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Socio-Economic Determinants of Media Attendance for Forest Conservation Support Information in Protected Areas of Southwestern Nigeria

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Abstract

The study investigated the impact of some socio-economic characteristics (Sex, marital status, family size, occupation, farm size, education, nativity, and duration of resident) of the residents of some protected areas (Oluwa and Shahsa forest reserves and Old Oyo National Park enclaves) in Southwestern Nigeria on media attendance for forest conservation support information (FCSI). The media investigated were forestry personnel, agricultural extension workers (AEWs), village/religious meetings, radio, television, newspaper/ magazine, pamphlets, billboards, town criers and festival gatherings. Purposive and multistage random sampling techniques were used to choose respondents from the target population for the study; residents of communities within and around the protected areas. Two hundred sets of questionnaires were administered on the randomly selected local residents of the protected areas. Data generated were analyzed using inferential and descriptive test statistics. The study revealed that radio is the most appropriate medium (39%) for sourcing FCSI in the study area. This was followed by the use of community/religious leaders' forum (29.1%) and AEWs (15.8%). It also revealed that there were no relationships between the socio-economic characteristics of residents and their attendance to forestry personnel (F = 1.36; Pr. > 021), television (F = 0.28; Pr. > 0.97), newspaper/ magazine (F = 1.96; Pr. > 0.05), pamphlets (F = 0.43; Pr. > 0.91) and festival gatherings (F = 1.69; Pr. >0.10). However, some of the socio-economic characteristics of residents impact their attendance to AEWs (F = 35.02; Pr. < 0.00), village/religious meetings (F = 4.97; Pr. < 0.03), radio (F = 10.75; Pr. < 0.001), folklore, songs and drama (F = 2.82; Pr. < 0.02) and town criers media for FCSI. It was also observed that occupation of residents has the highest, while acquisition of western education has the least impact on media attendance for FCSI. Education only influences attendance to radio (t = 2.74; Pr. < 0.005). It was therefore suggested among others, that effort should be made to improve environmental education and extension services in the study area.

Keywords: Forest conservation, information, environmental education, communication, media attendance.

Introduction

The important role of tropical forests as reservoir of biodiversity and carbon sequestration (UNEP, 1992, 2003) cannot be overemphasized. Yet, while rates of net deforestation (gross deforestation less reforestation, natural regrowth and plantation growth) are slightly increasing in developed countries, deforestation has continued in developing countries (FAO, 2001). FAO (2000) had earlier observed that not deforestation is highest in South America and Africa. However, this is not the main issue. It is the fact that only 42% of the remaining or 18% of the original forest cover in the tropies is still found in large contiguous tracts (Bryant et al, 1997), which calls for concern. Bryant et al (op. cit.) also classified 850 million hectares of tropical forests as fragmented, although some of these fragments might be hundreds of square kilometers in size. Supporting their classification, ITTO (2000) later reported an estimated 500 million hectares of degraded primary and secondary tropical forests as part of the fragmented block, while the rest 350 million has been severely degraded through fire, land clearance and destructive harvesting practices.

A topical issue is that directly (FAO, 1982; World Bank, 1992; and ITTO, 2000) or indirectly (Dorner and Thiesenhusen, 1992; Grainger, 1990; and Poore et al, 1989), contemporary deforestation is primarily generated by human activities. Reposing this submission, Jeffers (1996) reported that biodiversity was set within a dynamic and evolving context, while its process and composition are in constant flux, consequent of natural and human induced factors. However, maintaining forest biodiversity will not be best achieved by

shutting the forests completely to human interference since human being depends partly or wholly on forest resources for sustenance (Olawoye, 1996; Manginis and Jackson, 2002; Quesada, 2003). More so, the role of people in the maintenance of forest biodiversity is equally imperative to its conservation. Biodiversity is the balance that must be struck between human and nature and between generations. Thus despite the importance of biodiversity conservation, for whom it is intended is much more important. Wright (1988) reported that the relevance of conservation in the developing world hinges on its addressing the needs of the poor and dispossessed that share their rural frontier with the earth's biological wealth. Therefore, if the forests are to be sustained, it must be done in a productive manner, which benefits the local population (Wright, op. cit.). Lele (1991) also reported the link between environment, poverty and sustainability as an important issue in rural development.

However, the major issue is not recognizing the rural people but identifying effective local solutions to evolving sustainable local resource management practices (AGRITEX, 1998; Jacanamejoy, 1994; Hans et al, 1995; and Venema, 1995). In doing this, it must also be noted that natural resources management is knowledge intensive therefore, farmer-centered development strategies are important since different people and communities learn and communicate in different ways (Azecz, 2002). According to Wheatley (1992), knowledge is generated anew from connections that were not there before. Such connections are innovations, which arise from ongoing circles of exchange, where information is not just accumulated or stored but created (Wheatley, op. cit.). Thus a population that has no information on the environment according to UNEP (2003) is neither having the incentive to act nor the power to give impetus to sustainable development action. Invariably, information flow (communication) is a pre-requisite to sustainable development.

Mass communication is an important process among many other equally salient but important social processes in any society's social system (Riley and Riley, 1959). While the media of communication affects individual and society, they were themselves influenced by other environmental and social and economic variables. But it is only when communication can build itself into the social structure that any real hope of extensive results is certain. Therefore the impact of the socio-economic and environmental premises

within which any communication media will be operating is an important limit to the acceptance or otherwise of such media in such environment. This paper therefore examined the impact of some social and economic indices on media attendance for forest conservation information among residents in some enclaves and surroundings of three protected areas: Oluwa forest reserve, Shasha forest reserve and Old Oyo National Park, in southwestern Nigeria. This is with a view to improving forest conservation support communication in the study area and consequently the tropical part of the sub Saharan Africa.

Materials and Method The Study Area

The study covers southwestern Nigeria (Fig. 1), which lies between longitudes 2° 30' and 6° 00'E and latitudes 6° 20' and 8° 37'N. The area is bounded in the East by Rivers and Anambra States; in the North by Kwara and Kogi States; in the West by Benin Republic; and in the South by the shoreline of the Eastern part of the Gulf of Guinea. It is one of the most densely populated parts of Nigeria a inhabited mainly by the Yorubas. The total population of the people in the study area was projected at 28,767,752 in the year 2002 (NPC, 1991). The bulk of this population resides in the rural areas with farming being the residents' main occupation (OYSADEP, 2001).

Population and Sampling

The target population for the study is the local communities within the enclaves of Oluwa and Shasha forest reserves as well as these in communities around Old Oyo National Park. Purposive and multistage Random sampling techniques were used for the study. By virtue of Old Oyo National Park being the only National Park in south western Nigeria, and the relative impact of Oyo State Agricultural Development programme's extension agents in that zone (Azeez et al, 2000), the park was purposively selected for this study. The selection of Oluwa forest reserve is due to its timber yield per hectare, which when compared with that of the natural forest over a period exceeding 100 years, is almost ten fold (Ogunlade and Odunlami, 1989) and the strategic economic importance of the reserve. percent of the settlements in and around each of the study sites were randomly selected using the statistical table of random numbers. Finally, 5% of the farming households, in each of the selected settlements were randomly interviewed (Table 1). However, where the population is very large, 30 sets of questionnaire were randomly administered.

Table 1: Summary of Sample Population / Site in the Study Area

STUDY SITES	SETTLEMENTS		POPULATION	NUMBER OF	NUMBER OF
	SAMPLED		SIZE ·	FARMING	QUESTIONNAIRES
	Anto V Section Banks Section	WEE AV	- Mi	HOUSEHOLD	S ADMINISTERED
	Tede	- 120-12	19, 490*	4, 580*	30
Old Oyo	Sepeteri		16, 346*	779*	39
National Park	Igbeti		35, 655*	841*	42
	Ikoyi Ile	30	4,411*	56*	03
	Ago Are	14	11, 699*	7,475*	30
Shasha Forest	Araromi Oke Odo		3,000-5,000**	600**	30
Reserve	Area 4		2,000-3,000**	450**	23
	Gbagia Ile		1,500-2,000**	700**	35
	Araromi Awosiyan		800-1,000**	120**	06
	Onigbin		30-50**	08**	01
	Lawoka		200-300**	28**	01
		70			
Oluwa Forest					
Reserve	Gbekerelu *		300-500**	60**	15
	Legee		5,000-8000**	800**	30
	lisaghede		300-500**	40**	15
•	Epe Makinde		800-1000**	70**	20
	Ogunlepa II		100-150**	28**	05
	Ogunlepa l		250-400**	60**	10
S			34/46		355

^{*}OYSADEP's village survey summary, 2001.

The percentages chosen at each stage are expected to give accurate information on the population and at much less cost, time and efforts (Ogunfiditimi, 1986). Also, focus group discussions were held to obtain information from respondents. Data generated was analysed using frequency distribution, analyses of variance, Pearson's Likelihood ratio and linear by linear chi-square statistics.

Results and Discussion

Socio-Economic Background of Respondents

For this study, more males (70%) were interviewed (Fig. 2) but majority of the interviewee (85%) were married (Fig. 3). Invariably, gender dominance is not characteristic of the study area. Also, an average of 59.63% of the respondent for this study are native of the study area (Table 7) and farming is the predominant occupation among residents (Table 2), while average household size is between 5 and 10 (Table 3). This large household size invariably put pressure on the available land for farming, thereby skewing land use practice in the study area towards food crop production (Table 4). Average farm size in the study area is between

1 and 3 ha (Fig. 4) and an average farmer feeds and maintains his family from his holding. This is usually at the peril of tree crops (Fig. 5). The impact of this is the jettisoning of traditional sustainable land use practice (shifting cultivation or bush fallow) by the farmers for meeting their immediate exigencies (hunger) through the practice of mix cropping. The study also revealed that majority of the respondent have no western education. Only 3.81% of them have degrees, higher diplomas or their equivalents while 23.86% have first schoolleaving certificates (Table 5). Education not withstanding, majority of the respondents perceived urban life as glamorous and fascinating (Table 6) even though their indigenous land use practice is still more preferable to them. This has to do with the fact that although an average of more than half of the respondents (51.62%) been resident in the study area for over 15 years (Table 7), they do visit urban areas occasionally. The study also revealed that residents surrounding OONP are more rooted to their environment than their contemporaries in the forest reserve enclaves.

^{**}Field Survey (RRA), 2001.

Sources of Information in the Study Area

Since majority of the residents are farmers, their sources of information on farming system are important. This study (Fig. 6) revealed that community/religious leaders (u = 28 (28.87%)), town/village criers (u = 16 (16.49%)) and radio (u= 30 (30.93%)) are more favored as information sources on farming system. So also, agricultural extension workers ($\Delta EWs - u = 11 (11.34\%)$) are favored (most especially in OONP environment -27 (9.28%)) except among Oluwa forest reserve enclaves' dwellers. The least popular information source on farming system in southwestern Nigeria is television (u = 2 (2.06%)). Investigation on residents sources of information on forest conservation issues (Table 8) shows that on the average, radio was the most favoured (u = 52.40%). similarly, radio was also adjudged as the most appropriate for FCSC (39%), this was followed by the use of community/religious leaders forum (29.1%) and AEWs (15.8%) - Table 9.

Impact of Socio-Economic Characteristics of Residents on Media Attendance for FCSI

Generally, regression analysis at 95% confidence limit shows that there is no relationship between the socio-economic characteristics of residents in the study area and their attendance to forestry personnel (F = 1.36; Pr > 0.2), television $(\Gamma = 0.28; \text{ Pr} > 0.9), \text{ Newspaper/magazine } (F =$ 1.96; Pr > 0.05), pamphlet (F = 0.43; Pr > 0.9) and festival gatherings (F = 1.69; Pr > 0.1) media for FCSI (Table 10). However, some of the socioeconomic characteristics of respondent do impact the attendance of residents to ABWs (F = 35.02; Pr < 0.01), village/religious meetings (F = 4.9; Pr< 0.03), and radio (F = 10.75; Pr < 0.01) and town criers (Fu = 3.31; Pr < 0.01) media for FCS1 (Table 10). For example, only the farm size (t = -3.38; Pr.< 0.002) and main occupation (t = 2.6; Pr. < 0.01) of residents have significant impact on their attendance to AEWs for FCSL Similarly, the occupation (t = -2.19; Pr. < 0.03), education (t = 2.74; Pr. < 0.01), nativity (t = 2.55; Pr. < 0.01) and duration of residence (t = -2.98; Pr. < 0.003) of residents significantly affect their attendant to radio for FCSI in the study area. Also, marital status (t= 2.19; Pr. ≤ 0.03), occupation (t = 2.91; Pr. ≤ 0.01) and duration of residence (t = 2.09; Pr. < 0.04) significantly determine their attendance to billboards, while sex (t = 2.98; Pr. < 0.003) and occupation have significant impact on their attendant to town crier for the same information

From Table 12, the impact of resident's socio-economics on media attendance is highest

on their attendance to AEWs (F = 35.02) for FCSI. This was followed by attendance to radio (F = 10.75) and town criers (F = 3.31) respectively. It was also observed that the probability of resident's socio-economic lifestyle impacting their attendance to AEWs, radio, and town criers is high even at Pr < 0.01. However, such impact will only hold at Pr < 0.03 for resident's attendance of village/religious fora for FCSI. This may be due to the relative homogeneity of AEWs client and messages (with the latter assumed to be having the desired effect on the former) as opposed to the heterogeneity of residents' attending to village/religious fora for FCSI.

Level of Impact of Socio-Economic Characteristics of Respondent on Media Attendance in the Study Area

From Table 11, occupation of residents was observed to have the highest impact on media attendance in the study area - it affected the attendance of more media than any other socioeconomic variable. Occupation impacted the attendance of residents to AEWs (t = -03.38; Pr = 0.001), village/religious meetings (t = 2.23; Pr = (0.03) and radio (t = -2.19; Pr = 0.04) media for FCSI. Other media impacted are billboards (t = 2.91; Pr = 0.004) and town criers (t = 2.52; Pr =0.01). On the other hand, western education status of resident has the least influence on media attendance in the study area. It only influences the attendance of residents to radio (t = 2.74; Pr 0.005)for FCSI. The reason for this is that the main occupation of majority (74.97%) of the respondents is farming (Table 3).

From media perspective, the study revealed that the suitability of radio for airing FCSI will be determined by the family size (t = -3.28; Pr = 0.001), occupation (t = -2.19; Pr = 0.038), education (t = 2.72; Pr = 0.05), nativity (t = 2.55; Pr = 0.011) and duration of residence (t = -2.98; Pr = 0.003) of the respondents in the study area. This emphasizes the need to take cognizance of these limitations in the use of mass media for FCSI in the study area. According to UNCRD (1985), the capacity of a community to respond to a specific local development plan depends on the socio-economic and cultural foundation of the community.

Conclusions and Recommendations

The study shows that out of the media attended, radio was mostly affected by the socio-economic indices under consideration just as occupation of residents is imperative to media attendance

consideration for FCSI in the study area. Thus, FCS initiatives will not have the desired impact in the study area if the interest of farmers is not adequately addressed. Also, attendance to forestry personnel, television, and pamphlets for FCSI is not impacted by the socio-economics of residents. Implicitly, forestry personnel, television and pamphlets media are not popular in the study area. It must however be noted that social rather than economic indices affect media attendance in the study area. Farming is a way of life among respondent, not an economic activity (Lowe, 1986). It is therefore recommended that:

- 1. Forestry extension deserves urgent attention in the study area, most especially using participatory rather than persuasive method:
- 2. Forest conservation initiative should most importantly address socio-economic status of

- target beneficiaries if it hopes to succeed;
- 3. The social background of residents surrounding protected areas and their enclaves should play a central role in the FCSI content formulation and dissemination through radio and other mass media; and
- 4. Since nativity impact radio (electronic) and Folklore, songs and drama (Traditional) media, effort should be geared towards tapping indigenous knowledge base of the elders in the study area by empowering them with conventional conservation initiatives. By so doing, they will have the opportunity of synthesizing such initiatives with their culture and advance workable conservation strategies to their younger ones.

Table 2: Main Occupation of Inhabitants in the Study Area

	Old Oyo N.P		Shasha F. R		Oluwa F.R	N	lean (u)
Occupation	Frequency	%	Frequency	%	Frequency -	%	%
A. Farming	70	81.40	57	64.77	63	78.75	74.97
B. Unskilled worker	i.e.		03	03.41	02	02.50	01.97
C. Civil Servant	06	06.98	06	06.82	()4	05.00	06.27
D. Petty trading	02	02.32	12	13.64	07	08.75	08.24
E. Others	0.8	09.30	09	10.23	04	05.00	08.18
No Response	~	-	01	01.14	E C	-	00.36
Total	86	100.00	88	100.00	80	100.00	

Table 3: Family Size of Inhabitants in the Study Area

Vamily	Old Oyo N.P	100	Shasha F, R		Oluwa F.R	N	Aean (u)
Side Distribution	Frequency /	%	Frequency	%	Frequency	%	%
Λ. 1 -5	15	17.44	26	29.55		30.00	25.66
B. ≥5 - 10	49	56.97	31	35.23	49	61.25	51.15
C. ≥10 - 15	14	16.27	04	04.55	07	08.75	20.61
D. >15	06	06.97	-	-	* 1		02.32
No Response	02	02.33	27	30.68	£	_	11.00
Total Source: Field Surve	86	100.00	88	100.00	80	100.00	

Table 4: Scale of Farming of Respondents' in the Study Area

	Old Oyo N.P Frequency	0/	Shasha F. R	0.1	Oluwa F.R		Aean (u)
		%	Frequency	%	Frequency	%	%
Mainly subsistence	70	81.40	57	64.77	63	78.75	74.97
Subsistence/commercial	a		03	03.41	02	02.50	01.97
Commercial	06	06.98	06	06.82	04	05.00	06.27
No Response	-	-	01	01.14	-	-	00.36
Total Source: Field Survey, 2	86	100.00	88	100.00	80	100.00	

Old Ovo N.P Shasha F. R	Old Oyo N.P		Shasha F. R		Oluwa F.R		Mean (u)
Education Status	Frequency	%	Frequency	%	Frequency	% %	(E) %
Adult literacy school	12	13.95	10	11.36 12	12	15.00	15.00 13.44
First school leaving							
certificate	21	24.42 14	14	15.91 25	25	31.25	38 56 56 18
Secondary school)) ;
certificate	0.7	08.14	0.7	70 96 70	0.7	75 75	08 28
OND/NCE or).			000	0.00
equivalent	10	11.63	0.5	05 68	20	02 50	02 20 05 00
First degree/FIND or)	06.50	00.00
equivalent	02	02.33	0.8	00 60	5		03.81
Higher degree	1	1		2	. 1		10.00
No Response	34	39.53 44	44	50.00 34	34	- O V V OS CV	17 01
Total	98	100,00 88		100.00 80	80	100 00	- - -
Source: Field Survey, 2001	2001					00.001	

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defittied Perceptions Old Oyo N.P.	Old Oyo N.P		Shasha F. R		Oluwa F.R		Mean (11)
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asmodean on		18	02	02.15	02	02 50	01.55
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Old Oyo N.P		Duration of Old Oyo N.P Shasha F. R		Olivva F R		Moon
Frequency	%	Frequency	%	Frequency	%	(<i>u</i>) (<i>u</i>) %
	T	14	15.91	04	05 00	406 97
	22.09	17	19.32	28	35.00	7 1 7 1 7 1 7 1 7 1 7 1 7 1 7 1 7 1 7 1
	04.65	15	1000	000	00.00	74.67
	1000	j (CO://	0.7	25.00	15.57
	13.20	7 7	47.72	28	35.00	51.62
Total 80	100.00 88	88	100.00 80	08 (100.00	

Table 8: Prevailing

Frequency 62 Emerged 5. Chuwa F.R	DIC OVO DIC		Charles D. D.				
	11100000		Shasha F. K		Oluwa F.R		Mean fact
	Frequency	%	Бтеспревоч	70	<u></u>	Š	1 1 1
Radio	55	0.50	1.541151157	0/	rrequency	%	%
	00	45.83	69	56 10 58	5.8	00 00	-
Television					0	25.78	25.78 52.40
	ı	r	63	0244	ı		00.00
Forestry extension workers 22	22	100	· -			1	26.00
STOWN DOUGHOUSE FIRST	77	18.33	5	10.57	0.7	26 70	12 10
Community/religious leaders 18	~~	15	F			00.13	14,10
		<u>-</u>	/ [3.92		20.81	10.00
through triends	13	10 02	70	000		47.0	20.71
	<u> </u>	10.03	00	04.88	90	17 77	07.20
Ullers	12	10.00	1.7	10.73			07.70
No toesono		00.00	7	10.03	ì	1	07.20
asinodea los	i i	1	02	01.63	7.0	000	
Total	100	100 00	()	3	70	76.10	07.10
071	120	100.00 123	123	100 00 104	104	100.00	