
Female	60	60	30	47	52	58	142	56
Total	100	100	64	100	89	100	253	100
Age								
Less than 30	26	26	14	21.88	30	33.71	70	27.67
31-40	49	49	38	59.38	46	51.69	133	52.57
51-60	17	17	6	9.38	9	10.11	32	12.65
Above 60	8	8	6	9.38	4	4.49	18	7.11
Total	100	100	64	100	89	100	253	100
Marital status								
Married	44	44	29	45.31	24	26.97	97	38.34
Single	30	30	18	28.13	48	53.93	96	37.94
Divorced	19	19	9	14.06	7	7.87	35	13.83
Widow	7	7	8	12.50	10	11.24	25	9.88
Total	100	100	64	100	89	100	253	100
Educational attainment								
No formal education	6	6	1	1.56	4	4.49	11	4.35
Primary school	20	20	10	15.63	13	14.61	43	17.00
Secondary school	17	17	17	26.56	20	22.47	54	21.34
College of Edu./Agric./Poly	42	42	25	39.06	31	34.83	98	38.74
University	13	13	11	17.19	16	17.98	40	15.81
Others	2	2	-	-	5	5.62	7	2.77
Total	100	100	64	100	89	100	253	100
Family size								
Less than 4	14	14	9	14.06	2	2.25	25	9.88
5-9	29	29	27	42.19	30	33.71	86	33.99
10-14	47	47	28	43.75	35	39.33	110	43.48
Above 15	10	10	-	-	22	24.72	32	12.65
Total	100	100	64	100	89	100	253	100
Income								
Below 20,000	14	14.00	30	46.88	26	29.21	70	27.27
20,000-40,000	28	28.00	12	18.75	37	41.57	77	30.43
40,001-60,000	27	27.00	14	21.88	24	26.97	65	25.69
60,001-80,000	20	20.00	8	12.50	-	-	28	11.07
Above 80,001	11	11.00	-	-	2	2.25	13	5.14
Total	100	100	64	100	89	100	253	100
Occupation								
Farming	70	70.00	52	81.25	60	67.42	182	71.94
Civil service	31	31.00	17	26.56	36	40.45	84	33.20
Trading	29	29.00	27	42.19	44	49.44	100	39.53
Teaching	24	24.00	18	28.13	32	35.96	74	29.25
Artisan	11	11.00	21	32.81	28	31.46	60	23.72
Private business	6	6.00	13	20.31	19	21.35	38	15.02

Source: Field survey, 2014

Table 1 shows the distribution of respondents by their socio-economic variables. From the findings, majority of the respondents were female (56%) while the male accounted for 44%. A substantial proportion of the respondents were largely youth and middle age people within 18 and 40 years. This could have a number of implications for participation in forest conservation. With majority of the respondents within the active and productive age, they are likely to be more favourably disposed to participate actively in all activities related to forest conservation given that at this age they possess greater physical strength and energy. These findings

agreed with the result of investigation carried out by FAO (2009).

Table 1 also shows that 38.74% of the respondents attended colleges of education/Agriculture/Polytechnic while 21.34% of the respondents had secondary school education as the highest level of educational attainment. About 17.00% of the respondents were primary school leavers and 15.81% of them had university education. It could be concluded from the results that majority of the respondents were educated. The implication of this finding for forest conservation is that educated people are more likely to appreciate the value and importance of forest resources and may be willing to be actively

involved in its conservation than where the people are largely illiterate. Fisher (1999) and Ben (2011) maintained that it is easier to mobilize educated people for forest conservation than uneducated people given that educated people are in most cases, well-informed.

The result revealed that majority of the respondents had relatively large family sizes with 5-10 members which could have several implications for forest resources conservation. On one hand, large family sizes suggests that forest resources could be under pressure by family members struggling to satisfy livelihood needs such as food, shelter and income which could influence conservation negatively. Mendie (2003) indicated that, large family sizes could imply a greater number of participants in forest conservation activities which could influence forest establishment positively. Low income

TABLE 2:

Parameter estimation of probit regression for the socio-economic determinants of community participation in forest conservation

Variables	Coefficient	Standard	t-value
Intercept (X_0)	4.3018	1.07744	3.2043
Age (X_1)	-0.7112	0.1279	3.0710**
Gender (X_2)	-0.0021	0.6466	0.0161**
Income (X_3)	-0.0257	0.0081	1.1135*
Experience in conservation activities (X_4)	0.8803	2.0950	0.0162
Membership of social organization (X_5)	0.0726	0.1616	0.2744
Marital status (X_6)	-0.3182	0.1874	2.1130***
Level of education (X_7)	0.2859	0.1610	1.7696*
Family size (X_8)	-0.0051	0.0372	0.0015*
Chi-square	255.09		
Long-likelihood ratio	1731		
Pseudo R^2	0.676		

Level of significance ***=1%, **=5%, *=10%

Source: Field survey, 2014

Specifically, the result of the study showed that at 5% level of significance, age is significant but negatively related to community participation in forest conservation activities, whereas gender is positive and significantly related to participation in forest conservation activities. This implies that as people get older, their level of involvement in forest conservation decreases. Again, the result of the analysis implied that people's participation in conservation activities is a gendered process, with one of the gender more and actively involved in forest conservation activities than the other, FAO (2001) noted that men are often highly involved in resources management than women who are patterned largely on domestic activities and hence have little time to spend in the forest. At 10% level of significance, income and family size were negative but significantly related to community participation in forest conservation. This suggests that people's involvement in forest conservation activities will decrease with higher income

characterizes the status of most of the respondents and this in turn would have a negative influence on forest conservation in the study area. The implication of this finding for forest conservation, according to Ojating (1997) and Mendie (2003) is undue pressure on forest resources given that poverty has a negative effect on environmental resources which could undermine conservation efforts.

From the findings, the result of the analysis reveals that 71.94% of the respondents were involved in farming as their main occupation in the study area. Other occupations in the area which the respondents were involved into a varying extent included: trading (39.53%), civil service (33.20%) and teaching (29.25%) among others. It could be concluded that the main source of livelihood of the people is farming.

and higher family size. Bhatt (1998) agrees that large family size could rather lead to forest destruction rather than promote conservation since more pressure will be put on the resources as people try to survive. On the other hand, level of education was positive at 10% and significantly related to participation in forest conservation. This implies that educated people are likely to conserve and manage the forest better than the uneducated and illiterate ones who perhaps are not informed about the benefits of conserving the forest. Cohen (2000) reported that a small increase in education could increase significantly people's propensity to conserve their natural resources such as the forest.

Hypothesis 2: There is no significant difference between the level of participation of male and female community members in forest conservation activities in the area.

TABLE 3

Summary of result of chi-square (X^2) analysis of the responses of male and female on the level of participation in forest conservation practices in the study area

Gender	Level of participation/involvement in forest conservation practices			Total	X^2 cal
	Actively Involved	Partially involved	Not involved		
Male	20(14.04)	16(19.74)	75(77.22)	111	5.885*
Female	12(17.96)	29(25.26)	101(98.78)	142	
Total	32	45	176	253	

Significant at 0.05 level; df=2 critical val. 5.991

Source: Field survey, 2014

The result of chi-square analysis in Table 3 showed that the calculated X^2 value 5.885 is less than the critical value of 5.991 at 0.05 probability level, the null hypothesis is therefore rejected suggesting that there is a significant difference in the level of participation of both men and women in forest conservation practices in the study area. This result could be associated with a socio-cultural value system that accords priority and freedom to men and enhances men's participation and access to information and resources than women who are often confined to the home. This agrees with Udo (1999), Ojating (1997) and Mendie (2003) who reported in similar studies that the level of men involvement in forest conservation activities was higher than women. Therefore there is a wide variation in the level of participation of men and women in forest conservation processes in rural communities.

Conclusion and Recommendations

Forest and forest resources are of high economic value to the citizens, the government, non-governmental organizations and the world at large. It also plays important social, cultural, ecological, religious and political role in the lives of the citizens. Forest conservation through citizens' participation has been recognized as the only viable avenue to ensuring sustainable global forests. Rural women have been constraint of full participation in forest conservation activities.

The study therefore, recommended that women should be trained in order to acquire the necessary skills for effective participation in forest conservation, adequate credit facilities should be provided to empower the citizens to participate in forest conservation, the government should involve the citizens in forest for conservation activities to enable their knowledge of conservation be fully utilized. Finally, cultural barriers on women participation should be improved to give women the opportunity to participate in forest conservation.

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