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Community Perception of Afforestation Programme in Desert Encroach Area Toshia, Nigeria

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Abstract

Desert encroachment, a global problem, is serious in Nigeria especially in the northern part. To assess the community perception towards afforestation programs and desert encroachment, a survey was conducted in Toshia northern Nigeria; the objective of this study was to determined factors that influence rural community's perception towards desert encroachment. A self design questionnaire was used for the data collection from the participants of the study comprised 60 residents selected across different groups in Toshia community, Nigeria. The data was analyses using One-away ANOVAs for the comparison and analysis. The findings revealed that the positive perception of the rural community towards desert encroachment was highly correlated with the level of education of the respondents. The study suggests that rural community's perceptions improves their wellbeing and enhance community participation.

Keywords: Perception; afforestation; desert encroachment; Community development;

Introduction

The negative threat of environmental change in Africa, which often referred to as desert encroachment and desertification by many authors is caused by both human and natural factors, since 1970s it has been on the agenda of the United Nation, International donor agencies and the scientific community (Rapp, 1974; UNCED, 1977; Mainguet, 1994; Koning & Smaling, 2005).

Rural communities have attracted the residents, since community developers and ecologies interpretation of the coexistences of the trees and grasses as the two layer model Walter, (1971).Many other hypothesis have shared for this coexistence (for example Scholes & Archer, 1997, Walker et al., 1981, Sankaran et al., 2005).

The desire for sustainable community was an unattainable, until when the community perceived that they are in object poverty, inadequate facilities and devastating economy. Then the general dissatisfaction about environmental conditions of the community is now giving most people concerns about the future and sustainability of their community. That is why perception and participation is generally perceived as the best system which serves as framework for community development in this era Adesoji (2006) Variuos scholars like Vodouhe et al. (2000) are on the view that rural community's perception are function of their educational level. A lot of factors influence rural community the perceptions on their environment. These include, the education, and it level. Educations provide the environmental knowledge which may influence community behavior and attitude towards their environment. An educational programmed has positive effects of all ages. posited that the information gained from school by children can be transferred to their parents and the community at large . Argued that not only knowledge has an influence on human perception, but also feelings and belief were shown to plays a major role transforming attitude toward environment and pro-environmental behavior. The perception of community influence interactions, However understanding community's perception is key to improved their relationship (McCla-rahan et al., 2005; Cichy, 1998; Lindamann-Mathies, 2002; Voughan et al., 2003; Kals et al., 1999; Pooley and Connor,2000; Ormshy & Kaplin, 2005; Ramakrishnan, 2007; Avelaji et al., 2003) However, it is in line with this backdrop that this study wishes to determined factors that influence rural community's perception towards desert encroachment

Methodology

Research Design

In this study, the research design used, is a cross sectional survey method this has been utilized to explain the relationship that exist between the variables in this study

Population, Sample and Sampling Method

The sample had involved sixty (60) respondents from the three (3) wards of the community. Fifteen (15) were primary school leavers, twenty five (25) were holders of senior school certificates, while twenty (50) were holders of tertiary institutions certificates The respondent's age ranges from 20-35years and the entire participant were drawn from manga, Fulani, Kanuri and Hausa ethnic group both in the three wards located within the community A set of structured questionnaire consisting of open-ended questions were constructed. It has three sections. The first section is about the socio demographic information, while the second section information on participation of the community members in the afforestation program. The

third section was related to perception. The researcher developed the questionnaire independently.

Study Site

Toshia is situated in the Sudano-Sahelian vegetation zone of the northern part of Nigeria. It is a community in Yunusari Local Government of Yobe State. The community is at the border of Nigeria and Niger Republic .The area is characterized by a hot and dry climate with rainy season not exceeding three precisely between July-September and remaining months of the year are dry. The average annual rainfall in the area is between 500-160mm. and the hottest months are March, April, and May. Over the years, the dryness of the area contributes greatly to the incidences of drought, which consequently results in the decline in the biological potentials and agricultural activities in the area. Geographically the area is located above lat.12° N, a location regarded generally as arid area that is threatened by the south ward movement of the Sahara and other processes of desertification. The average temperature ranged from 39°C to 45°C in December. The area was deep loamy fine sands and sandy soil. The area is blessed with Calcium Carbonate , a mineral used for making cement which is found at a depth of 15cm. Toshia community was chosen as the study site because, the community had established and grouped themselves on their own interest to fight back desertification and desert encroachment through participation in afforestation programme. Studying this community would help in the assessment of success or otherwise of the programme with a view to contributing to knowledge in the literature related to the field and help policy makers as well as other stakeholders towards future programmes.

Data Collection Procedure

Data was collected after the cultivation period in January and February 2010. An enlightenment contact was carried out prior to the data collection time by contacting the community illicts. This was directly carried out by the research first through contact appointment with the community leader and face to face interactions with the community head teacher as well as the community social worker. The interactions helped the researcher to ensure that the questionnaire developed answered the study objectives and it is in line with the objectives of the study. The respondents were approached by the researcher systematically and the community head teacher plays a vital role in facilitating and coordinating the process. At the same time he served as the research assistance. Cross-sectional survey was carried out in three wards of the village units of community using a 20 item structured questionnaire administered to adults in randomly selected various ethnic groups within the community households.

Data Analysis

The data collected were analyzed using the SPSS statistical software programme. Inferential statistics were used in the analyses. The statistical procedure used for the data analyses was one way ANOVA to determine if there were any different that exists in both level of education with the level of their perception.

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Results

Table 1. Result of perception and interaction with education

Perception of usefulness of afforestation Program by Education Level	Sources of variation	Sum of Squares	df	Mean Square	F	*sig*
	Between Groups	35.769	3	11.923	1.887	.000
	Within Groups	353.881	56	6.319		
	Total	389.650	59			
Perception of Effectiveness by Education Level	Sources of variation	Sum of Squares	df	Mean Square	F	*sig*
	Between Groups	12.333	3	4.111	1.053	.376
	Within Groups	218.650	56	3.904		
	Total	230.983	59			
Perception of Planning Process by Education Level	Sources of variation	Sum of Squares	df	Mean Square	F	*sig*
	Between Groups	368.796	3	122.932	4.534	.006
	Within Groups	1518.454	56	27.115		
	Total	Sum of Squares	df	Mean Square	F	*sig*
Perception of Implementing Process by Education Level	Sources of variation	Sum of Squares	df	Mean Square	F	*sig*
	Between Groups	241.021	3	80.340	5.369	.003
	Within Groups	837.912	56	14.963		
	Total	1078.933	59			
Perception of Evaluation Process by Education Level	Sources of variation	Sum of Squares	df	Mean Square	F	*sig*
	Between	57.694	3	19.231	1.365	.263

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	Groups					
	Within Groups	789.239	56	14.094		
	Total	846.933	59			
Difference of Level of Awareness by Education Level	Sources of variation	Sum of Squares	df	Mean Square	F	*sig*
	Between Groups	59.052	3	19.684	1.462	.235
	Within Groups	753.881	56	13.462		
	Total	812.933	59			

Table 2.Result of the relationship in Perceptions characteristics community with Perception of Effectiveness

Correlations

		Perception effectiveness	Perceptions characteristics community
Perception effectiveness	Pearson Correlation	1	.892**
	Sig. (2-tailed)		.000
	N	60	60
Perceptions characteristics community	Pearson Correlation	.892**	1
	Sig. (2-tailed)	.000	
	N	60	60

**. Correlation is significant at the 0.05level (2-tailed).

Table 3. The relationship between Implementing Process with Perceptions Characteristics Community

Corrections

		Perceptions characteristics community	Implementing process
Perceptions characteristics community	Pearson Correlation	1	.717**
	Sig. (2-tailed)		.000
	N	60	60
Implementing process	Pearson Correlation	.717**	1
	Sig. (2-tailed)	.000	

N	60	60

**. Correlation is significant at the 0.05 level (2-tailed).

The perception and educational qualification, Primary, Secondary and tertiary level shows a positively significant relationship at 5% with T-statistic of 3.56 and p-value of 0. 000. The result in table 1 row 1 of one way ANOVA test shows no relationship between perception of effectiveness by education level, with f-start of 3.56 and p- value of .376

Table 1 row 2 shows the result of perception on implementation process by educational level this however, show a positive and significant relationship between perception of evaluation process and educational level the F-start is 3.56 and P-value of .003,

Thus table 1 row 3 using the same one-way ANOVA test shows no relationship between perceptions of evaluation process by education level; also in table1 row 4 no relationship was detected between awareness by education level the P-value is .263

Result in table 7 shows a positive and significant relationship between perception characteristic communities with perception of effectiveness this was investigated using Pearson product-moment correlation efficient. The F- start is 3.56 and P-value of .000 the relationship between perception characteristic community with planning process was investigated. The result shows a significant relationship between the two variables at 5% level this r start is .810 and P-value of 000 in table 8. Finally the result of relationship between perception characteristic communities with implementation process was investigated and the result shows a robust relationship between the variables this r start is .717 and P- value of .000.

Discussions and Suggestions

The study finding shows that education and the level of education has a perception effects on desert encroachment and afforestation programme. The result also indicates that education is a vital instrument that provides communities positive outlook towards ideas and issues that could contribute to the rural community development. Educated respondents were more inclined to have perceived the consequences' of desertification; it was also found that respondents with high level of education were more likely to have positive conservation attitude. Meehta and Heinen (2001).From the significantly positive correlation between education and perception, it could be concluded that educated people would be more likely to perceive and support community development programme.

Youth, been the majority in the community. Remained involved in the terrain of the community afforestation programme. Young people are integral parts of the community have are vital role to play in the development of the community. Therefore they need to be empowered. This is in consistent with the views of Akinyanju (2000). However many studies had shown that Nigeria is dominated by high rate of illiterates. To this end, Government should understand that without education individuals and communities are unlikely to proceed in developing the particular

aspect of life to which one is nsuiteds. This shows that every individual must be treated as an end. Therefore the government must provide education opportunities to all. Adesoji (2006).

So building sustainable communities people should be involved in afforestation program and this require reforms in all social institutions that will help shape value and behavior that developed intrinsic ability to engage in afforestation program, it is with all these afforestation programme can be perceived infamously as a form of community development in which every individual has an investment of participation and trust in which the power rested on the grassroots' initiatives and their participation in the afforestation programme regardless of their social status.

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